

Active Neighborhood Checklist - Protocol, Version 2.0

Purpose

The Active Neighborhood Checklist is an observational tool designed to assess key street-level features of the neighborhood environment that are thought to be related to physical activity behavior. The data collected can be used to generate data for a needs assessment or research, to raise community awareness about the role of the environment in supporting or discouraging physical activity, or to mobilize community members to advocate for change. Its simple format, lay terminology, item specificity, and relatively short length were intended to make the tool user-friendly for multiple community stakeholders.

The Checklist is a product of the refinement of existing audit tools using a systematic process that weighted various forms of quantitative and qualitative evidence. Although the tool was tested and reviewed by a small, multidisciplinary group of community stakeholders in St. Louis, its application as an advocacy and evaluation tool has not been systematically examined. Version 2 (Feb 2011) of the Checklist and Protocol includes minor additions and revisions that have not yet been field-tested but should improve the usefulness and clarity of the tool and process. Although the reliability of the original Checklist was tested across a range of environments, its reliability in any single setting has not been assessed. Future studies are needed to evaluate its usability for different purposes and specific settings.

Content

The Checklist assesses five general areas: land use, public transit stops, street characteristics, quality of the environment for a pedestrian, and places to walk and bicycle. An area for note-taking follows each section to allow auditors to describe features or perceptions that may not be captured in the tool. Although some items are important indicators for bicycling, the Checklist is not comprehensive in its assessment of these factors. In addition, users should use existing data and other audit tools or methods for more detailed data on land use, quality and maintenance of recreational facilities, street connectivity, traffic speed and volume, characteristics of intersections, architecture, and crime incidents. Moreover, qualitative feedback from residents along with photographs would complement the quantitative results obtained from the Checklist.

The tool includes some optional items. Land use item A6, which assesses specific destinations—those with the potential to generate walk trips and those associated with an automobile-oriented street—is optional because this information may be available from existing sources (e.g., online or parcel level land use data) and can be time-consuming to audit. Shoulder items (E11-16) are optional because these items tended to have lower reliability, and shoulders may be infrequent or a lower priority in some communities.

Instructions for Use

This two-page protocol gives brief instructions on ways to conduct audits of neighborhood streets, as well as operational definitions for key concepts or terms that are not self-explanatory in the Checklist. In practice, it is recommended that this protocol be supplemented with a 2-hour (approximately) training slide presentation. Training may be enhanced through practice audits followed by group discussion.

Choosing an Area or Route to Audit. Begin by choosing your study route or area. Options may include 1) defined areas around a specific destination (e.g., school) or group of destinations (e.g., commercial center); 2) neighborhoods defined by administrative or other boundaries; and 3) routes between destinations or groups of destinations (e.g., between an elementary school and neighborhood center).

Choosing a Sampling Approach. The Active Neighborhood Checklist is designed to collect information for street segments – the section of the road between two consecutive intersections. Options for selecting segments to be audited include, but are not limited to, auditing 1) all segments in an area or route, 2) a random sample of segments, or a 3) a

stratified sample of segments, based on land use typologies (e.g., residential, commercial, mixed land use).

Identifying Street Segments. Using a street map – produced by computer software, purchased, or downloaded from the internet – assign all segments to be audited a unique identification number to facilitate organizing and analyzing data. The auditors should carry copies of these maps. The street maps may not be current or complete, so auditors should be trained to know how to identify new segments or delete existing segments.

Roads with few intersections should be divided into two or more ¼th-mile segments. Short segments may be combined with adjacent segments. A street with a T-intersection may be audited as two separate segments. In this case, a reference point should be noted on the continuous side to avoid duplicating information from the adjacent segments.

General Rules for Auditing. The Active Neighborhood Checklist may be completed with paper and pencil. Other materials to take in the field include map, clipboard, comfortable shoes, watch, cellphone, sunscreen, umbrella and camera.

