June 2015

Town of Jackson

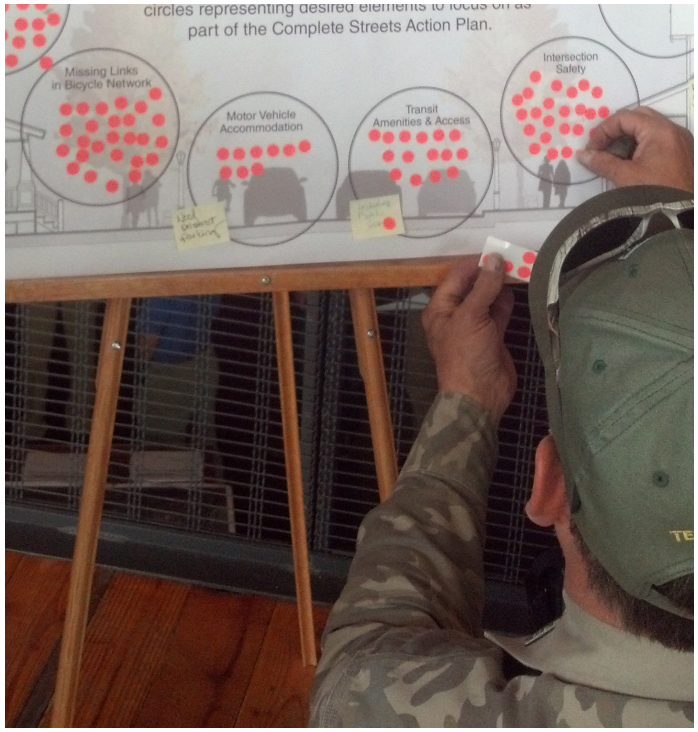
2015 Community Streets Plan

Prepared for:

Jackson Planning Department
P.O. Box 1687
Jackson, WY 83001
(307) 733-3932

Prepared by:

Charlier Associates, Inc.
2919 Valmont, Suite 206
Boulder, CO 80301
(303) 543-7277



Town of Jackson Community Streets Plan

This plan represents nine months of coordination and review by staff of the following departments and agencies to create guidelines and establish consistency for the process of developing and retrofitting the street network within the Town of Jackson:

- Town of Jackson Planning Department
- Town of Jackson Public Works
- Teton County/Jackson Parks and Recreation Department
- Jackson Hole Community Pathways
- Southern Teton Area Rapid Transit (START)
- Teton County School District

The work builds upon recommendations of the *Jackson/Teton County Comprehensive Plan* to implement the community vision for future development of the transportation system:

> *"A transportation system oriented toward automobiles is inconsistent with our Common Values of Ecosystem Stewardship, Growth Management and Quality of Life. The community's transportation vision is to create a multimodal transportation system by enhancing the current automobile oriented system to include a network of complete streets, transit, and pathways system. By pursuing this vision, the community will ensure all users of the public right-of-way, including pedestrians, bicyclists, automobile drivers, trucks and transit riders, can do so in a safe and efficient manner."*

The work also reflects community input received during a June 2014 public workshop conducted as part of the *Jackson/Teton County Integrated Transportation Plan*. Citizen input received was consistent with the Comp Plan vision – with participants identifying the following, in order, as the most pressing needs and goals to address within a new Community Streets Plan:

- Missing Links in Pedestrian Network
- Missing Links in Bicycle Network
- Intersection Safety
- Safe Routes to School
- Accommodation in All Seasons
- Transit Amenities and Access
- Elderly and ADA Mobility Needs

The plan is intended to serve as an adaptable guide and "toolkit" of preferred street right-of-way design solutions that shall be implemented to create a multimodal transportation system that works for people driving cars, riding transit, traveling by bike or on foot.

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What are Complete Streets?

Complete Streets is a term used to indicate that streets are for everyone.

Streets should be designed and operated to enable safe access for all users, including pedestrians, bicyclists, motorists, and transit riders of all ages and abilities. The local street system should allow residents and visitors to travel through Jackson, circulate between neighborhoods, and have access to local destinations. Street design should prompt motorists to operate at speeds that embrace the region's quality of life values and are compatible with neighborhoods and pedestrian streetscape activity. Crossing streets, walking to shops, bicycling to work, and accessing bus stops should be easy, convenient, comfortable, and safe within the Town Core and throughout the community.

Streets should also be designed for year-round use by all modes. In Jackson, this includes accommodating both street and sidewalk snow removal needs and providing space within the right-of-way for snow storage.

By developing and adopting new street design guidelines, the Town of Jackson intends to encourage every transportation project to make the street network better and safer for all modes. This does not mean, however, that every street will be designed to the same standards. Each project will need to carefully consider the network needs of the various travel modes and the character of the adjacent neighborhoods to determine appropriate design elements and maintenance solutions.

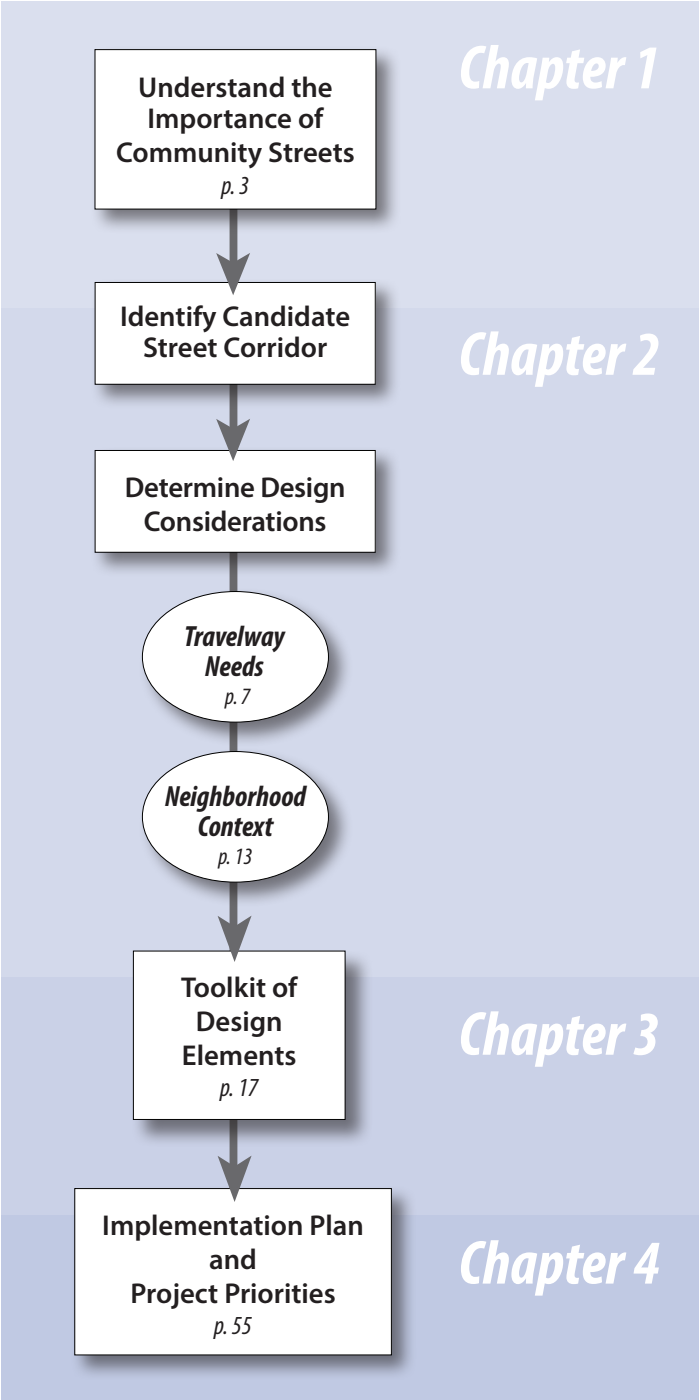
To assist the Town of Jackson in having a consistent policy and procedure for constructing and maintaining all Town streets, this document is comprised of four chapters that address the following:

1) Comprehensive Plan Vision and Policy
Outlines the reasons why the Town of Jackson needs complete community streets, based on the *2012 Comprehensive Plan,* which established the community's vision to preserve and enhance Jackson as a special place.

2) Modal Systems and Character Districts
Establishes travelway and neighborhood context considerations to be applied to complete community streets. Geographically illustrates recommended Neighborhood Forms within the Town of Jackson, based upon Character Districts and Subareas. Includes maps of recommended transportation networks for the various modes of travel.

3) Toolkit of Design Solutions
Offers design guidance for a variety of infrastructure treatments that can be used in appropriate locations to improve and enhance travel for cars, trucks, transit, bicyclists, and pedestrians.

4) Implementation Action Plan
Identifies targeted streets to be reconstructed as multimodal corridors and/or receive modified maintenance practices.



How to Use this Community Street Design Manual

This manual incorporates national best practices for street design into the existing planning structure of the Town of Jackson, WY. The manual follows the organization of the *2012 Jackson/Teton County Comprehensive Plan* relating to Character Districts and Neighborhood Form, and builds upon the work of the *2007 Pathways Master Plan* and *2013 Bicycle Improvement Plan*.

Consistent with the *2014 Integrated Transportation Plan*, the guidelines expand the existing Town of Jackson street cross-sections (which address vehicular travel and on-street parking) to include national standards for ADA accessibility, context-sensitive street design, and multimodal provisions (bicycle, pedestrian, and transit access).

The *2015 Community Streets Plan* is intended to guide both the construction of public infrastructure projects and the interface of private development with public street right-of-ways, and shall be coordinated with the current update to the *Town of Jackson Land Development Regulations* (LDRs).

The flowchart at left illustrates the organization of this street design manual. Chapters 2 and 3 shall be used in tandem to determine which specific street design elements are appropriate within a given corridor. This is a three-part decision-making process, as follows:

a) Determine Travelway Needs for accommodating individual modal networks by referencing the table and maps on pages 8-12.

b) Determine the Neighborhood Form, or urban development pattern, desired along a given corridor by referencing the map and table on pages 14-15.

c) Use the travelway and neighborhood context design considerations to select specific treatments appropriate to the corridor, as presented in the Design Toolkit on pages 17-53.

Chapter 1

Comprehensive Plan Vision and Policy

Background

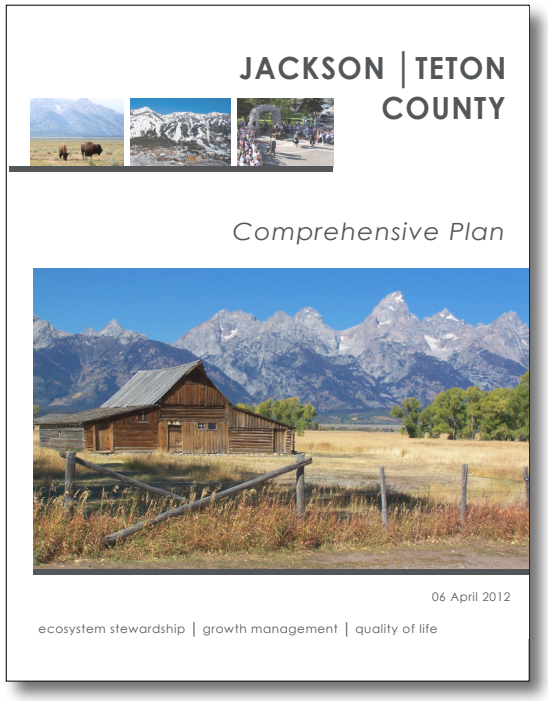
The *2012 Jackson/Teton County Comprehensive Plan* created a community roadmap for the future of the region through a visionary and comprehensive planning process. The *Comprehensive Plan* set goals for preservation and conservation, as well as the creation of complete neighborhoods that are served by a multimodal transportation system.

"A transportation system oriented toward automobiles is inconsistent with our ***Common Values*** *of Ecosystem Stewardship, Growth Management and Quality of Life. The community's transportation vision is to create a* ***multimodal*** *transportation system by enhancing the current automobile oriented system to include a network of complete streets, transit, and pathways system. By pursuing this vision, the community will ensure that all users of the public right-of-way, including pedestrians, bicyclists, automobile drivers, trucks and transit riders can do so in a safe and efficient manner."*

This chapter of the *Community Streets Plan* presents the justification for why complete community streets are needed in the Town of Jackson, and outlines various strategies to support and implement the Common Values and Principles of the Comprehensive Plan.

As the Town of Jackson begins to implement complete streets, it will be important to revisit the Comprehensive Plan principles to help strike a balance between competing space within limited rights-of-way and overall vision for the community.

Some complete streets may have striped bicycle lanes; many will not. All streets will be designed to accommodate year-round use by pedestrians – some to higher standards to encourage higher levels of walking; others to meet basic mobility and accessibility needs. Some will be designed for daily use by buses and trucks; but all will allow less frequent use by emergency vehicles, garbage trucks, and other large vehicles. And all complete streets must consider how best to maintain and/or create the desired community character within both stable and transitional neighborhoods.



Comprehensive Plan Common Values and Principles	Supporting Complete Streets Strategies
Common Value #1: Ecosystem Stewardship	
1) Stewardship of Wildlife, Natural Resources and Scenery • Protect and steward open space (*Principle 1.4*)	• Include wildlife underpasses, overpasses, speed reductions, or other highway crossings where appropriate to address wildlife protection in heavy wildlife-volume crossing areas. • Include streetscape lighting standards based on dark skies best practices. • Provide public recreational opportunities that access wildlife and scenery. Design elements shall address pathway/street crossings and include on-street bicycle facilities to supplement the off-road Pathways System.
2) Climate Sustainability through Energy Conservation • Reduce energy consumption through transportation (*Principle 2.3*)	• Encourage people to make short-distance trips by active, human-powered forms of transportation. • Encourage people to combine biking and walking trips with longer-distance START transit trips and Transportation Demand Management (TDM) strategies. • Encourage sustainable and cost-effective retrofits to existing transportation infrastructure to benefit vehicular and non-motorized travel.
Common Value #2: Growth Management	
3) Responsible Growth Management • Enhance suitable locations as Complete Neighborhoods *(Principle 3.2)*	• Develop a context-sensitive approach to street design, with different treatments implemented in Rural Areas vs. Complete Neighborhoods. • Include multimodal design elements that enhance the quality, desirability, and integrity of Complete Neighborhoods. • Provide public infrastructure that encourages the infill of nonresidential uses within walking/biking distance of residences and lodging. • Create quality public spaces that are that are interesting, memorable, and reinforce a desired sense of neighborhood through the design of sidewalks, pedestrian amenities, landscaping, and public art. • Incorporate mobility opportunities associated with greenways and other natural features within neighborhoods.

Comprehensive Plan Common Values and Principles	Supporting Complete Streets Strategies
4) Town as Heart – The Central Complete Neighborhood • Promote vibrant, walkable mixed use areas *(Principle 4.2)*	• Promote the evolution of the Town of Jackson into a more Complete Neighborhood and make the Town the most desirable and central location for the regional community to live, work and play. • Address the individual identities and character of various subareas by providing street elements appropriate to the intensity of built form and development. • Enhance use of alternative modes of transportation in mixed-use subareas and promote compatible infill and redevelopment to create active ground floor uses, quality walking environments, and year-round pedestrian vitality. • Focus on enhancing pedestrian amenities and connectivity in Downtown Jackson to support a vibrant and walkable downtown core. This includes building designs and uses that engage people along sidewalks and streets, and enhanced public gathering places in both public and private developments.
• Enhance civic spaces, social functions, and environmental amenities to make Town a more desirable Complete Neighborhood (*Principle 4.4*)	• Employ principles to maintain and improve public spaces that support the Town of Jackson as the community's central Complete Neighborhood, a gateway to the nation's parks and forests, and the regional center for tourism, the arts and employment. • Address design elements to strengthen the Town Square as Jackson's major tourism experience and the center of a downtown retail shopping district. • Include unique and interesting gateway enhancements to set the community tone and atmosphere for visitors. Address design of bridges, waterway features, public art, private property aesthetic improvements, and gateway traffic calming measures to announce arrival into the Town of Jackson. • Provide appealing public right-of-way amenities and public art to create unique and visually engaging projects appropriate to the community's various character districts.
Common Value #3: Quality of Life	
5) Local Workforce Housing • Maintain a diverse population by providing workforce housing (*Principle 5.1*)	• Support the primary housing goal of ensuring that at least 65% of the local workforce lives locally instead of commuting in from other counties. • Encourage a more comprehensive way of thinking about the cost of housing and true affordability by considering the combined costs of housing + transportation. Affordable housing generally costs less than 30% of a household budget; affordable living means that housing + transportation costs are less than 45% of a household budget. • Allow people to live in location-efficient neighborhoods (compact, mixed use, with convenient access to jobs, services, transit, and amenities) which result in lower personal transportation costs and increased affordability.

Comprehensive Plan Common Values and Principles	Supporting Complete Streets Strategies
6) A Diverse and Balanced Economy • Promote a stable and diverse economy (*Principle 6.2*)	• Maintain streets and sidewalks to provide a quality visitor experience in all seasons and enhance year-round quality of life for residents, second home owners, and retirees. • Accommodate the freight mobility needs of industry and incorporate the design needs of larger vehicles on designated truck routes.
7) Multimodal Transportation • Meet future transportation demand through the use of alternative modes (*Principle 7.1*)	• Develop complete streets implementation policies for the Town of Jackson as a tool to aid in implementation of the Integrated Transportation Plan (ITP). • Prioritize complete streets candidate projects – including enhancements that benefit all modes of travel – for placement on the local Transportation Improvement Program (TIP) for streets and highways. • Address the needs of persons of all ages and abilities. This includes ADA accessibility elements, Safe Routes to School, and provisions for residents to age in place with enhanced mobility options.
• Create a safe, efficient, interconnected multimodal transportation network (*Principle 7.2*)	• Consider all users during the maintenance, retrofit, and reconstruction of all streets and roadways. Any exception to applying this policy to a specific roadway project shall require formal approval. • Coordinate modal accommodations along and across Wyoming highways within the Town of Jackson with WYDOT to reflect both motor vehicle travel needs and the character values of the community. • Prioritize projects to develop and implement a comprehensive sidewalk improvement program.
• Coordinate land use and transportation planning (*Principle 7.3*)	• Re-evaluate parking standards and other regulations that currently promote travel by single occupancy vehicle. • Include specific provisions for current planning review to require alternative transportation components in new development. • Develop a process for internal review and public involvement to determine priorities and concept design of candidate corridors.
8) Quality Community Service Provision • Maintain current, coordinated service delivery (*Principle 8.1*)	• Incorporate the operational needs of emergency and service vehicles – including fire trucks, garbage trucks, transit buses, snow plows, and other large vehicles. • Include addressing the need for underground and overhead utilities and infrastructure located within the public street right-of-way. • Incorporate stormwater needs by implementing urban street design standards within Complete Neighborhoods.

Chapter 2

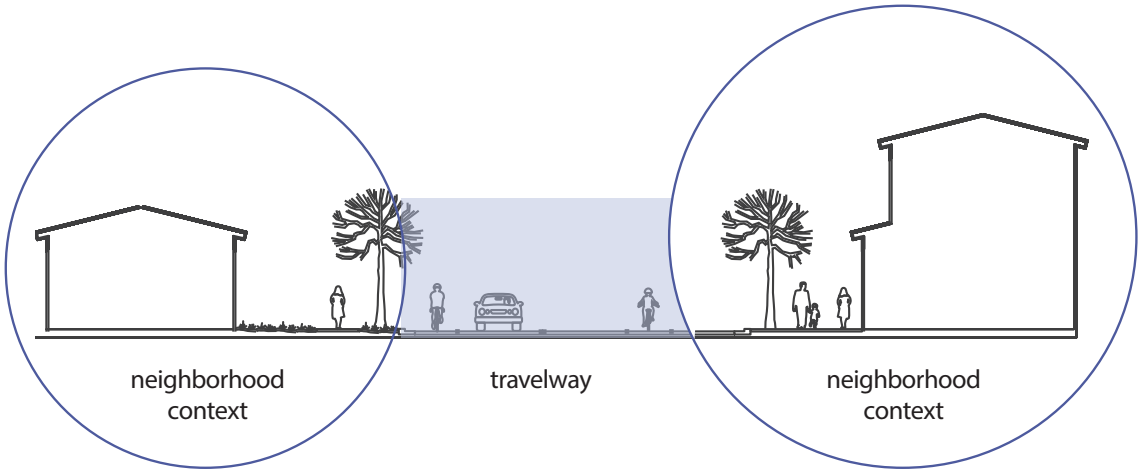
Modal Systems and Character Districts

Complete Streets are created when the needs of multiple travel users are met within a given transportation corridor. Across a community's transportation network, different modes of travel use various streets to differing degrees. Jackson's *2015 Community Streets Plan* therefore considers the unique needs of each corridor, both in terms of anticipated users and the surrounding neighborhood character.

The decision on which design elements are needed to create a complete community street must therefore focus on two distinct, but related, parts of a street corridor – the travelway and the neighborhood context.

1) The ***travelway*** is the portion of the street that accommodates through travel for cars, buses, trucks and bicycles.

2) The ***neighborhood context*** determines the need for on-street parking and the design of sidewalks and other aspects of the pedestrian frontage.



1) Travelway Design Considerations

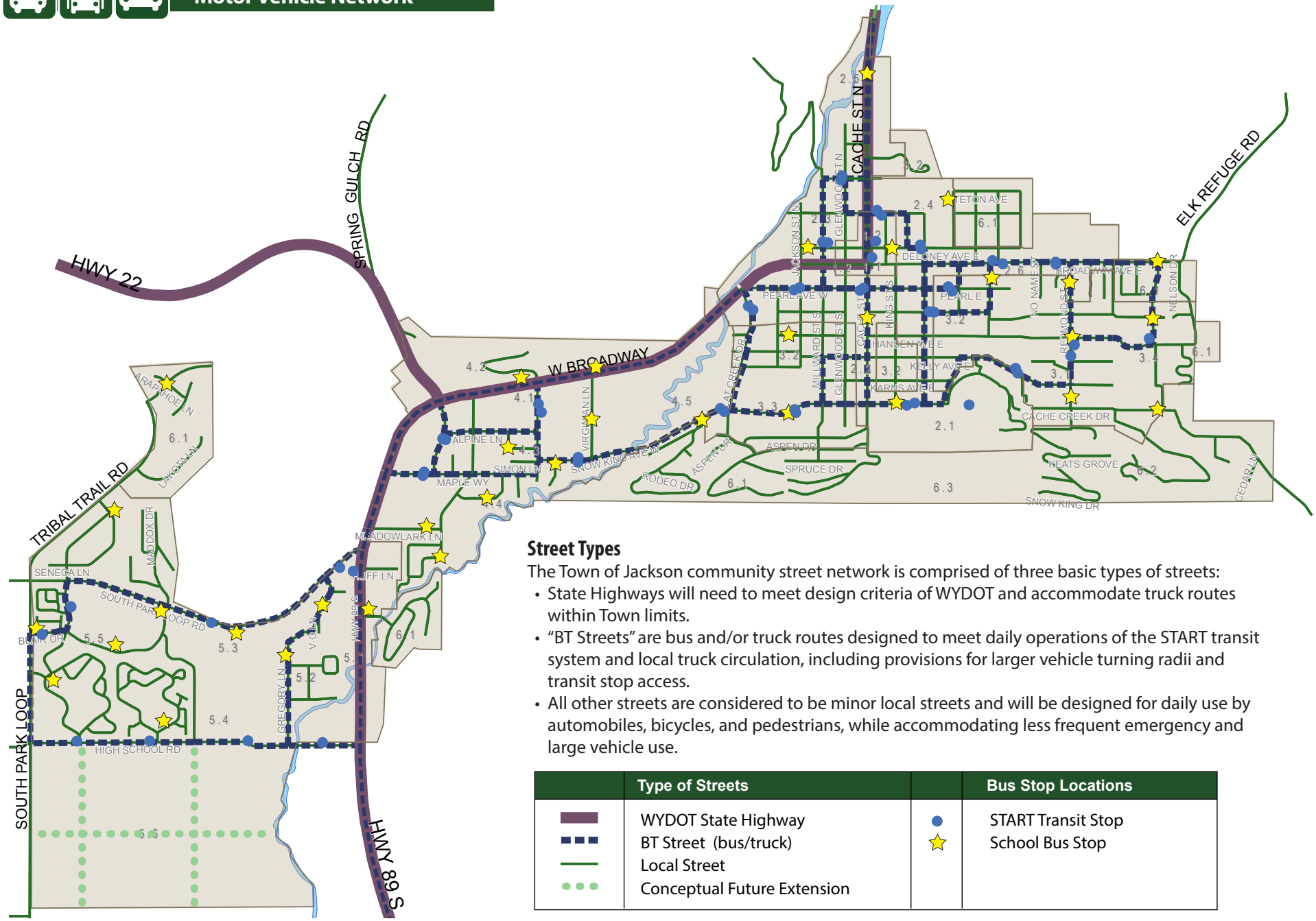
The table on the following pages summarizes travelway considerations and design recommendations for various travel modes. For bicycles and pedestrians, travelway considerations assess the impacts that the volume and speed of vehicular traffic have on non-motorized users of the transportation system. For bus, truck, and auto modes, travelway considerations address design vehicle impacts on the overall size of streets and intersections.

The associated individual modal system plans are presented on pages 10 to 12. How and where the individual modal systems overlap determines which design elements in the community streets toolkit (see Chapter 3) should be applied within a given corridor.

	Bus		Truck			Auto	
	Is the corridor a school bus or START bus route?		Is the corridor important for truck circulation?			Is the corridor used primarily by local traffic only?	
	YES	NO	YES		NO	YES	NO
Considerations			If a WYDOT highway passing through Town of Jackson....	If a local street that provides access to institional uses or through light industrial areas....		If auto volumes and speeds are low (generally <8,000 ADT; <25 mph)	If auto volumes and speeds are moderate (generally >8,000 ADT; <30 mph)
Recommendations	11' min. lane widths and 28' effective turning radii are needed for regular corridor use by larger vehicles	10' lane widths (10.5' adjacent to parking) and 15' effective turning radii are acceptable to accommodate daily auto travel and infrequent use by larger vehicles	11' min. lane widths and 28' effective turn radii are needed to accommodate truck use	11' min. lane widths and 28' effective turning radii are needed for regular corridor use by larger vehicles	10' lane widths (10.5' adjacent to parking) and 15' effective turning radii are acceptable to accommodate daily auto travel and infrequent use by larger vehicles	2-lane streets provide acceptable levels of service	provide left-turn accommodation on 2-lane streets
Justification	The design of streets and intersections is significantly affected by the type of "design vehicle" - defined as the largest vehicle that must regularly be accommodated on a roadway with no encroachment into other travel lanes. Street design elements impacted by the design vehicle include horizontal and vertical alignments, lane widths, turning radii, intersection sight distance, and storage length of auxiliary lanes. Where large vehicles regularly turn at an intersection with high volumes of opposing traffic, a larger design vehicle must be accommodated. (i.e. - truck and bus routes) However, on streets where large vehicle use is infrequent, such vehicles may encroach into adjacent lanes as needed when making turns. (i.e. - moving trucks, emergency vehicles, etc.) This approach allows for more sustainable transportation infrastructure that accommodates infrequent, but necessary, large vehicle use while incorporating traffic calming, on-street parking, and facilities for non-motorized users. See pages 21-24.					The Common Values of Community Character established in the *Jackson/Teton County Comprehensive Plan* guide development of new roadways and management of traffic growth. The creation of multi-modal complete streets and implementation of Transportation Demand Management programs are preferred over new street construction that encourages increased levels of automobile travel.	

