

# *LIVABILITY LITERATURE REVIEW:* A SYNTHESIS OF CURRENT PRACTICE



U.S. Department of Transportation  
**Federal Highway Administration**

Prepared by:  
**The National Association of Regional Councils**  
777 North Capitol Street NE, Suite 305  
Washington, DC 20002  
202.986.1032 phone  
202.986.1038 fax  
[www.NARC.org](http://www.NARC.org)

# About the National Association of Regional Councils

The **National Association of Regional Councils** (NARC) is a 501(c)(3) nonprofit membership organization and public interest group, which advocates for building regional communities through the representation of multi-purpose, multi-jurisdictional Regional Councils (RCs) and Metropolitan Planning Organizations (MPOs). These organizations serve local elected officials and community leaders in developing common strategies for addressing complex issues, in the areas of transportation, economic development, homeland security and environmental challenges.

A recognized authority and leading advocate for regional organizations and regional solutions, NARC is a unique alliance with representation from local elected officials, RCs and MPOs nationwide. NARC has an active membership, representing more than 97% of the counties and 99% of the population in the U.S. Of the 39,000 local governments in the U.S. (counties, cities, townships, etc), 35,276 are served by RCs.

## Introduction and Purpose

In 2009, the U.S. Department of Transportation (U.S. DOT), the U.S. Environmental Protection Agency (U.S. EPA) and the U.S. Department of Housing and Urban Development (U.S. HUD) created the Partnership for Sustainable Communities (the Partnership) “to help improve access to affordable housing, more transportation options, and lower transportation costs while protecting the environment in communities nationwide” (U.S. EPA, 2009, para. 6).

Guided by the goals of the Partnership, the federal government has committed significant resources and attention to implementing livability in state and local governments. While high-level, strategic federal investment in livability is relatively recent; states, regions, and localities have planned and implemented livable communities for more than a decade. For example, the Atlanta Regional Commission (ARC) and the Metropolitan Council of the Twin Cities (Met Council) established their programs in 1995. As many of the livable community programs that existed prior to the creation of the Partnership developed their programs based on existing local or regional needs and resources, the recent federal efforts caused states and localities to investigate the role that livability could play in their jurisdictions.

The multitude of local, state and federal livability initiatives and the lack of widespread local and regional implementation tools led NARC to ask how practitioners and policy officials implement and integrate livability on local and regional levels. NARC reviewed literature covering transportation, local and regional comprehensive and master plans, livability reports, and policy documents. Using the Partnership’s six livability principles as a framework, NARC identified the tactics and mechanisms local governments and their regional planning organizations used to support these principles. Using a spreadsheet to classify the tactics and mechanisms, NARC sorted over 130 documents and identified reoccurring livability mechanisms and tactics.

This literature review first examined the difficulty in creating livability consensus concepts, decoupled livability from sustainability and expanded on reoccurring themes. This review will assist practitioners and policymakers understand how states and localities define, plan and implement livability.



Photo Credit:  
Atlanta Regional Commission

## NARC Project Staff

Erika Young  
Transportation Director  
[erika@NARC.org](mailto:erika@NARC.org)

Valerie Hermanson  
Transportation Fellow  
[valerie@NARC.org](mailto:valerie@NARC.org)

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# OF SCHOLARLY JOURNALS	THEME
93	<b>Urban Planning</b> (Urban Planners, City Planning)
79	<b>Cities and Towns</b> (Capital Cities, City Councils, Livable City, Living Cities, Walkable City, Small Cities, Sustainable, Inner Cities, City Dwellers, City Traffic, Municipal Ordinances, Reclaiming Cities & Towns, New York City)
68	<b>Policy</b> Urban (19), Housing (13), Economic (9), Government (8), Social (8), Environmental (4), Cultural (2), Urban Transportation (1), Employment (1), Fed Aid to Transportation (1), Military (1), Public (1)
68	<b>Housing</b> (Development, Housing, Public, Dwellings, Low Income, Homelessness, Rental, Infill, Home Ownership, Discrimination, Apartment Houses, Community Housing Services, Authorities, Inclusionary Housing Programs, Landlord and Tenant, Retirement Communities, Right to, Solar, Housing Market, House Buying, Suburban Homes, Finance, Construction, Discrimination, Apartment)
63	<b>Urban Growth</b> (Urban Renewal, Population Density, Urban, Sprawl, Urban Agriculture, Decline, Forestry, Fringe, Heath Island Effect, Indicators, Plants, Poor, Research, Runoff, Urban-Rural Migration, Urban-Suburban Migration)
60	<b>Transportation</b> (Urban, Public Transit, Walking, Traffic Congestion, Buses, Coastwise Shipping, Waterways, Ferries, Human Powered Vehicles, Inland Water [Freight] Transportation, Intelligent Transportation Systems, Interurban and Rural Bus Transportation, Mixed Mode Transit Systems, Traffic Flow, Trucking, Urban Mass Transportation, Bicycles, Cycling, Air Travel, Airports, and State, Safety measures)
58	<b>Social</b> (Capital, Aspects, Change, Groups, Movements, Participation, Sciences, Indicators, Networks, Impact, Action, Context, Factors, Interaction, Justice, Marginality, Media, Network Theory, Norms, Prediction, Reproduction, Services, Interaction, Conditions, History)
56	<b>Quality of Life</b> (Life, Satisfaction, Happiness, Well-Being, Aesthetics, Cost & Standard of Living, Nightlife, Night Clubs)
46	<b>Community Development</b> (Urban, Rural, Community and Rural Development, Community Development Corporations)
42	<b>Sustainable Development</b> (Buildings, Communities, Design)

Figure 2. Key Word Chart

While a consensus definition for livability may not exist, practitioners appeared to use similar livability tactics and may be learning implementation mechanisms from each other. Founded in 1977, the Partners for Livable Communities (PLC) works to improve community livability through promoting quality of life, economic development and social equity (Partners for Livable Communities, 2009). In 1998, the Metropolitan Transportation Commission (MTC) created the Transportation for Livable Communities program in Oakland, California, and based their program on creating places where people “want to live, work and visit.” Additionally, the Atlanta Regional Commission (ARC) created the *Livable Centers Initiative* (LCI) in 1999 to encourage local jurisdictions to plan and implement strategies that link transportation improvements with land-use development decisions.

## LIVABILITY PRINCIPLES

The Partnership for Sustainable Communities works to coordinate federal housing, transportation, water, and other infrastructure investments to make neighborhoods more prosperous, allow people to live closer to jobs, save households time and money, and reduce pollution. The partnership agencies incorporate six principles of livability into federal funding programs, policies and future legislative proposals.