With a little practice, the Checklist can be completed in approximately 5-10 minutes per segment. The tool is intended to be completed on foot. Auditors should mark whether the form was completed in an automobile (e.g., in rural or unsafe settings). Auditors should walk the segment once while observing the street, sidewalks, signs, and buildings. Then auditors may complete the form, walking back and forth as necessary.

Depending on how the data will be aggregated, users may want to avoid double-counting some land uses (items A3-A6), particularly those located on a corner. If it is important for users to avoid double-counting land uses, then buildings should be counted on the segment with the building's address or main entrance. Parking lots can be counted on the segment which (1) contains the building for which the parking lot is used, or 2) bears the parking lot entrance.

Operational Definitions

The following selected terms are defined for items that may not be self-explanatory. A training slide presentation provides visual examples for features that may be unfamiliar or challenging to code. The built environment is very complex; therefore, it is difficult to anticipate how to code every street type. Users are encouraged to develop strategies for documenting features that may not be defined here.

Building or section of sidewalk/roadway under construction: Only note major renovation or construction of public building or space. Segments coded as “yes” may be excluded from analyses, depending on the extent of the construction noted by the auditor.

A1. **Residential land uses:** Include any of the types listed in A3.

A1. **Non-residential land uses:** Include any destinations that are not residential (e.g., business, school, library, park, parking lot/garage).

A2. **Predominant land use:** Land use that occupies the most area along the segment.

A2. **Commercial, institutional, office, or industrial building(s):** Any building that is not solely residential

A2/A6. **Vacant lot:** A lot about the size of the buildings on the segment or nearby segments with visible signs of neglect. Parking lots for vacant buildings that are closed to the public and not kept up may qualify here.

A2/A3/A6. **Abandoned building/home:** Uninhabited building that shows visible signs of neglect. Does not include homes or commercial buildings that are “for sale” unless there are obvious signs of neglect.

A2. **Undeveloped land:** Large area of natural space that is not maintained by public or private entities.

A2. **Designated green space:** Large area of natural space that is maintained by public or private entities and open to the public.

A4. **Parking facilities.** If pavement is unmarked, code as On-street (angled or parallel) parking only if there are cars parked within the segment or if parking

signs are present. For streets that permit on-street parking on weekends or evenings *only*, mark as None and document varying parking rules in notes.

A5. Public recreational facilities and equipment: Do not include private playgrounds (e.g., church playgrounds, daycare playgrounds, apartment playgrounds, or gated and locked schoolyards). Document private facilities in the "Land use notes." Off-road walking/biking trails are sidewalks or trails that people walk or bike on primarily for exercise or leisure. Sidewalks around parks can be double-counted as both a off-road trail and sidewalk (E1).

A6. Indoor fitness centers: Examples include yoga, pilates, dance, and martial arts studios, public recreation centers, and indoor tennis clubs.

A6. Big box store: Large, rectangular commercial buildings, typically with standardized facades, large parking lots, and facing major traffic arterials. Examples include Walmart, Office Depot, Best Buy, and Home Depot.

A6. Strip mall: Commercial centers with attached units arranged in a row, typically denoted by a sign. This is an indicator of an auto-oriented street so it should not be selected for all connected commercial units.

A. Land use notes: Note major natural landscape features (e.g., lakes, rivers), major barriers (e.g., railroad tracks, highway), or other distinct land use characteristics or destinations.

B. Transit stop notes: Note the condition of a transit stop.

C2. Special speed zones: Speed limit signs for special situations, such as school zones, construction zones, or sharp turns in the roadway.

C3. Total # of lanes: Number of lanes (including unmarked lanes) for traffic. Excludes the turning lane and parking lanes

C4. Marked lanes: Presence of lines on road to delineate lanes

C5. Median or pedestrian island: Raised island or refuge for pedestrians between traffic lanes. May take up all or part of the segment. Extremely narrow medians or medians with so much landscaping as to prevent pedestrians from using them should not be counted.