	Bike				Pedestrian		
	Is the corridor identified as an on-street bike route in the Jackson Pathways Master Plan?				**Does the level of motor vehicle traffic impact pedestrian comfort?**		
	YES			NO	YES		NO
Considerations	If auto volumes and speeds are high (generally >9,000 ADT; ≥30 mph*)	If auto volumes and speeds are moderate (generally 4,000-15,000 ADT; 20-30 mph*)	If auto volumes and speeds are low (generally <8,000 ADT; <25 mph*)		If auto volumes and speeds are moderate (generally >3,000 ADT; <30 mph)	If auto volumes and speeds are low (generally <3,000 ADT; <25 mph)	If auto volumes, speeds, residential densities, and street widths are very low (generally <1,000 ADT; <25mph; <1 d.u./ acre)
Recommendations	a cycletrack may be considered if adequate R.O.W.	stripe on-street bicycle lanes	designate route with signage and sharrow pavement markings	cyclists may use shared roadway with no special bicycle facilities needed	detached sidewalks are required, or attached sidewalks are acceptable when buffered from motor vehicle travel by on-street parking and/or bicycle lanes	detached sidewalks are recommended, but attached sidewalks may be acceptable where R.O.W. is constrained	sidewalks are recommended, but pedestrians may share street space with infrequent, slow-moving vehicles
Justification	Per Wyoming Statute, every person riding a bicycle has all of the rights and duties applicable to the driver of any vehicle. As vehicles, bicycles may operate on all streets and roadways except where prohibited by law (i.e. - freeways, etc.). When motor vehicles and bicycles travel at similar speeds, the modes can safely and effectively share roadway space. However, in high volume/high speed vehicular corridors, cyclists benefit when physical separation is provided from faster moving vehicles. All street intersections where bicycle lanes and/or cycletracks are present require special design consideration to enhance safety and minimize turning conflicts between modes. *All thresholds based upon recommendations of the *2013 Town of Jackson Bicycle Improvement Plan, page 28.*				Pedestrian routes must be safe, comfortable, interesting, and properly maintained to encourage people to walk for even the shortest of distances. Pedestrian comfort levels are greatly impacted by the volume and speed of adjacent motor vehicle traffic. In general, greater separation is required with higher levels of traffic. Separation between sidewalk and street may be acheived through a variety of means - including provisions for bicycle lanes, on-street parking, curb extensions, furnishing zones and landscape buffers, as appropriate in the context of the adjacent land use. See Character District Considerations on page 15 to further determine recommended design elements of the pedestrian realm.		

Motor Vehicle Network



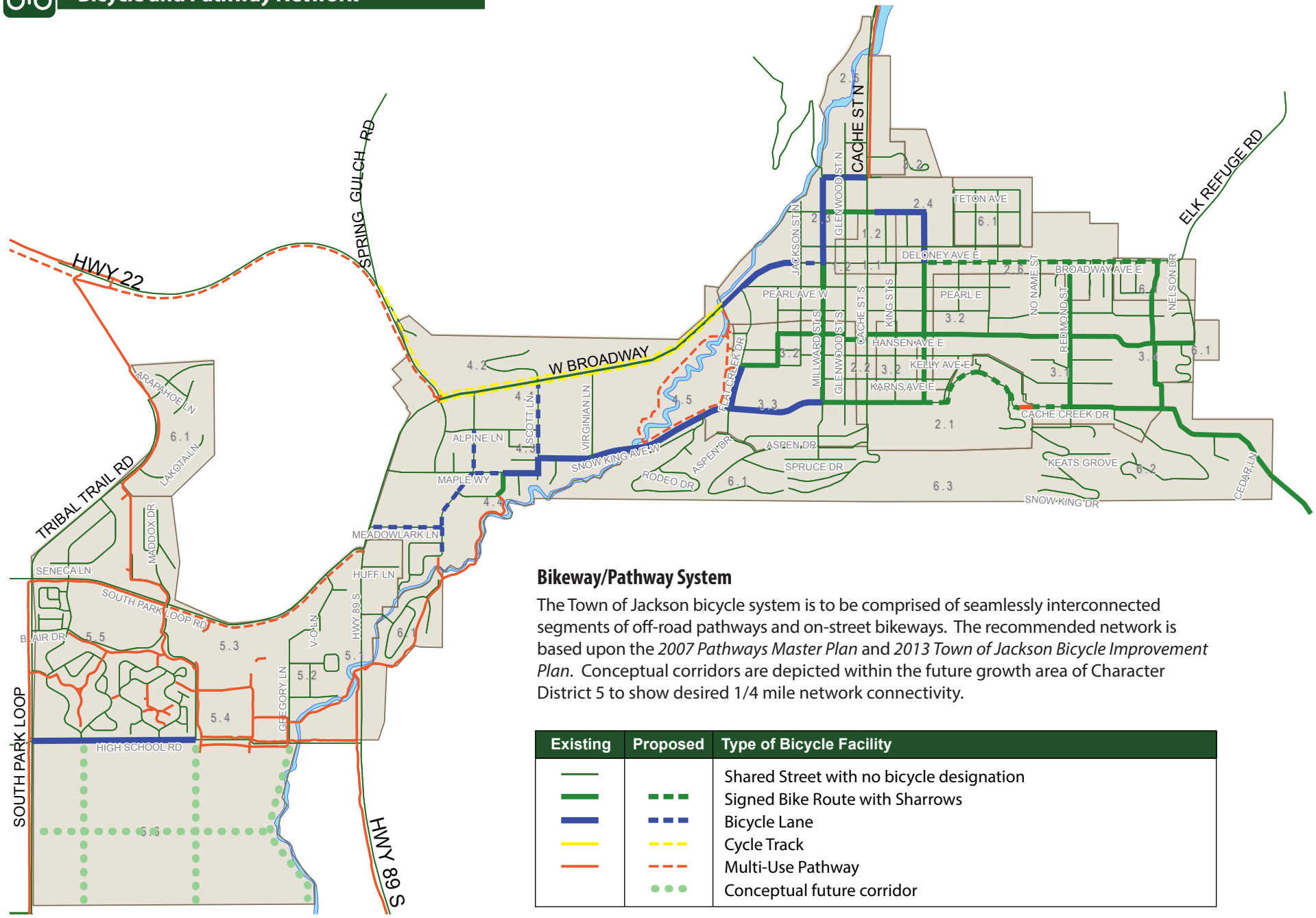
Street Types

The Town of Jackson community street network is comprised of three basic types of streets:

- State Highways will need to meet design criteria of WYDOT and accommodate truck routes within Town limits.
- "BT Streets" are bus and/or truck routes designed to meet daily operations of the START transit system and local truck circulation, including provisions for larger vehicle turning radii and transit stop access.
- All other streets are considered to be minor local streets and will be designed for daily use by automobiles, bicycles, and pedestrians, while accommodating less frequent emergency and large vehicle use.

	Type of Streets		Bus Stop Locations
	WYDOT State Highway	●	START Transit Stop
	BT Street (bus/truck)	★	School Bus Stop
	Local Street		
	Conceptual Future Extension		

Bicycle and Pathway Network

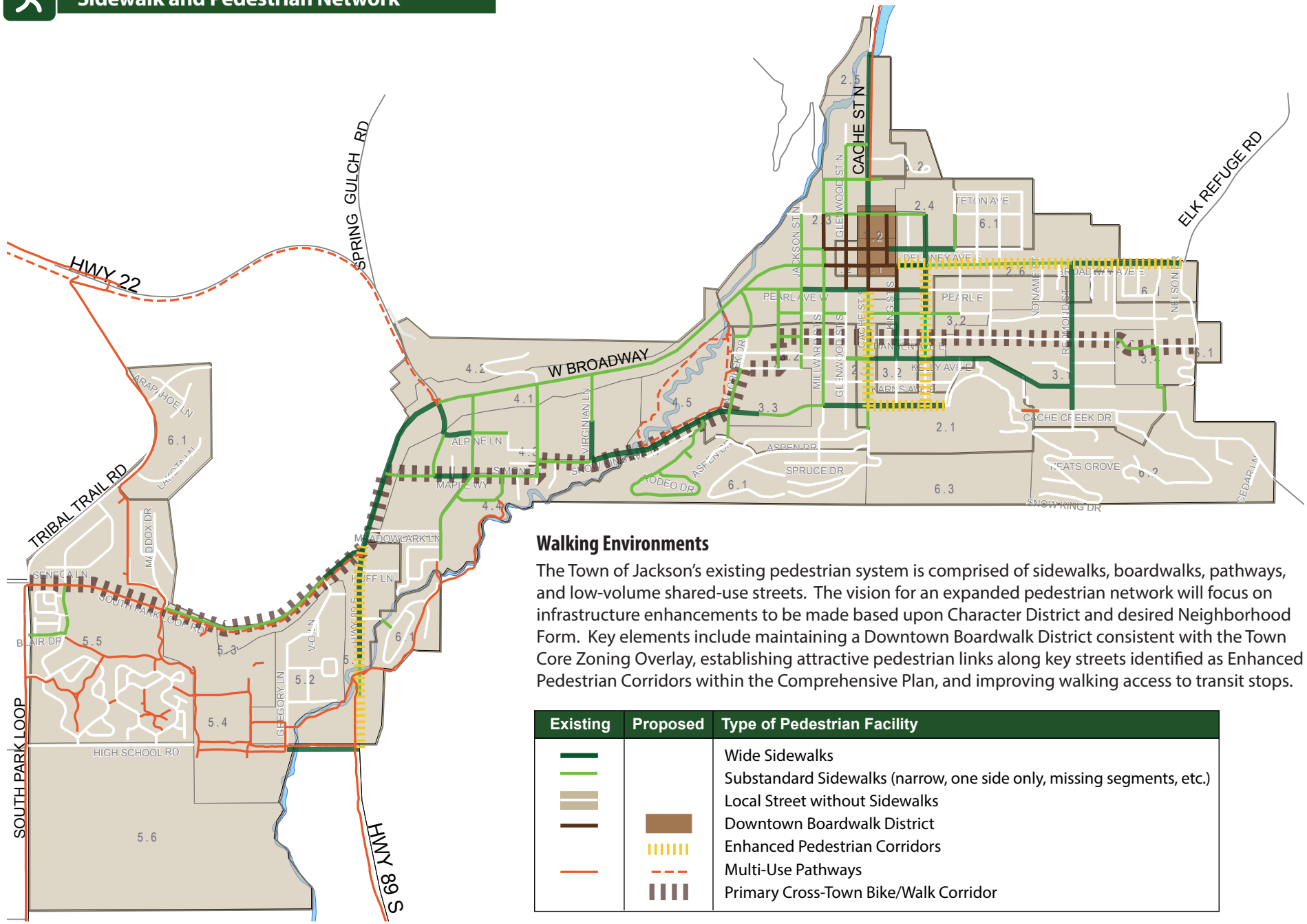


Bikeway/Pathway System

The Town of Jackson bicycle system is to be comprised of seamlessly interconnected segments of off-road pathways and on-street bikeways. The recommended network is based upon the *2007 Pathways Master Plan* and *2013 Town of Jackson Bicycle Improvement Plan*. Conceptual corridors are depicted within the future growth area of Character District 5 to show desired 1/4 mile network connectivity.

Existing	Proposed	Type of Bicycle Facility
		Shared Street with no bicycle designation
		Signed Bike Route with Sharrows
		Bicycle Lane
		Cycle Track
		Multi-Use Pathway
		Conceptual future corridor

Sidewalk and Pedestrian Network



Walking Environments

The Town of Jackson's existing pedestrian system is comprised of sidewalks, boardwalks, pathways, and low-volume shared-use streets. The vision for an expanded pedestrian network will focus on infrastructure enhancements to be made based upon Character District and desired Neighborhood Form. Key elements include maintaining a Downtown Boardwalk District consistent with the Town Core Zoning Overlay, establishing attractive pedestrian links along key streets identified as Enhanced Pedestrian Corridors within the Comprehensive Plan, and improving walking access to transit stops.

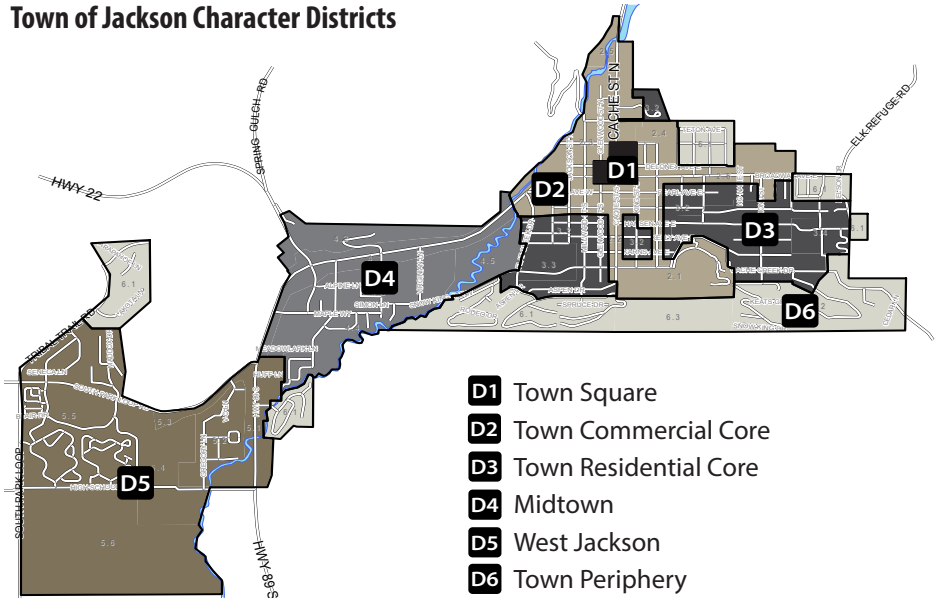
Existing	Proposed	Type of Pedestrian Facility
		Wide Sidewalks
		Substandard Sidewalks (narrow, one side only, missing segments, etc.)
		Local Street without Sidewalks
		Downtown Boardwalk District
		Enhanced Pedestrian Corridors
		Multi-Use Pathways
		Primary Cross-Town Bike/Walk Corridor

2) Neighborhood Context Design Considerations

The Jackson/Teton County Comprehensive Plan establishes a Vision for the future of the region that focuses on maintaining high quality neighborhoods surrounded by scenic rural open spaces. The following vocabulary of planning terms was created as part of the Comprehensive Plan effort to help frame and illustrate the community vision, and carries over into this *Community Streets Plan*:

- ***Character Districts*** – Fifteen high-level planning areas within Teton County that share similar characteristics such as common natural, visual, cultural and physical attributes, shared values, and social interaction. The Town of Jackson includes Character Districts #1-6, as depicted below.
- ***Rural Areas*** – A general classification for those Character Districts that focus on stewardship of the region's ecosystem.
- ***Complete Neighborhoods*** – A second general classification of Character Districts, with a focus on enhancing quality of life. Districts #1-6 within the Town of Jackson are all either existing Complete Neighborhoods or are located in close proximity to neighborhood services and amenities.
- ***Subareas*** – Each Character District is further divided geographically into planning subareas. These vary in terms of being Stable or Transitional Subareas – which represent the most suitable places for people to live, work and play; or Preservation and Conservation Subareas – which focus on ecosystem stewardship.
- ***Character Defining Features*** – Conceptual descriptions of the existing and desired character of each district and subarea. These include common defining characteristics such building height and proximity to the street, housing types, architectural style, corridor preservation and enhancement elements, and pedestrian amenities.
- ***Neighborhood Forms*** – An identification of the general pattern and intensity of development that is representative of a certain character. Ten Neighborhood Forms represent a continuum of development patterns that increase along a rural-to-urban transect to better define relationships between various land uses and intensities throughout the region.

Town of Jackson Character Districts



Application to the Community Streets Plan

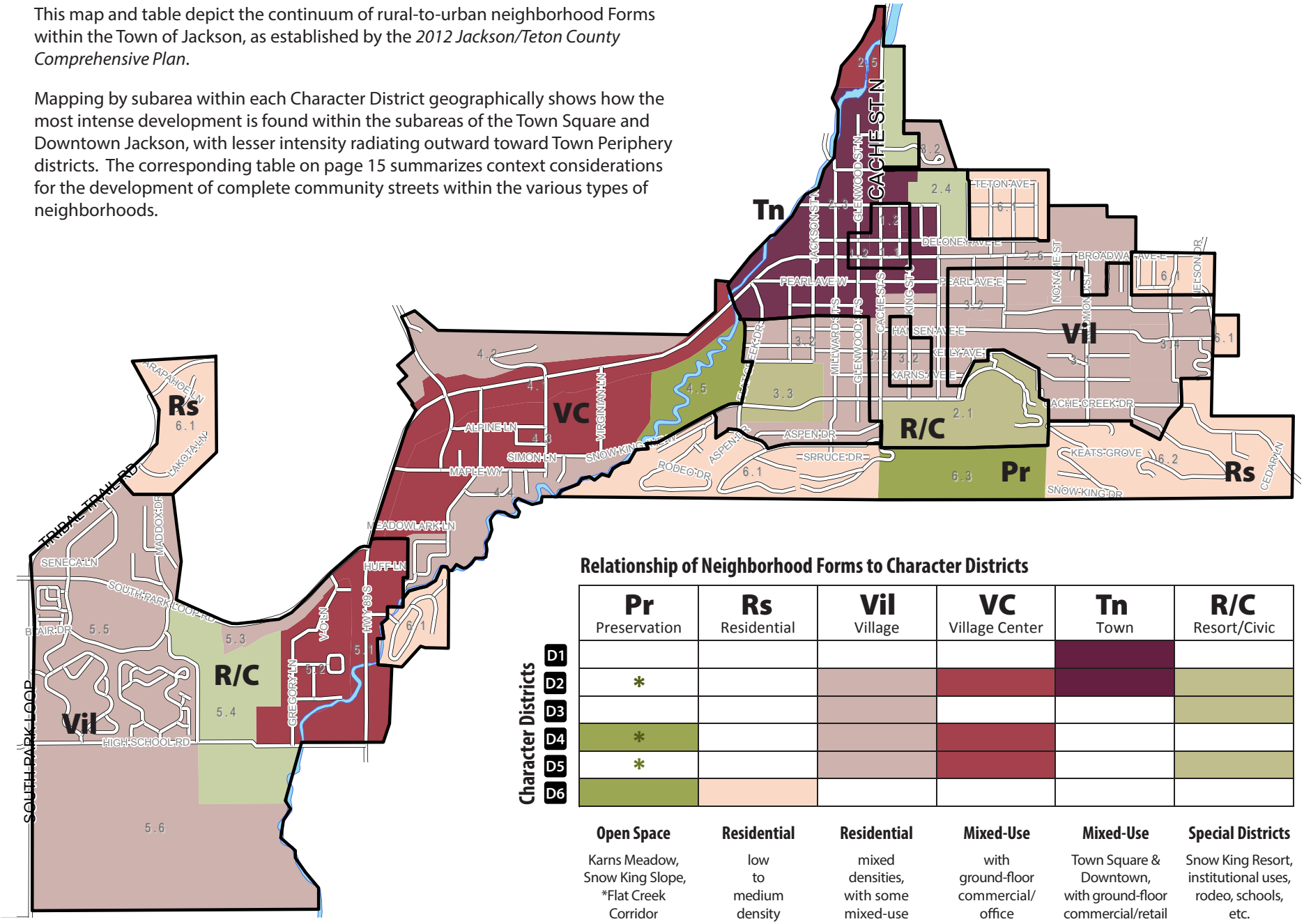
The Comprehensive Plan divides each of the six Character Districts into multiple subareas, and assigns each subarea an appropriate Neighborhood Form to guide development patterns according to common values. For the purposes of planning for community streets, ***Neighborhood Form*** shall be the primary factor used to determine how the adjacent land use affects modal considerations within a transportation corridor.

Neighborhood Forms are representative of a certain character found along a rural-to-urban continuum. These range from preserved areas of open space and wildlife habitat to more intensely developed walkable, urban blocks. The types of transportation infrastructure to be provided within a given neighborhood will vary by the adjacent neighborhood context and characteristics, as described on the following pages.

Mapped Neighborhood Forms

This map and table depict the continuum of rural-to-urban neighborhood Forms within the Town of Jackson, as established by the *2012 Jackson/Teton County Comprehensive Plan*.

Mapping by subarea within each Character District geographically shows how the most intense development is found within the subareas of the Town Square and Downtown Jackson, with lesser intensity radiating outward toward Town Periphery districts. The corresponding table on page 15 summarizes context considerations for the development of complete community streets within the various types of neighborhoods.



Relationship of Neighborhood Forms to Character Districts

Character Districts	Pr Preservation	Rs Residential	Vil Village	VC Village Center	Tn Town	R/C Resort/Civic
D1						
D2	*					
D3						
D4	*					
D5	*					
D6						
	Open Space Karns Meadow, Snow King Slope, *Flat Creek Corridor	**Residential** low to medium density	**Residential** mixed densities, with some mixed-use	**Mixed-Use** with ground-floor commercial/ office	**Mixed-Use** Town Square & Downtown, with ground-floor commercial/retail	**Special Districts** Snow King Resort, institutional uses, rodeo, schools, etc.

Recommendations for parking and traffic claming shall be determined by the desired Neighborhood Form; the furnishings zone treatment by ground-floor building uses; and design treatments for the pedestrian travelway and snow removal shall be determined by a combination of Character District and Neighborhood Form, as follows:

Neighborhood Form	Pr Preservation	Rs Residential	Vil Village	VC Village Center	Tn Town	R/C Resort/Civic
Character Districts	D4 D6	D6	D2 D3 D4 D5	D2 D4 D5	D1 D2	D2 D3 D5
Pedestrian Travelway	Provide multi-use pathways that are shared with bicyclists	Town intent is that all residential areas shall have sidewalks provided on both sides of every street. Sidewalks on one side of street may be allowed in low density areas, where R.O.W. is constrained, and/or in hillside areas. See page 54. Detached sidewalks with tree-planted furnishings zones are encouraged.				5' min. detached sidewalks required along both sides of Town streets Use internal pathways to create smaller block sizes and shorter trip distances within resort and civic areas.
		D6 – 5' min. detached sidewalks recommended on both sides where residential densities are >1 dwelling unit/acre; required on at least one side if <1 d.u./acre or if constrained R.O.W.; Exceptions outlined on page 56.	**ALL –** 5' min. detached sidewalks recommended on both sides **D3, D4, D5 –** 5' min. detached sidewalks required on at least one side where R.O.W. is constrained	**D2, D4, D5 –** within mixed-use areas, 5'- 8' detached sidewalks required on both sides of every street	**D1, D2 –** 8' min. sidewalks or covered boardwalks required throughout Downtown on both sides of every street	
Furnishings Zone	N/A	6' min. landscape furnishing zone to correspond with residential context	6' min. landscape furnishing zone where ground-floor residential uses	5' min. hardscape furnishing zone where ground-floor commercial/office uses	5' min. hardscape furnishing zone to correspond with ground-floor retail district	6' min. landscape furnishing zone to correspond with resort/civic character
Parking Accommodation	Parking lots provided at designated trail heads to supplement available on-street parking.	On-street parking allowed and encouraged where adequate R.O.W. exists. Parking supply minimums per ***LDRs*** must be met off-street in driveways and garages. On-street restrictions apply from 3am to 7am during winter.	On-street parking allowed and encouraged where adequate R.O.W. exists. Parking supply minimums per ***LDRs*** must be met off-street in parking lots and garages. Off-street surface parking lots in new construction must be located at back of parcels, not between buildings and the street or between buildings fronting on the street. On-street parking restrictions apply from 3am to 7am during winter.			On-street parking allowed where adequate R.O.W. exists. Parking supply minimums per *LDRs* must be met off-street in lots/garages. Off-street surface lots in new construction must be located at back of parcels, not between buildings and the street or between buildings fronting on the street. On-street parking restrictions apply from 3am to 7am during winter.
Neighborhood Traffic Calming	N/A	Traffic calming measures may be considered upon neighborhood request where traffic speeds exceed 30 mph on local streets		N/A	N/A	N/A
Snow Removal Policies	Parks & Recreation to plow or groom pathways.	Public Works to plow streets; Property owners and/or tenants are required to remove snow and ice from sidewalks.	**D2, D3, D4, D5 –** Public Works to plow streets; Property owners and/or tenants to remove snow and ice from sidewalks, unless on designated Town sidewalk snow plow routes. See map on page 58.		**D1, D2 –** Public Works to remove snow from streets; Parks & Recreation to remove snow from sidewalks and boardwalks.	Public Works to remove snow from Town streets; Property owners/ tenants to remove snow and ice from sidewalks and internal streets.

National Best Practices

The design guidance and standards presented in the following toolkit are based upon the national state-of-the-art for planning and designing complete streets. Key travelway and streetscape elements that build upon existing local planning efforts and relate to the context of high-quality Complete Neighborhoods within the Town of Jackson are addressed in detail in the toolkit. Additional design guidance may be referenced in the following publications:

A Policy on Geometric Design of Highways and Streets – *2011, American Association of State Highway and Transportation Officials (AASHTO)*

Commonly referred to as "the Green Book," this manual contains the current design research and practices for highway and street geometric design.

Complete Streets Local Policy Workbook – *2013, Smart Growth America and the National Complete Streets Coalition*

This workbook address changing transportation planning, design, maintenance, and funding decisions through policy to result in physical changes to a community's streets.

Context Sensitive Solutions in Designing Major Urban Thoroughfares for Walkable Communities – *2005, Institute of Transportation Engineers (ITE)*

This ITE publication was developed through a partnership with the Congress for New Urbanism (CNU) and advances use of context sensitive solutions in the planning and design of roadway improvement projects to create walkable communities. It is applicable to arterial and collectors streets in places where community objectives support compact development, mixed land uses, and support for pedestrians and bicyclists.

Guide for Geometric Design of Transit Facilities on Highways and Streets – *2014, American Association of State Highway and Transportation Officials (AASHTO)*

This guide outlines current practice relating to buses operating in mixed traffic and designated lanes, and associated guidance for the geometric design of streets, bus stops, pedestrian amenities, and bicycle accommodation.

Guide for the Development of Bicycle Facilities – *Fourth Edition, 2012, American Association of State Highway and Transportation Officials (AASHTO)*

This guide is the go-to manual for state and local transportation planners and designers to address the increased use of bicycling for transportation. The AASHTO guide clarifies elements needed to make bicycling a more safe, comfortable, and convenient mode of transportation by addressing on-road facilities, shared-use paths, and bicycle parking.

Guide for the Planning, Design, and Operation of Pedestrian Facilities – *2004, American Association of State Highway and Transportation Officials (AASHTO)*

The purpose of this guide is to identify effective measures for accommodating pedestrians on public rights-of-way. It details appropriate methods for accommodating pedestrians along streets and highways and recognizes the effect that land use planning and site design have on pedestrian mobility.

