Appendix F: Active Transportation Infrastructure

Examples for WIC Clinic Sites

The site and GIS analysis of the WIC Clinic sites showed that there are some deficits in the transportation infrastructure around the clinics, especially in terms of creating safe environments for pedestrians. Drawing from the work MORPC did in 2016 with the creation of the Active Transportation Plan, the Project Team referenced the Active Transportation Facility Glossary and chose a number of facility types that would be appropriate for different WIC Clinic sites. This document does not take into account any right of way acquisition or any partnering with the City of Columbus or any surrounding land owners to put any of these items in place. This document only suggests that any one or several of these facilities might be appropriate at these locations.

Bus Bulbs

Source: City of Columbus

Bus bulbs are curb extensions or concrete islands that align the bus stop with the parking lane, allowing buses to stop and board passengers without ever leaving the travel lane.

Bus bulbs help buses move faster and more reliably by decreasing the amount of time lost when merging in and out of traffic. Bus bulbs help reduce bus-bike conflicts at bus stops when a protected bike lane is provided behind the bus stop rather than a bike lane in the bus stop.

Bus Stops

Source: COTA

Bus stops are designated areas where buses stop for passengers to board or alight from a bus. They should be placed and designed within the policies and procedures of the local transit authority and, where possible, should have appropriate amenities based on the usage of that stop and the surrounding land use.

Crosswalks

Source: MORPC

According to the Ohio Revised Code (§4511.01) every intersection (even if unmarked) is a legal crosswalk -- unless signs specifically prohibit pedestrians from crossing. Safety can be improved at non-signalized crosswalks by striping the crosswalk and adding signs. If at all possible, crosswalks should be marked on the roadway and with signs instructing motorists to yield to pedestrians. On roads where intersections are far apart, mid-block non-signalized crosswalks can be marked on the roadway and with appropriate yield signs.

Curb Extensions

Source: MORPC

A curb extension is a narrowing of the roadway at a crosswalk in a way that makes a pedestrian crossing shorter and safer. On each side of the road, the curb line is designed to swoop out into the roadway or parking lane in a bulb-like configuration. What had been, for example, a four-lane road becomes a two-lane pedestrian crossing. The narrowing and the lane reductions induce motorists to slow down. Curb extensions are sometimes referred to as curb bulbs or nubs, sidewalk extensions, or bulb-outs. They are often used at locations with curbside parking and can be used in conjunction with transit stops. Curb extensions maximize the amount of on-street parking around bus stops while minimizing needed curb clearance.

Intersection Treatments

Source: Alta Planning

Designs for intersections with bicycle facilities should reduce conflict between bicyclists (and other vulnerable road users) and vehicles by heightening the level of visibility, denoting a clear right-of-way, and facilitating eye contact and awareness with different modes. Intersection treatments can resolve both queuing and merging maneuvers for bicyclists, and are often coordinated with timed or specialized signals.

The configuration of a safe intersection for bicyclists may include elements such as color, signage, medians, signal detection, and pavement markings. Intersection design should take into consideration existing and anticipated bicyclist, pedestrian and motorist movements. In all cases, the degree of mixing or separation between bicyclists and other modes is intended to reduce the risk of crashes and increase bicyclist comfort.

Median Refuge Island

Source: City of Gahanna

Median refuge islands are protected spaces placed in the center of the street to facilitate bicycle and pedestrian crossings. Crossings of two-way streets are eased by allowing bicyclists and pedestrians to navigate only one direction of traffic at a time.

Midblock Signalized Crossings

Source: City of Gahanna

A signalized mid-block crosswalk is a signal that is activated by pedestrians when they want to cross the street. This can include pedestrian hybrid beacons (or HAWK), rectangular rapid flashing beacons (or RRFBs), and other treatments. Both types of beacons involve a push button trigger of flashing lights to warn motorists of pedestrians.

Multi-Use Paths

Source: Genoa Township

A multi-use path (MUP) is a path physically separated from motor vehicle traffic by an open space or a barrier – either within the highway right-of-way or within an independent right-of-way. MUPs may be used by cyclists, pedestrians, skaters, wheelchair users, joggers, and other non-motorized users. MUPs are typically designed for two-way travel and are paved. Central Ohio Greenways trails are multi-use paths that generally follow greenways or waterways. MUPs do not have to follow a greenway or waterway, and may be adjacent to a roadway.

Protected Intersections

Source: NACTO

A protected intersection is an intersection with corner refuge islands, stop bars for cyclists set ahead of those for motorists, bicycle-friendly signal phasing, and bike lane setbacks that give turning motorists a clear view of crossing cyclists. The combination of these elements creates an intersection where cyclists and pedestrians are more readily seen by motorists and the non-motorized travelers have shorter distances to travel to cross the street.

Sidewalk Buffers/Street Trees

Source: MORPC

Sidewalk buffers are strips of grass or other greenery to provide distance between moving traffic and the sidewalk. Buffers can include street trees, which also add shade for the pedestrians. Sidewalks are safer and more comfortable to use when they have a buffer between them and traffic.

Sidewalks

Source: MORPC

A sidewalk is a paved pedestrian path that is parallel and adjacent to the roadway. Sidewalk widths may vary, but typically are five feet, which allows two people – including wheelchair users – to pass comfortably or to walk side-by-side. They are measured in terms of “clear width” (the width that can be traveled freely, without obstacles). The clear width of a sidewalk does not include the area in which sign posts, street furniture, and other permanent or semi-permanent items are placed.

Signage

Source: MORPC

Signs may be used to indicate the presence a bicycle, pedestrian, or transit facility or to designate certain areas for those uses. Signage can include way-finding and route signage, regulatory signage, and warning signage. Some specific signage exists to provide motorized traffic with information and instruction.

Signalized Crosswalks

Source: MORPC

A signalized crosswalk has the same legal definition as any other crosswalk, except that it has signals to regulate the flow of vehicular and pedestrian traffic. It will have red/green traffic signals at all approaches, and may or may not have walk/don't walk signals or countdowns for pedestrians at crosswalks.