C6. Turn lane: Only count turn lanes that occupy a lane for the entire length of the roadway.

C7. Stop sign or traffic light: Traffic lights are red, yellow and green signals directing whether traffic stops, slows down or proceeds ahead. A stop sign is an octagonal red sign telling traffic to stop. Only mark "Yes" if the sign or light facilitates crossing the audited segment.

C7a. Walk signal: electronic signal (e.g., "Walk" / "Don't walk" signal) indicating when it is safe for a pedestrian to cross the audited segment. Only code as "yes" if the signal is absent at a stop light. Otherwise, code as "no."

C8. Crosswalk: Denoted by painted white line(s), flashing light(s), and/or pedestrian crossing sign(s) for crossing the audited segment

C9. Traffic calming device: Device intentionally designed to reduce traffic speed or volume, such as a roundabout, brick road, speed hump, flashing speed sign, or "watch for children" sign. .

C10a. Sidewalk cut-through: Sidewalk or path that connects a cul-de-sac to a nearby street or greenbelt without permitting passage of automobiles.

C. Street characteristic notes: Note street characteristics that may influence a pedestrian's or bicyclist's feelings of comfort and safety from traffic, such as perceived traffic volume and speed, aggressive drivers, and condition of crossing aids and medians.

D1. Commercial buildings adjacent to the sidewalk: Building that can be entered directly from the sidewalk along the street without crossing a parking lot. If no sidewalk or commercial building is present, enter "99"

D2a. Bench: Includes public benches along the sidewalk, not in a park.

D2b. Drinking fountain: If the drinking fountain is not functional, then do not count it and note its condition in the notes section.

D2c. Pedestrian-scale lighting: Lamp posts intended to light the sidewalk.

D3. Public art: Statues, sculptures, fountains, or murals. May include banners if they stand out and enhance the aesthetic quality of the street. Excludes private artwork on commercial or residential space.

D4. Graffiti or broken/boarded windows: Graffiti, or "unapproved" writing, would include painted or drawn signs, or symbols on buildings. Indicate the number of instances observed.

D5. Litter or broken glass: When evaluating the amount of litter and broken glass, envision an immaculate street and heavily littered street for relative comparisons with the street being audited.

D6. Tree shade along the walking area: Consider tree shade that would cover the sidewalk or other walking area at approximately noon. During months when trees are without leaves, envision what shade the trees might provide with leaves. Shade provided by buildings should not be counted here. Small, young trees do not count as tree shade. As with litter and broken glass, consider the extremes.

D7. Steepest slope along the walking area: Compare the slope along the segment to a street with a flat slope and a steep slope. A flat/gentle slope would hardly be noticeable to most individuals. A moderate slope would not act as a barrier to most individuals but walking on it may increase some individuals' heart rates. A steep slope would act as a barrier to individuals who are not active or with physical limitations.

D. Pedestrian environment notes: Note distinct features that enhance or detract from a pedestrian's walking experience.

E2. Any grassy or other buffer between curb and sidewalk along most of the segment: A buffer includes grass, trees, flowerpots, and/or textured sidewalk that provides separation between pedestrians and traffic.

E2a. Tree(s) in buffer: Trees provide a buffer from traffic for pedestrians, as well as aesthetic appeal.

E3. Sidewalks continuous within segment: There are no interruptions (other than driveways) in the sidewalk within a single segment.

E4. Sidewalks continuous between segments at both ends: The sidewalk continues in one or more directions beyond the segment audited. This must be true for both ends of the segment.

E5. Width > 3 ft for most of the segment: A standard sidewalk is 3 feet, the minimum width to comply with ADA standards. Indicate whether the walking area appears to exceed this width for the majority of the length of the segment containing a sidewalk. (*Note: users may change item to ≥ 5 ft (preferred width) if field measurement is feasible.*)

E6. Width < 3 ft for any part of the sidewalk: Indicate whether the walking area is less than 3 feet for *any part* of the sidewalk. The width may be <3 feet due to its original design, permanent obstructions (see E9), sidewalk disrepair (e.g., large broken sections), or other reasons.