Manual on Uniform Traffic Control Devices (MUTCD) – *2009 Edition, Federal Highway Administration (FHWA)*

This manual of the U.S. Department of Transportation provides the standards to promote highway safety and efficiency by providing for the orderly movement of all road users throughout the nation. Uniform traffic control devices, including signs and pavement markings, shall be used to regulate, warn, and guide traffic on streets, highways, pedestrian facilities, and bikeways.

Proposed Guidelines for Pedestrian Facilities in the Public Right-of-Way (PROWAG) – *2011 draft, Federal Highway Administration (FHWA) and United States Access Board*

Forthcoming detailed guidance on how to apply the provisions of the Americans with Disabilities Act (ADA) to pedestrian facilities in the public right-of-way (PROW). Draft information is currently available through training course materials on "Designing Pedestrian Facilities for Accessibility."

Urban Bikeway Design Guide – *Second Edition, 2012, National Association of City Transportation Officials (NACTO)*

The purpose of the NACTO bikeway guide is to provide cities with state-of-the-practice solutions for protected bicycle lanes, colored markings through intersections, cycle tracks and other innovations to help create complete streets that are safe and enjoyable for bicyclists.

Urban Street Design Guide – *2013, National Association of City Transportation Officials (NACTO)*

This guide presents a new set of standards for city streets. It gives an overview of the principles that cities are using to make their streets safe and inviting for people walking, shopping, parking, and driving in an urban context. The NACTO guide is based on an innovative body of practice and expertise in designing city streets and complex urban public space.

Bicycle Parking Guidelines, 2nd Edition – *2010, Association of Pedestrian and Bicycle Professionals (APBP)*

This guide is a useful tool for local planners that covers general principles for short-term and long-term bicycle parking and provides detailed information on bicycle parking layouts, proper installation and maintenance.

Chapter 3

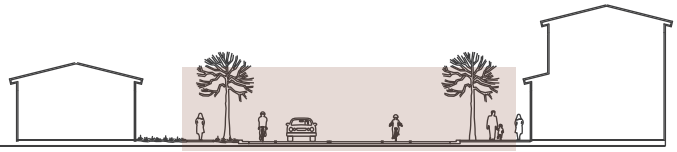
Toolkit of Design Solutions

This toolkit presents detailed design guidance for implementing various elements of street corridors within the Town of Jackson. Universal requirements that apply to all Character Districts are addressed for the following street elements, as well as treatments that are unique to specific corridors, Character Districts, or Neighborhood Forms.

Elements of Complete Streets	
Street Cross-Section Overview	**p. 18**
Existing Right-of-Way Recommendations	p. 19
Part 1 – Designing for Vehicles	**p. 21**
Curb Radii & Curb Extensions	p. 22
Bus Stops	p. 25
Snow Removal & Storage	p. 26
Neighborhood Traffic Calming	p. 27
Part 2 – Designing for Pedestrians	***p. 29***
The Pedestrian Frontage	p. 30
Furnishings Zone	p. 31
Pedestrian Travelway	p. 34
Covered Boardwalks	p. 35
Frontage Zone	p. 37
Attached Sidewalks	p. 38
Transit Access & Amenities	p. 40
Curb Ramps	p. 43
Pedestrian Crosswalks	p. 46
Part 3 – Designing for Bicyclists	***p. 47***
Shared Streets as Bike Routes	p. 48
Bicycle Lanes	p. 49
Colored Bike Facilities	p. 50
Cycle Tracks	p. 51
Shared-Use Paths	p. 52
Bicycle Parking	p. 53

The toolkit is intended to provide guidance consistent with national best practices, while allowing local elected officials and Town staff to adjust corridor design to meet site-specific needs for on-street parking, enhanced pedestrian space, bicycle accommodation, and/or extra snow storage capacity.

STREET CROSS-SECTIONS



To meet the community's objectives for Ecosystem Stewardship, Growth Management, and Quality of Life, this streets plan re-examines the allocation of resources – in particular, the allocation of right-of-way space and modifications to snow removal practices – when reconstructing and maintaining streets within the Town of Jackson.

The recommendations that follow assume that all streets will be designed for maximum 25 mph travel, accommodate an appropriate design vehicle, and incorporate multimodal streetscape elements that benefit bicyclists, pedestrians, and transit users to a level that is appropriate within a given corridor.

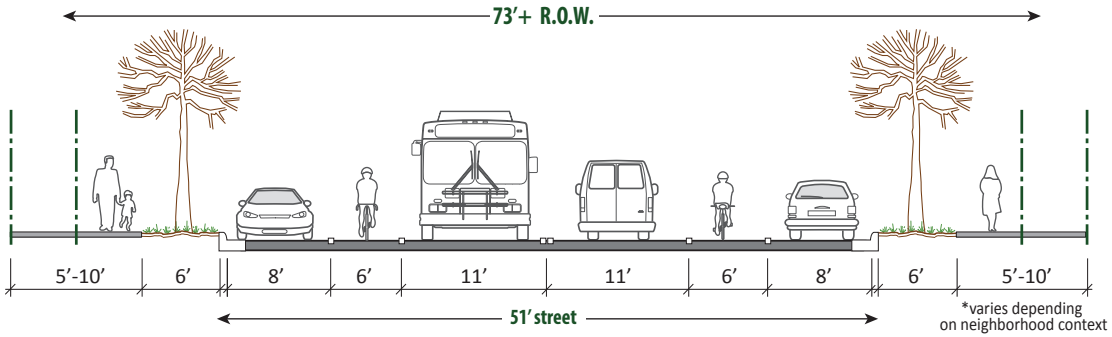
Per local standards and national best practices, considerations that shall be used to determine the desired widths of the various street elements are summarized below. Details of each element are further defined within the toolkit pages that follow, beginning on page 21.

- ***Detached Sidewalks*** – 5′ min. desired in residential neighborhoods; 10′ min. desired in commercial and mixed-use contexts.
- ***Furnishings Zones*** – 5′ width should be the absolute minimum allowed; 6′ or more is preferred to provide adequate space for healthy street trees. Widths ≥6′ will accommodate the 1:12 slope required for ADA pedestrian curb ramps. Wider widths will also provide space for snow storage in winter.
- ***Curb-and-Gutter*** – 6″ curb with 18″ gutter pan is Town of Jackson standard.
- ***On-Street Parking Lanes*** – 7.5′ min. inclusive of gutter pan. However, 8′ min. is desired to provide additional space for parking large vehicles and/or to accommodate snow wind-rows on streets without furnishing zones.
- ***Bicycle Lanes*** – On streets that serve as collectors, striped bike lanes are the preferred bicycle accommodation. Minimum bicycle lane widths vary depending on location within the street, as follows:
  - Adjacent to a curb face – 5′ min. (with integral curb pour)
  - Measured from the gutter pan seam – 4′ min.
  - Adjacent to on-street parking – 6′ min.
- ***Vehicular Travel Lanes*** – Street lane widths shall balance the need for vehicular access and circulation, while encouraging in-town travel speeds of 25 mph or less.
  - 11′ lanes are recommended on streets that need to accommodate regular use by buses and trucks.
  - 10′ lanes are appropriate on local streets with infrequent bus/truck traffic.
  - 10.5′ min. is preferred to provide additional shy distance when the travel lane is adjacent to on-street parking.

If all of the above elements were to be provided within a given street corridor, the dimensions would combine to create an overall street width of 51′ within a 73′ minimum right-of-way. Currently, Town of Jackson street right-of-ways are 50′ or 60′ in width, which means that trade-offs and additional decision-making are necessary regarding the allocation of space for various street elements.

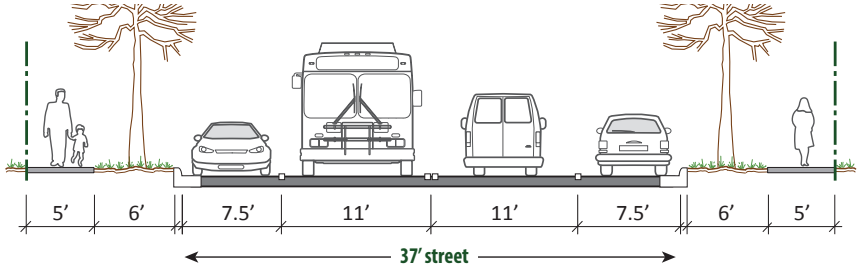
The Town of Jackson does not intend to systematically acquire additional R.O.W. to provide multimodal accommodation, but instead desires to balance modal needs within existing right-of-way dimensions. The cross-sections presented on pages 19-20 shall thus guide the construction and reconstruction of streets and streetscapes within the Town of Jackson, with all projects utilizing the full R.O.W. to include elements of the street (measured from curb face to curb face) as well as the pedestrian frontage (back of curb to R.O.W. line).

Depiction of right-of-way space that would be needed if all modal elements were to be provided at desired minimum widths

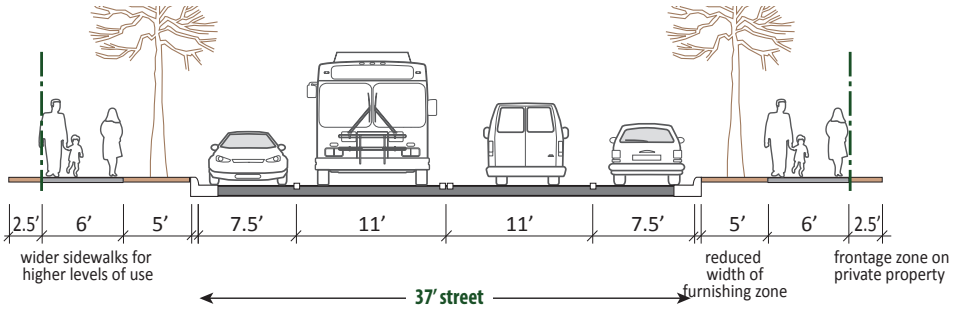


STREET CROSS-SECTIONS, cont.

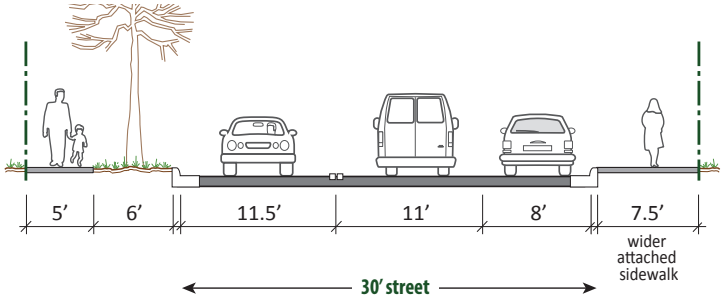
60′ R.O.W.
Residential Districts
Local Street or BT Street



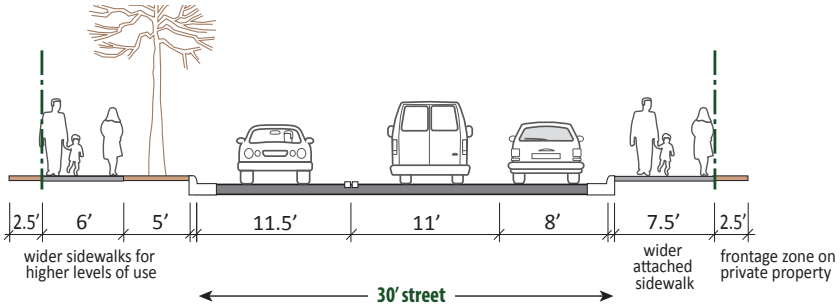
60′ R.O.W.
Mixed-Use Districts
Local Street or BT Street



50′ R.O.W.
Residential Districts
Local Street or BT Street



50′ R.O.W.
Mixed-Use Districts
Local Street or BT Street



RECOMMENDATIONS:
Within residential contexts, the following minimum dimensions are encouraged to accommodate vehicular travel while providing snow storage capacity and pedestrian accommodation. All cross-sections assume public use of the full width of the right-of-way.

- ***Detached Sidewalks*** – 5′ min. sidewalk widths
- ***Furnishings Zones*** – 5′ min./6′ encouraged
- ***Curb-and-Gutter*** – 6″ curb with 18″ gutter pan
- ***On-Street Parking Lanes*** – 7.5′ min. inclusive of gutter pan
- ***Travel Lanes*** – 11′ wide
- ***Frontage Zones*** – To be accommodated within private property setbacks. Minimum clearance distances from edge of sidewalk shall be 0′ along lawn and groundcover; 1′ along low walls, fences, and hedges; 1.5′ along facades, tall walls, and fences.

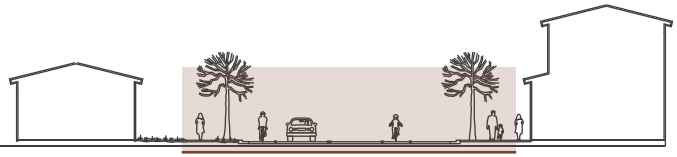
The following cross-section modifications shall be made to create an active streetscape and further enhance pedestrian environments within mixed-use corridors with ground-floor retail, office, or commercial uses:

- ***Frontage Zones*** – Increase to 2.5′ min. to accommodate window shopping activities and/or doors that may open onto the sidewalk space. To be provided within private property setbacks.
- ***Pedestrian Travelway*** – Increase to 6′ min. (10′ min. within Town Center) with paved/hardscape furnishings and frontage zones to provide additional sidewalk width.
- ***Furnishings Zones*** – May reduce to 5′ min. Shall be hardscape.

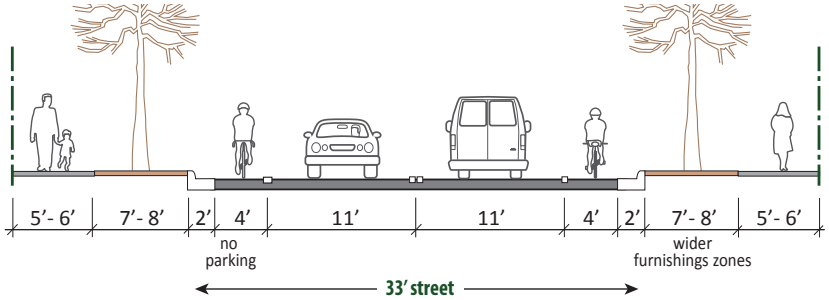
In corridors where existing or proposed street right-of-way is only 50′ wide, the following modifications are recommended:

- ***On-Street Parking*** – Limit to one side of street.
- ***Sidewalks*** – Provide typical detached sidewalks on the side of street with no parking; provide wider, attached sidewalks on the side of street with on-street parking.

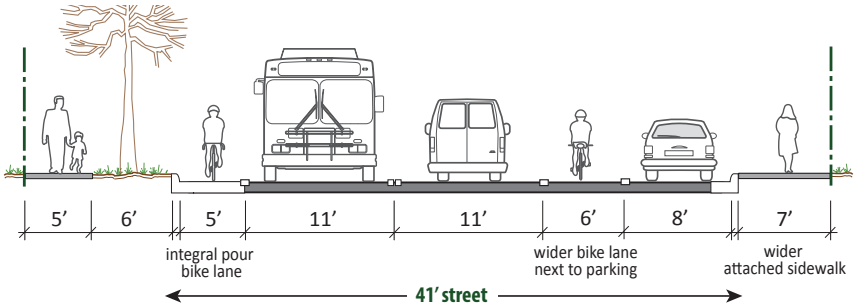
STREET CROSS-SECTIONS, cont.



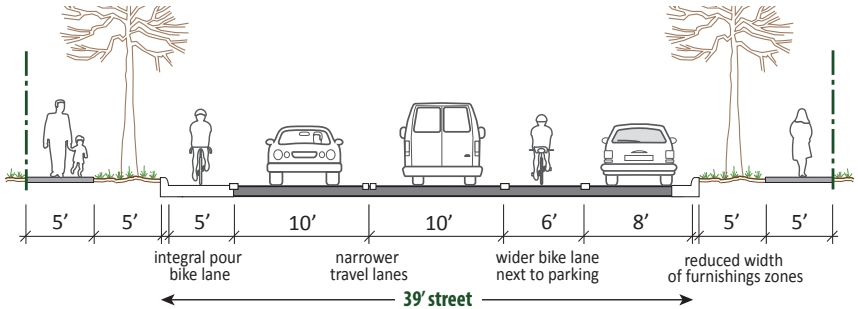
60′ R.O.W.
Bike Lanes with No Parking
Local Street or BT Street



60′ R.O.W.
BT Street with Bike Lanes
Parking on One Side



60′ R.O.W.
Local Street with Bike Lanes
Parking on One Side



Several alternatives exist where it is desired to stripe on-street bicycle lanes as part of the Jackson Hole Community Pathways System, depending on the neighborhood context and amount of on-street parking desired within the corridor. Cross-section alternatives to consider include:

- ***On-Street Parking*** – Restrict parking as needed to reallocate street space for striping bicycle lanes.
- ***Bicycle Lane Widths*** – 5′ min. typical; or 6′ min. when adjacent to on-street parking; or 4′ min. excluding gutter pan width.

  In constrained corridors when providing a bicycle lane adjacent to a curb, construct an integral 5′ gutter pan pour to eliminate the lateral gutter pavement seam.
- ***Travel Lane Widths*** – On local streets with no bus service, may decrease lane widths to 10′ to accommodate bicycle lanes.

  On bus routes, shall maintain 11′ vehicular lanes and eliminate the furnishings zone on one side of street. The attached sidewalk should be implemented on the side of the street where on-street parking helps to buffer pedestrians from adjacent travel lanes.
- ***Attached Sidewalks*** – Increase to 7′ wide to provide additional clearance next to curb.
- ***Furnishings Zones*** – On local streets with detached sidewalks, may reduce to 5′ min. width if within constrained R.O.W.

Toolkit Part 1 – Designing for Vehicles

Street design is governed by fundamental design controls, including types of vehicles and desired travel speeds, which guide the selection of appropriate elements to include within a right-of-way. Within communities and neighborhoods, streets should be designed for the most vulnerable street user rather the largest possible vehicle. While designs must account for the challenges that larger vehicles may face, these infrequent challenges must not dominate the safety or comfort of a corridor for the majority of daily users - whether in cars or on foot.

Design Vehicle

The concept of a "design vehicle" is used in transportation planning as the vehicle that must be regularly accommodated in street design without encroachment into the opposing traffic lanes. The design vehicle plays an important role in the selection of certain design criteria – such as lane width and curb return radii. It is not always practical or desirable to choose the largest design vehicle that might occasionally use a street because of the impacts to pedestrian crossing distances, speed of turning vehicles, and impacts within limited right-of-way for multi-modal accommodation. In contrast, selection of too small of a design vehicle will impact regular use of a given street by larger vehicles including truck deliveries and transit service.

For purposes of the *Community Streets Plan*, the Town has three types of streets: State Highways, Local Streets, and designated Bus and Truck Streets (BT Streets – see map on p.10). **State Highway** design parameters will be determined by WYDOT standards and practices, ideally with consideration given to local community character and community values. **BT Streets** shall have minimum 11' travel lanes and 28' minimum effective turning radii to accommodate vehicles with 40- and 45-foot wheelbases. **Local Streets** shall have 10' travel lanes (10.5' preferred when adjacent to on-street parking) and 15' effective turning radii at intersections. Larger vehicles that may infrequently use local streets will be required to travel slower and/or may encroach into adjacent travel lanes when making right-hand turns.

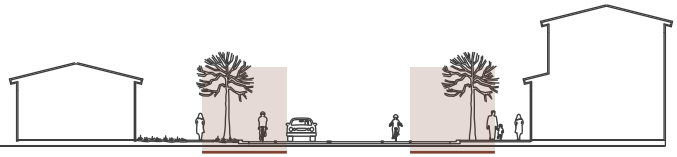
The National Association of City Transportation Officials (NACTO) recommends that fire trucks and other infrequent large vehicles be allowed to use the whole intersection (moving slightly left and using the lane adjacent to the right lane on the receiving side). This allows for design of a more compact intersection, and reduces turning speeds to 12-15mph for regular vehicles. All street cross-sections must also meet the International Fire Code requirement of a minimum 20' clear, unobstructed width for fire truck access.

Design Speed

Design Speed is a tool used to determine geometric features of a new or reconstructed street. For a given street, the Design Speed is not necessarily its maximum safe speed or its posted speed. Design Speed for State Highways will be determined by WYDOT standards and practices, with consideration given to local community character and community values. Design Speed for all other streets in the Town of Jackson shall be no more than 25 mph (miles per hour). The Town may apply 15 mph or 20 mph Design Speeds to streets where rights-of-way are narrow or where other special considerations are present (e.g., school zones, etc.).

Motorists traveling at slower speeds have more time to perceive and react to conflicts. Design of Town of Jackson streets will therefore incorporate physical measures such as curb extensions, narrower travel lanes, on-street parking, and other measures that cause motorists to naturally drive slower within Complete Neighborhood settings. Such design elements shall combine to create complete community streets which have right-of-way cross-sections that benefit multiple users, as depicted on the following pages.

CURB RADII & CURB EXTENSIONS

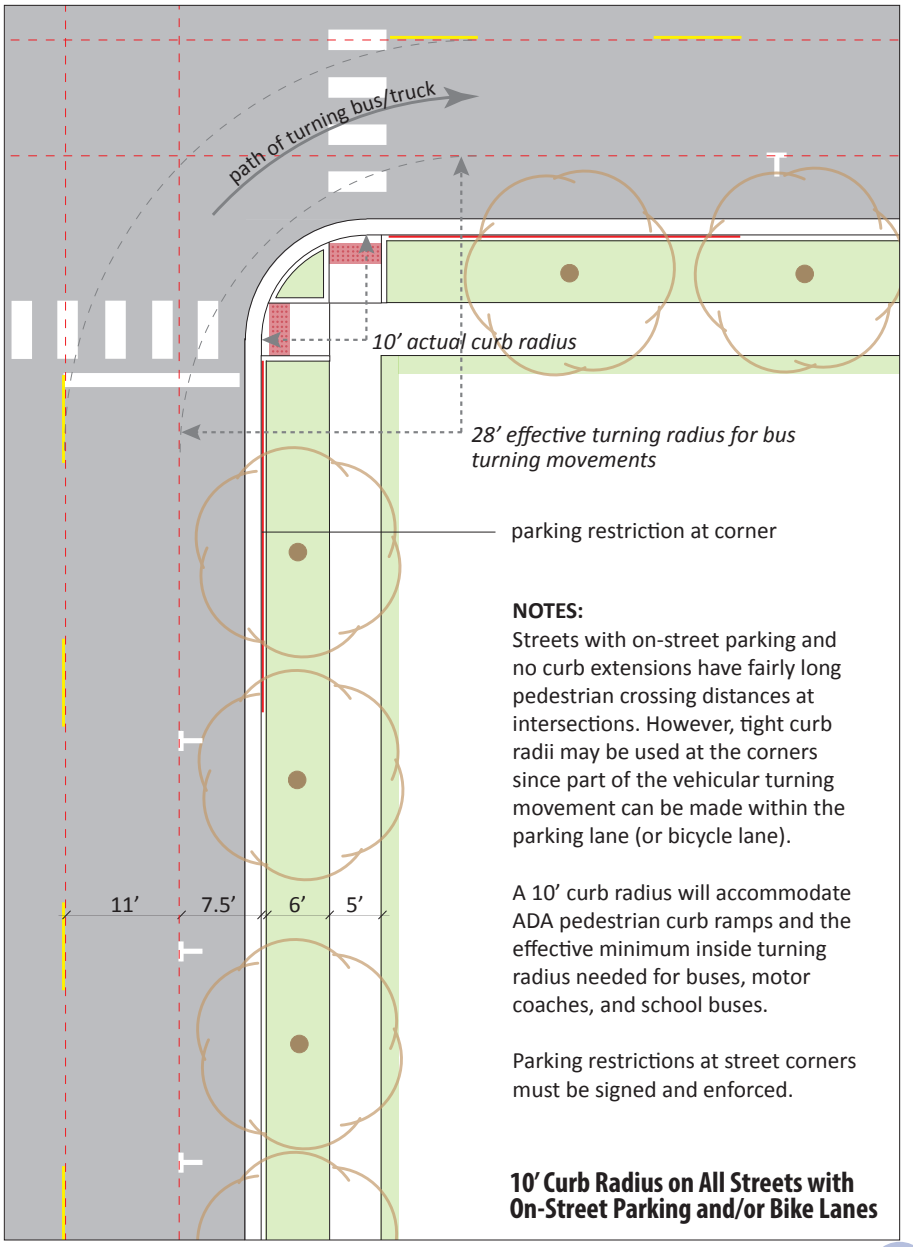


Intersections inherently create numerous conflicts between vehicles, bicyclists, and pedestrians. Within urban contexts, intersections shall be designed to be as compact as possible to minimize pedestrian crossing distance, crossing time, exposure to traffic, and increase safety. Key to accomplishing this is providing turning radii that adequately accommodate design vehicles without creating overly large intersections.

Curb radii shall be designed to guide vehicles in turning and to separate vehicular traffic from pedestrian areas at intersection corners. The selection of an appropriate curb return radius shall consider the largest vehicle type that will frequently turn the corner, combined with the presence or absence of bicycle lanes and/or on-street parking. The existence of parking and bicycle lanes creates an "effective" turning radius that is greater than the "actual" curb return radius. When present, these street elements allow effective wheel tracking of the design vehicle with very tight curb radii, as depicted at right.

All Character Districts

- ***Radius Size*** – All Local Streets shall be constructed with 15' curb return radii, with 10' radii encouraged where on-street parking is present.
- On BT Streets where on-street parking lanes or bike lanes are not present, curb radius size shall be increased since vehicles cannot encroach into such lanes when making right turns. A 28' radius shall be used on corners of BT Streets where buses and trucks frequently make right-hand turns; a 15' curb radius shall be used in all other locations, as depicted on page 23.
- Curb return radii of different lengths may be used on different corners of the same intersection to match the design vehicle turning at a given corner. Larger radii will increase overall intersection size, shift crosswalk location, and lengthen pedestrian crossing distance.
- ***Curb Extensions*** – Where on-street parking is present, curb extensions shall be considered to reduce pedestrian crossing distance and exposure to traffic, improve driver and pedestrian sight distances and visibility at intersections, restrict parking near corners, visually and physically narrow the traveled way, and provide wider space for streetscape elements, and ADA curb ramp and landing requirements.
- Curb extensions may be used at intersections within any Character District, but shall be emphasized within Town (Tn), Village (Vil), and Village Center (VC) neighborhood forms where highest levels of pedestrian activity are desired.
- Curb radii shall consider the design vehicle, with a 28' curb return radii used on only corners of BT Streets with right-turning bus movements, as depicted on page 24.
- All curb extensions should extend the full width of the parking lane, but not encroach into bicycle lanes when present.



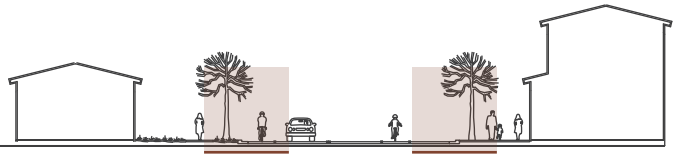
NOTES:
Streets with on-street parking and no curb extensions have fairly long pedestrian crossing distances at intersections. However, tight curb radii may be used at the corners since part of the vehicular turning movement can be made within the parking lane (or bicycle lane).