1. Provide more transportation choices.
2. Promote equitable, affordable housing.
3. Enhance economic competitiveness.
4. Support existing communities.
5. Coordinate and leverage federal policies and investment.
6. Value communities and neighborhoods.

*Source: Partnership For Sustainable Communities*

While other livability programs emerged throughout the next decade, in 2009, the Partnership created a definition of livability against which U.S. DOT judged future activities. U.S. DOT Secretary Ray LaHood, defined livability as:

...being able to take your kids to school, go to work, see a doctor, drop by the grocery or post office, go out to dinner and a movie, and play with your kids at the park, all without having to get into your car. Livability means building the communities that help Americans live the lives they want to live—whether those communities are urban centers, small towns or rural areas (U.S. EPA, 2010, p. 2).

The Partnership’s livability definition appears similar to other definitions found in NARC’s literature review. This definition is clear, directional, focuses on localized concerns and appeals to community-level assets to address those concerns.

## Section II:

# Common Themes in Practitioner Literature

NARC researched and reduced reoccurring livability themes contained in the literature and requested information from metropolitan planning organizations (MPOs), regional councils of government (COGs), the American Public Works Association (APWA), the International City/County Management Association (ICMA), the National Association of Counties (NACo), the National League of Cities (NLC), the American Public Transportation Association (APTA), and other federal, state, and local organizations about their familiarity with, and implementation of, livability mechanisms. In order to minimize researcher bias, NARC asked each organization to self-select the livability documents that best represented their concept of livability. NARC received information that included transportation and master plans, livability reports, and policies that these organizations used to define and implement livability.

After identification and reduction, the following livability themes emerged as the most commonly occurring themes and represent ways in which practitioners achieve their livability goals. These themes include:

- Livability
- Sustainability
- Smart Growth
- Complete Streets
- Lifelong Communities
- Safe Routes to Schools
- Context Sensitive Solutions/Design
- New Urbanism
- Transit-Oriented Development
- Placemaking

## Livability and Sustainability

Throughout the literature reviewed, conceptual overlap emerged between livability and sustainability. While several studies used these concepts interchangeably (Allen, 2010; Rue, Rooney, Dock, Ange, Twaddell, and Poncy, 2011; Sanford, 2011), a greater number of resources referred to livability and sustainability as separate and discrete concepts. The following analysis compares and contrasts livability and sustainability.

**SUSTAINABILITY.** Upon review of the literature, the most commonly used sustainability definition was created by the 1987 United Nations' Brundtland World Commission on Environment and Development (Amekudzi, Meyer, Ross, and Barrella, 2011; Rue, Rooney *et al.*, 2011; Sanford, 2011). The Commission defined sustainability as being "concerned about the accelerating deterioration of the human environment and natural resources and the consequences of that deterioration for economic and social development" (1987, para.1).

Many interpret this definition as meeting the needs of the present generation without compromising the ability of future generations to meet theirs. It is also referred to as the triple bottom line concept, because it includes considerations for the economy, the environment and social quality of life as illustrated in Figure 3 (Amekudzi *et al.*, 2011; Rue, Rooney *et al.*, 2011; Sanford, 2011).

Research found many organizations across the country pursuing sustainability strategies. For example, Salt Lake City, Utah created the *Sustainable City Code Initiative* to incorporate sustainability into the city's zoning, subdivision, and site development ordinances (2011) and used the triple bottom line approach when they created new ordinances. Additionally, the Town of Blacksburg, Virginia, also used this sustainability definition when they created their *Green Commute Policy*, which encouraged town employees to reduce air emissions by taking public transit, biking or walking to work (2008). Finally, the City of Boulder, Colorado, incorporated the triple bottom line approach when the City created the *Social Sustainability Strategic Plan* in 2007. Among other goals, this plan sought to "lay the foundation for an integrated approach to planning and policy development for social, economic and environmental sustainability under the vision of community sustainability" (2007, p. 4).

From non-profit organizations to local governments and regional planning organizations, the majority of sustainability efforts reviewed appear to anchor themselves in the Brundtland Commission's definition. The existence of a consensus definition for sustainability appeared to support practitioners' policy and program development, and facilitate the creation of consistent implementation standards.



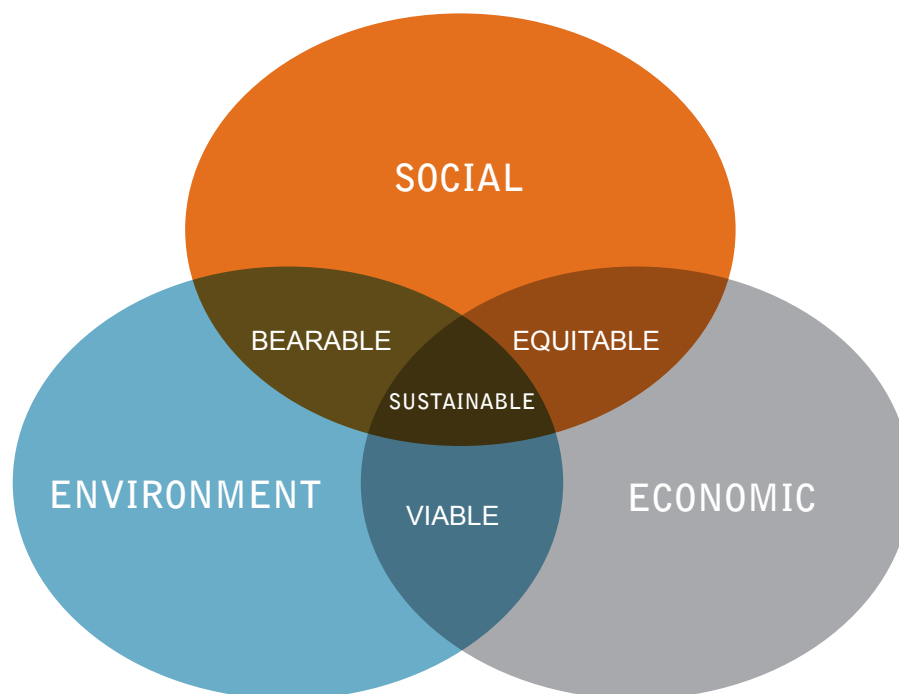


Figure 3. Illustration of the Triple Bottom Line Concept

**LIVABILITY.** Based on the literature reviewed, livability emerged as a way to describe tactics that local governments and regional planning organizations use to achieve the kind of sustainability goals described by the Brundtland Commission. However, after the creation of the Partnership’s six livability principles, more organizations and local governments defined livability as either similar to or exactly like the Partnership.

