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PLANNING for MOBILITY and TRANSPORTATION
Benefits, Limitations, Ordinances, and Resources

Description:
The way we design our communities—both the built and natural environments—has a significant impact on the mobility and transportation options available to all community members. Available, accessible options in transportation and mobility are an important element of a livable community—playing a vital role in securing and enhancing quality of life for all community members by providing access to employment, shopping, medical care, caregiving responsibilities, family and social events, school, religious services, recreational activities, and other community resources.

Limited or no appropriate mobility alternatives affects many community residents in different ways. For example, lack of pedestrian and biking venues can make travel to school and recreational areas hazardous for children. Older adults and individuals with disabilities who no longer drive, or who formerly relied on a family member or neighbor for transportation, may suddenly find themselves alone, which can lead to social and economic isolation. Unavailable or unaffordable public transit can have a negative economic impact on adults who cannot afford the expenses associated with owning a personal car.

While poorly planned communities can significantly diminish mobility and transportation options, a community's planning and zoning decisions that increase age-, ability-, and income-sensitive mobility and transportation options can achieve important, positive goals for all residents and for the overall community.

Benefits—of greater mobility and transportation options:
For residents:

- *Social and mental health*—
  - Greater variety in mobility options and transportation alternatives bolsters social interaction among diverse community members, strengthening connections among all community members and enhancing a sense of community.
  - The social and mental health of older adults, individuals with disabilities, and other residents who must rely upon mobility options in order to engage in routine activities and tasks of daily life is enhanced, prolonging independence and countering the depression that can accompany isolation.
  - A built environment that expands mobility options beyond the personal automobile:
    - Helps preserve a sense of independence, competence, and freedom for residents who have lost their choice or ability to drive and their ability to navigate conventional public transit;

    - Reduces the obligation of friends, family members, and society to accommodate their mobility needs. This is a critical emotional and mental health issue for frail older people and individuals with disabilities, who have a strong aversion to becoming a dependent burden on others.
  - Public transportation options that are convenient clean, safe, and affordable encourage community residents to stay socially connected and live active lives.

- *Physical health—*
  - Communities designed with easily accessible areas for children, adults, and older people to walk, jog, bike, and use small-motor vehicles:
    - Offer greater, regular opportunities for exercise—maintaining fitness and improving physical health.
    - Provide greater access to health care (doctors, drug stores, hospitals) and to fresh, healthy food (neighborhood stores, farmers markets, fresh produce stands).
  - Elements of well-designed communities (for example, pathways with amenities such as trees for shade, benches for resting and visiting, public transportation shelters, and restrooms) make walking or strolling more desirable, make people feel safer and more secure, and, thereby, make people more likely to engage in those socializing and exercising activities.

For the community:

- *Increased user-friendliness—*
  - Newer transportation options include buses with lower floors, and "kneeling vehicles" that dip to make access easier for small children, those with mobility issues, and those who use mobility aids.
  - Buses that are equipped with bicycle racks allow riders to bring bicycles to recreational destinations instead of riding in traffic—encouraging more people to exercise and adding to their overall health and fitness.
  - Street and sidewalk design standards (for example, smooth sidewalks, pathways, and surfaces—of uniform width, with Americans with Disabilities Act curb-compliance, and slope considerations for wheel chairs, strollers, baby carriages, grocery carts, walkers, scooters, other mobility aids, and other mobility options, such as biking and walking) benefit older adults, individuals with disabilities, but also other community members such as mothers, toddlers, young adults, school children, workers, and others. Shorter and narrower streets, typical of grid-style street designs, can improve pedestrian access and navigation. It is easy to get lost in cul-de-sacs and housing developments where the pedestrian cannot logically determine where they are and where direct connections to other subdivisions are missing.