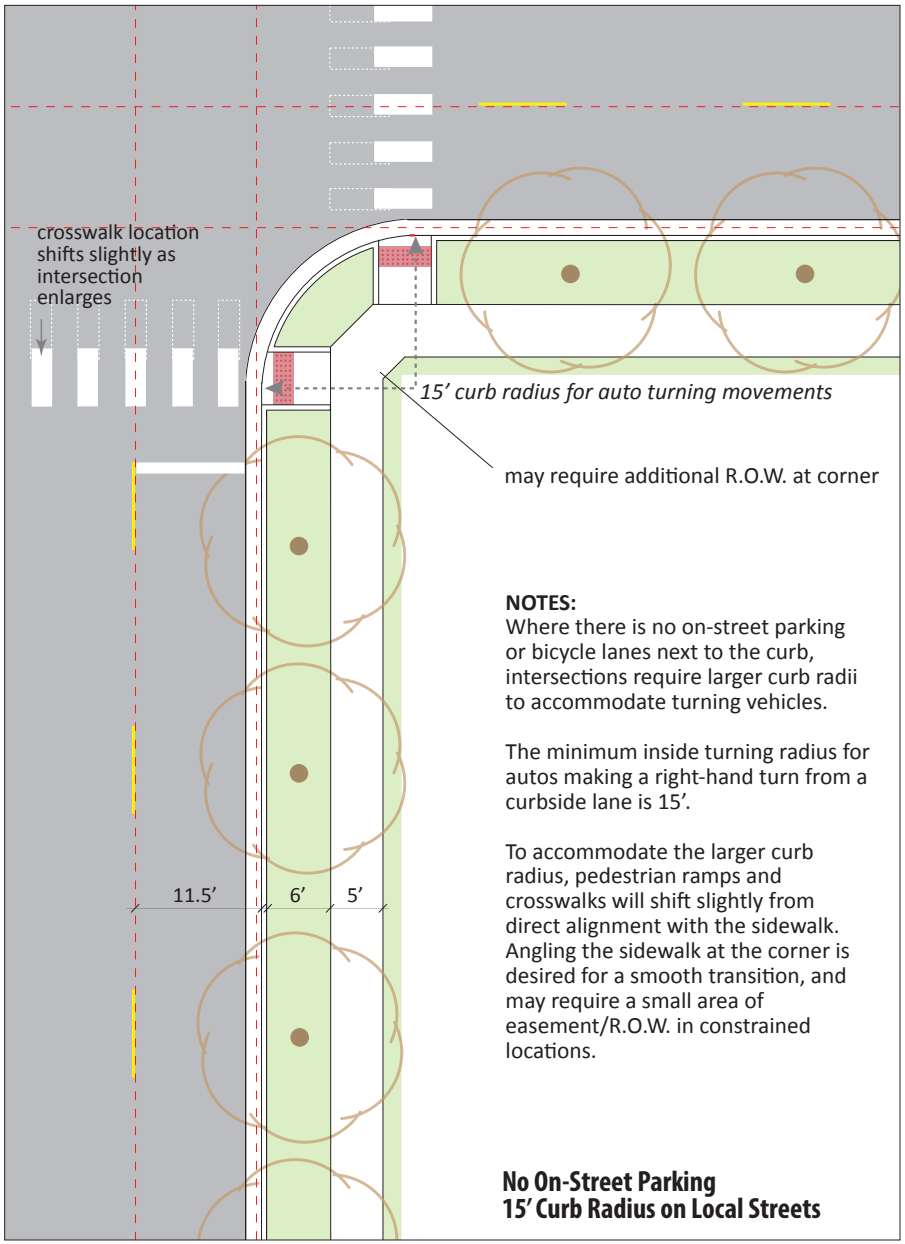
A 10' curb radius will accommodate ADA pedestrian curb ramps and the effective minimum inside turning radius needed for buses, motor coaches, and school buses.

Parking restrictions at street corners must be signed and enforced.

10' Curb Radius on All Streets with On-Street Parking and/or Bike Lanes

CURB RADII, cont.



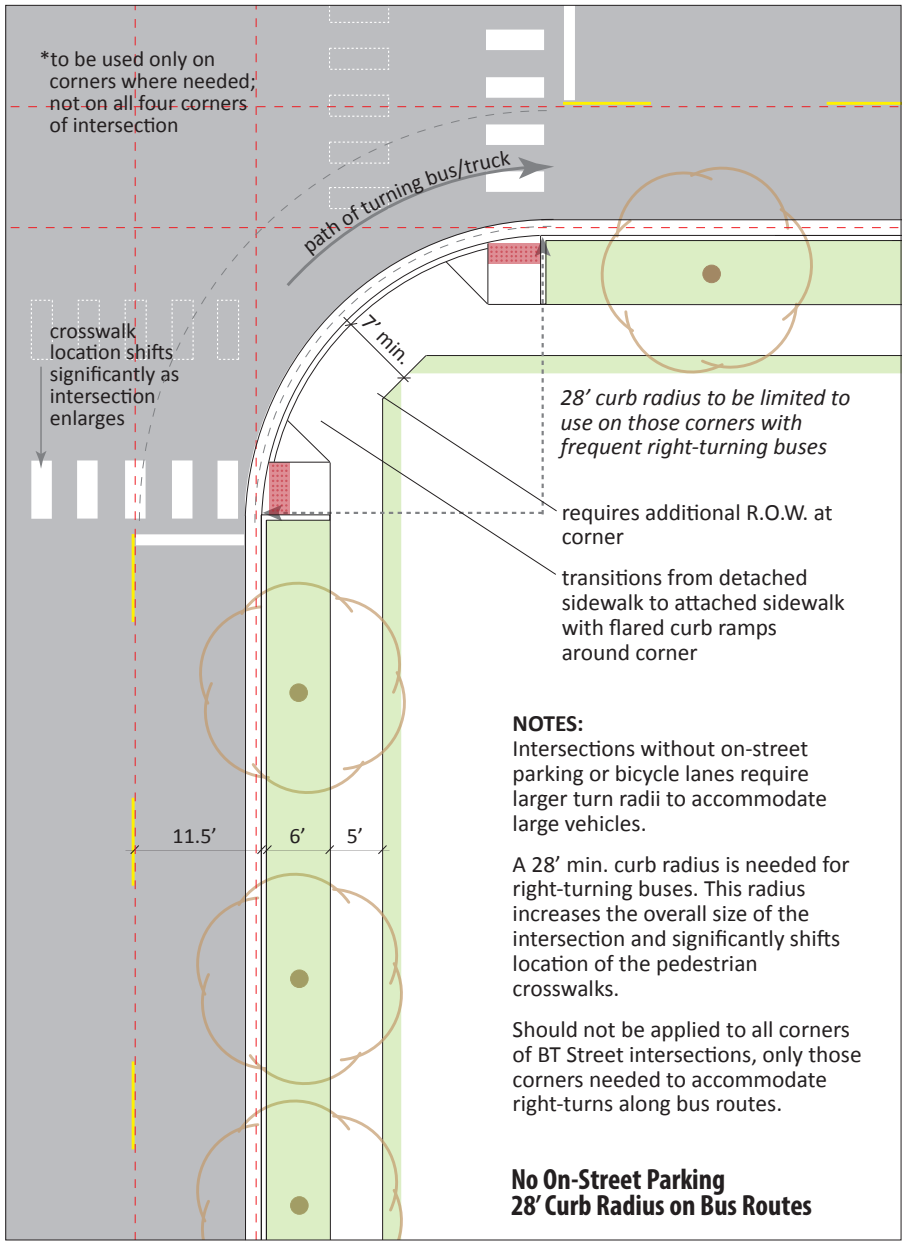


NOTES:
Where there is no on-street parking or bicycle lanes next to the curb, intersections require larger curb radii to accommodate turning vehicles.

The minimum inside turning radius for autos making a right-hand turn from a curbside lane is 15'.

To accommodate the larger curb radius, pedestrian ramps and crosswalks will shift slightly from direct alignment with the sidewalk. Angling the sidewalk at the corner is desired for a smooth transition, and may require a small area of easement/R.O.W. in constrained locations.

No On-Street Parking
15' Curb Radius on Local Streets



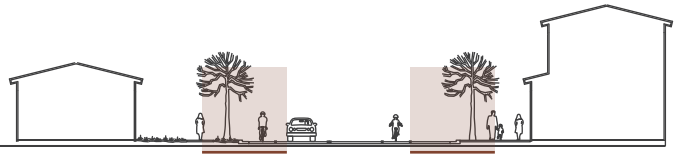
NOTES:
Intersections without on-street parking or bicycle lanes require larger turn radii to accommodate large vehicles.

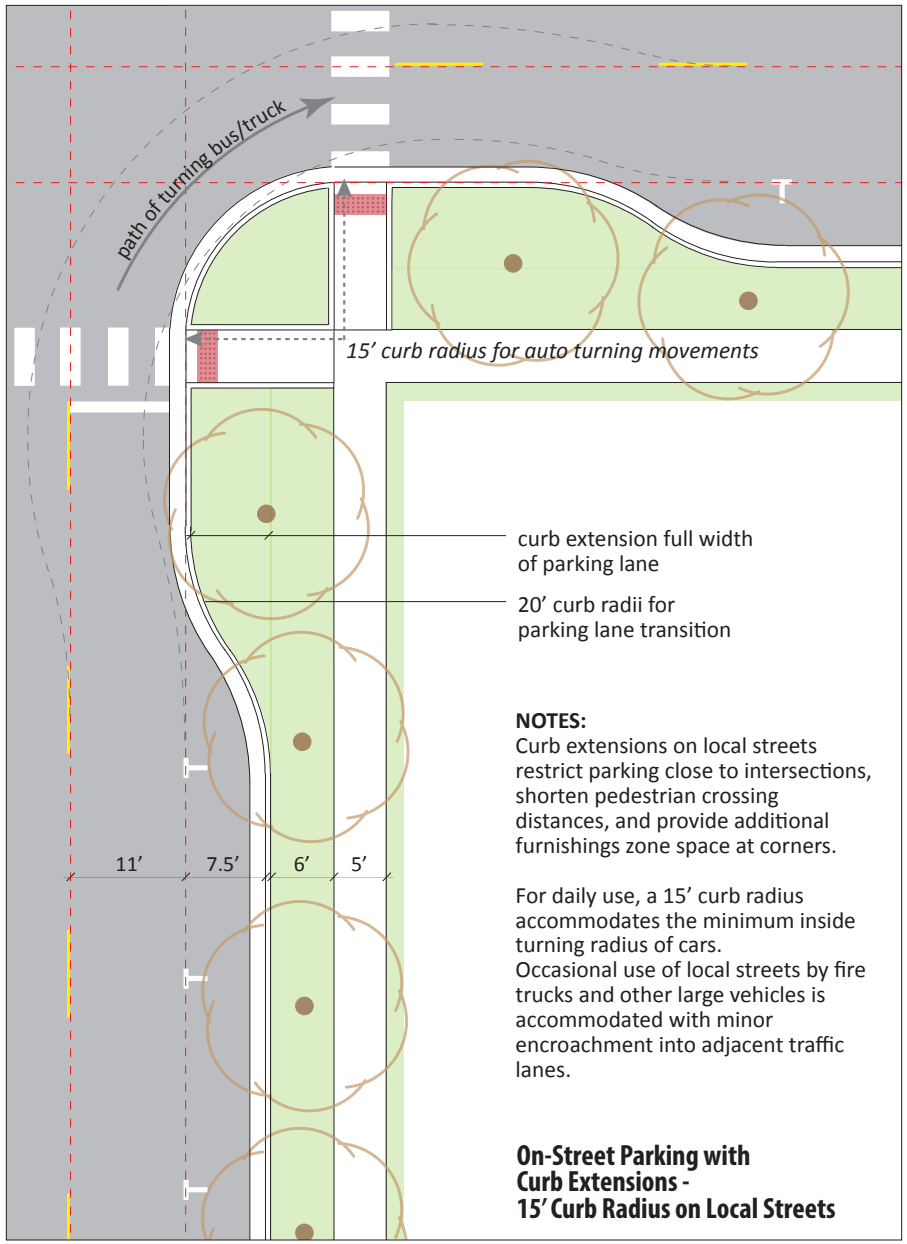
A 28' min. curb radius is needed for right-turning buses. This radius increases the overall size of the intersection and significantly shifts location of the pedestrian crosswalks.

Should not be applied to all corners of BT Street intersections, only those corners needed to accommodate right-turns along bus routes.

No On-Street Parking
28' Curb Radius on Bus Routes

CURB EXTENSIONS, cont.

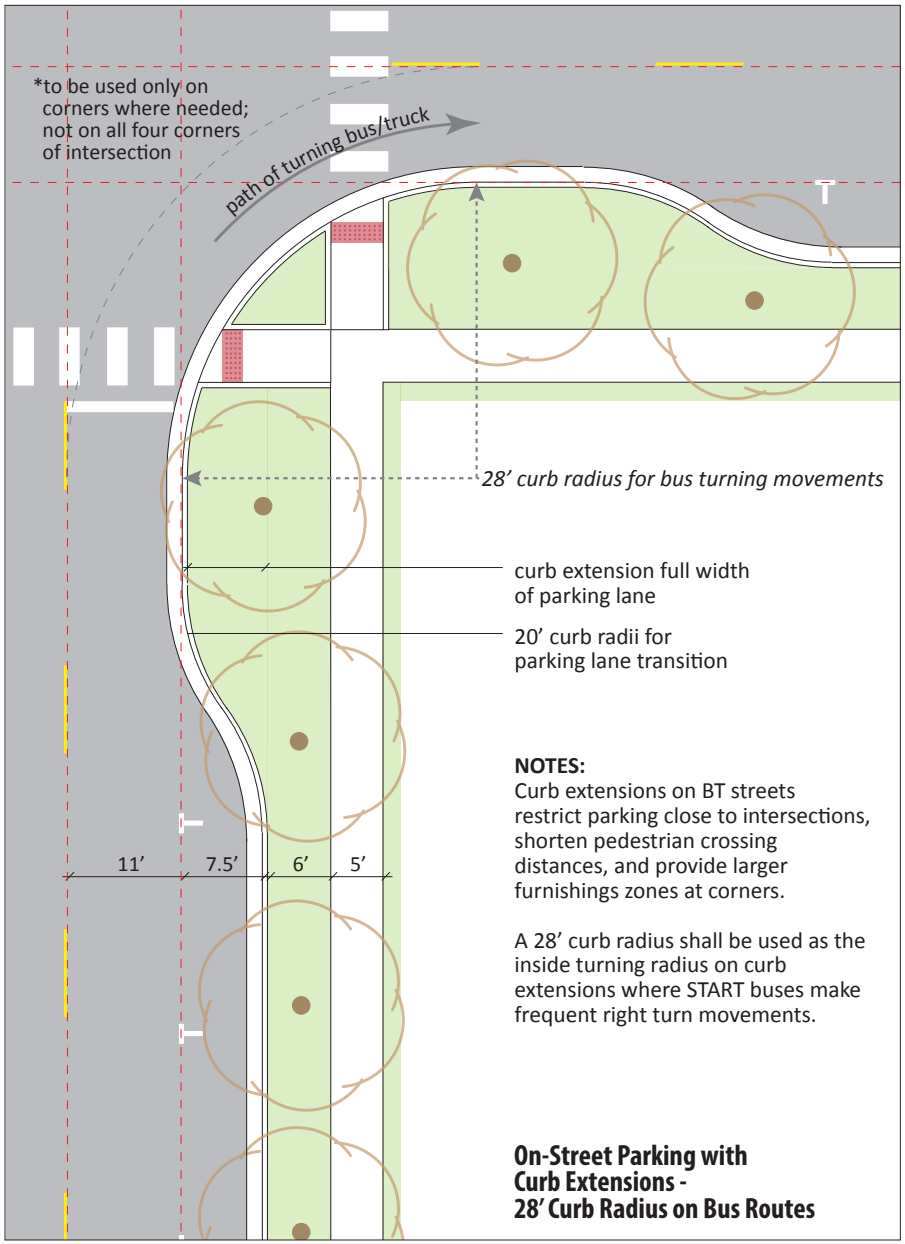




NOTES:
Curb extensions on local streets restrict parking close to intersections, shorten pedestrian crossing distances, and provide additional furnishings zone space at corners.

For daily use, a 15' curb radius accommodates the minimum inside turning radius of cars.
Occasional use of local streets by fire trucks and other large vehicles is accommodated with minor encroachment into adjacent traffic lanes.

On-Street Parking with Curb Extensions - 15' Curb Radius on Local Streets

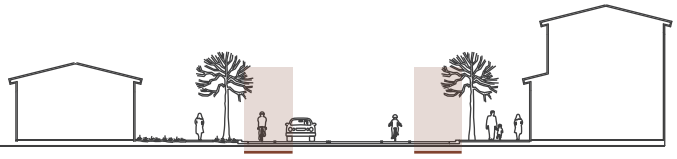


NOTES:
Curb extensions on BT streets restrict parking close to intersections, shorten pedestrian crossing distances, and provide larger furnishings zones at corners.

A 28' curb radius shall be used as the inside turning radius on curb extensions where START buses make frequent right turn movements.

On-Street Parking with Curb Extensions - 28' Curb Radius on Bus Routes

BUS STOPS



The design and location of all bus stops within the Town of Jackson shall strive to enhance the pedestrian environment while promoting efficient transit operations. Stops shall be located in proximity to activity generators and shall include sidewalks, marked crosswalks, curb ramps, and other elements that meet ADA requirements and provide enhanced pedestrian access and amenities, as detailed in the pedestrian toolkit on page 40.

For transit operations, the following design provisions shall apply. All bus stops shall be well-defined and clearly marked. Bus stops located on the far-side of intersections are preferred. Concrete bus pads are required in all locations.

All Character Districts

Farside Stops – Allow a bus to pass through the intersection before stopping, which increases safety for pedestrians and convenience for passing vehicles.

- Shall be located at least 50' downstream from the edge of the pedestrian crosswalk so that stopped buses do not block the crosswalk.
- Are the preferred design treatment in most locations.

Nearside Stops – Require a bus to stop in advance of an intersection.

- Shall be located in advance of the crosswalk.
- May be appropriate based upon local design considerations.

Curbside Bus Stops – Locations where buses stop along a street's existing curb alignment, without provision of a bus turnout or bus bulb.

- Shall be marked with signage and curb striping to indicate no parking. All locations shall provide concrete bus pads.

Bus Turnouts – Dedicated curb stopping areas where buses leave the travel lane to stop and safely load and unload passengers. Turnouts may be used primarily on streets with higher traffic speeds.

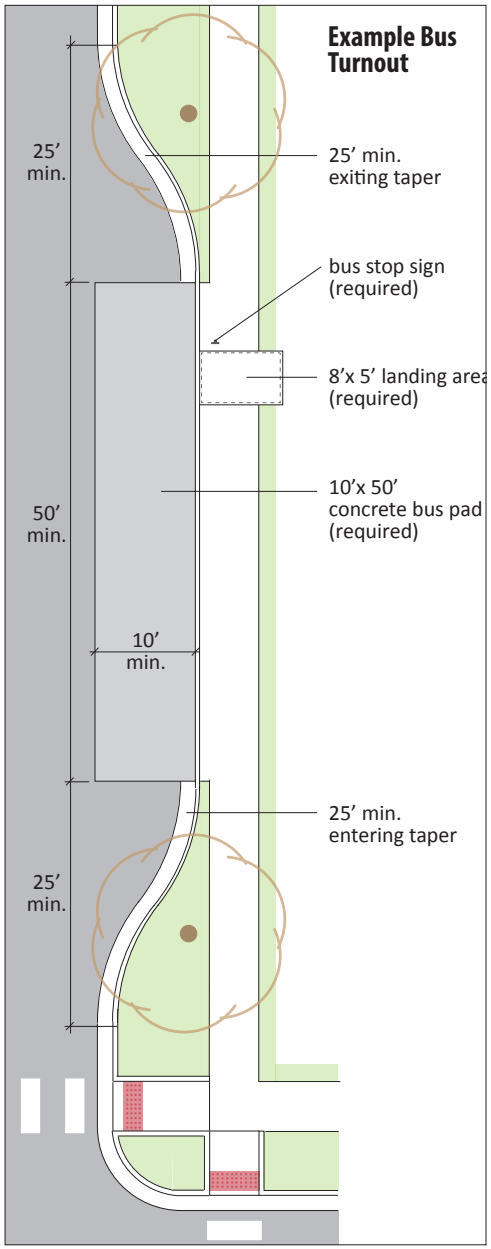
- Shall provide 50' min. of curbside stopping space per bus, constructed with a concrete pad for durability.
- Shall provide tapers, a min. of 25' in length to permit buses to enter and exit the traffic stream.
- Shall be marked with signage and curb striping to indicate no parking.

Bus Bulbs – A type of curb extension (see page 24) that widens the sidewalk, shortens pedestrian crossing distances, and provides space for enhanced transit access and amenities. Bus bulbs allow buses to stop in the traffic lane to pick up and discharge passengers, thereby eliminating lateral movement needed to leave and re-enter the traffic stream.

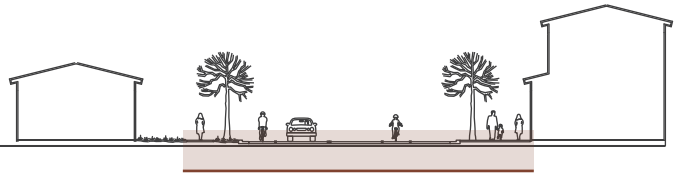
- Appropriate along streets with on-street parking, with low traffic speeds and volumes, and high levels of pedestrian activity. Bus bulbs are not recommended where traffic uses curb lanes along high-speed or high-volume streets.
- May be used in far-side, near-side, and mid-block bus stop locations.
- Shall extend the full width of the on-street parking lane.
- Must be lengthened to provide 50' min. of curbside bus stopping space, and shall provide a 10'x 50' concrete bus pad within the travel lane.

Concrete Bus Pads – Shall be provided at bus stops to improve long-term durability and maintenance of a street in locations where heavy transit vehicles regularly start and stop. Over time, asphalt pavement will shift and fail under the buses' weight at transit stop locations.

- A full-pavement depth, reinforced concrete bus pad, 10'x 50' in size, shall be constructed curbside at all bus stop locations.
- Where stops serve multiple bus routes and there is potential for more than one bus to be present, bus stop shall be long enough to accommodate more than one bus.



SNOW REMOVAL & STORAGE

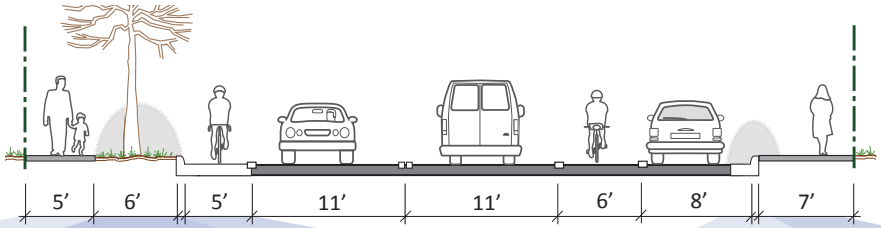


Street rights-of-way within the Town of Jackson must be designed to facilitate the removal and/or storage of significant snow accumulation. Traditionally, the Town and County have plowed streets, with private landowners and/or tenants responsible for plowing sidewalks. See pages 57-59 for a detailed discussion of current winter maintenance policies and a map of Town Plow Routes for sidewalks and pathways.

This toolkit addresses a variety of winter maintenance needs and recommendations to be considered as part of street design. These include the following:

- ***Parking Lane Widths*** – page 20
  A 7.5' wide parking lane is acceptable for use within constrained right-of-ways. However, an 8' parking lane width is preferred in locations where the sidewalk furnishings zone is absent (i.e. – streets with attached sidewalks).
- ***Furnishings Zones*** – page 32
  Detached sidewalks are recommended to be constructed in all corridors, in part, to provide furnishings zones that create snow storage space removed from both street and sidewalk.
- Bicycle racks and other streetscape elements located with furnishings zones shall be designed to be removable in winter, as appropriate.
- ***Covered Boardwalks*** – page 35
  Within the Town Core, boardwalk canopies shall slope back toward the building to eliminate ice and snow retention on streets and sidewalks.
- Boardwalk canopy heights shall be 15' min. above street grade to avoid conflicts with winter street maintenance machinery.
- ***Attached Sidewalks*** – page 38
  Extra walkway width shall be provided where sidewalks are constructed at back of curb.
  In winter, a minimum 5' wide ADA clear travelway shall be maintained.
- Streets with attached sidewalks, narrow furnishings zones and/or curbside bicycle lanes require special considerations for winter maintenance. Recommended practice shall be plowing to the center of the road and removing snow from street center rather than piling it onto the furniture zone or attached sidewalks.
- ***Transit Access*** – page 40
  Winter maintenance shall include snow removal from all bus stop access routes and transit landing areas.
- Whenever possible, transit shelters, benches and bike racks are encouraged to be provided at back of sidewalk where they will not interfere with snow plowing activities.
- ***Curb Returns*** – page 43
  National guidance recommends that pedestrian curb ramps with return curbs be used in residential contexts. However, in Jackson, curb ramps with flared sides are recommended for use in all locations for ease of snow plowing of sidewalks.
- ***Bicycle Lanes*** – page 49
  The Town intent is to maintain year-round bicycle lanes through appropriate summer street sweeping and winter snow plowing maintenance practices.
- ***Bicycle Parking*** – page 53
  Bicycle parking facilities shall be sited to minimize impacts with snow plowing activities. Corrals located within streets and racks located within furnishings zones shall be designed to be removable in winter months.
- ***Maintenance Practices*** – page 57
  Snow and ice shall be promptly removed from both vehicular and pedestrian travelways.

Winter Plowing and R.O.W. Snow Storage Considerations



Detached Sidewalks

- Maintain 5' min. clear width in winter
- Resident/ Business responsibility unless on a Town Plow Route

Furnishings Zone

- Provides space for snow storage removed from street and sidewalk
- Recommended in all corridors
- Required on streets with curb-side bike lanes to maintain winter bicycle travelway widths

Curb-Side Bicycle Lanes

- Maintain 5' min. clear width in winter
- Town Crews responsible for snow plowing of streets

Street Edge

- When a furnishings zone is not present, snow wind-rows often accumulate within the parking lane and gutter pan, overflowing into sidewalk space

Attached Sidewalks

- Maintain 5' min. clear width in winter
- Landowners/ Business responsibility unless on a Town Plow Route

NEIGHBORHOOD TRAFFIC CALMING

Traffic calming is a term for neighborhood traffic management achieved by adding physical design features to a street. The intent is to slow or reduce motor vehicle traffic, improve neighborhood livability, and enhance safety for people bicycling and walking.