For example, written in 2011, the North Central Texas Council of Governments (NCTCOG) explicitly referenced the Partnership’s six livability principles to guide their metropolitan transportation plan, *Mobility 2035*, when they described their goals as promoting:

livable communities that offer safe, reliable and economical transportation choices; contain equitable and affordable housing; and enhance economic competitiveness which support the HUD-DOT-EPA Interagency Partnership Principles of Livability (2011, p. 27-28).

Additionally, the Broward Metropolitan Planning Organization, For Lauderdale, Florida, (2011) performed livability planning initiatives based on the Partnership’s six livability principles. In a 2011 Cambridge Systematics report, *How can Transportation Agencies use Performance Metrics to Support our Livability and Sustainability?*, the authors Sanford and Reeder (2011) identified the Partnership’s six livability principles as a best practice example of defining livability. They state that livability is best defined by the six livability principles put forth from the Interagency Partnership, representing U.S. DOT, U.S. EPA and U.S. HUD.

In the literature published in 2009 or later, even when organizations did not explicitly reference the Partnership’s livability principles, many resources still contained elements of the Partnership’s livability principles. For example, unlike NCTCOG, the Houston-Galveston Area Council (H-GAC) did not explicitly reference the Partnership for Sustainable Communities. However, H-GAC used language similar to the Partnership’s livability principles to explain the purpose of their livability program. In 2011, H-GAC developed the *Livable Centers* program, which intended to “facilitate the creation of walkable, mixed-use places that provide multimodal transportation options, improve environmental quality and promote economic development” (para. 1).



Photo Credit: Valerie Hermanson

Additionally, the Chicago Metropolitan Agency of Planning (CMAP) discussed livability similarly to the Partnership in their comprehensive regional plan, *GoTo 2040* (2009):

livable communities are healthy, safe and walkable. Livable communities offer transportation choices that provide timely access to schools, jobs, services, and basic needs. Livable communities are imbued with strength and vitality, features which emerge from preserving the unique characteristics that give our diverse communities a ‘sense of place’ (p. 37).

When organizations did not use “livable” to describe their programs, a high degree of similarity between the organization’s goals and that of the Partnership still existed. For example, in 2010, the City of Highland Park, Illinois, developed both an affordable housing program that promoted the availability of affordable housing without explicitly stating that they adhere to the Partnership’s principles. In addition, the City adopted a sustainable community strategic plan that supported several of the Partnership’s principles, but defined their efforts in terms of energy, the built environment, mobility, culture and legacy (City of Highland Park, 2010).

Based on the literature reviewed, while certain concepts existed before the Partnership’s creation, the work of the Partnership appears to have influenced organizations adopting livability plans after its inception.

**HOW THEY DIFFER.** While conceptual overlap between livability and sustainability appeared throughout the literature, several reports supported a discrete, but complementary, role for livability and sustainability. For example, the literature often positioned livability to support overall sustainability goals (Litman, 2011; Rue, Rooney *et al.*, 2011; Sanford, 2011).

Often, the literature described livability as a strategy for local, community-focused action. Litman (2011) concluded that livability addressed community-level economic development, public health, social equity and pollution exposure. Additionally, Rue and Rooney *et al.* (2011) concluded that livability may be less focused on larger environmental goals and provide more specific and detailed strategies to improve transportation choices, accessibility, lower transportation and housing costs, coordinate federal policies and investments, and support existing options on a neighborhood and community level. Further, Sanford (2011) concluded that livability focused to a greater degree on the human or community experience in a specific place rather than on the environmental impacts found in a triple bottom line approach.

Conversely, research supported a high-level, strategic focus for sustainability similar to the World Commission on Environment and Development’s definition of sustainability. Rue, Rooney *et al.* (2011) concluded that sustainability focuses on meeting the needs of the present while supporting future generations. Unlike the community specific goals found in many livability definitions, sustainability goals included improving water and air quality, reducing climate impacts, decreasing green house gas emission, and increasing energy efficiency (Rue, Rooney *et al.*, 2011). Similarly, Sanford (2011) found that sustainability focused on how to sustain human society without harming the natural environment.

**HOW THEY ARE SIMILAR.** Despite research supporting a discrete relationship between livability and sustainability, many researchers continued to use the two concepts interchangeably. Often, researchers discussed livability principles as ways to support overall sustainability goals. The Partnership reinforced the link between livability and sustainability when they defined a sustainable community, which is the result of their livability efforts as “places that balance their economic and natural assets so that diverse needs of local residents can be met now and in the future” (2011, para. 5). The incorporation of the triple bottom line as a goal of the Partnership’s livability efforts not only directly ties the two concepts, but because of the Partnership’s outreach efforts, creates a national framework for future state and local efforts.

Even though livability and sustainability may operate on different scales, both can achieve similar outcomes. Rue and Rooney *et al.* (2011) proposed that both livability and sustainability support economic development and environmentally sustainable travel options, and address social equity issues and human health. Additionally, the Project for Public Spaces argued that the creation of more livable places is linked to an increase in environmental benefits (Project for Public Spaces, 2011). In sum, implementing a green streets initiative that adds more street trees can increase the livability by making the street more inviting to pedestrians, but also the sustainability of that street because of the environmental, air quality and stormwater runoff benefits provided by the additional tree canopy.



Photo Credit: Houston-Galveston Area Council

**SUMMARY.** An examination of the organizations that incorporated livability into their strategic goals reveals that they often use sustainability and livability interdependently. For example, NCTCOG (2011), the Broward MPO (2011), H-GAC (2011), and CMAP (2009) used the Partnership’s six livability principles to create a balance between their economic and natural assets that meet the needs of residents now and in the future. Additionally, Sanford (2011) as well as Kochera, Straight and Guterbock (2005) used livability principles as a way to carry out sustainability. However, it also appears that livability could support greater quality of life measures in addition to sustainability. In summary, livability appears to be a way that communities are executing their overarching public policy goals; whether these goals include sustainability, quality of life or another goal.

## Smart Growth

Smart Growth (SG) emerged as a widely adopted tool to implement livability and develop sustainable communities (Geller, 2003; Rue and Rooney *et al.*, 2011; Victoria Transport Policy Institute, 2011). Many organizations adopted SG principles through their community development plans and recommendations, including the Atlanta Regional Commission (2011); the National Association of Area Agencies on Aging, Partners for Livable Communities, and the MetLife Foundation (2007); and the Smart Growth Network (SGN) and the International City/County Management Association (2005). Additionally, the U.S. Green Building Council (2009) endorsed SG as an effective tool for sustainable development and incorporated SG principles into their neighborhood development guide, *Leadership for Energy and Environmental Design Neighborhood Development* (LEED ND). The National Association of Home Builders (NAHB) (2011) also adopted Smarter Growth policies to ensure more efficient land use and to serve as a model for green building and green development.

