Complete Streets Ames

COMPLETE STREETS PLAN

Executive Summary

City of Ames

Adopted October 2018

TOOLE DESIGN

Contents

Complete Streets Ames

Disclaimer: Information contained in this document is for planning purposes and should not be used for final design of any project. All results, recommendations, concept drawings, and commentary contained herein are based on limited data and information, and on existing conditions that are subject to change. Further analysis and engineering design are necessary prior to implementing the recommendations contained herein.

Executive Summary

Complete Streets Ames

Introduction

Ames has a well-established transportation system, made up of interconnected networks of streets, shared use paths, freeways, and railroads. This system accommodates—to varying degrees—people walking, biking, driving, and using transit for a variety of reasons. Whether commuting to work, running errands, or meeting friends at a sidewalk cafe, the transportation system is critical to most functions of life in Ames. In short, the transportation system moves people and fosters commerce while also enabling civic engagement and enhancing quality of life.

Over time, a complex system of travel patterns has emerged to connect people to destinations and to each other using these networks. These patterns continually evolve based on changes in seasons, whether school is in session, shifts in technology and preferences, changes in the economy, the opening of new businesses and employers, and development of new neighborhoods.

Until recently, the approach to addressing these complex and evolving travel patterns in Ames and most cities across the country has been to plan and design the transportation system first and foremost for motor vehicle travel. However, many cities (including Ames) have recently seen the strong need and public desire to balance transportation priorities so that convenience, safety, and access are improved for people walking, biking, and using transit. These needs are based on growing awareness of the role transportation plays in public health, quality of life, environmental, fiscal, and equity considerations.

Paradigm Shift in Planning and Design

The conventional approach to street design is based primarily on a roadway's functional classification (arterial, collector, local, etc.), which is a surrogate for motor vehicle traffic volume and speed. Higher classifications (e.g., arterial streets) tend to carry higher volumes of traffic at higher speeds, whereas lower classifications (e.g., local streets) tend to carry lower volumes of traffic at lower speeds. There are several limitations to this approach:

- **The conventional approach is not context sensitive** – The conventional approach lacks a consistent method for adjusting street designs to the surrounding context. South Duff Avenue and Lincoln Way at Campustown are both classified as arterial streets but exist in vastly different contexts and should thus be designed differently. Under the current approach, it can be challenging to design major streets that support walkable, vibrant places.
- **The conventional approach couples traffic volume with design speed** – The conventional approach assumes a constant relationship between the amount of car traffic and the function of the street. However, two streets can carry the same amount of traffic but serve different functions. An arterial street through downtown might emphasize access and lower speeds, while a suburban arterial might emphasize throughput (the quick and efficient movement of people) at somewhat higher speeds.
- **The conventional approach is not compatible with Ames' future** – As Ames continues to grow, it is important that streets are designed to be compatible with new development types, such as walkable mixed use, that are promoted by the Comprehensive Plan and other plans for corridors and districts across the city. The current street design approach is less conducive to designing streets that respond to and support such development patterns.

The New Complete Streets Approach

Moving forward, the City of Ames has adopted a context-sensitive Complete Streets approach to planning and designing the street network to be safer, more comfortable, and more useful for all modes. In the past, the City of Ames has informally incorporated aspects of the Complete Streets approach into transportation planning and design. This has included consistently providing sidewalks along streets and, more recently, including bike lanes when resurfacing or restriping streets.

This Complete Streets Plan and Policy formalizes the City's approach to Complete Streets; shifts priorities so that biking, walking, and transit use are safer and more attractive choices; guides street design decisions; and increases consistency in transportation design.

What are Complete Streets?

First and foremost, Complete Streets is a **process** that entails planning and designing streets that support the surrounding context—e.g., the destinations and character of development along the corridor—and adequately serve all anticipated users and uses. Complete Streets is not a prescribed one-size-fits-all solution. In fact, a variety of designs and treatments can and should be employed to serve all users and uses in a variety of land use and traffic contexts.

Complete streets typically have space for people driving, bicycling, and walking. Complete Streets in urban settings (left) look different than Complete Streets in suburban and rural settings (right).

There is no specific type of infrastructure—e.g., bike lanes, transit shelters, or street furnishings—that is prerequisite for Complete Streets. For example, many streets without bike lanes can be considered Complete Streets if they have low motor vehicle speeds and low traffic volumes. Similarly, neither streetscape nor aesthetic enhancements are required for Complete Streets, although they may add greatly to the character and experience of a street. On the other hand, the presence of neither bike lanes nor streetscaping automatically qualify a street as a Complete Street.

Context is important in Complete Streets design. Although an attempt at improving conditions for walking and biking have been made in example streets on the left (from another city), it is probable the street cannot be considered complete. Traffic volumes and speeds are too high for the unprotected bike lane to serve most people bicycling.

Complete Streets Policy

The Complete Streets Policy provides guiding principles, defines authority and applicability, identifies areas of flexibility, and commits the City of Ames to designing streets that serve all anticipated users and uses of a street.

Purpose & Vision

The City of Ames will design, build, maintain, reconstruct, and resurface public streets in order to provide for the safety and comfort of all users of a corridor. This includes pedestrians, bicyclists, users of mass transit, people with disabilities, motorists, freight providers, emergency responders, and adjacent land users; regardless of age, ability, income, or ethnicity.

The values promoted by the City of Ames Complete Streets Policy include safety, connectivity, access, fiscal responsibility, and quality of life. Complete Streets enhance the environment, economy, sense of place, preservation of historic resources, and aesthetics of the community, making Ames a healthier, more sustainable, and equitable place to live.

Complete Streets are not one-size-fits-all. They are designed through a flexible process that considers the surrounding character of the built environment, the street's role within the transportation network, and input from people that use the transportation system. The Complete Streets approach demands careful evaluation of the needs of all users for all transportation corridors and integration with actions and strategies for achieving the planned land use density, character, and development pattern for the city.

Complete Streets Principles

Complete Streets are based on four principles, which guide the City of Ames' planning, design, and budgeting for transportation projects.