Traffic calming shall be considered in two situations in Jackson, as follows:

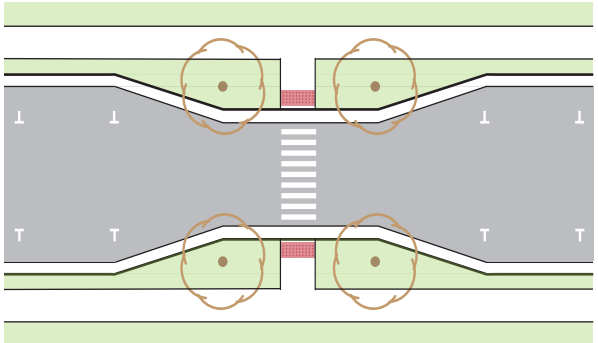
- ***Neighborhood Requests***
  At the request of neighborhoods that are experiencing problems with speeding traffic, a radar gun shall be used to collect information on actual travel speeds. Streets where traffic exceeds 30 mph will be considered for traffic calming enhancements.
- ***Cross-Town Non-Motorized Route***
  Street segments along a designated route targeted to promote cross-town biking and walking (see maps on pages 12 and 60) shall be considered for neighborhood traffic calming enhancements combined with various other bicycle and pedestrian treatments presented in this toolkit.

All Character Districts

The following measures have been used effectively to calm traffic in neighborhoods in communities nationwide. The recommended design treatments intend to slow motorist travel speeds by visually and physically narrowing the street in select locations, often using horizontal deflection to alter the lateral path of through vehicular traffic.

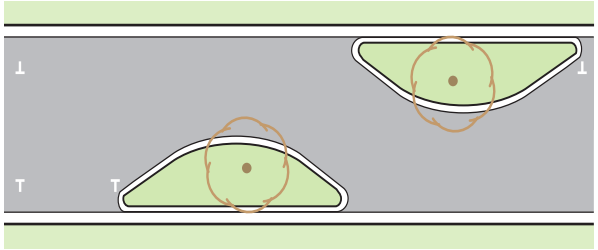
(It should be noted that traffic calming measures that alter the vertical path of travel – i.e. speed humps, speed tables, raised crosswalks, etc. – are discouraged in most communities on collector streets and emergency routes, and are not recommended for routine implementation on any street in Jackson due to additional problems created for snow removal and street maintenance crews.)

Recommended design treatments for consideration in Jackson include the following. The various treatments may be combined within a corridor or neighborhood for effective traffic management. Town engineering standards shall be developed and referenced for specific details of construction:



Chokers –
Curb extensions located mid-block that narrow a street by extending the sidewalk or widening the planting strip. Are appropriate on local and collector streets, and main roads through small communities.

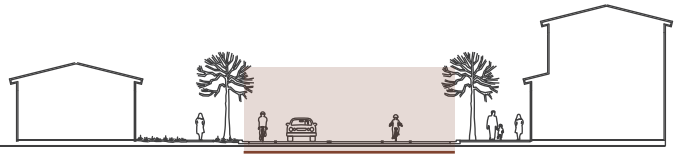
- Chokers physically narrow the street by removing on-street parking at the location of the curb extensions.
- Street width at point of constriction is typically 20' for two-way traffic.
- Street trees should be planted within the curb extensions to visually narrow the width of the street.
- Chokers must be designed to accommodate adequate drainage.
- May be combined with a crosswalk to create shortened and more visible mid-block pedestrian crossings. Shall be considered in target locations along school walking routes and for at-grade crossings of the pathway system.

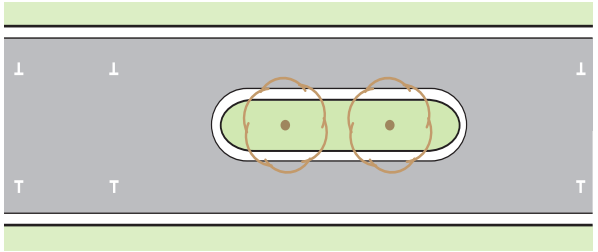


Chicanes –
A series of curb bulbs that slow traffic through lane shifting and creation of a narrow, winding section of travelway. Are appropriate on local streets in mid-block locations only.

- Typically, are a series of at least 3 curb extensions that alternate from one side of the street to the other, forming S-shaped curves in the through travelway.
- Since they result in elimination of some parking, chicanes are generally only installed in locations where there is low demand for on-street parking.
- Must be designed to accommodate adequate drainage. Typically, are implemented as curb bulb islands that allow gutter drainage to continue between the chicane and the original curb line.
- Chicane design should create shifts in alignment of at least one lane width, deflection angles of at least 45 degrees, and use islands to prevent drivers from taking a straight "racing line" through the feature.
- Chicanes may be used to add attractive landscaping to a corridor. Street trees planted within the curb bulbs will aid in visually narrowing the width of the street.
- On Town of Jackson streets that are 30' wide with parking located on one side of street only, a chicane effect may be created by alternating stretches of parking between sides of the street.

TRAFFIC CALMING, cont.

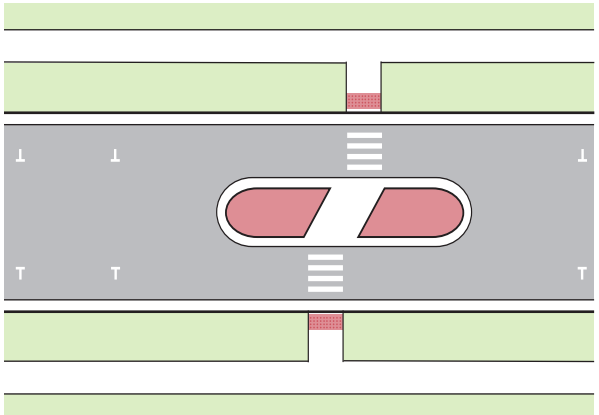




Raised Median Islands –
Elevated areas in the middle of a street. Are appropriate for installation on all types of streets.

- A median is the portion of a street separating opposing directions of the roadway. Medians may be depressed, raised, or flush with the road surface, and are generally linear and continuous through a block.
- Where no median is present, raised islands can be used as traffic calming features to briefly narrow the travelway – either in mid-block locations, or to signify neighborhood entrances and community gateways.
- Shall be considered in locations with minimal impacts to parking and driveway access.
- Can provide space to locate signage, traffic control devices, landscaping, and stormwater management.
- Street trees, public art, welcome signage and/or special landscaping shall be encouraged within median islands to provide visual amenity and neighborhood identity.
- Space for median islands can be created by removing select on-street parking spaces, thereby creating a chicane effect, or center islands may be installed on wide streets by narrowing travel lanes.

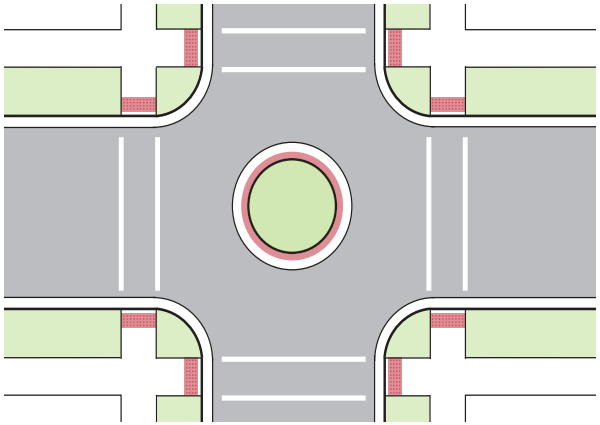
Crosswalk Refuges –
Raised median islands installed in locations between intersections where a marked crosswalk is provided. Are appropriate in areas with heavy pedestrian traffic to provide more frequent crossing opportunities, and near major pedestrian destinations, such as schools, where people might otherwise cross at unmarked locations.



- Help to make streets and neighborhoods more walkable by reducing pedestrian crossing width and providing a mid-point refuge.
- Allow people to cross one direction of vehicular traffic at a time.
- The central crosswalk refuge area shall be angled to encourage pedestrian view of on-coming traffic.
- Landscaping refuge islands may visually enhance the street, but may also limit visibility of people in the crosswalk if proper plant materials are not selected.
- Mid-block crossings may or may not be regulated. HAWK signals or other pedestrian-actuated traffic control devices shall be considered at crossings of busier streets.

Traffic Circles –
Raised islands, placed within intersections, that require drivers to slow to speeds that allow them to comfortably maneuver around the circle. Are appropriate on local neighborhood streets.

- Used primarily to reduce collisions at intersections, traffic circles or mini-roundabouts can also reduce speeding along residential street corridors and improve bicycle and pedestrian safety.
- Are usually landscaped, although not always.
- Are often controlled by YIELD signs on all approaches, but many different signage options can be used.
- Typically include a mountable outer ring to accommodate turning movements of large vehicles such as school buses and trash trucks.



Other Design Solutions –
The above traffic calming measures are generally recommended for low-volume streets (<4,000 vehicles per day). On street segments where traffic volumes exceed 4,000 ADT, other design solutions such as restriping to narrow vehicular lanes, adding bicycle lanes, or providing a parallel cycle track or multi-use path should be explored on a case-by-case basis.

Toolkit Part 2 – Designing for Pedestrians

Pedestrian facilities must be usable by people of all ages and various visual and mobility capabilities. Integrating pedestrian accessibility into community transportation plans makes public spaces better for everyone. Year-round walkable neighborhoods and public spaces benefit residents, visitors, transit users, school children, the work force, and the elderly.

The Town of Jackson Community Streets Plan is focusing on enhancing pedestrian infrastructure to improve walking comfort, safety, and convenience. Part of this means meeting basic accessibility needs established by the Americans with Disabilities Act (ADA). In most cases, the national ADA guidance referenced below represents the minimum acceptable standard to accommodate pedestrians, including persons with vision impairments and assisted mobility needs. Local jurisdictions are encouraged to design and set codes beyond these minimum standards to facilitate access for a wider spectrum of people.

The regulatory framework for the ADA is complex and evolving, and includes the following:

- *Revised Draft Guidelines for Accessible Public Rights-of-Way* (11/23/2005) - see *Chapter R3: Technical Provisions*
- *ADA Standards for Transportation Facilities* (11/29/2006)
- *ADA Standards for Accessible Design* (9/15/2010)
- *Proposed Guidelines for Pedestrian Facilities in the Public Right-of-Way* (7/26/2011)
- *Proposed Supplements to Proposed Accessibility Guidelines for Pedestrian Facilities in the Public Right-of-Way; Shared Use Paths* (2/13/2013)

Americans with Disabilities Act (ADA)

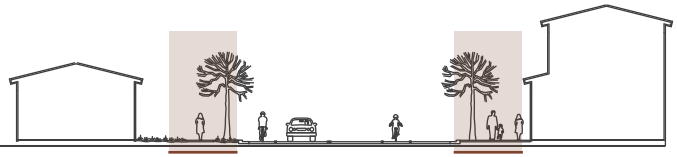
The 1990 Americans with Disabilities Act is a civil rights law that outlines minimum accessibility standards to be applied to all public environments, with Title II addressing access by public entities and public transportation providers. The *2010 ADA Standards for Accessible Design* are the foundation for designing all pedestrian environments. Additional, specific requirements for public rights-of-way are currently in draft form. Rather than a standard for dimensions, the ADA accessibility guidelines should be considered as minimum criteria.

Public Rights-of-Way Accessibility Guidelines (PROWAG)

The U.S. Access Board is developing additional guidance for pedestrian accommodation for numerous elements not covered in the 2010 ADA update. The 2011 PROWAG guidance has not yet been adopted by the U.S. Department of Justice, but public entities should be prepared to develop and/or update transition plans for facilities to secure future funding for transportation projects. The PROWAG guidelines would not require that alterations be made to existing public rights-of-way, but would apply to the design, construction, additions to, and alterations of facilities within the public right-of-way to the maximum extent feasible.

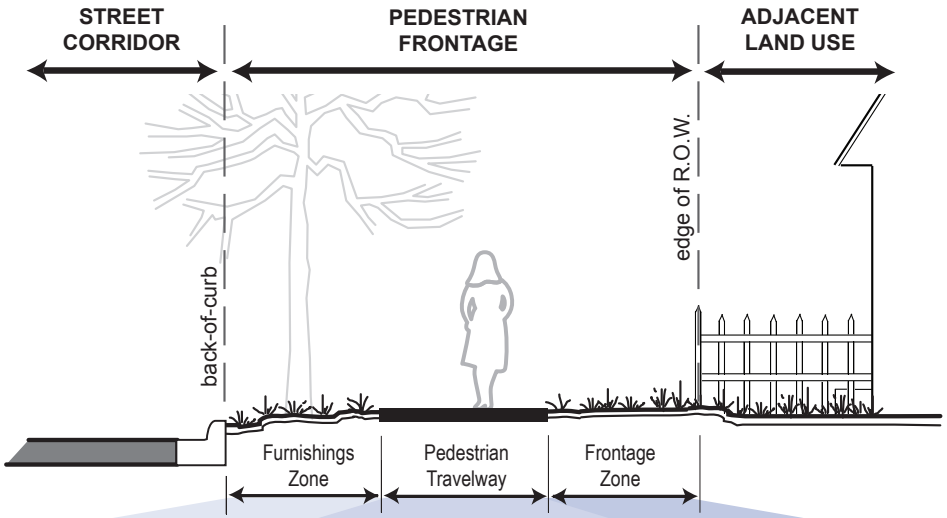
Materials reflecting the draft 2011 guidance have been used in developing the *2015 Town of Jackson Community Streets Plan* toolkit. More detailed PROWAG information is available at http://www.access-board.gov and through courses taught by the Federal Highway Administration (FHWA) and the Rocky Mountain ADA Center.

THE PEDESTRIAN FRONTAGE



The pedestrian frontage includes the public space located between back-of-curb and edge of right-of-way. It is comprised of three distinct zones, with recommended design treatments varying by neighborhood context and ground-floor building uses.

In all neighborhood contexts within the Town of Jackson, the following basic elements of accessible sidewalk design must be met within the pedestrian frontage. In most locations, these minimum ADA requirements shall be exceeded.



In all instances, a Pedestrian Access Route (PAR) – defined as the continuous and unobstructed walkway that provides accessibility – shall be provided.

The ADA PAR shall be connected to street crossings by curb ramps or blended transitions, and includes walkways, sidewalks, crosswalks, and accessible ramps and other structures within the public right-of-way. The PAR must provide at least 4' width of unobstructed travelway access.

*Minimum ADA Requirements**

Furnishings Zone

- Keeps the pedestrian travelway free of obstacles by providing space for street furniture (signs, benches, trees, fire hydrants, etc.) and for snow storage.
- Buffers pedestrians from traffic and parked cars.
- Makes it easier to provide accessible ramps and driveways.
- No objects allowed to protrude into PAR.
- All tree grates should be placed within the furniture zone, outside of the pedestrian travelway.

Pedestrian Travelway

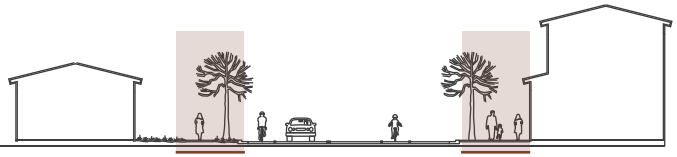
- Area reserved for pedestrian travel - includes ADA PAR.
- Must maintain 4' min. free of obstacles and protruding objects, exclusive of the width of the curb.
- Per ADA, if <5' in clear width, must provide passing spaces 5' x 5' in size, at intervals of 200' max.
- Walkway cross slope shall be 2% max.
- Grade of walkway and crosswalk (street crown) 5% max. or follow general parallel roadway grade.
- On steep or long grades, provide rest areas at reasonable intervals.
- Walkway surfaces must be firm, stable, and slip resistant.
- Vertical surface discontinuities shall not exceed ½" max.
- Vertical lips between ¼" and ½" shall be beveled with a slope not steeper than 50%.
- Openings in walkway grates and joints shall not permit passage of a sphere more than ½" in diameter. Elongated openings shall be placed with the long dimension perpendicular to the dominant direction of travel.

Frontage Zone

- Semi-public/private space.
- Provides room for doors, planter boxes, fences, signs on buildings, etc.
- Is the "shopping zone" that encourages window shopping activity in commercial areas.
- Must be free of any obstacles that overhang or protrude into the PAR.

**based upon 2011 PROWAG guidance*

PEDESTRIAN FRONTAGE, cont.

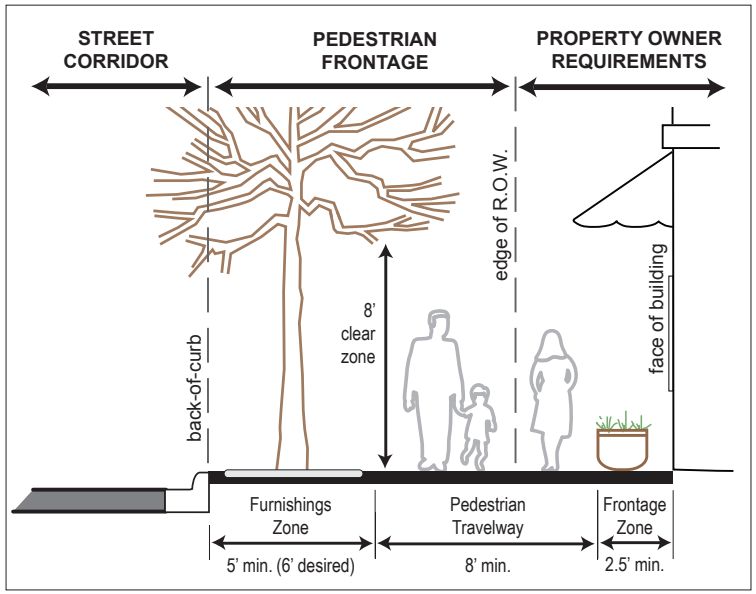


The pedestrian frontage will need to be developed to higher standards than national ADA minimums to create high-quality walking environments that encourage daily utilitarian use and foster social activities such as walking for fitness or strolling and lingering along store fronts.

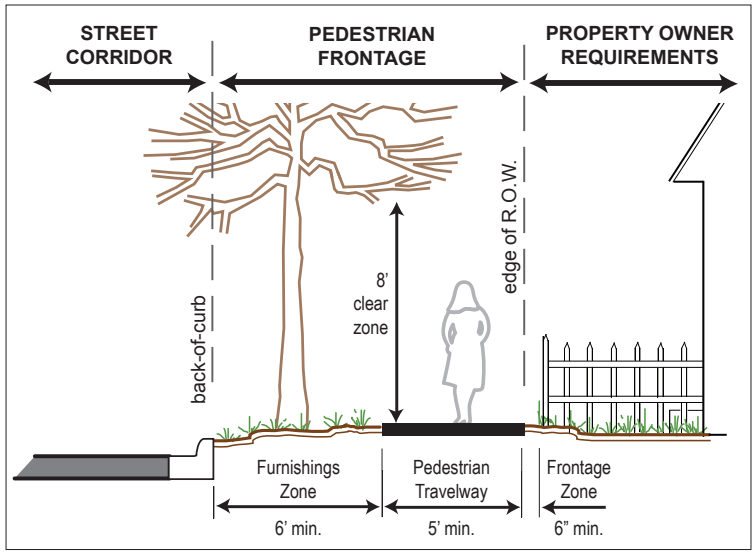
Applying design considerations discussed on page 15, pedestrian infrastructure elements are largely determined by the adjacent neighborhood context. Two general pedestrian frontage configurations shall be used depending on the type of ground-floor uses that abut the sidewalk.

Minimums depicted at right shall be used within mixed-use areas where a vibrant streetscape is desired within Character Districts #1 & 2. To accomplish this cross-section, part of the pedestrian travelway and frontage zones may need to be accommodated as part of private building frontages and setback requirements, per the LDRs. This semi-public/ private zone provides adequate pedestrian travelway width to accommodate desired higher levels of pedestrian activity.

Travelway characteristics are a second consideration in the design of the pedestrian frontage. Wherever possible, sidewalks are desired to be detached, or separated from the street corridor by a furnishings zone. This separation is especially needed on streets with moderate to high traffic volumes and speeds. On-street parking and/or on-street bicycle lanes may serve as the desired buffer from traffic where limited right-of-way space necessitates the construction of attached sidewalks.



Commercial Pedestrian Frontage



Residential Pedestrian Frontage

Mixed-Use Context

Applicable in mixed-use Character Districts #1, 2, 4, & 5 where ground-floor commercial, office and/or retail are present or desired:

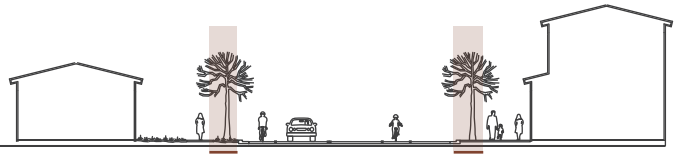
- Furnishings zones shall be paved; use of colored, textured surfacing or boardwalks is recommended.
- 3" min. caliper street trees shall be planted in 5'x5' min. tree wells.
- Travelway/clear zone width of 8' min. is required within the Town (Tn) neighborhood form to allow two pair of pedestrians to meet and pass. A 6' min. width shall be permitted in Village Center (VC) forms where necessary due to R.O.W. constraints.
- Frontage zone widths shall be 2.5' min. to allow for window shopping, planters, door openings, etc.
- All street furniture, public art, utility poles, outdoor dining, etc. shall be located outside of the 8' pedestrian travelway.

Residential Context

Applicable in Character Districts #3, 4, 5, & 6 where ground-floor residential is present or desired:

- Furnishings zone shall be a 6' min. landscape buffer planted with street trees.
- Travelway/clear zone width shall be 5' min. to meet ADA requirements and facilitate snow removal.
- In areas with higher residential densities, a 6'-7' wide travelway is preferred where R.O.W. allows.
- Residential frontage zones should range in width from 6" along lawns to 1.5' for clearance from walls, fences, and hedges.

FURNISHINGS ZONE



The furnishings zone is the area of the street right-of-way that provides a buffer between pedestrians and vehicles. It is created by constructing detached sidewalks, with the space in between the curb and sidewalk designated for landscaping, public street furniture, public signage, utilities, lighting, public art, bike racks, transit stops, shelters, and other streetscape elements. The intent is to ensure that the pedestrian travelway is free of ALL obstacles.

In addition to providing space to keep streetscape furnishings from becoming obstructions in the pedestrian travelway, this zone makes it easier to accommodate accessible pedestrian ramps and driveways. The preferred designs for both treatments are depicted at right. Provision of a furnishings zone allows the sidewalk to remain level while accommodating driveway aprons, and positions the sidewalk to transition into a perpendicular pedestrian curb ramp aligned with crosswalks at intersections. The furnishings zone also provides a place in winter for snow to be stored off of both street and sidewalk.

Key design details include:

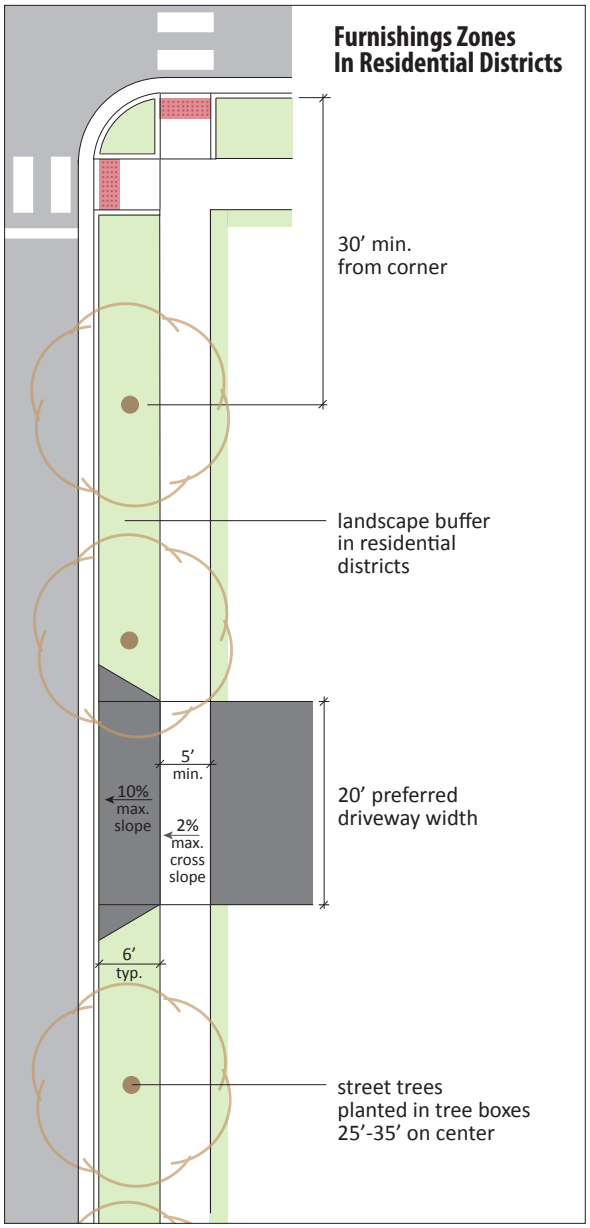
- Shall be 5' min. in width, with 6' preferred to better accommodate ADA pedestrian ramps at a 1:12 slope and provide more space for healthier street tree growth.
- Shall be hardscape within commercial corridors, and a landscape buffer within residential neighborhoods.

Where R.O.W. is constrained, attached sidewalks may be provided on local streets, but will require approval as an exception by the TAC and/or Town Council. If existing private development encroaches into the right-of-way, sidewalks may be attached where needed, but shall be discouraged for construction along the entire length of a corridor. See pages 38-39.

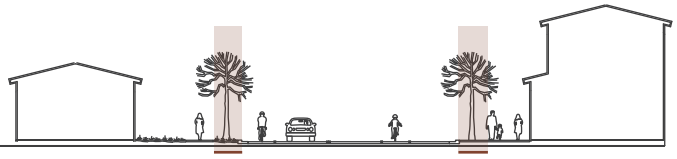
All Character Districts

Design considerations for various elements to be provided within furnishings zones within all character districts include the following:

- ***Street Trees*** – Street trees are preferred to be maple, ash, or a Town-approved species.
- All street trees shall be shall be planted in tree boxes and be irrigated, per Public Works standard.
- Avoid planting anything smaller than 3" caliper trees.
- Space trees 25'- 35' on center to provide a street canopy of shade over the sidewalk.
- Trees shall not be planted closer than 30' of any street corner, measured from the point of nearest intersecting curb or curb line. Trees shall not be planted closer than 10' of any fireplug.
- No street trees other than those described as small may be planted under or within 10 lateral feet of any overhead utility or over or within 5 lateral feet of any underground water line, sewer line transmission line or other utility.
- Trees shall be maintained to a minimum height of 12' above the street and 10' above the sidewalk.
- ***Driveway Crossings*** – Driveway widths shall not exceed 20' in width on a 50' lot, or 40% of the street frontage.
- A 5' min. width pedestrian travelway shall be maintained across the entire driveway.
- Per ADA, the sidewalk cross slope shall not exceed 2% and users shall not be forced to travel over driveway apron flares. This results in rapid changes in cross slope, which comprises balance and stability for elderly and wheelchair users, and during winter conditions.
- (See page 38 for additional driveway considerations when detached sidewalks are not provided.)
- ***Signs, Signals, Utilities, and Street Lighting*** – All utilitarian streetscape elements shall be located within the furnishings zone.
- All elements must maintain a 1.5' lateral clearance from curb.



