

Framing the Analysis

Provide safe and comfortable travel for all people using the roadway.

- Consider a wide range of abilities.
- Consider where people are going and why.
- Observe how people are traveling, how they use or avoid the facilities provided, and consider why people are making the choices they make.

Data to Collect Prior to Field Visit

- 5 years of crash data. Identify severity of crashes on the map. Summarize crash data, including crash type, day of the week, time of day, crash location (mid block or intersection), primary cause of crash.
- Transit data, including route schedules, headways and boarding and alighting data at spots. Map Transit stops, signal locations, mid-block crossings and types, sidewalk and bicycle facilities
- Signal timing data
- Traffic data including AADT, truck percentages, and K factor.
- Bicycle and pedestrian counts, if available. Identify by side of the road and daily and peak hour
- Roadway characteristics including context classification, access management classification, posted speed, and geometric characteristics.
 - Geometric characteristics – identify presence and location of
 - Number of through lanes/lane widths
 - Paved shoulder /width of paved shoulder
 - Curb
 - Raised median
 - Two way left turn lane
 - On-street parking
 - Sidewalk location and width
 - Bicycle facility type and width
 - Landscaping
 - Width of separation between sidewalk and back of curb
 - Pedestrian fencing
 - Presence of shoulder rumble strips
 - School zone
 - Street lighting
 - Marked pedestrian crossing spacing

Map location of traffic signals and midblock crossings (note distance between marked pedestrian crossings and distance from transit stops to marked pedestrian crossings).

- Vehicular travel speeds (85th percentile, 50th percentile, 10 mph pace)
- Identify specific populations that need to be accommodated in this area (elderly, school children, blind, wheelchairs, homeless, etc.)? Map schools, elderly housing, homeless shelters and services, shopping centers, gas stations, convenience stores, etc.

Field Review

- Include a drive-, walk-, and bike-through
- Evaluate at all times of day: AM peak, PM peak, mid-day and dark conditions
- Take photographs/video
- Take notes. Note level of pedestrian and bicycle activity
- Walk along all sidewalks. Attempt to access all bus stops.
- Walk and bike across all marked crosswalks using the pedestrian call (if provided)
- Collect vehicular speed data if not available ahead of time

Safety Prompts: Things to Notice as You Experience the Corridor

While walking:

- Sidewalks
 - *Sidewalk Gaps*: Are sidewalks provided on both sides of the street? Are there gaps in the sidewalk?
 - If there are gaps, where do people walk where there are no sidewalks? Is this place safe? Are there “cattle trails”?
 - *Sidewalk Width/Obstructions*: How wide is the sidewalk? Are there obstruction in the sidewalk? How often? Where? What are they? What does this mean for people in wheelchairs, pushing strollers, with devices to help them walk, or on a bicycle? Is there space between the sidewalk and the travel lane? Does it feel comfortable to walk on the sidewalk when cars or trucks go by?
 - *Sidewalk Maintenance*: Is the sidewalk well-maintained? Is it level/even? Are there cracks in the pavement? Is there landscaping growing onto the pavement? Are the drop off points adjacent to the pavement?
- Driveways
 - *Sidewalk Across Driveway*: Does the sidewalk continue across driveways? Does the walking area narrow? Is it level? How wide is the driveway? Is there a stop bar prior to the sidewalk?
 - *Sight Distance*: Does landscaping inhibit drivers from seeing people walking or biking at intersections or driveways?
- Minor Streets
 - *Stop Bar*: Is there a stop bar prior to the connection with the sidewalk?
 - *Pedestrian Crossing*: Is the pedestrian crossing marked? Does the pedestrian crossing connect to a sidewalk on both or either side? Are there ramps and are they ADA compliant?
 - *Drainage*: Is the drainage grate or manhole in the crosswalk? Is there standing water or sand/dirt/debris in the crosswalk or the curb ramp?
- Transit
 - *Bus Stop*: Is the bus stop ADA accessible? Is there level/paved access from the sidewalk to the bus stop? Are there amenities such as shelters/benches?
 - *Access to the Bus Stop*: How are people accessing the bus stop? Are they crossing midblock or at an intersection?