- Complete Streets **serve all users and modes**, including pedestrians, bicyclists, users of mass transit, people with disabilities, motorists, freight providers, emergency responders, and adjacent land users; regardless of age, ability, income, or ethnicity.
- Complete Streets **emphasize safety for all users**, and do not trade the safety of one mode for the convenience of another.
- Complete Streets form **connected multimodal networks** that provide safe, convenient access to neighborhoods and destinations for all modes. This policy recognizes that all modes do not receive the same type of accommodation or amount of space on every street, but that the street network should allow everyone to safely and conveniently travel across the community.
- Complete Streets are **context-sensitive**, and are designed to support the current and future local land use and development context while considering impacts to surrounding streets and neighborhoods. Similarly, land use and development plans should support Complete Streets and interconnected multimodal networks.

Jurisdiction

The Complete Streets Policy applies to all transportation infrastructure projects carried out within the City of Ames, whether by the City of Ames, Story County, Boone County, CyRide, or Iowa DOT. Iowa State University is also encouraged to follow this policy, although the City of Ames does not have jurisdiction over Iowa State University Institutional Roads. This policy is meant to guide the decisions of the City of Ames and its partners.

Applicability

The Complete Streets Policy applies to:

- All streets, existing and future; and
- All transportation infrastructure projects, regardless of funding source, including these five phases of a project:
  - Project identification;
  - Scoping procedures and design approvals, including design manuals and performance measures;
  - Construction/reconstruction;
  - Repaving and rehabilitation; and
  - Operations and maintenance, including restriping and signal design.

The Complete Streets Policy does not apply to:

- Iowa State University Institutional Roads;
- Streets ultimately to be privately owned and maintained;
- Streets where specified users are prohibited by law;
- Emergency street reconstruction; or
- Maintenance activities such as mowing, cleaning, sweeping, crack sealing, and spot repair.

Exceptions to the application of this Complete Streets Policy include instances where the City identifies issues of safety that cannot be mitigated or absence of need. The Public Works Director shall document and explicitly explain why a transportation project is exempt from this policy.

Flexibility

This Complete Streets Policy allows flexibility to accommodate different types of streets and users, and to promote Complete Streets design solutions that fit within the context(s) of the community.

In some cases, the most appropriate design solutions may not be feasible due to right-of-way or budgetary constraints. In such cases, alternative design solutions will be considered. The Public Works Director shall document and explicitly explain how the alternative solutions adequately accommodate all anticipated users of the street.

Cost

Complete Streets are not necessarily more expensive—they often cost the same as or marginally more than a conventional street. However, there are occasionally projects in which the additional cost for adding bicycle, pedestrian, or transit accommodations is significant.

In order to minimize impacts on the City's budget, the Complete Streets Policy establishes the following annual program-level cost threshold for Complete Streets projects: the cumulative cost increase of incorporating bicycle, pedestrian, and transit accommodations as part of Complete Streets projects may not exceed 22 percent of the City of Ames' annual transportation capital improvement budget.

Existing Policies and Regulations

City staff will review existing policies, plans, and regulations when planning and designing streets, including:

- Land Use Policy Plan
- Ames Mobility 2040 Long Range Transportation Plan
- Small area and neighborhood plans
- Corridor plans
- Development/redevelopment plans

- Traffic studies
- Iowa State University master plans
- CyRide transit plans and studies
- Subdivision code
- Manuals of practice
- Impact assessments
- Departmental policies and procedures
- Any other applicable transportation, land use, or development plans
- Any other applicable procedures and standards

Latest Standards

In furthering Complete Streets principles, City staff will make use of the latest and best design standards, policies, and guidelines, including the latest edition of the Complete Streets Plan and the following:

- General Street Design
    - Designing Walkable Urban Thoroughfares: A Context Sensitive Approach: An ITE Recommended Practice (Institute of Transportation Engineers)
    - Urban Street Design Guide (National Association of City Transportation Officials; NACTO)
    - SUDAS Design Manual (Iowa Statewide Urban Design and Specifications)
    - A Policy on Geometric Design of Highways and Streets (American Association of State Highway and Transportation Officials; AASHTO)
    - Manual on Uniform Traffic Control Devices (Federal Highway Administration)
- Bicycle and Pedestrian Design
    - Guide for the Development of Bicycle Facilities (AASHTO)
    - Urban Bikeway Design Guide (NACTO)
    - Guide for the Planning, Design, and Operation of Pedestrian Facilities (AASHTO)
    - Public Rights-of-Way Accessibility Guidelines (United States Access Board)
    - SUDAS Design Manual

Performance Measures

The City of Ames will measure the effectiveness of the Complete Streets Policy and associated implementation steps using various performance measures that align with related transportation planning efforts, particularly the Ames Area MPO Long Range Transportation Plan. Performance measures should relate to the transportation objectives of connectivity, safety, access, efficiency, reliability, facilitation of economic exchange, and asset management.

Recommended performance measures can be found in Chapter 4.

Implementation

Implementation of this policy will be carried out cooperatively among all departments in the City of Ames with multi-jurisdictional cooperation, and to the greatest extent possible, among private developers and state, regional, and federal agencies.

The City will take specific steps to implement this policy, including:

1. Implement the Complete Streets Plan, which includes a process, procedures, classifications, and design guidance for Complete Streets.

2. Establish or designate a Complete Streets Advisory Committee or Subcommittee. City staff will be assigned to the committee and will report the committee's input to Council regularly. The Complete Streets Advisory Committee will:
    a. Meet at least annually and up to quarterly;
    b. Review individual street projects pre- and post-construction (including projects excepted from this policy along with justifying documentation) for conformance with the Complete Streets Plan and other City plans and objectives;
    c. Assist in completing the annual Complete Streets Program Review, including setting program performance goals;
    d. Suggest program/policy revisions; and
    e. Recommend projects for the next funding cycle.
3. Prepare an Annual Complete Streets Program Review to document compliance with the policy. The review will compile evaluation metrics for individual transportation projects as well as overall program assessment.
4. Update the Supplemental Specifications to the Iowa Statewide Urban Design and Specifications to reflect the current state of best practices in bicycle and pedestrian design.
5. Restructure or revise related procedures, plans, regulations, and other processes to conform to and support the Complete Streets Policy and guidance contained within the Complete Streets Plan.
6. Offer opportunities for City staff, community leaders, and the general public to participate in workshops and other training opportunities to increase understanding of the Complete Streets vision, process, and design approach.