FURNISHINGS ZONE, cont.

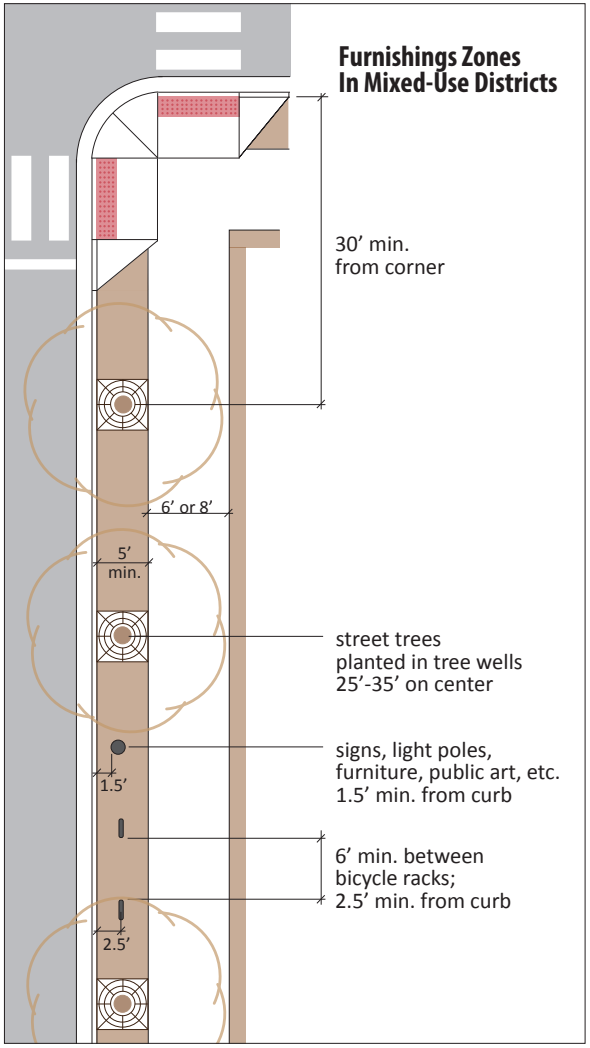


- ***Protruding Objects*** – Obstacles placed within the furnishings zone may not protrude into the minimum clear zone of the pedestrian travelway.
- Pedestrians with vision impairments can usually detect obstacles on the sidewalk below a height of 80". However, objects that protrude into the sidewalk space between 27"- 80" and do not extend to the ground shall be avoided.
- ***Transit Stops and Amenities*** – Transit shelters, bicycle parking, and furniture groupings may be located within the furnishings zone. See page 40 for details.

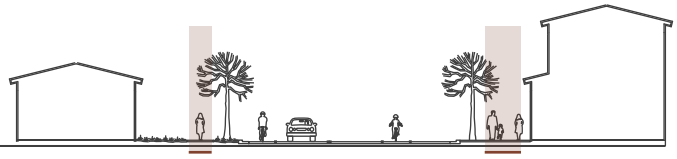
Mixed-Use Context

In Character Districts #1, 2, 4, and 5 where Town (Tn) and Village Center (VC) neighborhood forms are desired, the following additional guidelines shall apply. These guidelines shall also apply to enhanced pedestrian corridors in Transitional subareas of Character District #2. These mixed-use corridors include East Broadway, South Willow Street, Snow King Avenue, and South Cache Street.

- ***Street Trees*** – Since furnishing zones within mixed-use neighborhoods are to be paved or boardwalks, landscape treatments shall include street trees planted in tree wells with ADA compliant tree grates.
- Minimum tree well size shall be 4'x 4' but 5'x 5' or a larger area of permeable surface is preferred, as trees tend to spread shallow roots outward when they do not get enough water, which can break up the surface of the sidewalk.
- ***Landscaping*** – Other landscaping within mixed-use areas shall be provided in pots, planters, raised beds, or hanging baskets, as long as neither structure nor vegetation protrude into the pedestrian travelway.
- Landscape buffers are generally not appropriate in areas with ground-floor commercial use.
- ***Street Furniture*** – Benches, trash receptacles, pedestrian signage, fountains, bicycle parking, and other elements that help to activate streets as public space shall be located within furnishings zones in mixed-use areas, with all elements located 1.5' min. from curb.
- Inverted-U bicycle racks shall be positioned 2.5' from curb, with a 6' min. spacing from each other and other street furniture. (See *APBP Parking Guide*.)
- ***Public Art*** – Art in public spaces shall be encouraged and provided per the *Town of Jackson Public Art Guidelines*. To enhance pedestrian spaces in mixed-use areas, public art may be free-standing within the furnishings zone, suspended from light poles, integrated into the design of furniture groups, bicycle parking, and/or transit shelters, and incorporated into paved surfaces.
- The scale and intensity of the art should vary according to the intensity and character of the surrounding neighborhood context. Interactive public art is appropriate within the pedestrian frontage where strolling and lingering activities are desired and to be encouraged. In contrast, monuments are appropriate along major streets and especially within designated gateways where they can figure prominently into the public image of the community and help to serve a traffic calming function.
- All art installments must meet requirements for an 8' min. clear zone above the sidewalk, with no protrusions allowed into the pedestrian travelway.
- Public art shall strive to give identity to unique districts and add character to complete neighborhoods and complete streets. The Public Art Overlay Map (once developed) shall be used to guide appropriate art locations within the public right-of-way and as part of new private development projects.
- Placement of public art and monuments shall not obstruct drivers' views of traffic control devices, be a distraction, or be located in a manner that could create a roadside hazard to motorists or pedestrians.



PEDESTRIAN TRAVELWAY



The area of the sidewalk corridor reserved for pedestrian travel shall be free of all obstacles, protruding objects, and vertical obstructions.

It is the Town of Jackson intent that all new and reconstructed pedestrian travelways be built as detached sidewalks, per the following guidance:

All Character Districts

- ***Sidewalk Width*** – Per ADA, the pedestrian travelway must never be less than 4′ wide, which is the minimum width required for people using a guide dog, crutches, or walkers. Wheelchair users need 5′ of sidewalk space to turn around, and 6′ to pass other users.
- Town of Jackson sidewalk widths shall be 5′ min. for detached sidewalks (recommended in all locations), and 6′ min. when attached to the street curb (allowed by exception only).
- ***Surface Treatments*** – Sidewalks shall be constructed of stable, firm, and slip resistant materials. Pedestrian travelway surfaces shall be smooth and continuous. Decorative paving treatments shall be reserved for use within the furnishings and frontage zones.
- If the pedestrian travelway is a boardwalk, maintenance shall ensure that no decking boards or protruding screws create tripping hazards.
- Drainage grates, utility covers, tree grates, etc. should be placed outside of the pedestrian travelway. However, when present within the walking surface, all grates and utility coverings shall be mounted flush and level with the surrounding sidewalk surface.
- Walkway joints and grate openings shall not allow passage of a 1/2″ sphere, with elongated openings placed perpendicular to the dominant direction of sidewalk travel.
- ***Obstacles and Protruding Objects*** – Pedestrians with vision impairments often travel using the edge of the building line. Protruding obstacles that do not extend to the ground are thus difficult to detect and avoid.
- Wall-mounted objects shall not protrude more than 4″ from a wall into the travelway when located between 27″ and 80″ above the sidewalk.
- Post-mounted objects shall not overhang more than 4″ per side of post when located between 27″ and 80″ above the sidewalk.
- ***Snow Removal*** – Sidewalks shall be kept free of snow and ice in winter months. See page 58 for Town snow removal policy.

Town Center (Tn)

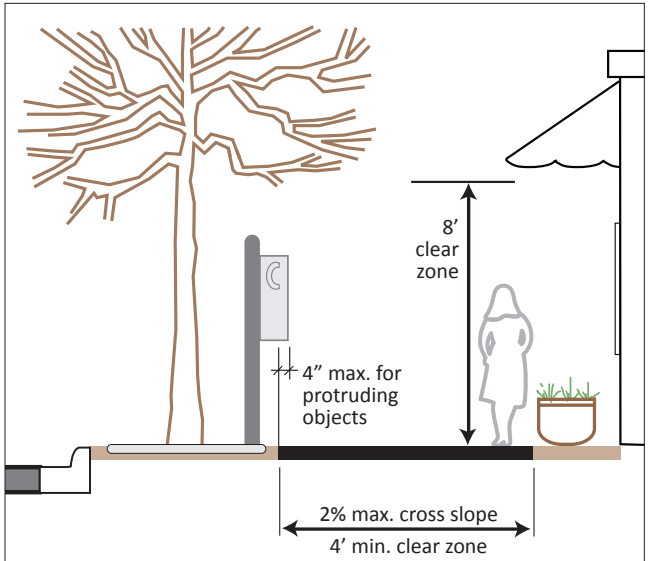
In Character Districts #1 & 2, the following is required:

- ***Sidewalk Width*** – The pedestrian travelway shall be 8′ min. in width to encourage and accommodate highest levels of pedestrian use. This sidewalk width, plus additional furnishings zone and frontage zone widths, allows for strolling, lingering, window shopping, and identity of Downtown Jackson as a pedestrian destination.

Village Centers (VC)

Within Character Districts #2, 4, & 5, where ground-floor commercial, office and retail is present, the following additional guidelines shall apply:

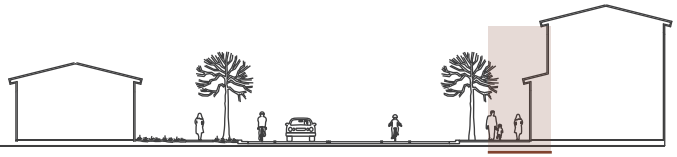
- ***Sidewalk Width*** – The pedestrian travelway is recommended to be 8′ wide to encourage and accommodate high levels of pedestrian use. This will allow for pedestrians to walk side-by-side, or for people walking in opposite directions to pass.
- In constrained mixed-use corridors, the pedestrian travelway may be narrowed to a 6′ min. width as an exception.



Recommended Sidewalk Widths
Where detached: 5′ min.
In mixed-use areas: 6′ min. / 8′ encouraged
Where attached to curb: 6′ min. / 7′ encouraged

The Pedestrian Travelway needs to be designed *and maintained* to be free of obstacles for a 5′ minimum width in all locations.

COVERED BOARDWALKS



Town Center (Tn)

Within Character District #1, the following guidelines shall apply to the pedestrian frontage to retain and replicate the western character of the historic center of Jackson Hole. A unique pedestrian experience shall be provided through consistent use of covered walkways within the Downtown Boardwalk District, as follows:

- ***Architecture*** – A variety of 2-3 story mixed-use structures shall create an active and engaging pedestrian experience by providing retail, dining, and commercial uses on ground floor, with office, residential, and/or lodging located on upper floors.
- All structures shall have a Western architectural style and approach that includes covered wooden boardwalks.

- ***Scope*** – Boardwalk construction shall be required within the Downtown Boardwalk District, as mapped on page 12 and coincident with the Town Square Zoning Overlay.
- The installation of covered boardwalks shall be required within the district except where crossed by driveway approaches or at pedestrian ramps located at street intersections.

- ***Installation*** – For new developments or redevelopments within the designated Downtown Boardwalk District, the Town of Jackson shall coordinate the purchasing and delivery of the materials for the boardwalk and inspect the construction to ensure is it to Town standard.
- The cost of the materials shall be borne by the private property owner, and the private property owner shall also be responsible for construction and associated costs thereof.
- ***Maintenance*** – Long-term maintenance of boardwalk (including all costs associated with the maintenance) so constructed shall be the responsibility of the Town.
- The private property owner shall be responsible for inspecting the boardwalk on a regular basis and reporting any necessary repairs to the Town of Jackson Department of Public Works in a timely manner.

- ***Boardwalk Design*** – All boardwalks shall meet criteria for providing an unobstructed pedestrian travelway that meets ADA criteria.
- Roof support posts and a building frontage zone shall be provided outside of the pedestrian travelway.
- Boardwalk surfaces shall be 2"x 6" decking without gaps, maintained to be free of protruding screws and/or warped boards.
- A 15' min. vertical roof clearance from street grade shall be provided to avoid conflict with equipment used to clear the street gutter of ice in the winter.
- Covered boardwalk canopies shall slope back towards the associated building and tie into the roof drainage system to eliminate ice and snow retention on streets and sidewalks.

- ***Setbacks*** – Consistent with the new *Land Development Regulations*, building setbacks (measured from back-of-curb to face-of-building) for structures with covered boardwalks shall be 15' min.

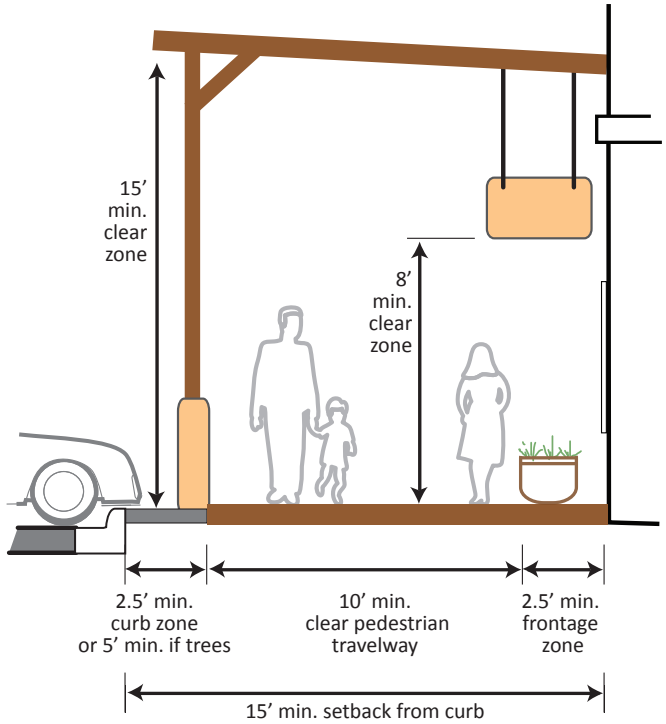
- ***Pedestrian Travelway*** – The pedestrian travelway on covered boardwalks within downtown commercial areas shall provide 10' of clear width to allow two pair of pedestrians to meet and pass.

An example of an existing covered boardwalk that is too narrow. Walkways within the Town Center shall be designed to be free of obstacles, including canopy support posts, for a 10' minimum width in all locations.

- Within the Town Square Zoning Overlay, part of the boardwalk pedestrian travelway may be accommodated on private property if within constrained R.O.W. See page 31.

- ***Frontage Zone*** – A min. 2.5' buffer zone of additional boardwalk width is desired to be provided on private property to accommodate door openings, window shopping, and merchandise displays.
- Where outdoor dining is desired, the frontage zone shall be increased to accommodate the boardwalk use without encroachment into the 10' pedestrian travelway. See page 37.

- ***Curb Zone/Furnishings Zone*** – The space between curb and covered boardwalk support posts shall be 2.5' min. to accommodate an edge or curb zone. This is needed to permit the opening of parked vehicle doors and/or prevent vehicle bumpers from hitting vertical support structures.
- Where street trees are desired in conjunction with boardwalks, the furnishings zone width shall be increased to the standard 5' minimum, with 6' preferred.
- ***Street Corners*** – At street corners with covered boardwalks and small turning radii, a blended transition curb ramp may be provided. See page 45.
- Detectable warning strips, contrasting surface materials, barrier posts, and/or raised planters are encouraged to help convey the transition between street and sidewalk.



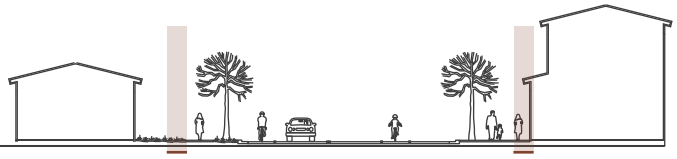
Recommended Boardwalk Widths
Within Town Center: 12.5' min.
Other Areas: 8.5' min. /10.5' encouraged

All Other Areas

Outside of the designated Downtown Boardwalk District, boardwalks may be constructed within other mixed-use areas as desired. The following policies shall apply, per *Town of Jackson Resolution 94-27:*

- ***Boardwalk Design*** – Boardwalks within mixed-use areas outside of the Town Center may be covered or uncovered.
- An minimum 8' clear pedestrian travelway width is desired, but may be reduced to a 6' clear width where needed within constrained R.O.W.
- ***Installation & Maintenance*** – In those areas of town lying outside of the designated Downtown Boardwalk District, private property owners shall have the option of installing and maintaining boardwalk at their expense.
- The Town shall be responsible only for inspecting the construction to ensure it is to Town standard.
- Town personnel shall be responsible for the construction of boardwalk only on those properties owned by the Town of Jackson and Teton County.
- ***Existing Boardwalks*** – In those areas of town lying outside of the designated Downtown Boardwalk District that have existing boardwalk in place prior to November 21, 1994 (passage of *Resolution 94-27*), the Town shall continue to maintain said boardwalk.
- However, the Town shall reserve the right to replace such boardwalks with concrete sidewalk at any time of its choosing.
- Should, at the time the Town decides to replace the boardwalk with concrete sidewalk, a private property owner express a desire to continue to have the boardwalk, the private property owner would then and thereafter be responsible for installing and maintaining the boardwalk at the property owner's expense.

FRONTAGE ZONE



The frontage zone is comprised of the semi-public/private space located between the edge of sidewalk and the building front or private property line. This space is used to buffer pedestrians from window shoppers, appurtenances, doorways, fences, landscaping, etc. Also called the "shy zone" or "shopping zone," it may contain private street furniture, private signage, merchandise displays, street cafes, and other amenities that add to the vibrancy of public space along complete community streets.

Successfully designed frontage zones are social spaces where pedestrians can safely participate in public life. In mixed-use business districts and downtowns, sidewalks need to be designed to accommodate larger volumes of pedestrian traffic than in residential areas. Streetscapes in these areas require increased frontage width for activities separated from the adjacent through pedestrian travelway. This space has been and will continue to be accommodated both within public right-of-ways and in private property setbacks where high levels of pedestrian activity are desired.

The following guidelines for mixed-use frontage zones are consistent with the *Town of Jackson Land Development Regulations (LDRs),* which currently specify a 15' min. setback from back-of-curb to face-of-building in Town Square, Urban Commercial, and Lodging Overlay Zones. As depicted at right and on page 31, a portion of the pedestrian frontage may be located within setbacks to provide desired amenities where inadequate R.O.W. is present.

Amenities within frontage zones shall be provided by the developer/tenant and may include additional sidewalk or boardwalk space, benches, bike racks, merchandise displays, potted plantings, signage, etc. Design and placement of all streetscape furnishings shall consider winter snow removal needs.

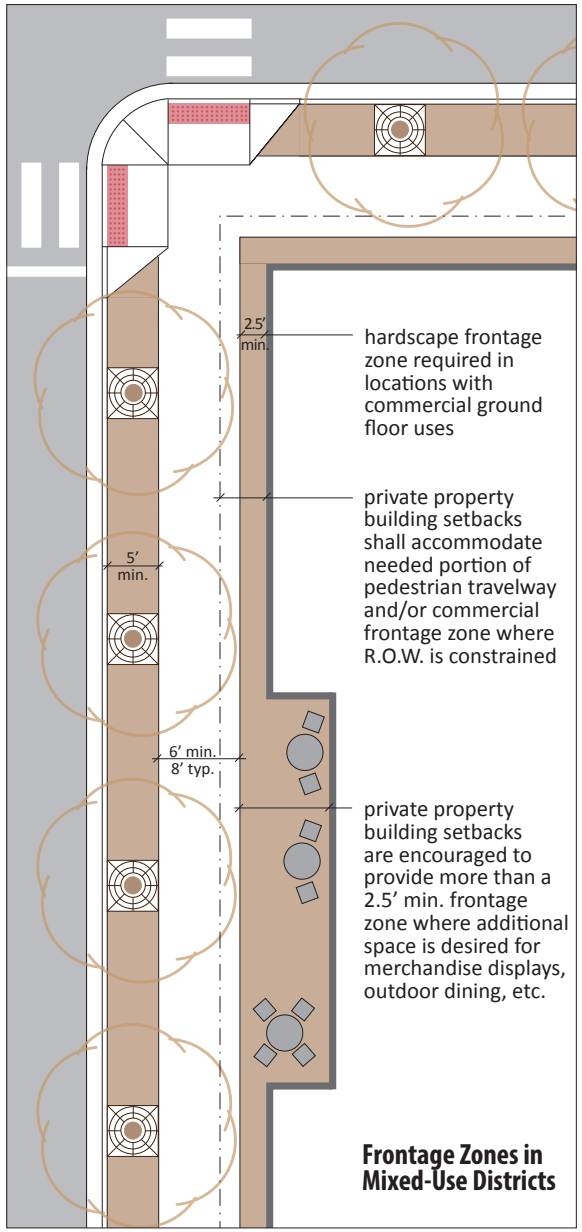
Mixed-Use Context

Applicable in mixed-use Character Districts #1, 2, 4, & 5 with ground-floor commercial, office and/or retail:

- Pedestrians generally do not feel comfortable walking directly adjacent to a building wall or fence. At minimum, they prefer to keep at least 2' of shy distance away from a building edge.
- Frontage zone width next to a building face shall be 2.5' min. to accommodate space for opening doors.
- Frontage zone widths may and shall varying along the building facade to accommodate additional space for site-specific sidewalk uses, and shall be included as part of the covered boardwalk space, where applicable.
- Where outdoor dining is desired within a limited-access enclosed area, an additional 6' min. of sidewalk width shall be provided to allow space for 3' tables serviced by a 3' wait staff aisle. This area must be provided outside of the pedestrian travelway clear zone.
- Commercial frontage zones shall be hardscape and typically be accommodated within the building setback on private property due to R.O.W. constraints.
- Bike racks and pedestrian amenities may be located within frontage zones. Designs that are removable to accommodate snow removal in winter are preferred.

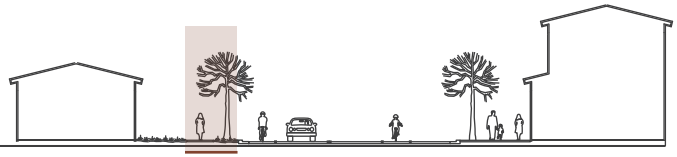
Residential Context

- In residential areas and along properties with parking lot screening, the frontage zone shall serve primarily to keep vegetation from encroaching upon the sidewalk.
- Recommended frontage zone widths are:
  - 0' along lawn and groundcover
  - 1' along low walls, fences and hedges
  - 1.5' along facades, tall walls and fences
- Residential frontage zones will typically be lawn or landscape and be accommodated on private property.



Frontage Zones in Mixed-Use Districts

ATTACHED SIDEWALKS



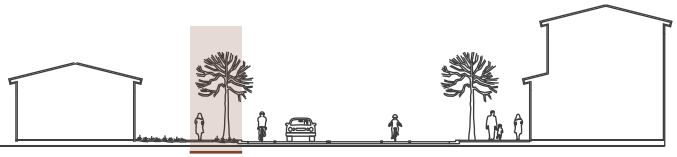
It is the Town of Jackson intent that all new and reconstructed pedestrian travelways be constructed as detached sidewalks. In select locations where there is inadequate right-of-way space to construct detached sidewalks and provide a furnishings zone, attached sidewalks may be constructed. An exception to complete streets policy shall be filed and will require approval by Town Council and/or the TAC.

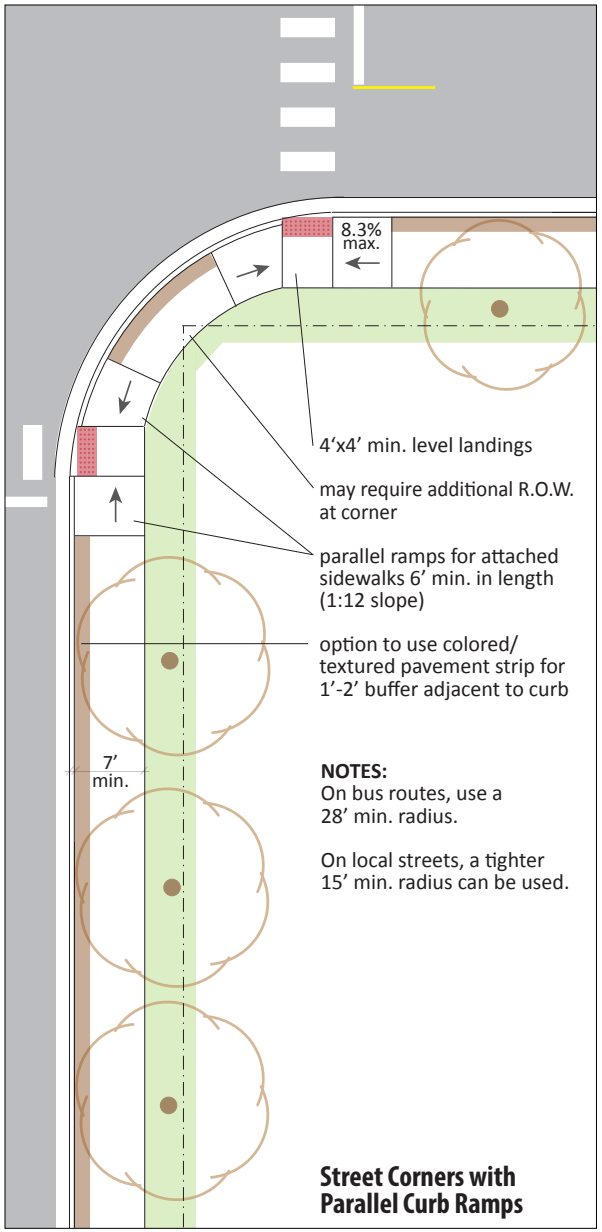
Guidelines provided on page 34 for detached sidewalks shall also apply unless otherwise noted. Additional design guidance to provide basic levels of pedestrian accommodation when constructing attached sidewalks include:

- ***Sidewalk Width*** – Attached sidewalks shall be a minimum of 6' wide (vs. 5' min. for detached sidewalks). 7' min. width is encouraged.
- ***Curb Buffer Zone*** – The first 1'-2' of sidewalk immediately adjacent to the street curb may be differentiated with colored and/or textured pavement to visually create a buffer zone between pedestrian and motor vehicle travel.
- ***Street Trees*** – Trees shall be planted along the back-of-sidewalk/edge of R.O.W. at 25'- 35' on center to provide a canopy of shade over the sidewalk.
- ***On-Street Parking*** – In corridors with on-street parking, attached sidewalks shall be located on the side of the street adjacent to the parking lane whenever possible to provide an alternative buffer between the pedestrian travelway and vehicular travel lanes.
- ***Pedestrian Curb Ramps*** – Attached sidewalks create additional challenges to providing ADA curb ramps and level landings at street corners. (See detailed ramp discussions on pages 43-45.)