While other definitions may have come before it, the U.S. EPA and SGN (2001) developed the most commonly used SG definition, as development that supports sustainability goals and the triple bottom line. The U.S. EPA and SGN envisioned SG as development that supports sustainability by achieving economic growth, strong neighborhoods and healthy communities. Additionally, the authors created principles that allow developers, as well as a state or local government, to create SG by adhering to these principles. The principles included:

- Mix Land Use;
- Take Advantage of Compact Building Design;
- Create a Range of Housing Opportunities and Choices;
- Create Walkable Neighborhoods;
- Foster Distinctive, Attractive Communities with a Strong Sense of Place;
- Preserve Open Space, Farmland, Natural Beauty and Critical Environmental Areas;
- Strengthen and Direct Development Towards Existing Communities;
- Provide a Variety of Transportation Choices;
- Make Development Decisions Predictable, Fair and Cost Effective; and
- Encourage Community and Stakeholder Collaboration in Development Decisions

Victoria Transport Policy Institute (VTPI) (2011) also elevated SG with other principles like New Urbanism (NU) and location efficient development. They defined SG as:

a general term for policies that integrate transportation and land use decisions, for example by encouraging more compact, mixed-use development within existing urban areas, and discouraging dispersed, automobile dependent development at the urban fringe (para. 1).

Several years after the 2001 publication of the U.S. EPA and SGN definition of SG, Smart Growth America (SGA) (2010) developed its definition, which appears to align in large part with the Partnership’s definition of livability. SGA’s definition states that SG, “means building urban, suburban and rural communities with housing and transportation choices near jobs, shops and schools” (para. 1).

The evolution of the SG definition suggests that as more communities adopt these principles, greater specificity develops in the field. While initially SG principles explicitly supported sustainability through the implementation of certain types of growth, the more recent definition suggests a distancing from the explicit inclusion of sustainability and frames SG in greater consumer oriented goals.

For example, the San Diego Association of Governments (SANDAG) (2011) integrated SG policies that supported their sustainability goals. They viewed implementing land use and urban design standards, increasing travel choices, creating better housing and transportation integration, and creating more public and open space preservation as ways to accomplish these goals.

Additionally, the San Joaquin Valley Regional Policy Council (2011), representing eight COGs in California's San Joaquin Valley, adopted 12 SG principles in their *San Joaquin Blueprint Roadmap*, which serves as a decision-making document to increase community livability. These principles included all of the principles listed by SGN, but also included a guiding principle that addressed economic growth and environmental sustainability to speak to the region's specific resource management and rural environment needs.

However, there was one interesting example created by the Michiana Area Council of Governments (MACOG) at the same time as SGN's work that did not conform exactly to the sustainability goals laid out in the SGN's definition. In 2000, MACOG, the regional planning organization serving the region of South Bend, Indiana, released the *Smart Growth Initiatives Handbook: A Guide and Toolbox for the Efficient Management of Growth* that supported SG as a mechanism to increase livability in communities. The goal of this handbook was to improve quality of life, and provide cleaner air and clean water for all citizens. MACOG approached these goals through road and street management, transit management, bike/pedestrian planning, environmental/conservation planning, farmland and open space preservation planning, and land use changes. Though MACOG's example differed from SGN's, it supported the livability and sustainability needs of their region (MACOG, 2001).

Research showed that SG principles may also be applicable for rural environments (Daniels and Lapping, 2005; Emerine, Shenot, Bailey, Sobel and Susman, 2006). Researchers concluded that SG could foster livability through the implementation of the land preservation and curbing sprawling development patterns. In their work, *Putting Smart Growth to Work in Rural Communities*, Mishkovsky, Dalbey, Bertaina, Read and McGalliard (2011) similarly concluded that SG principles in a rural environment could support rural landscapes, help existing places thrive and create great new places. Mishkovsky *et al.* incorporated SGN's SG principles wholecloth, but when they applied SG principles to rural regions, researchers focused heavily on the economic benefits of SG, with little mention of how those principles related to the other aspects of sustainability.

Based on the literature reviewed, SG appears to support livability in both urban and rural environments, but necessitates an understanding of the type of goals each community seeks to support and how these principles relate to their unique situations and challenges. Increasing transportation choices, creating housing opportunities and choices, supporting existing communities, and valuing communities and neighborhoods have different implications and include different stakeholders depending on whether a practitioner lives in San Diego, California's Central Valley, northern Indiana or rural America.



Photo Credit: San Joaquin Valley Regional Policy Council



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## Complete Streets

Complete Streets (CS) also appeared as commonly utilized mechanism to achieve livability for all users of all ages (Burden and Litman, 2011; Rue and Rooney *et al.*, 2011; Rue, McNally, Rooney, Santalucia, Raulerson, Lim-Yap, Mann and Burden, 2011). Often, researchers used CS to balance the transportation needs of motorized and non-motorized users. As such, research supports CS as a way to support the Partnership's first strategy of increasing transportation options, among others.

For example, the National Complete Streets Coalition (NCSC) (2011) discussed how CS should appeal to a transportation system users, whether motorized or non-motorized when they said

CS are streets for everyone. They are designed and operated to enable safe access for all users. Pedestrians, bicyclists, motorists and transit riders of all ages and abilities must be able to safely move along and across a complete street (para. 1).

In addition, Burden and Litman (2011) explicitly included non-drivers when they proposed that CS create multimodal transportation systems that allow the best mode for each trip: walking and cycling for local trips, public transit for travel on congested corridors and for non-drivers; and automobile travel to access dispersed destinations and for carrying loads (p. 1).

Finally, the Livable Communities Task Force (LCTF) (2011) concluded that the CS movement: calls on transportation planners and engineers to build road networks that are welcoming not just to cars, but to pedestrians, bikers, public transportation riders – all of whom save money on gas (p. 15).

Primarily, research shows that CS focused on increasing transportation options to individuals not using a personal automobile as their primary source of transportation. While NCSC stressed that a complete street is designed for more than motorists (2011, Burden and Litman include a positive role for automobiles in a larger framework designed to create CS (2011). However, the consensus definition for a complete street appears to weigh motorists and non-motorists equally.

For example, the City of Seattle, Washington (2011), used their CS program to make explicit concessions for non-motorists when building infrastructure. According to the City, CS provides:

- improved crossings, good lighting and sidewalks for pedestrians;
- bicycle lanes;
- adequate lane width for freight and transit operation;
- convenient transit stops for transit riders; and
- street trees, landscaping and other features, such as improved lighting, that make streets good for community life.



Photo Credit: CC2.0 via wikimedia

Additionally, Mayor Karl Dean, of Nashville, Tennessee, signed Executive Order No. 40 on October 6, 2010, and created the *City of Nashville's Complete Streets* policy. This policy focused on increasing transportation options for all users by stating that Nashville must “give full consideration to the accommodation of the transportation needs of all users, regardless of age or ability, including those traveling by private vehicle, mass transit, foot and bicycle” (p. 1).