How to Use the Complete Streets Plan

The Complete Streets Policy contained earlier in this chapter serves as the mandate for a new approach to street design and provides a framework by which to evaluate the success of implementation by the City of Ames. Also included in this chapter are discussions regarding the relationship between this Plan, previous City plans, and state and national standards and design guides. The remainder of this Plan includes tools designed to facilitate the implementation of Complete Streets in order to meet the policy's goals and objectives. The Plan is structured around the major steps in the Complete Streets design process:

Select a street type – Chapter 2 outlines the approach for selecting a street type based on context and transportation function. It also describes each street type in terms of character and typical configuration.

Determine design criteria – Chapter 3 includes parameters for various roadway and right-of-way design criteria (e.g., maximum lane width and minimum sidewalk width) as well as guidance on selecting criteria and prioritizing elements when tradeoffs must be made.

Incorporate these steps into the project development process – Chapter 4 provides an overview of the City of Ames' project development process and guidance on how to implement the Complete Streets Plan in individual projects.

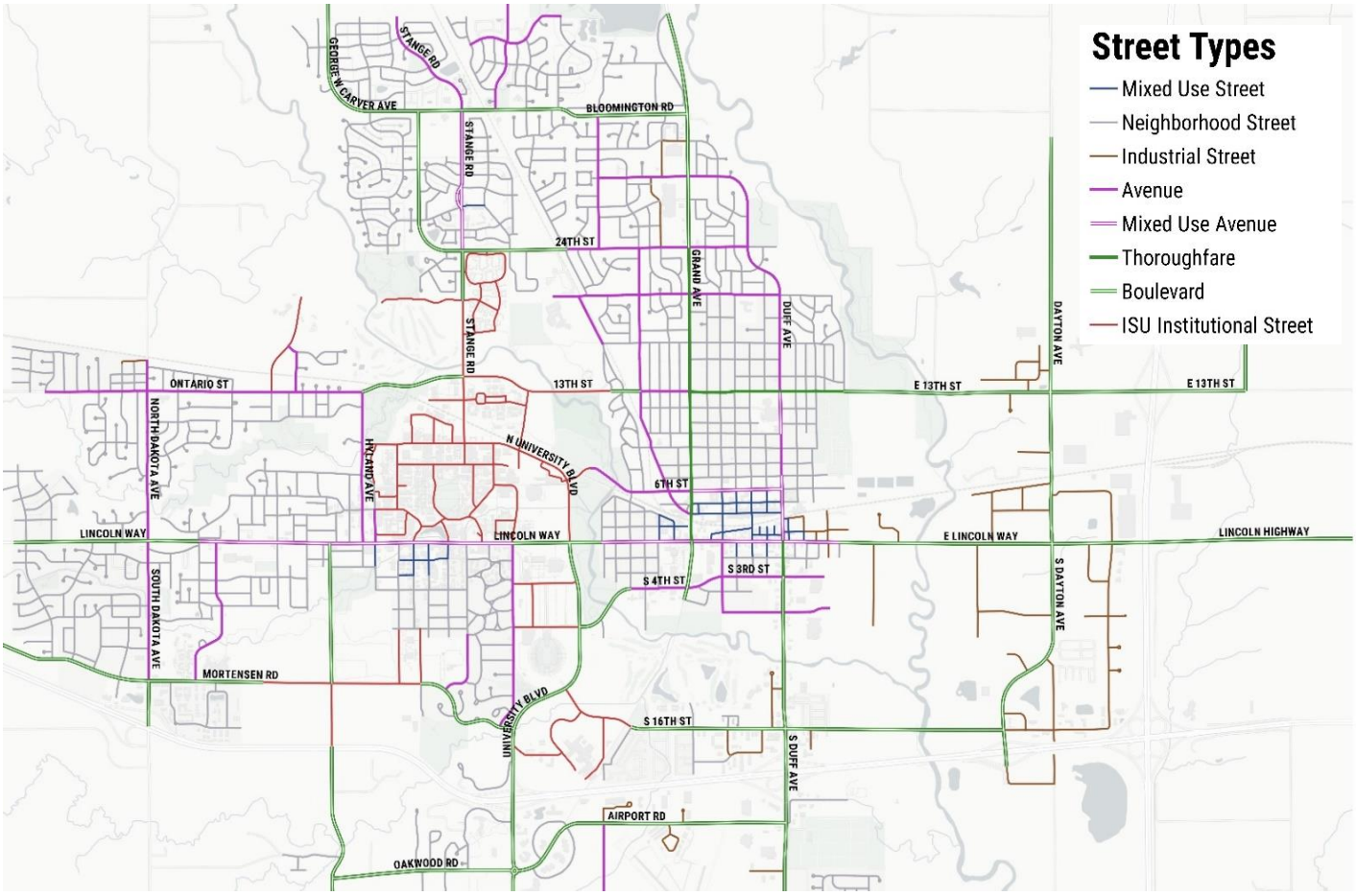
Street Types

Once the place type and transportation function of a street corridor are determined, a street type can be selected. Street types are unique to the conditions and contexts of Ames and provide a starting point for street designs that implement the objectives of the Long Range Plan, Comprehensive Plan, individual area or corridor plans, and urban design goals. The street types ensure that all modes of travel are safely accommodated, while some prioritize different modes. For example, Mixed Use Streets prioritize walking while Thoroughfares prioritize transit and driving.

Because land use contexts (and therefore place types) can change throughout the length of a corridor, multiple street types may be applied to different segments of a single roadway project. For example, a corridor may be categorized primarily as an Avenue, however a commercial node along it may result in a segment being classified as a Mixed Use Avenue. Street design elements will change accordingly, reflecting the designated street type and its economic and mobility objectives.

Conceptual Street Type Application

The map below was developed to illustrate how street types could be applied to existing public streets (excluding ISU's institutional streets). Street types were assigned to streets based on existing and planned development patterns, current traffic speeds and volumes, and estimated bicycle and pedestrian demand. This map is illustrative and not a regulatory document.