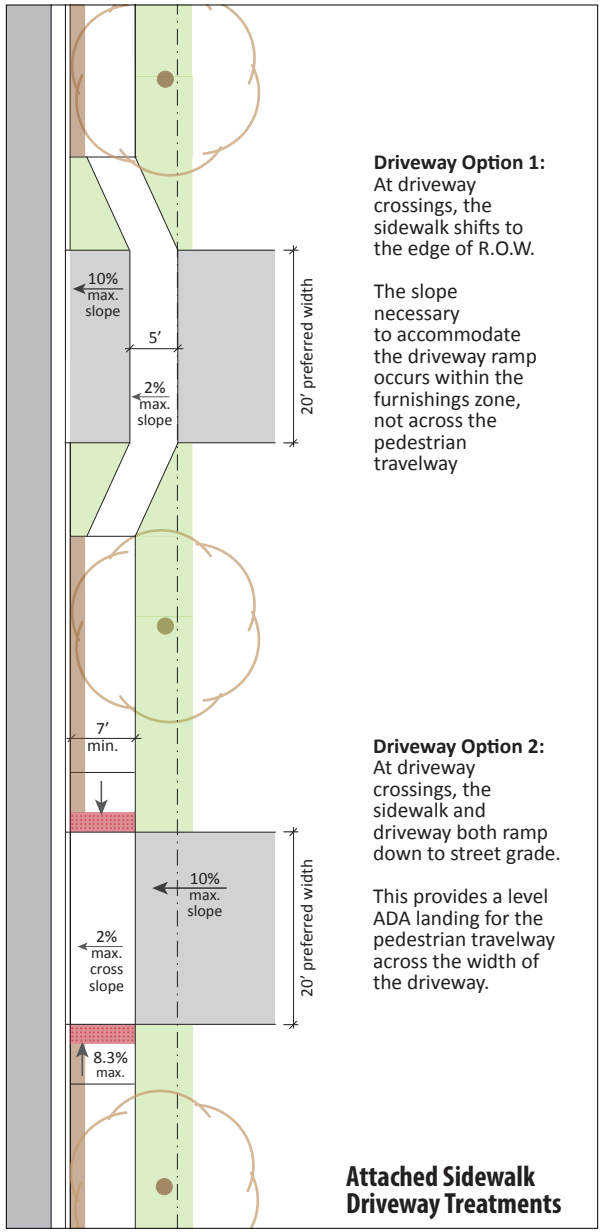
  Solutions for attached sidewalks typically must involve indirect paths of pedestrian travel and/or frequent sidewalk grade changes. Design solutions may include:
  - Two ***parallel curb ramps*** shall be used at intersections with attached sidewalks and wide turning radii, even though they force users who are continuing on the pedestrian travelway to negotiate two ramp grade changes, as illustrated opposite.
  - A pair of ***perpendicular curb ramps*** with a shared level landing area shall be used at street corners with small turning radii, as depicted on page 22. As the attached sidewalk approaches the intersection, the alignment of the pedestrian travelway shall gradually shift location from back-of-curb to a detached sidewalk position to align with the curb ramp and crosswalk.
  - In difficult locations, ***combination curb ramps*** may be required. Such ramps require site-specific design to combine elements of parallel and perpendicular curb ramps. Level landings, 4'x 4' min. in size, are required and *Public Rights-of-Way Accessibility Guidelines (PROWAG)* shall be referenced for additional guidance.
  - A single ***diagonal curb ramp*** shall not be used for reasons presented on page 45.
- ***Driveway Crossings*** – Driveway crossings often create frequent grade changes along a sidewalk, often with steep cross slopes that create difficulties for pedestrians using wheelchairs and walkers. Driveway crossings must therefore be level and not force sidewalk users to travel over flared sides of driveway ramps. The following guidance applies:
  - Driveway widths shall be limited to 20' of pavement or 40% of street frontage, per *LDRs*.
  - A required 5' min. width pedestrian travelway, with a 2% max. cross slope, shall be maintained across all driveways.
  - Two options are available to accommodate driveway crossings of sidewalks, as depicted opposite page. The first acceptable design is to shift the sidewalk alignment to skirt the driveway apron and provide a level landing away from the street.
  - An alternative design is to cross the driveway at street grade using parallel pedestrian ramps to lower the sidewalk to street/driveway grade, avoiding any potential drainage problems. A detectable edge or lip shall be provided for pedestrians with visual impairments to distinguish the sidewalk and street boundary at the base of the driveway.
- ***Mature Vegetation*** – Where it is desirable to preserve mature trees that are located within or immediately adjacent to the pedestrian frontage, consider using a mid-block curb extension to route a continuous sidewalk around the tree or other obstacle.
  - Curb extensions shall be constructed the full width of the parking lane.
  - Sidewalk segments along back-of-curb shall be widened and may use colored and/or textured pavements to delineate a buffer zone.
- ***Encroachments*** – Locations where existing development on private property encroaches into the right-of-way may mandate retrofit construction that includes attached sidewalks.
  - Such treatment shall be implemented through the constrained area, returning to construction of detached sidewalks once past the encroachment.
  - Construction of attached sidewalks along an entire corridor shall be discouraged.

ATTACHED SIDEWALKS, cont.





Street Corners with Parallel Curb Ramps



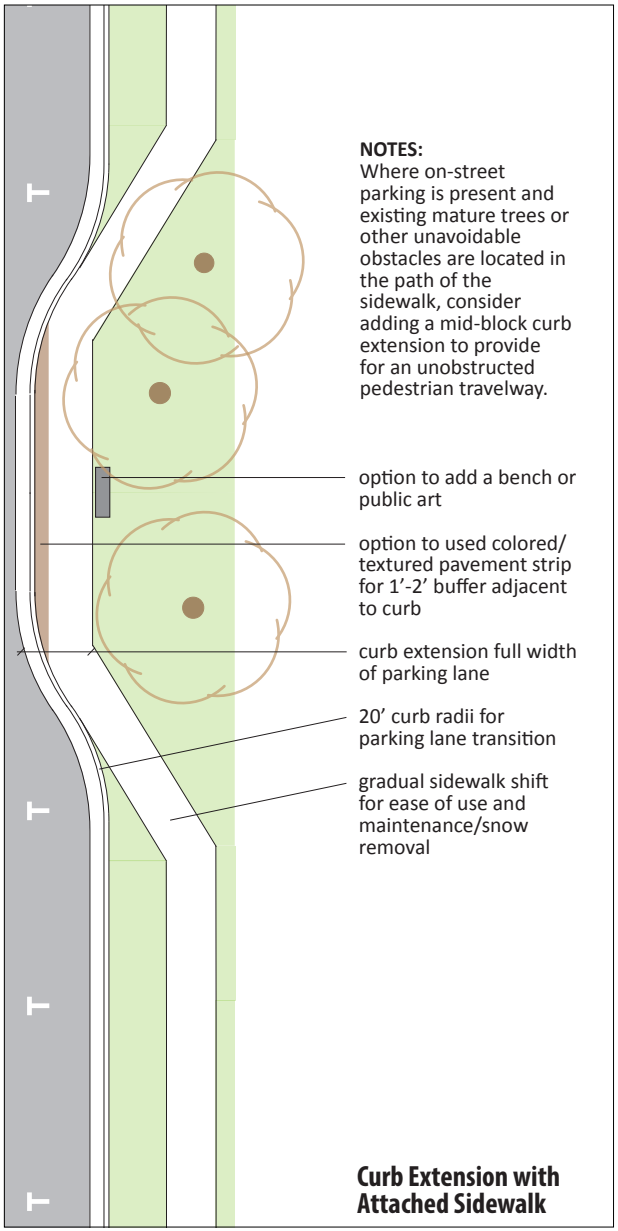
Driveway Option 1:
At driveway crossings, the sidewalk shifts to the edge of R.O.W.

The slope necessary to accommodate the driveway ramp occurs within the furnishings zone, not across the pedestrian travelway

Driveway Option 2:
At driveway crossings, the sidewalk and driveway both ramp down to street grade.

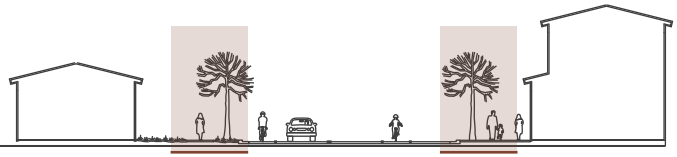
This provides a level ADA landing for the pedestrian travelway across the width of the driveway.

Attached Sidewalk Driveway Treatments



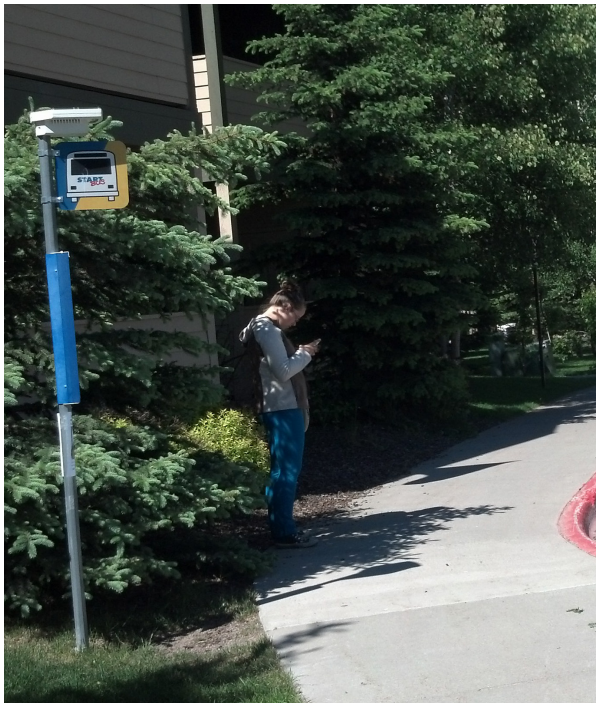
Curb Extension with Attached Sidewalk

TRANSIT ACCESS & AMENITIES



Addressing needs of "the first and last mile" of public transportation is a major requirement for increasing transit ridership. The Town of Jackson intends to use its *Community Streets Plan* to systematically improve and enhance the overall pedestrian environment to provide convenient access to START transit stops.

This policy includes meeting ADA requirements to provide a continuous pedestrian access route to a paved landing area at all bus stops within the Town of Jackson. In addition, comfort amenities for waiting passengers will be strongly encouraged, and often shall be required, based upon the neighborhood context, as follows.



All Character Districts

The following minimum design details shall apply in all locations:

Pedestrian Access Route (PAR) –

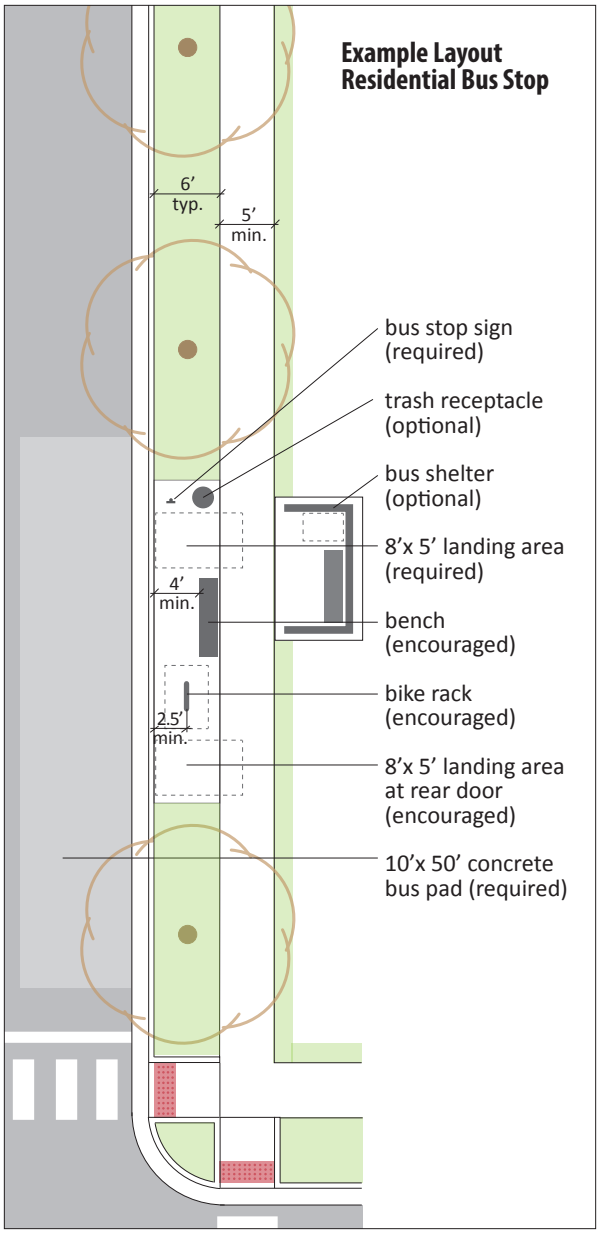
- In all locations, bus stops shall maintain a 4' min. pedestrian travelway width free of obstacles and protruding objects.
- This shall also include 4' min. of space in front of shelters, benches, and other waiting amenities.
- The PAR surface shall be stable, firm and slip resistant (paved) with a 2% max. cross slope.

Passenger Landing Areas –

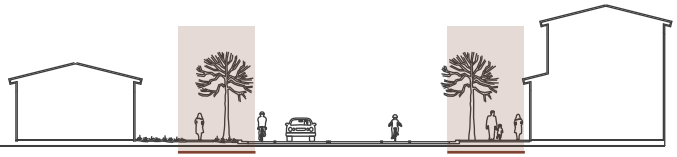
- Shall be provided at all bus stop locations to facilitate boarding and alighting of wheelchair passengers on transit vehicles using lifts or ramps.
- Shall provide a minimum clear length of 8' (measured from the curb or roadway edge) and minimum clear width of 5' (measured parallel to the roadway).
- Shall be paved, contiguous to the sidewalk, and have a maximum 2% cross slope.
- The 8' landing area length may extend into and overlap the unobstructed PAR.
- The landing area shall not be obstructed by any physical features such as bus stop sign poles, utility poles, shelters, or bus stop amenities.

Bus Stop Sign –

- Shall be installed in all locations to identify the bus stop.
- Poles shall be placed 2.5' from the curb.
- Should be located adjacent to the passenger landing area so that passengers know where to board and that all bus drivers know exactly where to stop.



TRANSIT ACCESS, cont.



Residential Context

Bus stops that serve residential areas on local streets with low ridership and less frequent transit service shall provide the following:

- A furniture grouping comprised of a bench, trash receptacle, and bike rack is recommended.
- Bus loading pads shall be provided within the furnishings zone, connecting sidewalk to curb.
- Transit amenities shall be provided on an area of additional paved surface. This may be either located within the furnishings zone, or on the back side of the sidewalk, which will be outside of the public R.O.W. on private property.

Benches –

- Are encouraged at all stops.
- May not compromise pedestrian accessibility by partially blocking the sidewalk or extending onto the passenger loading pad.
- Shall be oriented either towards the street or the direction of the approaching bus.
- May vary in length and style. Size shall reflect levels of demand at the bus stop. Style shall reflect neighborhood character and may incorporate public art.
- Shall meet ADA specifications for bench accessibility:
  - Seat dimensions: 20"- 24" in depth and a min. of 42" in length
  - Back support: a min. of 18" high, positioned a max. of 2" above seat, and a min. of 42" in length
  - Seat height: 17"- 19" inches above ground
  - must leave 36 min. sidewalk clearance
- All benches shall be installed on a concrete pad. (Pads 9'x 3' in size shall be provided to accommodate a typical bench; additional waiting space will be required at stops with higher ridership.)
- Must be located outside of the PAR and the passenger landing area.
- Shall maintain at least 4' between the bench and the back-of-curb when located within furnishings zone.
- Preferred bench placement may be at back of sidewalk to aid in winter maintenance and snow removal.

Trash Receptacles –

- Are optional and shall be located at stops with high ridership, a demonstrated need, and a commitment to trash collection.
- Must be located outside of the PAR and the passenger landing area.

Bike Racks –

- Are encouraged at all bus stops.
- Style of bicycle rack shall be an inverted-U.
- At least one inverted-U shall be provided and shall be installed in the center of a 4'x 6' concrete pad to provide space to secure two bicycles.
- Must be located outside of the PAR and the passenger landing area.
- Preferred to be of a removable design to accommodate winter snow plowing activities.
- See page 53 for additional bicycle parking guidelines.

Shelters –

- Shelters are encouraged, but not required within Village (Vil) and Residential (RS) neighborhood forms.
- Where provided, shelters shall be located and designed according to the guidelines following.

Mixed-Use Context

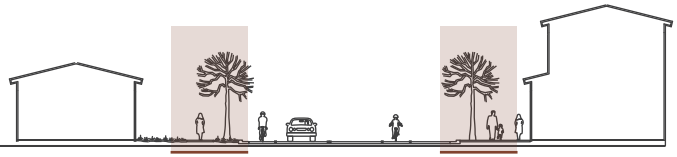
Bus stops that serve commercial, resort, and downtown areas that generate high ridership and receive frequent transit service shall provide the following additional amenities:

- Transit shelters are encouraged within all areas of the Village Center (VC) neighborhood form.
- Transit shelters shall be required within the neighborhood forms of Town (Tn) and Resort/ Commercial (R/C).
- Within the central boardwalk district of the Town (Tn) form, covered boardwalks shall provide shelter in place of free-standing transit structures.
- All locations shall provide a furniture grouping comprised of a bench, trash receptacle, and at least one inverted-U bicycle parking rack.
- Passenger landing areas shall be provided within the furnishings zone, connecting sidewalk to curb.
- Transit shelters shall be provided within the frontage zone, or on an area of additional paved surface located on the back side of the sidewalk (which may be outside of the public R.O.W. and require an easement).
- Transit waiting amenities shall be located either within the furnishings zone, or on the back side of the sidewalk.
- Where stops serve multiple bus routes and passenger boarding volumes are high, rear landing areas, additional waiting space, and larger seating areas should be included.

Rear Landing Area –

- A second passenger landing area shall be encouraged to provide access to/from the rear door of the bus.
- Rear landing areas shall be 8' long x 5' wide.
- Must be accompanied by a front-door landing area in all locations.

TRANSIT ACCESS, cont.

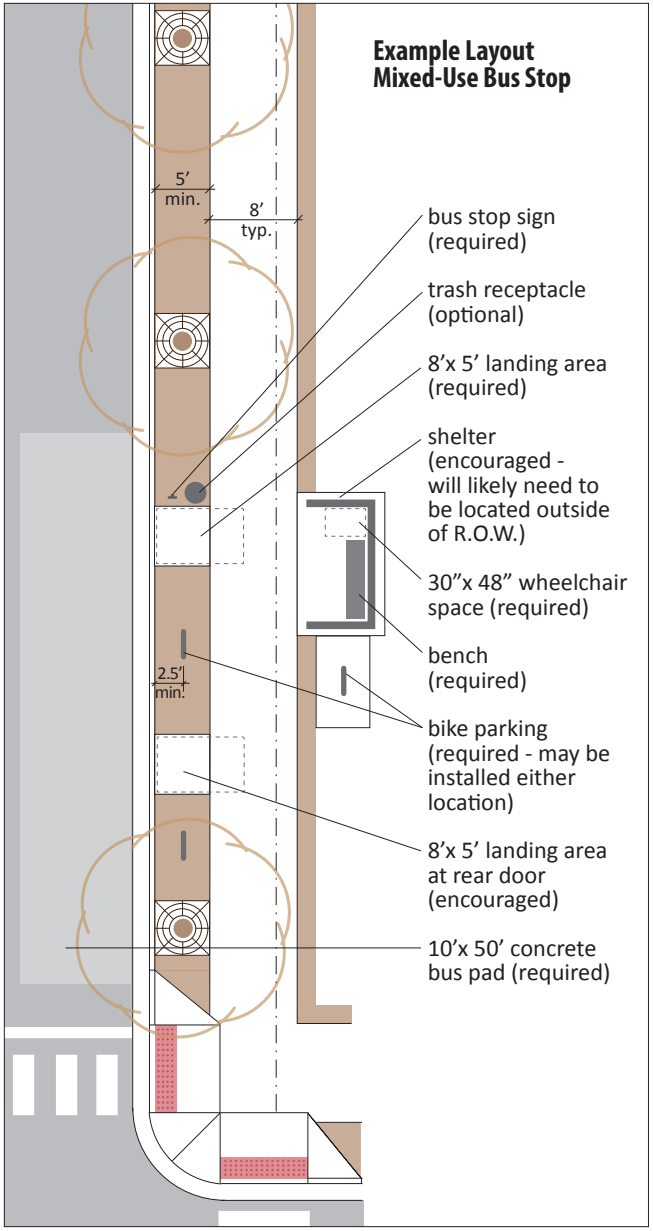


Benches, Trash Receptacles, and Bike Racks –

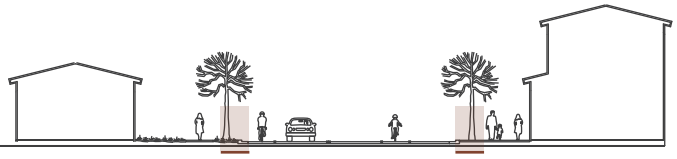
- Shall be located and designed according to the guidelines specified previously.
- Preferred to be of a removable design if located within the furnishings zone, otherwise may be permanently installed within easement at back of sidewalk on private property.

Shelters –

- Location may not compromise pedestrian accessibility by partially blocking the sidewalk or extending onto the passenger landing area.
- Design shall be pedestrian accessible and must include the following:
  - an opening of a least 36" for wheelchair access
  - a minimum 30"x 48" of clear floor space located entirely within the shelter
  - an 8'x 5' concrete passenger landing area connecting to the curb
  - an accessible route to the landing area
  - 3' min. clearance must be maintained around the shelter
  - 4' min. clearance must be maintained between the shelter and the back-of-curb
- Shelters may vary in size and style.
  - Size shall reflect levels of ridership demand at the bus stop. (A typical transit shelter dimension is 6'x 11' installed on an 8'x 13' pad.)
  - Style shall reflect the neighborhood character and is encouraged to incorporate public art.
- Shall be installed on concrete surfaces.
- Shall not be located within 15 feet of any fire hydrant or handicapped parking space.
- Transparent sides are encouraged for greater visibility.
- Seating shall be incorporated within the shelter whenever possible, providing for minimum ADA clear space to access the PAR.



CURB RAMPS



Curb ramps and blended transitions provide access between the sidewalk and street for people using wheelchairs or walkers, pushing baby strollers, towing luggage, etc.

All ADA curb ramps shall be constructed according to the latest PROWAG design guidance, as summarized following. Notable features of ADA curb ramp design include two distinct facility types based upon slope – curb ramps are cut through the street curb at a 1:12 (8.3%) max. slope; while blended transitions provide a more gentle grade connection at a 1:20 (5%) max. slope. Curb ramps may be parallel, perpendicular, or a combination of both.

In general, the following guidance shall apply to curb ramp construction within the Town of Jackson. Type and location of curb ramps shall be selected based upon pedestrian safety (shortest crossing distances) and drainage considerations (no ponding water at base of ramp). Site-specific conditions may require adjustments to comply with ADA requirements.

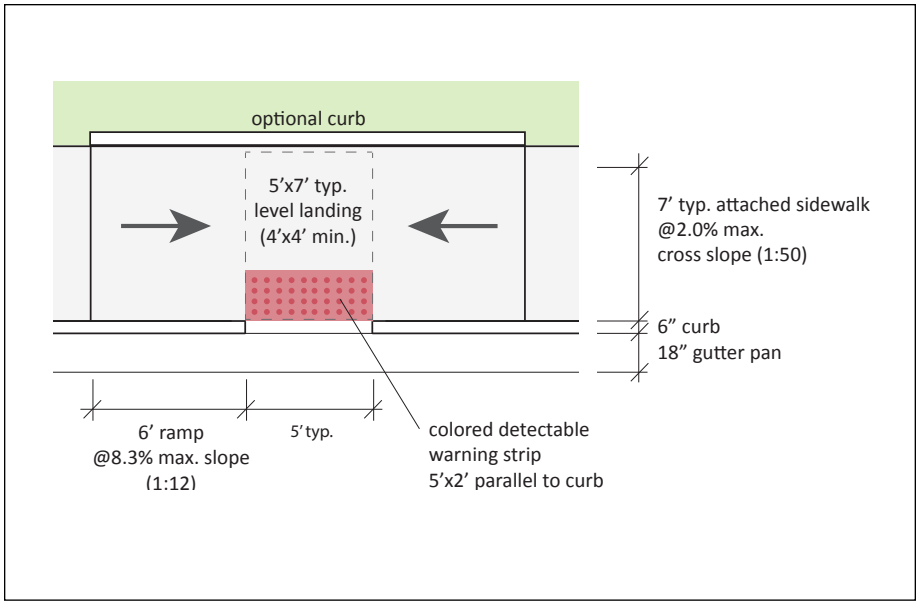
Parallel Curb Ramps or Transition Ramps – A condition where the sidewalk has two ramps leading to a center level landing at the bottom, where a turn can be then made to enter the crosswalk.

- A 4'x4' min. level landing shall be provided for turning space at the bottom of the two parallel ramps.
- Ramp running slopes shall be in line with the direction of sidewalk travel, at 1:20 min. (5%) and 1:12 max. (8.3%). Ramps shall be limited to 15' in length.
- A curb at the rear of the landing may be provided to retain soil and provide an edge for pedestrians with visual impairments.

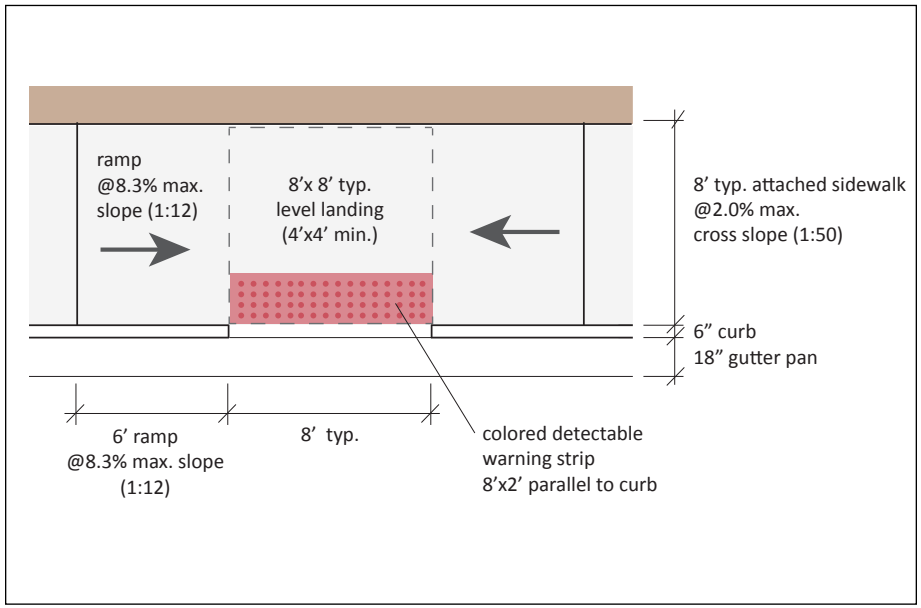
Perpendicular Curb Ramps – A pair of ramps with running slopes that are generally perpendicular to the centerline of the roadways, cutting through the curb and meeting the gutter break at right angles.