While cities, counties, states and regional planning organizations are implementing CS as a way to increase community livability, the goal of CS appears to be the creation and promotion of transportation options that support the non-motorized population. As of January 1, 2011, more than 200 CS policies had been adopted across the country to create safer streets and achieve livability goals (Seskin, McCann, Lagerwey, LaPlante, Roerty and Ronkin, 2011).

## Lifelong Communities

According to American Association of Retired Persons (AARP), the number of adults over the age of 65 will constitute up to 22 percent of the nation's population by 2050 (Kochera, Straight and Guterbock, 2005). Additionally, in 2004, PLC and the National Association for Area Agencies on Aging (N4A) (2009) began assisting communities develop policies, programs and services to address the challenges of aging in place. As a result of increased awareness, many towns and regions are looking for strategies and tactics they can use to prepare for aging communities.

As a leading organization representing aging and elderly individuals, AARP uses the Center for Disease Control and Prevention (CDC) definition of aging in place, “the ability to live in one’s own home and community safely, independently and comfortably, regardless of age, income or ability level” (Farber, Douglas, Lynott, Fox-Grage and Harrell, 2011, p. 1) as a baseline against which policy that affects seniors is measured. The ARC (n.d.) answered this challenge through the creation of their *Lifelong Communities* program, in which they define lifelong communities as places individuals can live throughout their lifetime. Finally, the Kansas Department on Aging defines lifelong communities as preparing and developing community infrastructure and services to better serve elders through collaboration among local leaders, businesses, organizations and government agencies (2011). Kansas concluded that a lifelong community prepares and develops its community to better serve elders through multi-sector collaboration. The Kansas Department of Aging maintains that this approach enhances the quality of life for people of all ages in their community, by having access to quality health care, an efficient transportation system, universal designed housing for the continuum of life, community-based services and activities, and customer-friendly businesses.

Kochera, Straight and Guterbock (2005), suggested that a significant part of livable communities is the ability of residents to age within their community. Further, SGN and ICMA (2005) concluded that livable communities should be livable for everyone. N4A, PLC and the MetLife Foundation (2007) adopted the all ages approach to livability planning and implementation when they proposed improvements in housing, planning, zoning, transportation, and health, among other areas, to help build livable communities for all ages.

The literature supported agreement on the need to accommodate an aging population through infrastructure and community service alterations. AARP focused on community goals with their definition for aging in place. Further, it is apparent that state agencies and regional planning organizations are fully incorporating that idea into their project development and decision-making processes.

Some organizations adopt livability principles to achieve livable communities, but are also using livability principles to support aging residents. As one example, the ARC (2008) developed their *Lifelong Communities* program to guide the creation of communities that support aging residents in the Atlanta region. Programs like ARC’s support the Partnership’s livability principles and are specifically intended to provide housing and transportation choices, encourage healthy life styles and expand services for older citizens. These communities seek to:

- improve community connectivity;
- enhance pedestrian and transit access;
- expand neighborhood services;
- increase the choices of housing type, social interaction, and healthy living; and
- provide a consideration for existing residents.



Photo Credit: Sonoma County, CA

The Denver Regional Council of Governments (DRCOG) also addressed the needs of aging populations through their role as the Area Agency on Aging (AAA). DRCOG (2011) created their livable communities program by linking land use planning with services near residences, resulting in increased transportation choices and affordable housing.

While some livability programs are tailored specifically to address the concerns of older residents, others utilized livability tactics such as SG, CS and NU to create more livable communities for people of all ages. For example, the Kansas Department on Aging initiative encourages successful aging and ensures the security, dignity and independence for Kansans of all ages (Kansas Department on Aging, 2011).



Photo Credit: Daybreak Utah; daybreakutah.com

In addition, SGN and ICMA (2005) found that the community needs of those residents 50 and older could be determined by evaluating a community's livability through SG strategies. The Mid-Ohio Regional Planning Commission (MORPC) also used their CS policy to plan and create lifelong communities for aging residents while simultaneously making streets more accessible for all users (2010). As a final example of a lifelong communities program, the City of Kirkland, Washington's Senior Council and Active Living Task Force (2007) helped the city develop and implement a complete street policy to create more livable streets for residents of all ages.

## Safe Routes to Schools

Safe Routes to Schools (SRTS) emerged as a way to increase livability by making infrastructure changes that facilitate walking or biking to school (Appleyard, 2005; National Center for Safe Routes to Schools, 2011; Rue, McNally *et al.*, 2011). According to the National Center for Safe Routes to School (2011), 11,163 SRTS programs existed nationwide as of March 31, 2011. Additionally, an increasing number of MPOs and COGs are integrating SRTS requirements into their regional transportation plans to further these goals (SANDAG, 2011; Metropolitan Transportation Commission, 2009; DRCOG, 2011).

Across the board, the literature reviewed described the goals of the national SRTS Program and its affiliates as promoting biking and walking to school for school-aged children (Marin County, 2012; Iowa Department of Transportation, 2012; Sonoma County, n.d.). The national model for SRTS began in Marin County, California, by educating parents and local law enforcement officials about pedestrian safety concerns and evolved into planning for alternatively designed streets, among other activities. The Iowa Department of Transportation (Iowa DOT) (2012) also stressed the need to create a safe environment in which children can walk and bicycle to school and also focused on the 5Es process: engineering, education, enforcement, encouragement and evaluation. In contrast, the Sonoma County, California, SRTS Program does not explicitly state safety as a goal of their program. Rather, this program uses quality of life as a justification when they say that SRTS gives children an "active, healthy start and end to the school day, reduce traffic congestion, and improve the health of the community and the environment" (Sonoma County, n.d.). While the Sonoma County program includes safety as an intended outcome, the research revealed far greater instances of SRTS programs using safety as a factor in their definitions. SRTS supports livability, and many regional plans and implementation activities often use SRTS to support increased transportation choices, supporting existing communities, as well as valuing communities and neighborhoods.

For example, SANDAG (2011) incorporated SRTS tactics into their regional transportation plan, which supported their livability principles by increasing the number of transportation choices available to parents and children. SANDAG noted in addition to increasing the number of students walking and bicycling to school, Safe Routes to School programs improve health; address traffic safety and personal security issues; mitigate transportation costs; heighten awareness about the benefits of active transportation; and decrease school-related vehicle trips (p. 6-52).

Additionally, the Metropolitan Transportation Commission's (MTC) Regional Transportation Plan, *Transportation 2035 Plan for the San Francisco Bay Area* (2009), supported building out their regional bikeway network to support their SRTS and Safe Routes to Transit programs. In turn, these programs supported livability principles to include increasing transportation choices, valuing existing communities and improving quality of life.