- If at an intersection, are they using the crosswalks or crossing just down from the intersection?
 - If midblock, are they coming directly from a specific destination?
- Vehicles
 - *Vehicle Speeds*: Are motorists traveling at or near the speed limit?
- Midblock
 - *Pedestrians Crossing not at a Formal Crossing*: Are people crossing midblock? How far away from a signalized intersection does this tend to occur? Are they accessing or coming from a particular destination? Does it seem to be concentrated at a specific time of the day? Are they able to cross the entire width of the roadway without waiting in a median, continuous turn lane or on the double yellow line?
 - *Pedestrians Crossing at a Formal Crossing*: At midblock crossings, are there signage enhancements for the crossing, such as RRFBs or flashing beacons?
- Pedestrian Behavior
 - *Why are they Walking*: What do you notice about the people walking or biking along the road? Are they shopping/running errands (are they carrying bags? Did you see them go in a store?) Are they getting on or off the bus? Are they walking for leisure or exercise (walking their dog, walking with others, pass you more than once)? Are they walking to school or to a school bus?
 - *How are Pedestrians Using the Infrastructure*: Are there people riding on scooters, bicycles, skateboards, or non-motorized vehicles? Where do they tend to ride? Can they pass people walking or biking comfortably?
- Signalized Intersections
 - How are pedestrians and bicyclists accommodated (accessible ped signal, keyhole, bike box, crosswalks, bike signal)?
 - *Crosswalks*: Are pedestrian or bicycle pavement markings adequate? Is paint on stop bars and crosswalks worn, or are signs worn, missing, or damaged? Are there marked crosswalks on all legs of a signalized intersection? Are high emphasis crosswalk markings used?
 - Are median islands provided for pedestrians?
 - *Curb Ramps*: Are the curb ramps aligned with the crosswalks?
 - *Crossing Infrastructure*: How safe and convenient is it to use the marked crosswalks? Can you get to the pedestrian call buttons at a signal without leaving sidewalk? Is the push button aligned with the crosswalk? Is at the proper height? How long is the average delay for people waiting to cross? Does the pedestrian have to cross in two stages or more? Are all movements protected (Is there a continuous right turn and if so is that movement under signal control?) Are marked crossings clearly marked? Can peds see cars and cars see peds?
 - *Vehicle Speeds*: Are drivers traveling at appropriate speeds? During through movements? Right turning vehicles? Left turning vehicles? Are there large turn radiuses at one or more corners?
 - *Vehicle Behaviors*: Are drivers looking for pedestrians? Do drivers yield to you when you have the right of way?

- *Bicycle Infrastructure:* Is there a keyhole? How long is it? Are there driveways that access across the keyhole? Is there a receiving bicycle lane for the keyhole?
- *Signal Timing:* Do people walking across the street cross during the designated walk signal phase or at various time in the signal phase? How long is the pedestrian walk phase? Is it long enough to accommodate the crossing distance for the average person walking? For the elderly, young, or those with limited range of motion? How long is the walk phase available (In seconds) to a person walking across the street compared to the total cycle length? Is there time when the green phase for the vehicles suggest that someone could cross the street but the pedestrian call box states 'don't walk'?

While biking:

- Bicycle Facility
 - Is there a bike facility or are you sharing the outside lane?
 - If there is a facility, how wide is it? Does it feel like the bike lane is wide enough? Measure the bike lane if it is comfortable and safe to do so.
 - Is the facility well marked? Is it clear of debris? Is it continuous? Does it drop off at or near intersections?
 - If you have to share the lane, do you take control of the lane or stay to the right? How do drivers respond? How does it feel?
- Bicyclist Behavior
 - Where do people biking tend to ride, on the sidewalk or in the bicycle facility? Are there conflicts between bicycles and pedestrians?
 - Are the people biking the road wearing helmets? At night, does it appear they have lights on their bikes? Do you see other unsafe or uncommon riding behavior, such as riding against traffic in the bike lane or riding in the continuous left turn lane?
- Intersections
 - How did you as a person biking navigate the intersection? Do you use the keyhole if present or use the crosswalks? Do you cross as a pedestrian or a cyclist?
 - If making a left hand turn, do you do it in two stages, or do you cross over the travel and use the left turn lane with the motorists? How did you see others navigate the intersection?
- Bicyclist Comfort
 - Note if you, or any participants, choose not to bike on the road because it is perceived to be unsafe.

At night:

- Lighting
 - Does the lighting adequately light the pedestrian paths and crossings? At signalized intersections? At unsignalized intersections? At driveways?
- Visibility
 - Are there shadows in the lighting from trees or other obstructions? Are the roadway signs clear and visible day and night?