Overview of Street Types

There are eight street types used as starting points for street design projects as well as a companion supporting infrastructure type (Greenway). Each street type is flexible and provides guidance for the overall design of a street. The Greenway street type is included because—although it is not a type of street—greenways are important elements of Ames' multimodal transportation system.

Table 1: Street Type Overview

	Street Type	Description	Relevant Place Types
Access Emphasis	**Shared Street**	A street or alley with no curbs or separate areas for various types of transportation. Emphasizes nonmotorized movement and pedestrians have priority.	Activity Center, Urban Mix, Residential
	Mixed Use Street	A street with high amounts of a diverse mix of retail, housing, office and/or education, with people using several types of transportation to circulate.	Activity Center, Urban Mix
	Neighborhood Street (including Bicycle Boulevard variant)	A low traffic street with housing and separated walkways, sometimes with on-street parking. A variation called "Bicycle Boulevard" is available, which optimizes the street for bicycle traffic through traffic calming and diversion; also includes pedestrian enhancements	Urban Mix, Residential
	Industrial Street	A low-traffic street, often with a high percentage of truck traffic, accessing centers of manufacturing and large-scale retail.	Industrial, Large Scale Commercial
Balance of Access and Throughput	**Mixed Use Avenue**	A street with high amounts of a diverse mix of retail, housing, office and/or education, with people using several types of transportation to circulate, but with increased transit and motor vehicle demand compared to that of a Mixed Use Street	Activity Center, Urban Mix
	Avenue	A street with a moderate amount of traffic, wider than a Neighborhood Street. These may include on-street parking and bike lanes.	Residential, Large Scale Commercial
Throughput Emphasis	**Thoroughfare**	A street with moderate to high amounts of traffic, used most often used for longer distance travel and automobile oriented uses.	Residential, Large Scale Commercial
	Boulevard	A street with moderate to high amounts of traffic, with a landscaped median used to separate lanes of traffic and provide refuge for crossing pedestrian and bicycle traffic.	Residential, Large Scale Commercial, Industrial
Supporting Infrastructure	Greenway	A shared use path in an independent alignment, exclusively for the use of bicyclists and pedestrians. Greenways provide connections that supplement the street network.	All

Streets that Emphasize Access

Access-oriented streets emphasize peoples' ability to reach destinations and individual properties along a street by any mode. Access-oriented streets are typically lower-speed with higher levels of foot traffic.

Shared Street

A street or alley with no curbs or separate areas for various types of transportation. Emphasizes nonmotorized access; pedestrians have priority.

A Shared Street has a continuous surface that is shared by people using all modes of travel at slow speeds. Curbs are removed, and the sidewalk is blended with the roadway. Speeds are slow enough to allow for pedestrians to intermingle with bicycles, motor vehicles, and transit. Shared Streets can support a variety of land uses, including commercial and retail activity, entertainment venues, restaurants, offices, and residences. They are unique spaces where people can slow down to enjoy the public realm.

When designing Shared Streets, special consideration must be given to accommodating pedestrians with disabilities. To facilitate navigation for people with visual impairments, materials can vary and street furnishings such as bollards, planters, street lights, and benches can be strategically placed to define edges. These streets are often surfaced with pavers or other types of decorative surface treatments.

Overall, the primary design consideration for Shared Streets is maintaining slow motor vehicle speeds (no more than 15 mph) in order to minimize the potential for conflicts with pedestrians. Entrances to Shared Streets are often raised and narrowed to one lane to force drivers to slow before entering. Chicanes can be used to help regulate vehicular speeds along the length of the street, and can be formed using trees, benches, plantings, play areas, and parking areas that are laid out in an alternating pattern to deflect and slow traffic.

Mixed Use Street

A street with a diverse mix of retail, housing, office and/or educational uses, with people using several types of transportation to circulate.

Mixed Use Streets are typically found in areas with a high density of small commercial and retail businesses and have an emphasis on walkability. Mixed Use Streets are often concentrated in an area only a few blocks long, such as downtown. The curbside uses on Mixed Use Streets prioritize walking, bicycling, transit, and short-term parking for local shops and restaurants.

Because these streets are a meeting ground for residents, they should be designed to support gathering and community events such as farmers' markets and festivals. In addition, they are characterized by public facilities such as libraries, as well as community and health centers.

Mixed Use Streets have many similarities to Mixed Use Avenues. However, Mixed Use Streets have lower target speeds, somewhat higher volumes of people biking and walking, lower volumes of motor vehicle traffic, and more storefronts. Mixed Use Streets also more often have unique aesthetic branding and design elements that reflect the area's cultural or historic past.

Neighborhood Street

A low traffic street with housing and separated walkways, sometimes with on-street parking. A variation called "Bicycle Boulevard" is available, which optimizes the street for bicycle traffic through traffic calming and diversion; also includes pedestrian enhancements

Neighborhood Streets provide immediate access to Ames' multifamily and single-family homes. They are used primarily for local trips and are characterized by lower motor vehicle traffic volumes and speeds. The emphasis is on pedestrian safety, space for children to play, ample street trees, and well-defined walking and bicycling connections to nearby parks, bus stops, transit stations, community centers, and libraries. The primary role of Neighborhood Streets is to contribute to a high quality of life for residents of the city.