Even when SRTS activities are not explicitly included in livability plans, as in the Capitol Region Council of Governments' (CRCOG) *Active Transportation Initiative* (2006), the goals of CRCOG's program supported Partnership strategies, such as increasing transportation options, supporting existing communities, and valuing communities and neighborhoods. As a COG and the federally-designated MPO, CRCOG supports the implementation of SRTS in the Hartford, Connecticut region. In 2006, CRCOG created an SRTS training program that offered community-focused SRTS workshops to facilitate the development of municipal level SRTS plans that then allowed its municipalities to access state and federal SRTS funding.



Photo Credit: Atlanta Regional Commission

SRTS programs appear in a large and growing number of regional transportation plans and are often used as a decision-making tool, in addition to implementation techniques. The literature reviewed shows that often, a COG or MPO will help a local government facilitate the necessary infrastructure changes, such as in the case of SANDAG, MTC or CROCOG; but literature shows SRTS in private-sector examples with the implementation of walking school-bus activities.

## Context Sensitive Solutions / Design

According to the literature reviewed, Context Sensitive Solutions/Design (CSS/D) was another popular way to further livability goals (Burden and Litman, 2011; Rue, McNally *et al.*, 2011; Victoria Transport Policy Initiative, 2010). Ranging from ARC's CSS/D street design manual (Atlanta Regional Commission, 2001) to the City of Charlotte, North Carolina's context sensitive solutions (CSS) decision-making framework (Newsome and Ewing, 2003), CSS/D is being used in a variety of ways that are highly tailored way to implement livability, from engineering to decision-making.

In 2005, U.S. DOT's Federal Highway Administration (FHWA) defined CSS as  
collaborative, interdisciplinary approach that involves all stakeholders to develop a transportation facility that fits its physical setting and preserves scenic, aesthetic, historic and environmental resources, while maintaining safety and mobility (para. 1).

Similarly, the Institute of Transportation Engineers (ITE) (2010) included the preservation of aesthetic attributes and the maintenance of safety and mobility in their definition, but also expanded on FHWA's definition. Whereas in FHWA's definition, the promotion of CSS/D is dependent upon maintaining the safety and mobility of the system, ITE's definition appears to value all factors equally. In addition to FHWA's factors, ITE proposed that CSS/D:

- meets the needs of users and stakeholders;
- are compatible with their setting and preserve scenic, aesthetic, historic and environmental resources;
- respect design objectives for safety, efficiency, multimodal mobility, capacity and maintenance; and
- integrate community objectives and values relating to compatibility, livability, sense of place, urban design, cost and environmental impacts.



Photo Credit: Daybreak Utah; daybreakutah.com

Additionally, the Victoria Transport Policy Institute (2010) sought to orient CSS/D with the sustainability triple bottom line concept. Whereas the previous two definitions viewed CSS/D as a way to pull community values into the design and solutions process, VTPI's definition differed in that it maintains that the goal of CSS/D is to support greater sustainability through the incorporation of community values. VTPI stated that CSS/D "refers to roadway standards and development practices that are flexible and sensitive to community values. CSD allows roadway design decisions to better balance economic, social and environmental objectives" (para. 1).

There are different examples of organizations adopting CSS/D. ARC (2001) created its own interpretation of CSS as a *Context Sensitive Street Design* manual which created more livable streets. ARC's manual supports livability through increasing



Photo Credit: Marin County, CA



transportation options, including those for pedestrians, bicyclists and those using transit, as well as valuing communities through transportation management and traffic calming changes.

Additionally, the City of Charlotte, North Carolina created their decision-making framework, the *Urban Street Design Guidelines: A Context-Sensitive Decision-Making Method*. This manual established design guidelines for all modes of travel on all new and modified streets which considered land use, street function and the appropriate allocation of limited right-of-way. The goals of this manual appeared to deviate from the three definitions examined in this section because the City viewed CSS/D as a framework through which they could make decisions, not as an anchor to either livability or sustainability (Newsome and Ewing, 2003).



Photo Credit: Atlanta Regional Commission

Further, CSS/D can help increase livability in rural communities. The Dutchess County, New York, Planning and Development Department developed two guidebooks intended to support CSS/D. Dutchess County intended, *Greenway Guide: Rural Roads*, for low-volume rural roads, in which these roads retain the narrow widths, natural edges, and scenic winding character of traditional roads, rather than imposing wider, suburban-scale standards into the countryside (Dutchess County, 2010). They intended their second CSS guidebook, *Green Guideways: Slower, Safer Streets* (2010) to promote slower traffic speeds by designing narrow streets in cities, villages, and hamlet centers with buildings close to sidewalks, street trees and other pedestrian-friendly features.

CSS/D's definitions do not appear to be as uniform or widely accepted as those describing SG. For example, FHWA appears to create a hierarchy of priorities within their definition, whereas ITE does not. However, all CSS/D definitions and examples appear to share a greater consideration for the aesthetics of community level projects. The literature reviewed appears to support CSS/D as a tactic that can support livability by valuing communities and neighborhoods, but also increasing transportation options. While some may view the lack of a strict CSS/D understanding as problematic, it may also offer a highly flexible solution to challenging local issues.

## New Urbanism

New Urbanism appeared as another common strategy for creating livability within communities (Kochera, Straight and Guterbock, 2005; Rue, McNally *et al.*, 2011; VTPI, 2011). According to the Congress for New Urbanism (CNU), NU principles included the creation of livable streets through compact, walkable design, housing choices for all ages and income levels, destinations reachable by walking, bicycling or transit, and creating human scaled environments and public spaces (Congress for New Urbanism, 2011). Kochera, Straight and Guterbock evoked the image of small towns when they defined NU as “a movement characterized by a return to mixed residential and retail, walkable streetscapes, and many elements of class ‘small town’ design” (p. 15). Conversely, VTPI concluded that NU includes, “a set of development practices to create more attractive, efficient and livable communities” (para. 1). VTPI's definition positions the implementation of NU as a tactic to achieve livable, efficient and attractive communities through development practices.

For example, Salt Lake County's, Utah, Day Break Community (2011) demonstrated the new urbanist ideals by creating walkable, more pedestrian oriented design. They defined NU as having grocery stores, commercial amenities, public services, parks, and jobs within walking or biking distance from home. New Urbanist developments are becoming increasingly popular and as of 2001, there were more than two hundred new urbanist developments in thirty-nine states (Sander, 2002). Today there are over 4,000 New Urbanist projects either planned or under construction in the U.S. (New Urbanism.org, 2011). This is a 2,000% increase in NU developments over a ten-year period.