E7. Any missing curb cuts or ramps: Missing curb cuts are places where there is no curb cut or ramp leading smoothly down from a sidewalk to a street or driveway. The sidewalk ends abruptly with a 4-6 inch curb. Short curbs (< 3 inches) should not be counted (i.e., they are mountable for a person on a bike, with a stroller, or in a wheelchair).

E8. Major bumps, cracks, holes, weeds: Only note bumps, cracks, holes, or weeds that prevent a person from pushing a stroller or wheelchair over the impediment(s). Small cracks or weeds that do not affect a person's ability to walk on or wheel over the surface do not count as "major."

E9. Permanent obstructions: Obstructions that remain on the sidewalk on a daily basis, such as signs, trees/shrub overgrowth, street furniture, telephone poles, and fire hydrants. Excludes cars, bicycles, garbage bins, leaves or branches, which may be temporarily positioned on the sidewalk.

E10. Sidewalk not present on any part of the segment: Assess alternate places to walk if a sidewalk is not present or continuous within a segment. An "unpaved pathway" is an unplanned path worn over time by pedestrians.

E. Sidewalk notes: Note the condition of curb cuts, misalignments, obstructions, or other sidewalk-related features.

E12. On-street, paved, and marked shoulder: Includes paved (not gravel) shoulders that are wide enough to walk or bike in (≥ 2 feet). A shoulder intended primarily for parking should not be counted.

E13. Width ≥ 4 ft: By estimating or using the auditor's measured foot (if safe from traffic; see E5), determine if the width is at least 4 feet.

E14. Shoulder continuous as both ends: The shoulder continues in one or more directions beyond the segment audited. This must be true for both ends of the segment.

E15. Permanent obstructions: Includes legally parked cars and drainage grates in which the holes are aligned with the bicycle path (i.e., parallel to the street). Does not include garbage bins, vehicles illegally parked in the shoulder, or leaves and branches.

E16. Shoulder not present on any part of the segment: Assess alternate places to bike if a shoulder is not present or continuous within a segment.

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Active Neighborhood Checklist

Date: _____ Segment ID: _____

Auditor ID: _____

Street Name: _____

Start Time: _____

How were the data collected?

Foot Auto, provide reason: _____

Is any building or section of the sidewalk or roadway under construction or being repaired?

Yes, specify: _____

No

A. What land uses are present?

1. Are residential and non-residential land uses present?

- All residential
 Both residential and non-residential
 All non-residential

2. What is the predominant land use?

Check one or two that apply.

- Residential buildings/yards
 Commercial, institutional, office or industrial building(s)
 School/school yards (elementary, middle, high school)
 Parking lots or garages
 Park with exercise/sport facilities or playground equipment
 Abandoned building or vacant lot
 Undeveloped land
 Designated green space (includes park with no exercise/play facilities)
 Other non-residential, specify: _____

3. What types of residential uses are present?

Select all that apply.

- None
 Abandoned homes
 Single family homes
 Multi-unit homes (2-4 units)
 Apartments or condominiums (>4 units, 1-4 stories)
 Apartments or condominiums (>4 stories)
 Apartment over retail
 Other (retirement home, mobile home, dorms)

4. What functioning parking facilities are present?

Select all that apply.

- None (no parking allowed on street most or all of the time)
 On-street, including angled parking
 Small lot or garage (<30 spaces)
 Medium to large lot
 Garage

5. What public recreational facilities and equipment are present (including in the schoolyard if publicly accessible)?

Select all that apply.

- None
 Park with exercise/sport facilities or playground equipment
 Off-road walking/biking trail
 Sports/playing field
 Basketball/tennis/volleyball court
 Playground
 Outdoor pool
 Other: _____

6. (OPTIONAL) What types of non-residential uses are present?