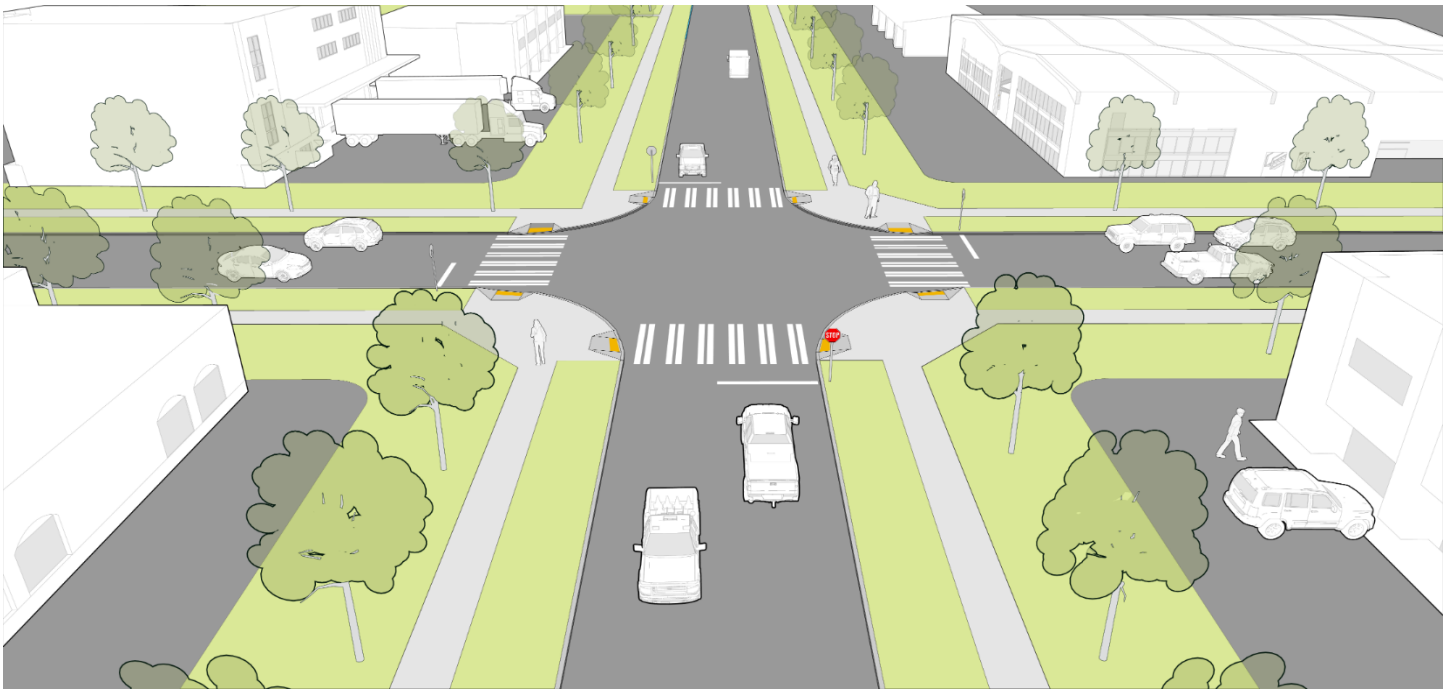
The design of Neighborhood Streets focuses on encouraging slow speeds. Typically, they do not have more than two travel lanes (one in each direction). They often have on-street parking and some existing Neighborhood Streets in Ames are so narrow that two-way traffic is limited when cars are parked on the street. This effectively slows and calms traffic in these neighborhoods.

Bicycle Boulevard Variant

While not intended for motor vehicle through-traffic, making longer connections for people biking via Neighborhood Streets is encouraged. A Bicycle Boulevard is a variant of the Neighborhood Street type intended to achieve this outcome. This variant can be implemented to enhance bike routes on low-speed, low-traffic streets—sometimes to provide parallel alternatives to providing bikeways on nearby high-traffic streets. Bicycle Boulevards are designated and designed to give bicycle travel priority and discourage through trips by motor vehicles and create safe, convenient bicycle crossings of busy arterial streets. Treatments vary depending on context, but often include traffic diverters, speed attenuators such as speed humps or chicanes, pavement markings, and signs.

Industrial Street

A low-traffic street, often with a high percentage of truck traffic, accessing centers of manufacturing and large-scale retail.



Industrial Streets support the manufacturing, research, and scientific facilities that form Ames' industrial base. These streets support truck traffic and accommodate the loading and distribution needs of wholesale, construction, commercial, service, and food-processing businesses. They typically connect directly to the regional highway system and distribution hubs. Industrial streets also serve large-scale and auto-oriented commercial areas, providing access for people driving personal vehicles and for deliveries via large trucks.

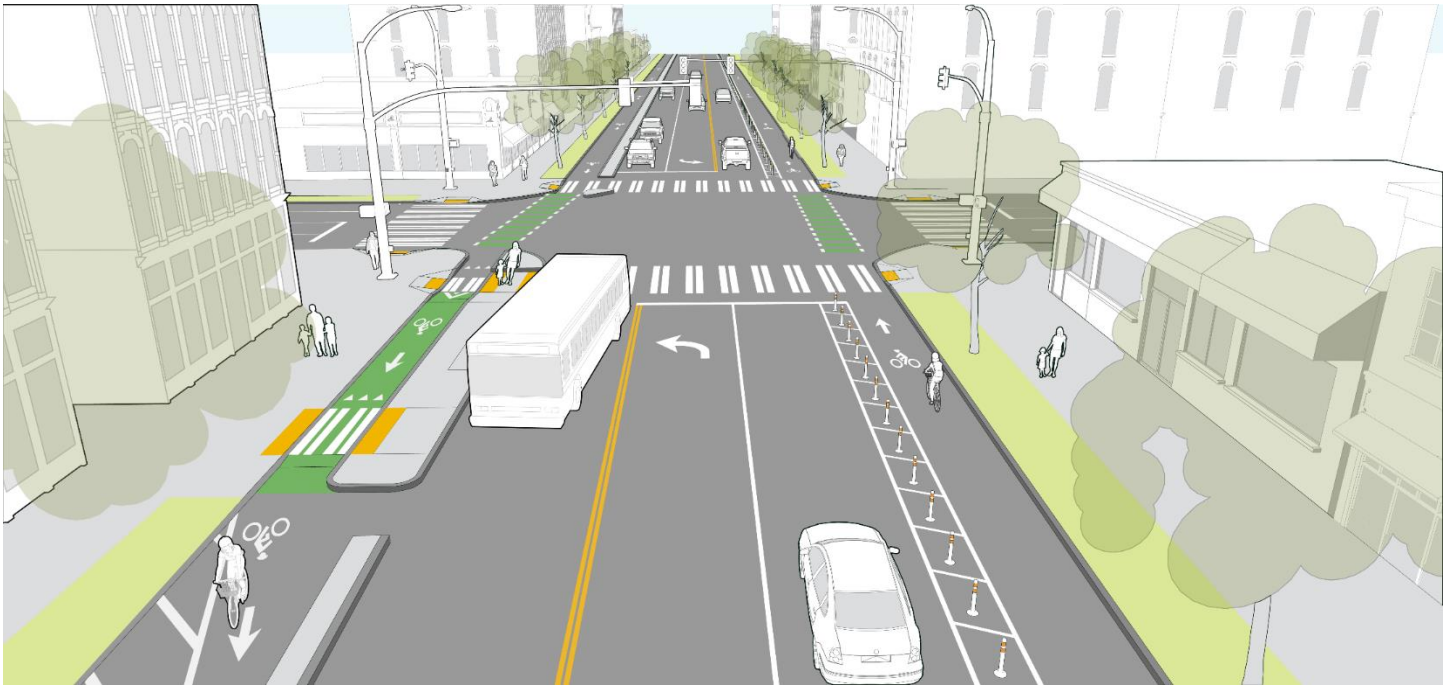
Accommodation of truck traffic, including providing adequate turning radii at intersections, is a primary design consideration for these streets. While pedestrian use may be relatively low, sidewalks and accessible accommodations are provided. When designing Industrial Streets as part of the interconnected street network, consideration should be given to designs that discourage truck traffic from using residential streets in the surrounding neighborhoods.