NU design places a heavy emphasis on creating the kinds of communities that U.S. DOT Secretary Ray LaHood referred to when he defined livability. The challenge for NU communities is anticipating the various needs of each demographic to be included in an NU community.

## Transit-Oriented Development

Researchers identified transit-oriented development (TOD) as an often-used tactic for regions and localities to implement livable community strategies (Kochera, Straight and Guterbock, 2005; Rue and McNally *et al.*, 2011; Victoria Transport Policy Initiative, 2011). Because TOD focuses on mixed-use developments near public transportation, practitioners often discussed TOD in ways that support the Partnership's strategy of increasing transportation options. Surprisingly, despite the nexus of housing options and transportation choices that dominate a TOD discussion, little information about affordable housing exists in the literature reviewed.

For example, Kochera, Straight and Guterbock (2005) noted transit-oriented development as "promoting compact mixed-use development around commuter rail stations and other public transit centers [which] can help residents benefit from affordable transportation and access to shopping" (p. 65). While this definition supports the Partnership's livability principle that addresses greater transportation choices and supporting existing communities, it does not address affordable housing, only affordable transportation. Similarly, VTPI (2011) defined TOD as residential and commercial centers designed to maximize access by transit and nonmotorized transportation, and with other features to encourage transit ridership. A typical TOD has a rail or bus station at its center, surrounded by relatively high-density development, with progressively lower-density spreading outwards one-quarter to one-half mile, which represents pedestrian scale distances (para. 1).

The Federal Transit Administration (FTA) (2011) defined TOD as "compact, mixed-use development within walking distance of public transportation" (para. 1). Zimbabwe and Anderson (2007) concluded that additional benefits of TOD are increased transit agency revenues, increased land property values, improved access to jobs, reduced cost of building new infrastructure, improved public health and the creation of public places with a sense of place (p. 2).

The literature illustrated how several MPOs use TOD as a tactic to increasing livability. Specifically, H-GAC (2011) created the *Livable Centers Program* to help local governments create TOD projects that are "walkable, mixed-use places that provide multimodal transportation options, improve environmental quality and promote economic development" (para. 1). The Metropolitan Council (2012) created the *Livable Communities Act Transit Oriented Development* program "to help catalyze TOD in and around light rail transit, commuter rail and high-frequency bus transit stations" (para. 1). Additionally, SANDAG (2011) incorporated a regional TOD policy into its *2050 Regional Transportation Plan Sustainable Communities Strategy* to promote and incentivize sustainable development.

There are various outcomes of TODs. According to a report by the U.S. DOT and U.S. HUD (2008), TODs increase livability while improving access to transit. Further, they conclude that TOD can reduce transportation costs for working families and mitigate the negative impacts of automobile travel on the environment and the economy. U.S. DOT and U.S. HUD focused on "the need for a mix of housing types that are affordable to a range of family incomes in proximity to transit" (p. 1) and raised important points about tying two livability principles together: increasing available, affordable housing with TOD. There is common concern among the practitioner community regarding the relationship between TODs and affordable housing that necessitates further exploration.

## Placemaking

The literature reviewed also supported placemaking as a popular way to implement livability. Many define placemaking as a way to increase the livability in regions, cities, neighborhoods, and public spaces by engaging citizens to participate in the improvement, planning and transformation to their surrounding environment (Projects for Public Spaces and Metropolitan Planning Council of Chicago, n.d.). Placemaking supports livability by promoting transportation choices, increasing affordable housing, increasing economic development and supporting existing communities by creating

places where people want to spend discretionary time. The literature also revealed conceptual overlap between livability and sustainability as they relate to placemaking. Philip Myrick, Senior Vice President of Projects for Public Spaces, concluded that placemaking “is the nexus between sustainability and livability: by making our communities more livable and more about places, we are also doing the right thing for the planet” (Projects for Public Spaces and Metropolitan Planning Council of Chicago, n.d., para. 2).

However, according to a report by the Transit Cooperative Research Program (TCRP) of the Transportation Research Board (1998), placemaking supports livability implementation by “assessing the concerns and needs of a local community and then basing improvements to the places within that community on this assessment. Because this approach focuses on ‘places,’ it can be applied to any community, regardless of socioeconomic status, demographic makeup or even geographic location” (p. 38).

Markusen and Gadwa (2010) concluded that placemaking is a way to increase livability by focusing on integrating the Partnership’s livability principles into one specific location. For example, their report highlighted the redevelopment of theaters in the Garden Square Arts District in Cleveland, Ohio; the transformation of a vacant auto plant into artist studios and housing, which infused a Buffalo, New York, neighborhood with creative and economic activity; and incorporating artwork that reflects distinctive neighborhoods and encourages ridership in Portland, Oregon, as examples of how communities could integrate the various livability principles on a corridor level.

Additionally, Pierson *et al.* (2010) found that making creative places in which people elect to spend time heightens livability, inspires people, and increases diversity and economic development. These conclusions closely mirror the Partnership’s livability principles as they support enhancing economic competitiveness and valuing existing communities. The TCRP *Report 33* (1998) identified placemaking as a way to narrow activities around livability as livability discussions are often very broad. *Report 33* also added that placemaking could support existing communities through the maintenance and management of public spaces.

Markusen and Gadwa (2010) concluded that placemaking supports livability because it has positive externalities: an increase in public safety, community identity, affordable housing and reliable transportation choices. Further, they suggested that placemaking contributes to the revitalization by creative initiatives that animate places and spark economic development.

The literature revealed several examples of organizations using placemaking to increase livability.

1. The Broward MPO developed a livable centers component with their 2035 long-range transportation plan, which included mobility hubs as an application of placemaking (Broward MPO, 2009).
2. The East Central Florida Regional Planning Council (ECFRPC), Altamonte Springs, Florida, (2010) proposed the use of public squares within the *East Central Florida 2060* plan as a tactic to increase livability. ECFRPC used public squares to implement placemaking because, among other objectives, they create common public places and an interconnected street network that increases transportation options.
3. The Downtown Partnership of Baltimore, Maryland, a non-profit development corporation, used placemaking to create livelier, pedestrian-friendly streets and in turn fostered economic development. This organization also created a network of spaces that link neighborhoods to downtown Baltimore through the creation of public spaces for people to gather, which supports the Partnership’s livability principles of supporting existing communities and enhancing economic competitiveness (Mirabella, 2012).