- *Public Safety—*
  - Communities that invite greater activity on the streets, in public gathering places, and at commercial and civic establishments are generally safer and more comfortable to use, particularly for more vulnerable populations, such as seniors, children, people with disabilities, and women. This is particularly

important in encouraging older people to venture out of their homes and avoid isolation, as seniors have a high *fear* of crime.
  - The increased vigilance of the people on the streets (also known as "eyes-on-the-streets") increases the likelihood that criminal activity will be detected—which tends to deter crime.
  - When communities are walkable, with buildings arranged closer to one another and closer to the street, the line of vision from building to street increases neighborhood vigilance and safety—a built-in neighborhood crime watch.
  - Mixed-use is an aspect of walkable communities; when building types are mixed together, different land uses generate street activity after-hours; and public spaces offer safety in the number of people in one place.
  - Larger street signs with bigger fonts and street lighting will also help pedestrians and drivers navigate.
  - Crosswalks that are well-marked with reflective road paints, wider crosswalks, and calibrated traffic signals to allow more time to cross the street make crossing an intersection safer, especially for slower-moving pedestrians.

- *Community financial viability*—
  - Increased street activity, both during the day and evening, generates greater commercial activity and economic gains for the community.

- *Traffic and pollution relief*—
  - Reduced public transportation:
    - When daily destinations are designed to be closer to one another and mixed together, and street and trail connections within and between neighborhoods are increased, the distance we travel in our cars and the number of car trips we take will both decrease. This type of community design is more conducive to using alternative mobility options (such as walking, bicycling, and mass transit) in place of the personal car.
    - Increased public transportation alternatives reduces overall dependence on automobile travel—reducing the number of private cars on the roads and the number of auto-related accidents; reduces the number of Vehicle Miles Traveled (VMT), which relieves traffic congestion on area roads and improves traffic safety; and reduces green house gas emissions—resulting in a cleaner, safer environment for everyone.

- *Sense of place/sense of community*—
  - Choices in mobility and transportation options are aspects of a well-planned community—enhancing residents' "sense of place." A community's sense of place is hard to define, yet easy to recognize; basically we know it when it's there, and we sense its absence when it's not. A sense of place boosts community pride and identity, encourages people to get out and engage in public activity, and provides metaphysical benefits to residents. Well-planned community design encourages residents, both young and old, to remain living in their communities rather than moving to other towns or other states. As a result, a community's population is stabilized and its social

capital is strengthened. This is particularly important regarding older people, as a growing trend across the country is to help communities understand the skills, experience, and knowledge inherent in the retired population and to encourage them to capitalize on that valuable asset in the form of volunteering.

- *Lifestyle accommodations . . . market draw—*
  - Older people are living much longer and remaining active and healthy for many more years; and well-designed communities offer seniors greater opportunities during these years to engage in lifestyle pursuits that were not feasible during their work and child-rearing years. Older Americans prefer walkable, mixed-use, diverse, and interesting places that enhance and cater to their changing lifestyles—places where they can buy a book, grab a cup of coffee, stop at the post office or the bank, shop, recreate, engage in volunteering, or take a part time job—all within walking distance or a short car ride.

Impediments or barriers to development or implementation:

- *Historical context—automobile-dominated community design***—** The impediments to creating diverse mobility options are best understood in a historical context. Post-war community design and development elevated automobile travel to predominant status, and relegated pedestrian, bicycle, and transit travel to second-class—or, in many cases, non-existent—status. Streets were designed and built wider to accommodate faster automobile speeds to serve the commuting needs of a burgeoning suburban population, but quickly created an unsafe and uncomfortable pedestrian environment, as well as traffic congestion, traffic safety, and pollution problems. Disconnected road systems and increased traffic congestion made driving more time-consuming, stressful, and dangerous. Daily destinations (shops, civic buildings, parks, downtowns, cultural activities, health care) were separated and dispersed to the point that they became accessible only by car.

  Consequently, by the 1980s, over half of the U. S. metropolitan landscape was designed to suit personal cars almost exclusively, making walking, biking, small-motor vehicles, and alternative transit almost impossible. The impact of these conditions has become increasingly apparent as the number of older persons and the number of individuals with disabilities has grown dramatically, the efforts of informal unpaid caregivers have increased substantially, the prevalence of long-distance caregiving has grown as families are increasingly dispersed, and public policies stress that both elderly frail people and adults with disabilities are to continue living in conventional housing options and integrated with the wider community.

