

RESEARCH QUESTION

This project involves using the TriMet Bus Dispatch System (BDS) data for Route 19 and information about bus stop amenities to evaluate accessibility to stops and ease of use by riders in need of ADA-compliant facilities. Given the limited resources available to augment bus stops, which stop locations along Route 19 should be given priority for amenity and construction upgrades?

BACKGROUND

Public transportation systems must be accessible to many types of users with varying physical abilities. While most transit passengers may be able to traverse less-than-ideal surfaces to access a transit stop, those with physical impairments can find it challenging unless a paved sidewalk of adequate width is provided. Concrete landing pads provide a stable surface for wheelchair-bound passengers to wait for and board a transit bus. Although these types of transit stop accessibility measures are legally required for handicapped persons, they make it easier for all users to reach the stop. Modern bus stop designs focus on “universal design”, rather than on specific specifications from the Americans with Disabilities Act (ADA), which are considered to be minimum standards. Universal design recognizes the variety of bus stop users and their abilities and gears designs towards the ease of use by all users, and ultimately provides a higher level of access to those users targeted by ADA designs. While the ADA sets forth specific design standards for cross slopes, approach paths, landing pad dimensions, and other design parameters, this project focuses on the basic provision of ADA-related amenities for bus stop accessibility.

In evaluating the TriMet data for bus stop accessibility, you may want to consider the following:

- Using the warrants of lift usage, daily passenger boardings, and daily passenger alightings given in TriMet’s Bus Stops Guidelines, identify bus stop locations along Route 19 which are deficient for front (ADA) landing pads (see the ADA and ABA Accessibility Guidelines for Buildings and Facilities, §209.2.3), rear landing pads, and shelters.
- How are alightings, boardings, and lift deployments distributed throughout the day?
- Are there locations with frequent lift deployment or high boarding activity which do not have either a landing pad and/or a sidewalk? (In some locations, sidewalks adjacent to the curb may serve as landing pads.)
- Are there locations with high alighting counts that do not have a rear landing pad to accompany the front ADA landing pad?
- Which locations should be considered for seating upgrades or shelters?
- How would you prioritize the bus stop locations in need of ADA-compliant amenities?

REFERENCES