Streets that Balance Access and Throughput

Streets that balance access and throughput accommodate a reasonable level of motor vehicle throughput while maintaining a high level of comfort and convenience for people using transit, walking, and biking.

Mixed Use Avenue

A street with a diverse mix of retail, housing, office and/or educational uses, with people using several types of transportation, but with increased transit and motor vehicle demand compared to that of a Mixed Use Street.



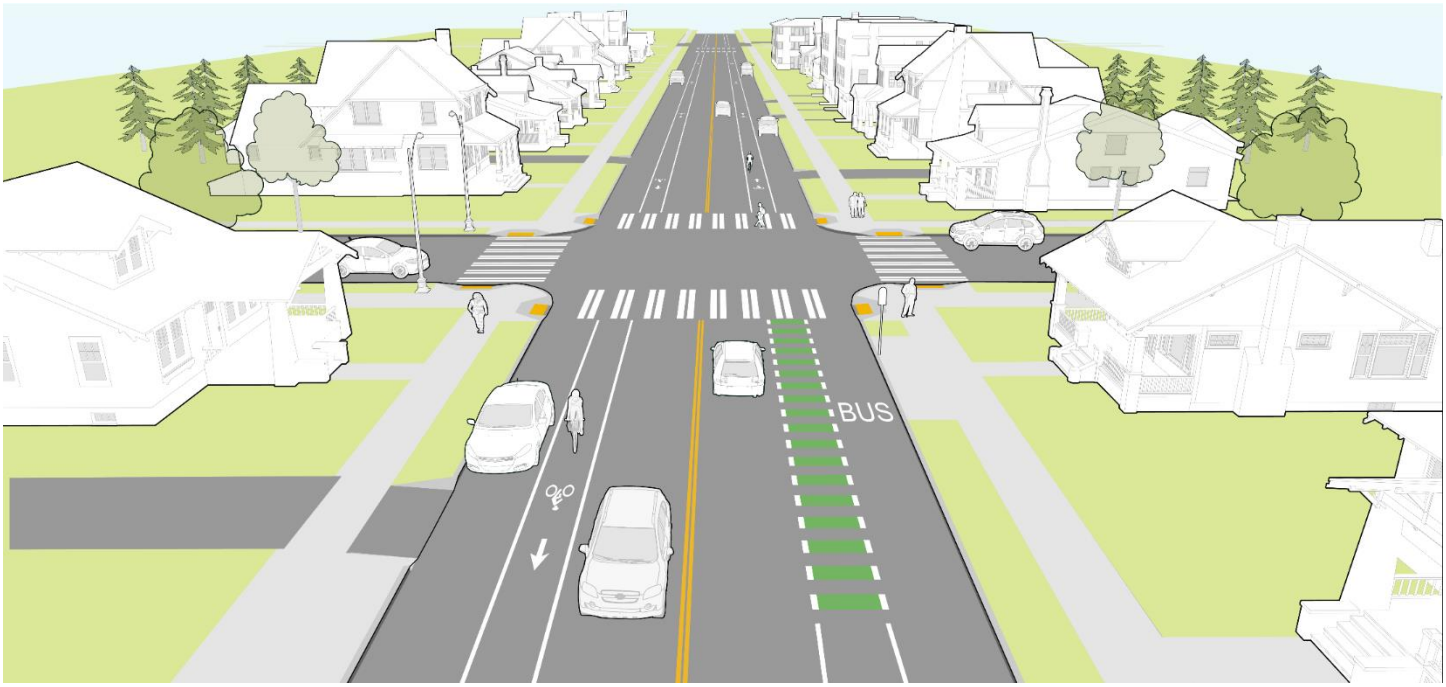
Mixed Use Avenues serve a diverse variety of land uses and high development densities. Appropriate in downtown, Campustown, and other existing and future higher-density urban areas, these streets support a lively mix of retail, residential, office, and entertainment uses. These streets serve residents, visitors, and workers by supporting high levels of walking, bicycling, and transit.

On Mixed Use Avenues, a lively and visually stimulating public realm should be supported by landscaping, street furniture (i.e., benches, information kiosks, trash and recycling receptacles, etc.), outdoor cafés, plazas, and public art. In short, these streets are where people work, play, shop, eat, and gather to enjoy city life.

Mixed Use Avenues have many similarities to Mixed Use Streets. However, Mixed Use Avenues have slightly higher target speeds, higher motor vehicle traffic volumes, and—most importantly—place greater emphasis on facilitating throughput while also supporting access. These streets typically serve transit and people bicycling, and therefore often include bus stops or shelters and higher-level bikeways (such as separated bike lanes). On-street parking is an optional addition to this type of street if space is available after transit, bicycling, and motor vehicle throughput needs are met.

Avenue

A street with a moderate amount of traffic, wider than a Neighborhood Street. These may include on-street parking and bike lanes.



Avenues are streets that balance access and throughput and often traverse large-scale commercial areas and neighborhoods. They provide continuous walking and bicycling routes and often include bus routes. While they are essential to the flow of people across the city, the needs of people passing through must be balanced with the needs of those who live and work along the street.