Photo Credit: Atlanta Regional Commission



Photo Credit: Atlanta Regional Commission

## Section III: Findings

While research found conceptual overlap between livability and sustainability, the literature also supported each as separate concepts. Commonalities emerged due to a lack of definitional distinction between the livability and sustainability. However, this highlighted the development of an interconnected relationship between both concepts, in which organizations used livability to execute higher order sustainability goals, and vice versa. As the literature revealed arguments to support a separate but interconnected relationship between these concepts, there does not appear to be a dominant hierarchy between the roles of livability and sustainability. Some may view this as a drawback in attempts to create a larger body of scholarly literature, however, the flexibility of this relationship may help practitioners adapt these concepts to their unique circumstances.

Research found increasing transportation options to be the most popular livability principle addressed in the literature. In both urban and rural communities, Smart Growth, Safe Routes to Schools, Complete Streets, and Transit-Oriented Development were widely used tools to achieve livability.

SRTS focused on increasing livability through infrastructure changes that facilitated walking or biking to school. SG supported the Partnership's livability principle of increasing transportation options through

- mixed land use;
- walkable neighborhoods;
- preservation of open/rural landscapes;
- targeting development toward existing communities; and
- providing transportation choices.

Additionally, TODs support increasing transportation options by promoting mixed-use and mixed-income housing that facilitates non-motorized forms of transportation. Often, the availability of transportation options appeared to inform decisions on whether to use other options. While this study did not examine if transportation options could serve as an independent variable against which researchers could test other variables, future research could examine this important relationship.

The literature reviewed supported a strategic, as well as tactical, role for addressing the needs of aging populations within a livability context. Strategically, the needs of all citizens, regardless of age, were considered when a local government or regional planning organization applied commonly used livability tactics, like CS policies. However, several examples also supported the use of CS to operationalize infrastructure changes that were necessary to address a specific infrastructure concern that was intended to benefit older citizens. When the needs of aging citizens were incorporated strategically, the communities were often referred to as lifelong communities, whereas communities that incorporated tactical fixes went by various names including traditional long-term transportation plans. Given the anticipated demographic changes that the U.S. will experience as the baby boomer generation retires, this is an area in which additional research is necessary.

The area of greatest opportunity is the way in which a non-metropolitan or rural community applies livability principles. While many common tactics included information on how urban communities may apply these concepts in their settings, little research highlighted the application of these principles and tactics in non-metropolitan regions. Commonly, the literature on nonmetropolitan livability highlighted how regions could increase the population densities of their land use and direct development toward existing infrastructure in town centers and main streets. This strategy appears to be a dominant theme in the execution of livability strategies for non-metropolitan regions. However, additional research, including case studies, that elaborate on the theoretical applications of the Partnership's six livability strategies are necessary.

## Section IV: Conclusion

Though a consensus definition may not exist, practitioners appear to use similar tactics and strategies to implement such plans. While the causal relationship between existing implementation mechanisms and the date when these mechanisms were implemented deserve greater investigation, it may be primarily scholarly in nature because it does appear that regions and localities learned from one another regardless of strategic federal leadership. Similar to the word cloud and key word chart (found earlier in this document), livability programs appear highly tailored to the local communities that are responsible for implementing them. Despite the differences in how livability is defined either by local, regional, state, or federal partners; the literature reviewed reveals that livability and sustainability continue to suffer from conceptual overlap. While a handful of these themes existed before the creation of the Partnership, it is clear that the exposure livability and sustainability received because of the Partnership's efforts continues to be beneficial.

So, what is livability? Over the past several years, public works practitioners, local elected officials, and their local and regional planners have sought to define and promote livable communities nationwide. Based on the more than 180 documents reviewed, a complex view of livability emerged. Most often, the programs used included Smart Growth, Complete Streets, Lifelong Communities, Safe Routes to Schools, Context Sensitive Solutions/Design, New Urbanism, Transit-Oriented Development and placemaking. While additional livability themes exist, the selection of these most common themes represents those with the most mature body of literature. The literature highlighted a tension between livability and sustainability in their contexts as strategic frameworks.

Through this *Literature Review*, NARC proposed a conceptual framework through which one may understand the relationship between livability and sustainability, as conceptually distinct, though often interdependent. NARC compared and contrasted commonly used definitions for each concept and provided examples of how states, regional planning organizations and localities use each of these concepts to implement their livable communities vision. Finally, NARC identified several areas in which gaps in research highlighted the need for additional research.



Photo Credit: Atlanta Regional Commission



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# Section V:

## List of Acronyms

<b>Acronym</b>	<b>Definition</b>
AARP	American Association of Retired Persons
AAA	Area Agency on Aging
APTA	American Public Transportation Association
APWA	American Public Works Association
ARC	Atlanta Regional Commission
CDC	Center for Disease Control and Prevention
CMAP	Chicago Metropolitan Agency for Planning
CNU	Congress for New Urbanism
COG	Council of Governments
CRCOG	Capitol Region Council of Governments
CS	Complete Streets
CSS	Context Sensitive Solutions
CSS/D	Context Sensitive Solutions/Design
CSSD	Context Sensitive Street Design
DRCOG	Denver Regional Council of Governments
ECFRPC	East Central Florida Regional Planning Council
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
H-GAC	Houston-Galveston Area Council
ICMA	International City/County Management Association
Iowa DOT	Iowa Department of Transportation
ITE	Institute of Transportation Engineers
LCA	Livable Communities Act
LCI	Livable Centers Initiative
LCTF	Livable Communities Task Force
LEED ND	Leadership in Energy and Environmental Design Neighborhood Development
MACOG	Michiana Area Council of Governments
Met Council	Metropolitan Council
MORPC	Mid-Ohio Regional Planning Commission
MPO	Metropolitan Planning Organization
MTC	Metropolitan Transportation Commission
N4A	National Association of Area Agencies on Aging
NACo	National Association of Counties
NAHB	National Association of Home Builders
NARC	National Association of Regional Councils
NCSC	National Complete Streets Coalition
NCSRTS	National Center for Safe Routes to Schools
NCTCOG	North Central Texas Council of Governments
NLC	National League of Cities
NU	New Urbanism
PLC	Partners for Livable Communities
PPS	Project for Public Spaces
RC	Regional Council
SANDAG	San Diego Association of Governments
SG	Smart Growth
SGA	Smart Growth America
SGN	Smart Growth Network
SJVRPC	San Joaquin Valley Regional Policy Council
SRTS	Safe Routes to Schools
TCRP	Transit Cooperative Research Program
The Partnership	Partnership for Sustainable Communities
TOD	Transit-Oriented Development
U.S. DOT	U.S. Department of Transportation
U.S. EPA	U.S. Environmental Protection Agency
U.S. HUD	U.S. Department of Housing and Urban Development
VTPI	Victoria Transport Policy Institute

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### **The National Association of Regional Councils**

777 North Capitol Street NE, Suite 305

Washington, DC 20002

202.986.1032 phone

202.986.1038 fax

[www.NARC.org](http://www.NARC.org)

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