- *Local zoning*— Most communities were not zoned to accommodate the needs, lifestyles, and preferences of older adults and individuals with disabilities (mixed-use, age-integrated, walkable communities with a range of housing options), nor the increasing preferences of families (compact, diverse, walkable, green housing and environments). Streets were not designed for walking or

biking. Stores, parks, restaurants, libraries, civic buildings, work places, health facilities, and other daily amenities were isolated from one another and located far from residential neighborhoods. Public transit was inaccessible or completely non-existent. Efforts to transform the design of communities or to modify zoning are very difficult because they require educating and convincing residents that changing from "how things have always been done" will be beneficial; in and of itself, change" is very often hard to accept.

- *Feasibility*— It may not be economically feasible to extend some transportation options to areas in geographically remote or rural areas; if such options are provided, routes and time tables may be inconvenient.

Resource—statutory authority:

- The Intermodal Surface Transportation Efficiency Act (ISTEA) was enacted in 1991; it was reauthorized in 1998 as The Transportation Equity Act for the 21st Century (TEA-21) under Public Law 105-206. Under TEA-21, funding was set aside for the Surface Transportation Program (STP), which currently funds several programs and authorization provided for under ISTEA and TEA- 21. http://www.cr.nps.gov/history/online_books/fhpl/istea.pdf.

- The Safe, Accountable, Flexible, Efficient Transportation Equity Act (SAFETEA-LU) was enacted in 2005; it reauthorized federal surface transportation programs through September, 2009. http://www.nhtsa.gov/nhtsa/Cfc_title49/PL109-59.pdf.

- Elderly Individuals and Individuals with Disabilities Program, U. S. Department of Transportation, Federal Transit Administration (Federal Transit Laws, Title 49, United States Code, Chapter 53, §5310); the goal of this program is to improve mobility for elderly individuals and individuals with disabilities; funds are used to meet the special transportation needs of these two population groups. In New York, this program is administered by the New York State Department of Transportation.
  http://www.fta.dot.gov/laws/circulars/leg_reg_6622.html.
  The law: http://www.fta.dot.gov/documents/C9070.1F.pdf.

- Transportation Services for Individuals with Disabilities: Code of Federal Regulations (CFR), Title 49, Transportation, Part 37: http://www.fta.dot.gov/civilrights/ada/civil_rights_3906.html.

- Bicycle Transportation and Pedestrian Walkways (TEA-21, §1202) authorizes funding to be used for improving facilities for pedestrians and bicyclists.

- Congestion Mitigation and Air Quality program (CMAQ) is funded under the Surface Transportation Program. Its goal is to reduce congestion and improve traffic conditions, as well as reduce harmful vehicle emissions. Funds are used to fund transit projects, buy buses and vans, subsidize bus operations, and implement ridesharing programs.

Resource—examples and ordinances:

- *Onondaga County Settlement Plan Transportation Polices* (Appendix H), Onondaga County, New York: www.smtcmpo.org/docs/reports/LRTP_update_2007/a-h.pdf .

- Michael Ernst and Barbara McCann (October, 2005), *Legislating Mobility Options: A Survey of State Laws Promoting Public Transit, Walking and Bicycling,* Surface Transportation Policy Project. Washington, DC: AARP, Public Policy Institute. http://assets.aarp.org/rgcenter/il/2005_12_mobility.pdf.

- City of Portland, Oregon, *Transportation System Plan*: www.portlandonline.com/transportation/index.cfm?c=38838.

- *New Jersey Statewide Bicycle and Pedestrian Master Plan*. New Jersey Department of Transportation and the New Jersey Metropolitan Planning Organizations: http://www.bikemap.com/RBA/.

- *Westfield Connections: The Westfield Community Planning & Design Initiative,* Village of Westfield, New York. www.villageofwestfield.org/WestfieldConnections081004.htm.

- *Bus Buddy*, Eugene, OR: this program teaches seniors how to ride the bus in a relaxed way by breaking down barriers and building confidence. http://www.ltd.org/search/showresult.html?versionthread=503027d33ef453b141c5d450d1895ffa.

- Peoria, IL: two rural transportation systems teamed up to provide seniors in rural areas with service to supermarkets, hospitals, and shopping centers. To introduce seniors to this service, they issued free passes and, later, a discounted fare of $.50 per trip. *Seniorjournal.com:* http://www.seniorjournal.com/NEWS/Features/5-05-16PublicTransEasyRider.htm.