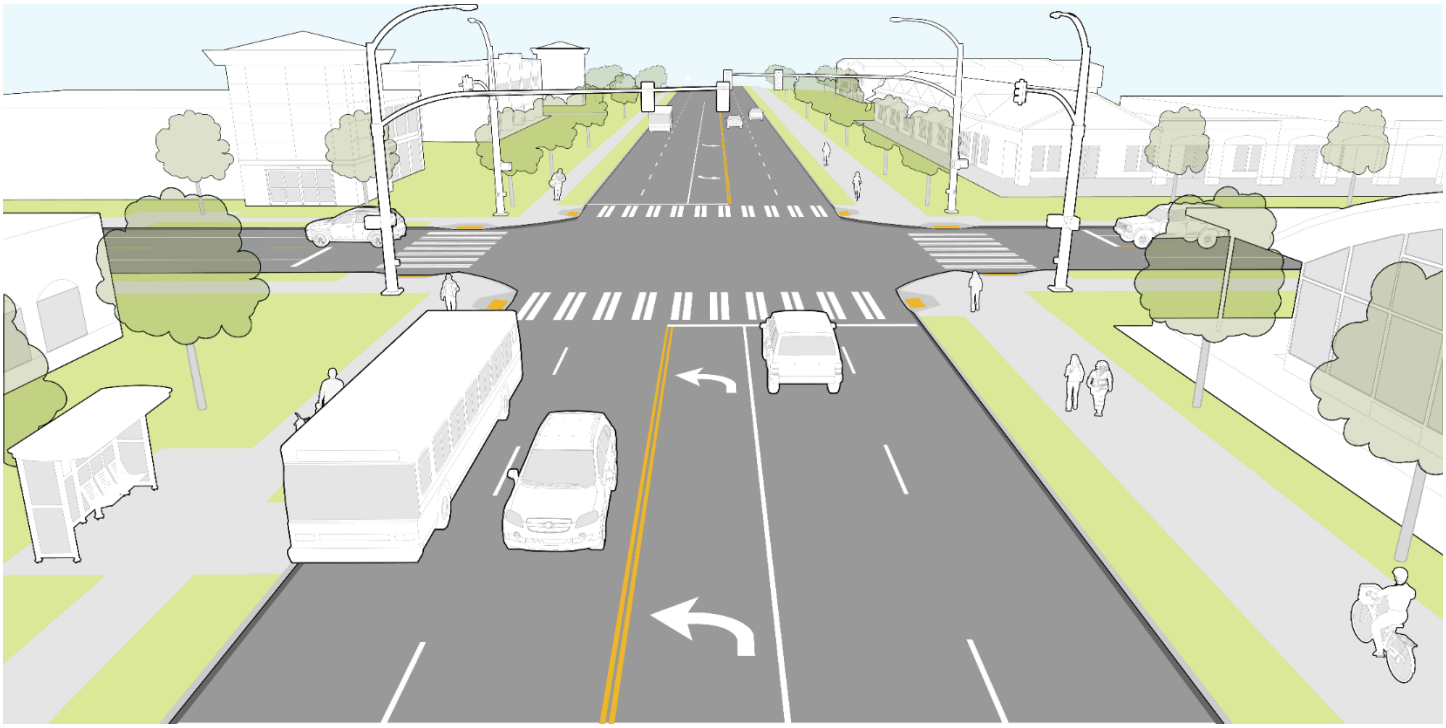
Land uses, right-of-way widths, and the presence of on-street parking can vary along Avenues. Design considerations include encouraging efficient movements of vehicle and transit traffic, continuous and comfortable bicycle facilities, wide sidewalks with sufficient buffers to motor vehicle traffic, and safe pedestrian crossings at intersections. Street lighting, tree plantings, street furniture, and other urban design elements should create a unifying identity for the entire street.

Streets that Emphasize Throughput

Throughput-oriented streets emphasize the efficient movement of people across greater distances, often at higher speeds. Safely maximizing throughput typically requires physically separating modes and limiting the number of intersections and driveways.

Thoroughfare

A street with moderate to high amounts of traffic, most often used for longer distance travel and automobile-oriented uses. Thoroughfares are often state highways.



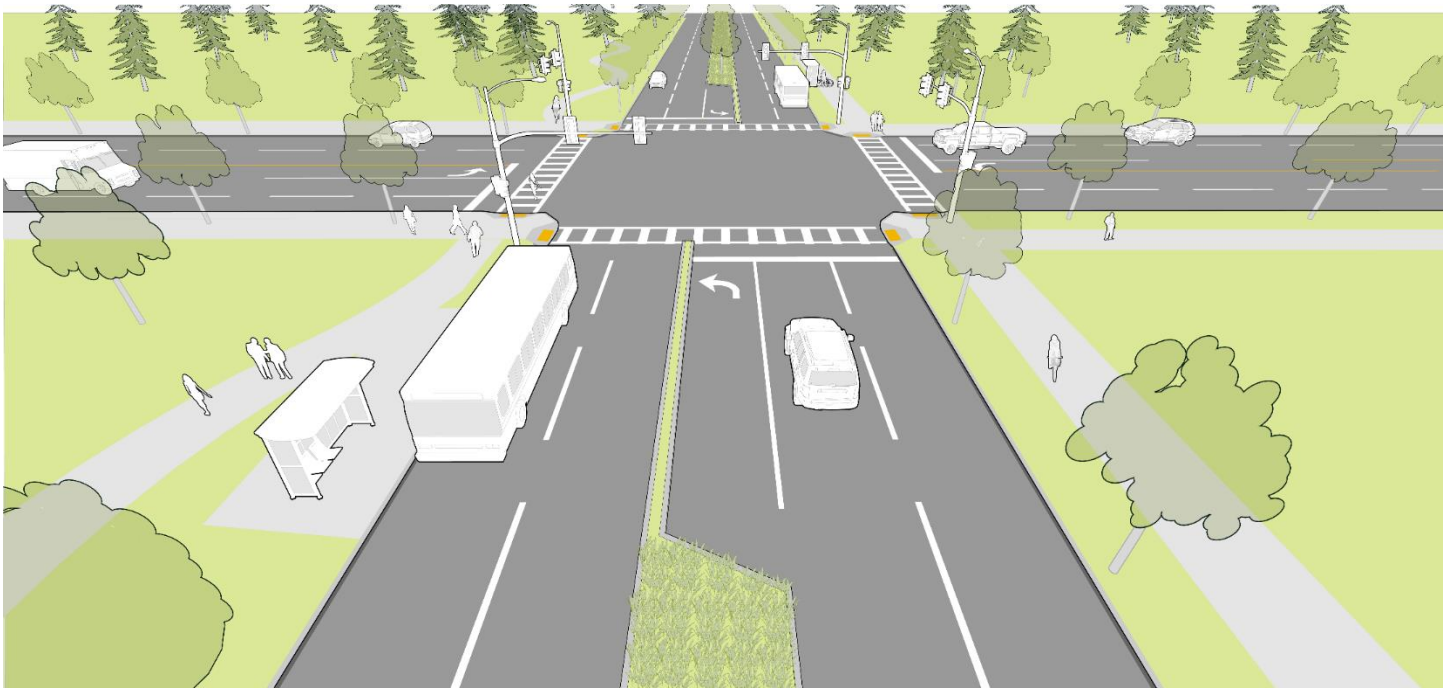
Thoroughfares are throughput-oriented streets that connect commercial areas, employment centers, civic and institutional areas, and neighborhoods. Along with Boulevards, they have the highest volumes of motor vehicles and transit service as well as moderate to high volumes of pedestrian activity. The demand for bicycling along Thoroughfares may be moderate to high, but because of the constrained environments in which this street type is found, bicycle traffic is often encouraged to use parallel low-traffic streets.