Select all that apply.

- None
 Abandoned building or vacant lot

Specific types of destinations:

- Small grocery, convenience store (including in gas station), or pharmacy
 Supermarket
 Food establishment (restaurant, bakery, café, coffee shop, bar)
 Entertainment (e.g., movie theatre, arcade)
 Library or post office
 Bank
 Laundry/dry cleaner
 Indoor fitness facility

Educational facilities:

- School (elementary, middle, high school)
 College, technical school, or university

Large buildings housing 1+ businesses/services:

- High-rise building (>5 stories)
 Big box store (e.g., Walmart, Office Depot, Best Buy)
 Mall
 Strip mall
 Large office building, warehouse, factory, or industrial building

Land use notes:

B. Is public transportation available?

	No	Yes, one side	Yes, both sides
1. Any transit stop (bus, train, or other)?	go to C1		
1a. Bench or covered shelter at transit stop?			

Transit stop notes:

C. What street characteristics are visible?

	No	Yes
1. Enter posted speed limit (99 if none):		
2. Enter special speed zone (99 if none):		
3. Enter total # of lanes on street:		
4. Marked lanes?		
5. Median or pedestrian island?		
6. Turn lane?		
7. Stop sign or light for crossing this segment?		go to C8
7a. Any stoplight(s) without a walk signal?		
8. Crosswalk for crossing this segment?		
9. Traffic calming device (roundabout, speed bump, brick road, other)?		
If yes, specify type(s):		
10. Cul-de-sac (dead-end street)?	go to D1	
10a. Sidewalk cut-through in cul-de-sac?		

Street characteristic notes:

D. What is the quality of the environment?

	No	Yes
1. Any commercial buildings adjacent to the sidewalk? Enter "99" if not applicable.		
2. Any pedestrian amenities?		
2a. Bench (excluding at transit stop)?		
2b. Drinking fountain?		
2c. Pedestrian-scale lighting?		
2d. Other, Specify: _____		
3. Public art (e.g., statues, sculptures)?		
4. Graffiti or broken/boarded windows?		
5. Litter or broken glass?		None or a little Some A lot
6. Tree shade on the walking area?		None or a little Some A lot
7. Steepest slope along walking area?		Flat/gentle Moderate Steep

Pedestrian environment notes:

E. Do you have a place to walk or bicycle?

	No	Yes, one side	Yes, both sides
SIDEWALKS			
1. Sidewalk present?	go to E10		
2. Any grassy or other buffer between curb and sidewalk <i>along most of the segment</i> ?	go to E3		
2a. Tree(s) in buffer?			
3. Sidewalk continuous within segment?			
4. Sidewalk continuous between segments at both ends?			
5. Width >3 ft for <i>most</i> of the sidewalk?			
6. Width <3 ft for <i>any part</i> of the sidewalk?			
7. Any missing curb cuts or ramps at intersections or driveways?			
8. Any major bumps, cracks, holes, or weeds in the sidewalk?			
9. Any permanent obstructions (trees, signs, tables) blocking the 3-ft walk area?			
10. If a sidewalk is not present on any part of the segment , do you have another safe place to walk, including:			
Street or shoulder (if safe)?			
Unpaved pathway?			
Other? Specify: _____			

Sidewalk notes:

SHOULDERS (OPTIONAL)

11. Designated bike route sign or marking or "Share the Road" sign?			
12. On-street, paved, and marked shoulder?	go to E16		
13. Width of marked shoulder \geq 4 ft?			
14. Shoulder continuous between segments at both ends?			
15. Any permanent obstructions in the shoulder (including drainage grates, parked cars)?			
16. If a paved, marked shoulder is not present on any part of the segment , do you have another safe place to bicycle, including:			
Street?			
Wide outside lane (~15 ft)?			
Other? Specify: _____			

Shoulder notes:

Stop time: _____