- *Seniors in Motion*, Palm Beach County, FL: this program is aimed at individuals aged 85 and over who are living in gated communities or remote areas—advising them of their transportation options, such as free, fixed-route service and reduced fares on door-to-door service. http://www.pbcgov.com/palmtran/marketing/seniors.htm.

Resource—written and web:

- *Easy Rider: Advancing Mobility Needs for Aging Americans,* American Public Transportation Association. To address the transportation needs of older Americans; survey results are online: http://seniorjournal.com/NEWS/Features/5-05-16PublicTransEasyRider.htm. http://www.retirement-living.com/blog/easy-rider/.

- *Sidewalk Design Guidelines and Existing Practices* , Federal Highway Administration: http://www.fhwa.dot.gov/environment/sidewalks/chap4b.htm.

- *Aurora Urban Street Standards In Transit Oriented Developments and Urban Centers,* Aurora, Colorado: http://www.auroragov.org/stellent/groups/public/documents/article-publication/030275.pdf.

- American Public Health Association (APHA), Washington, DC. "A community's transportation decision-making has an impact on a range of critical issues affecting residents and overall community well-being, including public safety, air quality, physical activity and fitness, obesity, the built environment, health and cost equity, accessibility, and others." This web site provides a tool kit, case studies, and extensive resources that help create a "community-building" bridge between the public health and transportation sectors to ensure that a community's transportation policies help rather than hinder critical public health concerns.
  APHA—transportation issues: http://www.apha.org/advocacy/priorities/issues/transportation/.
  - *Transportation and Health Tool Kit* (2011): http://www.apha.org/advocacy/priorities/issues/transportation/Toolkit.htm.
  - *Public Health and Transportation Case Studies:* http://www.apha.org/advocacy/priorities/issues/transportation/casestudies.htm.

- *A Blueprint for Action: Developing a Livable Community for All Ages* (May, 2007): MetLife Foundation, Partners for Livable Communities, and National Association of Area Agencies on Aging (n4a). http://www.n4a.org/pdf/07-116-n4a-blueprint4actionwcovers.pdf.

- *Livable Communities: An Evaluation Guide* (2005). Washington, DC: AARP, Public Policy Institute. http://assets.aarp.org/rgcenter/il/d18311_communities.pdf.

- *Transportation in an Aging Society: A Decade of Experience* (2004). Washington, DC: The National Academies, Transportation Research Board: http://pubsindex.trb.org/view.aspx?id=702068.

- *Safe Mobility for a Maturing Society: Challenges and Opportunities* (2003). Washington, DC: U. S. Department of Transportation: http://www.troymi.gov/futures/Research/Mobility/SafeMobility0104.pdf.

- Pauline Abbott, et al (2009), *Re-Creating Neighborhoods for Successful Aging*. Baltimore, MD: Health Professions Press.

- AARP (2002), *Understanding Senior Transportation: Report and Analysis of a Survey of Consumers Age 50+.* Washington, DC: AARP, Public Policy Institute:
  - Brief: http://assets.aarp.org/rgcenter/il/inb50_transport.pdf.
  - Full Report: http://assets.aarp.org/rgcenter/il/2002_04_transport.pdf.

- *Most Seniors Worry About Being Stranded Without Transportation:* http://www.publictransportation.org/pdf/releases/release051207a.pdf.

- *Highway Design Handbook for Older Drivers and Pedestrians*. Washington, DC: The Federal Highway Administration: http://safety.fhwa.dot.gov/intersection/resources/fhwasa09027/resources/Highway%20Design%20Handbook%20for%20Older%20Drivers%20and%20Pedestrians.pdf.
  - "Older Road Users," *FHWA—Safety*, U. S. Department of Transportation, Federal Highway Administration on line—a companion to the *Highway Design Handbook:* http://safety.fhwa.dot.gov/older_users/.

- Dan Burden (Executive Director, Walkable Communities), *Dan Burden's Principles for Healthy Neighborhood Street Design.* Sierra Club: http://www.sierraclub.org/sprawl/community/design.asp.

- National Complete Streets Coalition: www.completestreets.org.

- *Manual for Streets* (2007). London: British Department of Transport, Communities and Local Government. http://www.dft.gov.uk/pgr/sustainable/manforstreets/pdfmanforstreets.pdf. PDF version of the Manual takes a few minutes to load.