While target speeds are slightly higher on this street type than most other types, the design of Thoroughfares balances the needs of mobility and safety. Safety for pedestrians and bicyclists is emphasized by focusing on providing appropriate sidewalks and bikeways (sidepaths or separated bike lanes preferred), opportunities for pedestrians and bicyclists to safely cross the street, and separation from high volumes of traffic. Where bicyclists cannot be accommodated, facilities are provided on nearby parallel streets to create a “complete corridor.”

Right-of-way is very constrained along Thoroughfare street corridors. As such, focus should be on providing separation between motor vehicle traffic and the sidewalk (this can be achieved with bike lanes, the amenity zone, or occasionally with on-street parking). In addition, clear sight lines at unsignalized intersections should be provided.

Boulevard

A street with moderate to high amounts of traffic, with a landscaped median used to separate lanes of traffic and provide refuge for crossing pedestrian and bicycle traffic.



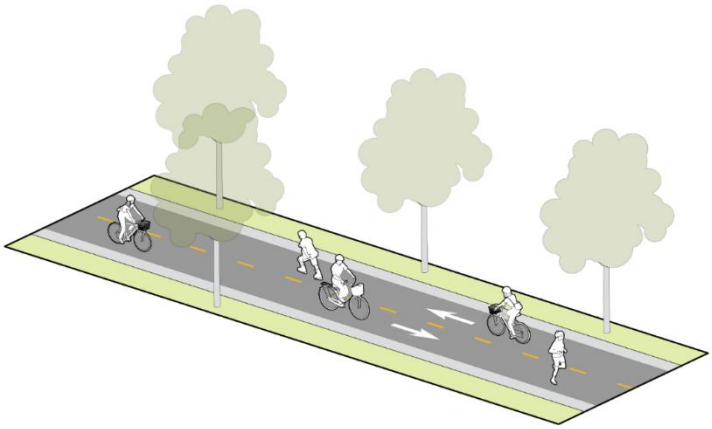
Boulevards are throughput-oriented streets that connect commercial areas, employment centers, civic and institutional areas, and neighborhoods. Along with Thoroughfares, they have the highest volumes of motor vehicles and transit service. Boulevards have low to moderate volumes of pedestrian activity, depending on the land use composition of nearby development. Bicycle activity is moderate to high along Boulevards with sidepaths, which provide longer-distance throughput for bicyclists.

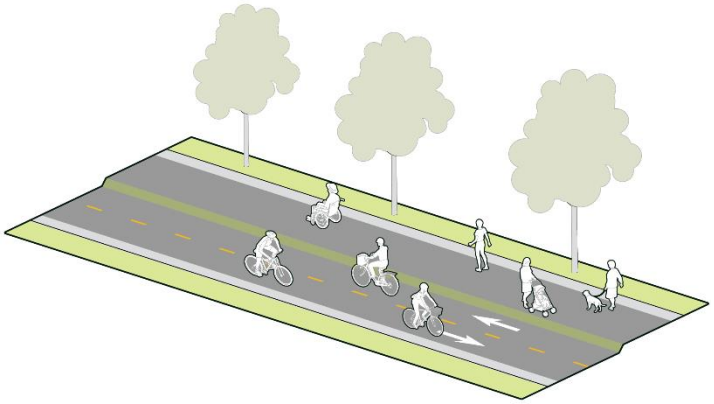
Boulevards can accommodate the highest target speeds of any Complete Street type and on-street parking and traffic calming are not typically compatible. Access to adjacent properties is managed by requiring greater distances between driveways and encouraging shared driveways.

Safety for pedestrians and bicyclists is emphasized by focusing on providing appropriate sidewalks or sidepaths, opportunities for pedestrians and bicyclists to safely cross the street, and separation from high volumes of traffic. Bicyclists are typically accommodated on a separated sidepath shared with pedestrians.

Greenways

Shared-use paths in independent alignments, such as through parks, along waterways, or rail trails.





Greenways are important parts of the multimodal network. They provide non-motorized connections where streets do not or should not connect, such as through a park or conservation area. Numerous greenways exist in Ames today and the Ames Mobility 2040 plan includes additional Greenway corridors for future development. The volume and composition of non-motorized traffic should be analyzed when determining the width and configuration of shared use paths. The minimum width of shared use paths is 10 feet (8 feet is acceptable for short distances in constrained environments). Where a high level of pedestrian activity is likely, wider shared use paths (12 to 14 feet or wider) or separate paths for people walking and people biking should be considered.