- Leslie Kettren (2006), *Talking the Walk: Building Walkable Communities.* Chicago, IL: Congress for the New Urbanism. Full text: http://www.cnu.org/sites/www.cnu.org/files/KettrenTalkingtheWalk.pdf.

- Cynthia Girling and Ronald Kellett (2005), *Skinny Streets and Green Neighborhoods: Design for Environment and Community*. Island Press.

- Susan Handy (May, 2003), *Planning for Street Connectivity*, APA Planning Advisory Service Report Number 515, American Planning Association.

- "Where Do We Grow From Here" (March 23, 2007), *OKI's Community Choices – Street Connectivity*, Ohio, Kentucky, Indiana (OKI) Regional Council of Governments: http://www.oki.org/landuse/pdf/OKIConnect.pdf. http://www.oki.org/; type "street connectivity" into OKI search tool.

- New York Bicycle Coalition (2007), *Improving Bicycle and Pedestrian Safety: A Problem Solving Manual for Advocates and Transportation Professionals in New York State*: www.nybc.net.

- *Omaha Streetscape Handbook* (July, 2008). City of Omaha, Nebraska, RDG Planning and Design: http://www.cityofomaha.org/planning/urbanplanning/images/stories/UD_pdfs/Streetscape%20Handbook.pdf.

- *Senior Transportation: Toolkit and Best Practices,* Community Transportation Association of America, a technical assistance manual for planning and implementing transportation options for seniors; contains information on grants, but because it is an older publication (1st Ed. May 2003), the status of these grant programs should be checked: http://www.ctaa.org/webmodules/webarticles/articlefiles/senior_toolkit.pdf.

- Barbara McCann (December, 2004), *Complete Streets Report: Analysis of a Survey of Complete Streets Law, Policies, and Plans in the United States*. Washington, DC: Alliance for Walking and Biking (formerly, Thunderhead Alliance): http://www.peoplepoweredmovement.org/site/.

- *Making Streets That Work: Neighborhood Planning Tools* (May, 1996). City of Seattle, WA. Accessible at www.seattle.gov/transportation/pdf/mstw.pdf.

- Tri-State Transportation Campaign: http://www.tstc.org/.

- Transportation Alternatives: www.transalt.org.

- Surface Transportation Policy Project: www.transact.org.

- Pedestrian and Bicycle Information Center: www.pedbikeinfo.org and www.walkinginfo.org.

- City of Raleigh, North Carolina, Department of Transportation:
  - Urban Design Guidelines—General Street Principles: http://www.raleighnc.gov/business/content/PlanUrbanDesign/Articles/RaleighUrbanDesignCenter.html. On right side of screen, under "More Information," click on *Urban Design Guidelines;* under "Downtown," click on *Streetscape Master Plan* and *Livable Streets Plan.*
  - Model Street Connectivity Standards Ordinance: http://congestion.kytc.ky.gov/connectivity/WSDOT%20Connectivity%20Model%20Ordinance.pdf.

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- Reid Ewing and R. Cervero (2001), *Travel and the Built Environment: A Synthesis,* Record No. 1780, pp. 67-114. The National Academies, Transportation Research Board: http://pubsindex.trb.org/document/view/default.asp?lbid=717403.

- Richard Brian (April, 1997), *Main Streets: Pedestrian Safety and Reform of the Nation's Transportation Law.* Washington, DC: Environmental Working Group: http://www.ewg.org/reports/meanstreets.

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- Anthony Downs (2004), *Still Stuck in Traffic: Coping with Peak-Hour Traffic Congestion.* Washington, DC: Brookings Institution.

- Tom Lewis (1997), *Divided Highways: Building the Interstate Highways, Transforming American Life.* New York, NY: Penguin.

- Terry Moore, Paul Thorsnes, and Bruce Appleyard (2006), *The Transportation/Land Use Connection,* PAS 546. Chicago, Illinois: American Planning Association: http://www.planning.org/apastore/Search/Default.aspx?p=3675.

- *Pedestrian- and Transit-Friendly Design: A Primer for Smart Growth* (1996), Prepared for the Florida Department of Transportation. Chicago, Illinois: American Planning Association. www.epa.gov/smartgrowth/pdf/ptfd_primer.pdf or www.walkinginfo.org/library/details.cfm?id=4360.