- A turning space in the form of a 4'x 4' min. level landing shall be provided at the top of perpendicular ramps. This may be a shared landing space for both ramps.
- Running slope shall be 1:20 min. (5%) and 1:12 max. (8.3%), with ramp lengths limited to 15'.
- In most locations Town of Jackson curbs are 6" in height. A furnishings zone 6' in width is encouraged to accommodate a perpendicular curb ramp 6' in length at a 1:12 (8.3%) ADA ramp slope.

Diagonal Curb Ramps – A single pedestrian curb ramp, typically 4' wide, that is located at the apex of a street corner on a 45º alignment. Diagonal curb ramps



Parallel Transition Ramps in Residential Districts



Parallel Transition Ramps in Mixed-Use Districts

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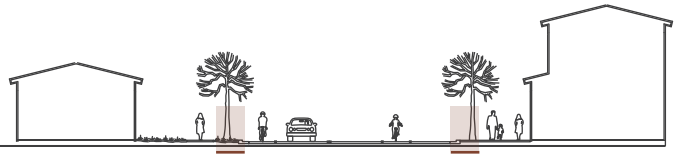


shall be avoided whenever possible since they direct users into the center of the intersection, rather than the crosswalk.

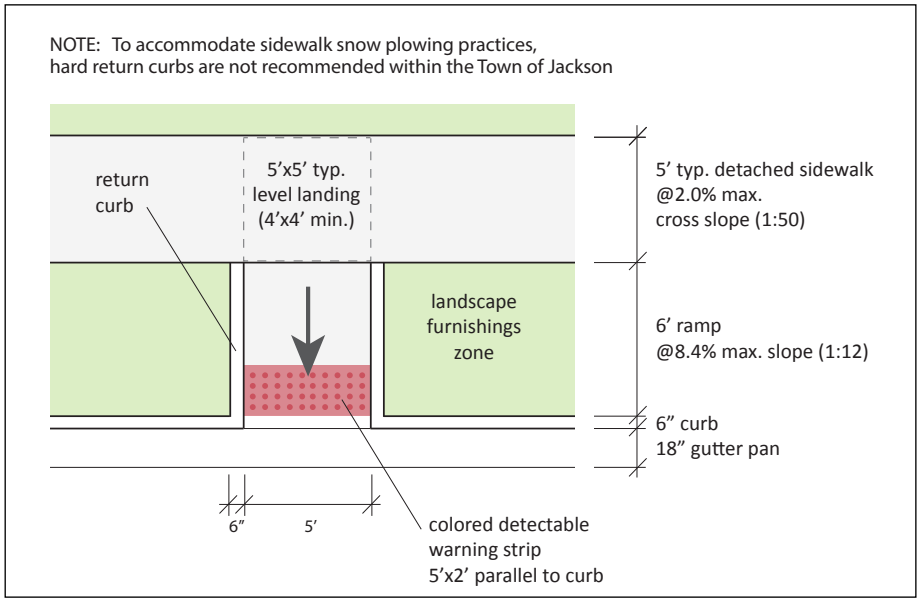
- Diagonal curb ramps shall not be used within Town of Jackson.

Blended Transitions (or Depressed Corners) – A transition to the street that has a grade less than 1:20 (5%).

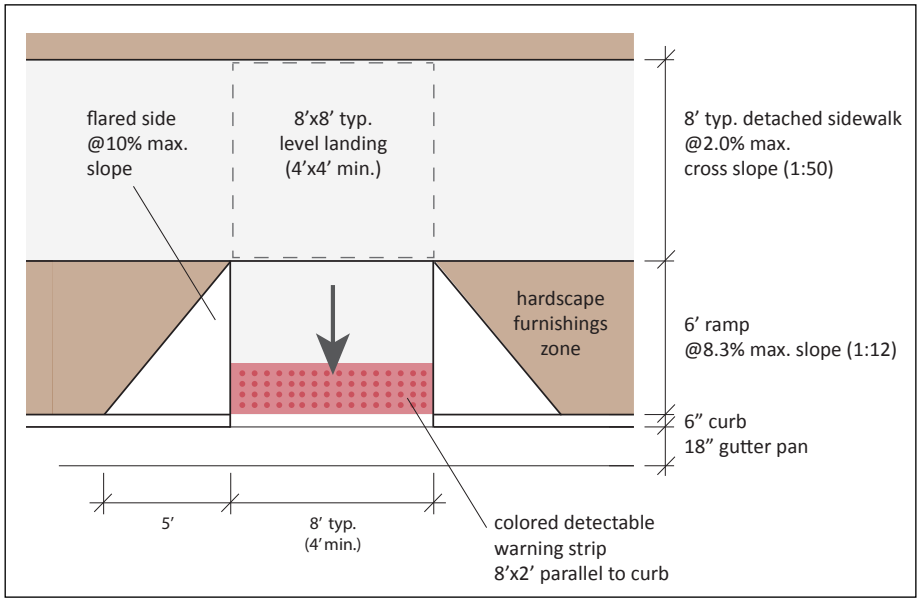
- Blended transitions differ from curb ramps in that they do not require a landing at the top.
- Unlike diagonal ramps, depressed corners allow users to be positioned within crosswalks.
- Keeping ramp and running slopes below 5% simplifies design, makes the final product more user friendly, and is appropriate where the R.O.W. at the corner is very limited, including:
  - Where there is not enough space for two individual ramps (<5.5' separation between ramps).
  - In locations when a dedicated landing cannot be provided.
  - Where there is a barrier, such as a building, located immediately at back of the sidewalk.
  - Where accessible pedestrian signals are present to aid visually impaired users in continuing in the desired direction of travel.
- Benefits of blended transitions include allowing pedestrians to continue their straight path of travel when crossing the street, and providing ease of winter maintenance.
- Disadvantages include limited directionality for visually impaired users and potential for sidewalk encroachment by turning vehicles.
- Storm drainage and ponding water must be addressed in the design of depressed corners.
- Bollards or planter boxes may be used to channelize pedestrians to crosswalks at depressed corners.

Flared Sides vs. Return Curbs – Per national guidance, curb ramp sides shall be flared when adjacent to walkable hard surfaces (i.e. – within mixed-use contexts); return curbs shall be used when adjacent to turf or other landscaped surface where pedestrians are unlikely to walk (i.e. – within a residential context). However, due to sidewalk snow plowing procedures within Jackson, flared ramp sides are recommended for use in all locations.

- Ramped sides shall mark the transition to all curb ramps, bringing the curb itself to the level of the street
- The maximum slope for ramp flares shall be 1:10 (10% max.) with corresponding 1:10 transitions on the curb cut openings.

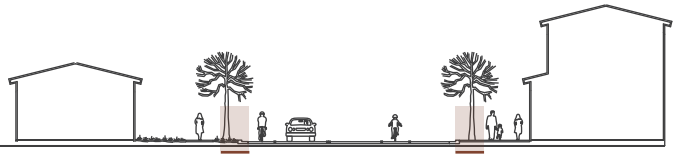


Perpendicular Curb Ramps in Residential Districts



Perpendicular Curb Ramps in Mixed-Use Districts

CURB RAMPS, cont.



Level Landings – A flat, 4'x 4' min. wheelchair turning space dimension, which is permitted to overlap other turning spaces and clear spaces.

- 2% max. cross slope in all directions shall be provided wherever the pedestrian travelway changes direction so that wheelchair users maintain stability while turning.
- 4'x 4' min. level landings shall be provided at the top of perpendicular ramps and at the bottom of parallel ramps.

Cross Slope – The slant or slope of a sidewalk or landing measured perpendicular to the direction of travel.

- Steep cross slopes shall not be allowed as they increase potential for wheeled users to tip sideways and greatly increase the physical effort required by manual wheelchair users to maintain a direct route.
- Cross slopes on sidewalks and level landings shall be limited to a maximum of 2% in all locations.

Gutter Counter Slope – Excessive slope differences where a gutter and a curb ramp meet can cause wheelchairs to flip over backward or tip forward into the street.

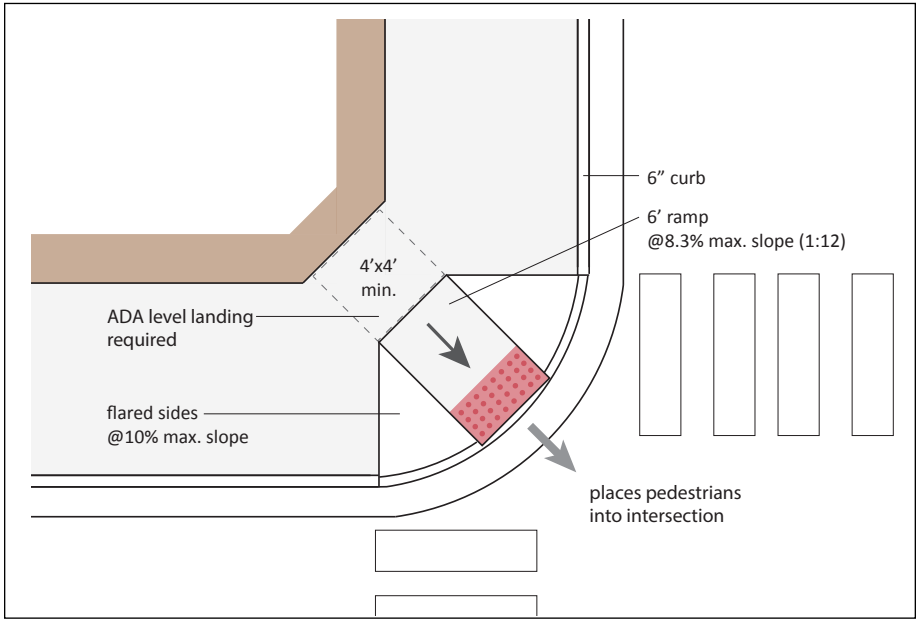
- The counter slope of the street gutter to a curb ramp shall not exceed 5%.

Curb Cut Width –

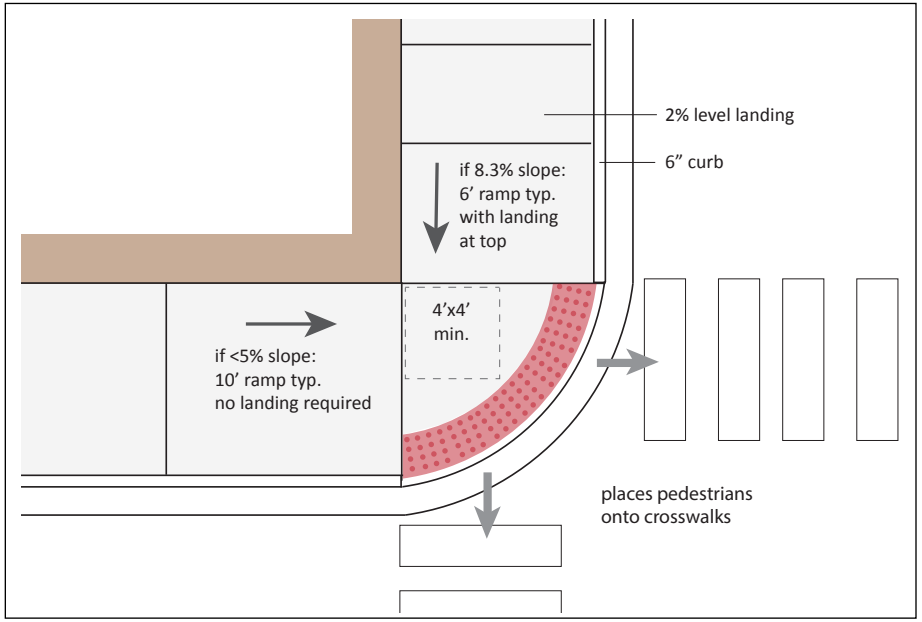
- Whenever possible, the pedestrian ramp width, exclusive of ramp flares, shall match the sidewalk width to facilitate convenient travel.
- In all locations, 4' shall be the minimum ramp and curb cut width allowed by ADA.
- All curb cuts shall be positioned to lead pedestrians directly into crosswalks.

Detectable Warning Surfaces (or Truncated Domes) – A system of textured ground surface indicators to assist pedestrians who are blind or visually impaired.

- Surface features shall be built in or applied to the walking surface to indicate an upcoming change from pedestrian to vehicular travelway.
- Truncated domes shall be aligned in a square or radial grid pattern, and must contrast visually with the adjacent gutter, street, or sidewalk surface (either light-on-dark or dark-on-light).
- At curb ramps, the detectable warning surfaces shall extend for a continuous 24" depth across the full width of the crossing and be placed perpendicular to the ramp running slope.
- At blended transitions, detectable warnings shall extend for a 24" depth across the full width of the depressed corner, beginning within 3" of back of curb.

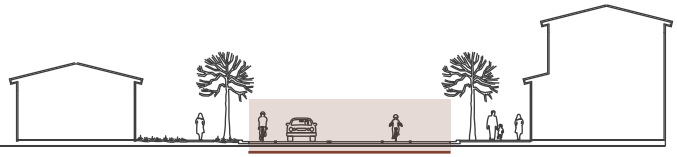


Diagonal Curb Ramps – NOT RECOMMENDED



Blended Transitions – preferred design

PEDESTRIAN CROSSWALKS



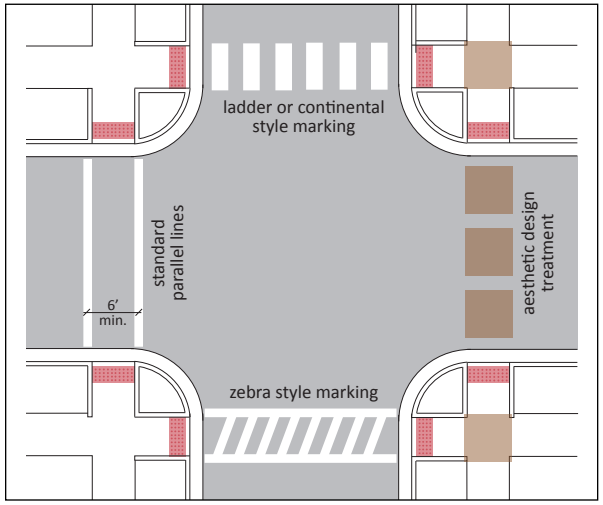
At intersections, turning vehicles and the speeds at which they travel, pose the greatest threat to pedestrians. Street intersections within the Town of Jackson shall be designed to reduce travel speeds and clearly define potential conflict points for all users. Use of narrow travel lanes, tight turning radii, curb extensions, and marked crosswalks are complete streets elements designed to assist pedestrians in safely crossing streets.

Crosswalk Markings – painted pedestrian crossings that specify proper locations for pedestrians to cross the street.

- Can encourage pedestrians to walk at preferred crossing locations.
- Help to alert drivers of a designated pedestrian crossing point.
- At non-intersection locations, crosswalk markings legally establish the crosswalk.
- Crosswalks are appropriate in the following locations:
  - At signalized intersections
  - At key crossings along designated school walking routes
  - At certain types of uncontrolled crossings to indicate a preferred pedestrian crossing location
  - To alert drivers to an often-used pedestrian crossing
  - In all locations where the Jackson Community Pathways system crosses streets at-grade.
- Are not appropriate in the following locations unless located at a signal:
  - On roadways where the speed limit >40 mph
  - On streets with four or more lanes of travel carrying >12,000 ADT without a raised median or pedestrian refuge island
  - On streets with four or more lanes of travel carrying >15,000 ADT with a raised median or pedestrian refuge island.

MUTCD requirements – The *Manual on Uniform Traffic Control Devices* shall be followed when marking crosswalks:

- Markings shall be placed so that approaching curb ramps are located within the crosswalk.
- Shall extend across the full width of street pavement or to the edge of the intersecting crosswalk to discourage diagonal walking between crosswalks.
- Shall be marked perpendicular to the travel lanes or as close to a 90º crossing as possible to minimize pedestrian crossing distance.
- Minimum crosswalk width shall be 6' or the same width as the approaching sidewalk, pathway and/or pedestrian curb ramp.
- Crosswalks shall be marked in paint and repainted frequently as needed for visibility.
- Per the *MUTCD*, designs shall be either:
  - traditional parallel lines
  - a high-visibility crosswalk pattern, such as a ladder, continental design, or diagonal marking.
- When traditional parallel lines are used, they shall consist of solid white lines that mark the crosswalk. Lines shall be 6"- 24" in width.
- Ladder crossings are encouraged in locations where added visibility is desired.
- When ladder crossings are used, lines shall be 12"- 24" wide and separated by gaps of 12"- 60". The design of the lines and gaps should avoid vehicular wheel paths if possible. The gap between lines shall not exceed 2.5 times the width of the longitudinal lines.



Aesthetic treatments – Colored and textured pavement treatments may be used to delineate crosswalks within special pedestrian districts. These include the following locations:

- Within the neighborhood forms of Town (Tn) and Village Center (VC).
- Along mixed-use corridors designated to become enhanced pedestrian corridors per the Comprehensive Plan. These include East Broadway, South Willow Street, Snow King Avenue, and South Cache Street.

Aesthetic crosswalk treatments may be implemented as part of Public Art or Public Works projects and shall follow design and safety guidance outlined in the *MUTCD*. Additional considerations include:

- The pedestrian travelway portion of the crosswalk shall be a firm, smooth, and stable surface.
- Edges of the crosswalk may be differentiated with textured pavement treatments. Textured treatment may also be used within the overall intersection, but shall be restricted from the crosswalk travelway.
- Paving materials and colors shall be selected for low maintenance and high visibility/contrast against the street pavement.
- Textured pavements shall consider durability in winter snow plowing, maintenance, and replacement costs and should be combined with high visibility paint or markings.

Toolkit Part 3 – Designing for Bicyclists

The Town of Jackson is expanding its pathway planning to focus on creating a more comprehensive bicycle system. Key to accomplishing this task is recognizing that people use trails and bicycle facilities for different purposes, and have varying comfort levels and expectations for their riding experiences. In general, this plan uses the nationally recognized "design bicyclist" concept in which the planning and design of facilities considers the needs of three distinct classifications of users:

Type A: Advanced Bicyclists

These are experienced riders who can operate under most traffic conditions. They include road cyclists comfortable riding in traffic, who will ride with or without bicycle facilities present, often ride long distances, and prefer direct, safe routes for utilitarian trips and/or long-distance loops for recreational outings. Type A bicyclists comprise the majority of the current users of arterial streets and are best served by the following:

- Direct access to destinations usually via the existing street and highway system.
- The opportunity to operate at maximum speed with minimum delays.
- Sufficient operating space on the roadway or shoulder to reduce the need for either the bicyclist or the motorist to change position when passing.

Type B: Basic Bicyclists

These are casual or new adult and teenage riders who are less confident of their ability to operate in traffic without special provisions for bicycles. They are intimidated by motor vehicles, tend to make short trips close to home, and prefer designated bicycle facilities. Some will develop greater skills and progress to the advanced level, but there will always be a high percentage of basic bicyclists. They prefer:

- Comfortable access to destinations, preferably by a direct route, using either streets with slow speeds and low traffic volumes and/or designated bicycle facilities.
- Well-defined and dedicated space separated from motor vehicles – provided by striping on-street bicycle lanes or constructing separated facilities such as cycle tracks or multi-use pathways.

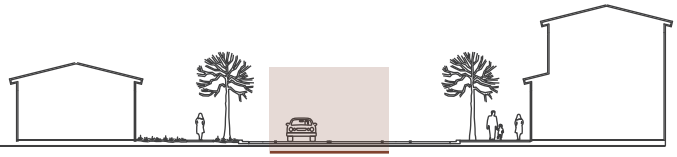
Type C: Child Bicyclists

These are pre-teen riders whose roadway use is initially monitored by parents. Eventually they are accorded independent access to the bicycle system and will begin to ride farther from home. They and their parents prefer the following:

- Access to destinations surrounding residential areas (schools, recreation facilities, shopping, etc.).
- Residential streets with low motor vehicle speed limits and volumes.
- Well-defined separation from motor vehicles on bicycle lanes or paths.

Most bikeway and pathway planning initiatives combine Type B/C riders into a single user group that prefers access to off-road paths, a network of lightly traveled neighborhood streets, and bicycle lanes on streets with moderate traffic volumes and speeds. In contrast, Type A cyclists are generally best served by designing all streets and roadways to accommodate shared use by bicycles and motor vehicles. Both groups ride for recreational and utilitarian pursuits, and benefit greatly from connected networks. Thus, the definition of pathways within the Town of Jackson is expanding to included bicycle facilities as part of complete community streets to provide transportation alternatives and enhance pathway system connectivity.

SHARED STREETS AS BIKE ROUTES



The majority of Jackson's shared streets are low-volume, low-speed local streets that require no special accommodation for bicyclists and motorists to share travel lanes. However, all streets, roads, and highways, except those where bicyclists are legally prohibited, should be designed, constructed, and maintained under the assumption that they will be used by bicyclists. This means that all streets shall be constructed and maintained to be free from hazards to bicycle travel, including utility covers and bicycle-safe drainage grates that are flush with the surface of the pavement, and the routine removal of snow, sand, and debris.

If providing a desired connection between other designated bikeway facilities, shared streets may be signed as bicycle routes. Green *MUTCD* "Bike Route" signs are typically used, often in conjunction with directional arrows and supplemental destination identification. The *2013 Town of Jackson Bicycle Improvement Plan* created a customized logo for use on bike route signs as part of the Jackson Hole Community Pathways System. Use of the bicycle route designation is appropriate on local streets with light traffic and 25mph speed limits, as discussed under travelway considerations on page 9.

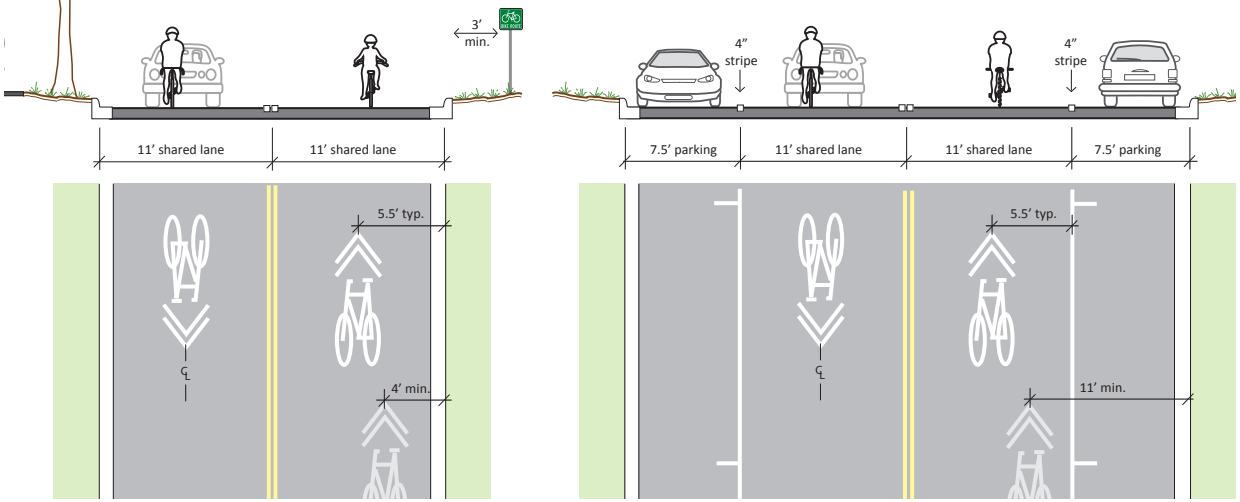
It is important to note, however, that signing shared streets as bicycle routes does not create designated space for bicyclist use. Therefore, striping bicycle lanes is the preferred treatment on busier streets to create bicycling corridors that will benefit all types of cyclists.

In addition to signing, shared roadway pavement markings or "sharrows" are used to delineate bike routes within the Town of Jackson, create awareness by motorists, and provide directional assistance at bike route intersections. Correct placement of pavement stencils can also aid cyclists in proper lane positioning when riding in a shared lane. The following *MUTCD* guidance shall apply:

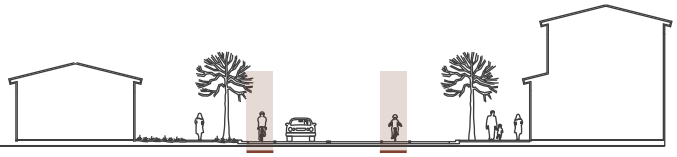
- The preferred location is in the center of the shared travel lane to prevent motorists from trying to pass cyclists where there is inadequate space.
- Markings shall be located no closer than 4' min. from curb face, or 11' min. with on-street parking.
- Size of the sharrow pavement stencil shall be 9.25' long by 3.25' wide.
- Sharrows should be placed immediately after an intersection and spaced at intervals not greater than 250' thereafter.

Shared roadway street segments along the primary cross-town bike/walk corridor (see page 60) shall also be considered for traffic calming measures, as described on pages 27-28.

Use of "Sharrow" Pavement Markings on Bicycle Routes



BICYCLE LANES



Bicycle lanes are designated street space for exclusive use by bicyclists. They differ from shared streets in that a separate lane is striped and signed on each side of the street, allowing motorists to easily pass cyclists. Bike lanes require wider street space to implement, and are most needed on streets where traffic volumes exceed 6,000 vehicles per day.

The *2013 Town of Jackson Bicycle Improvement Plan* identified several streets where striped, on-street bicycle lanes are appropriate based on the combination of street width and traffic volumes.

Many of these striping projects have been recently implemented on Jackson's existing 33' and 39' street cross-sections, as depicted below. Key bicycle lane design considerations to note for future projects are:

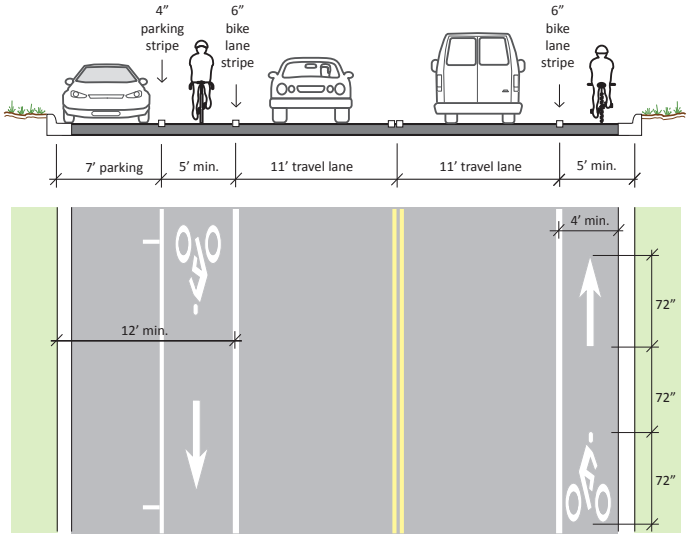
- Minimum bike lane widths shall be 4' measured from gutter pan seam, or 5' measured from curb face.
- On streets with high bicycle use, on-street parking, or heavy auto traffic, a 6' min. bike lane width is encouraged.
- The combined width of parking and bike lanes shall be no less than 12'.
- Within a constrained right-of-way, a wide gutter pan may be constructed to provide an integral 5' bike lane with no lateral pavement seam.

Striping bicycle lanes also requires special intersection design consideration. Detailed guidance for numerous intersection treatments are provided in the *AASHTO* and *MUTCD* manuals. In summary:

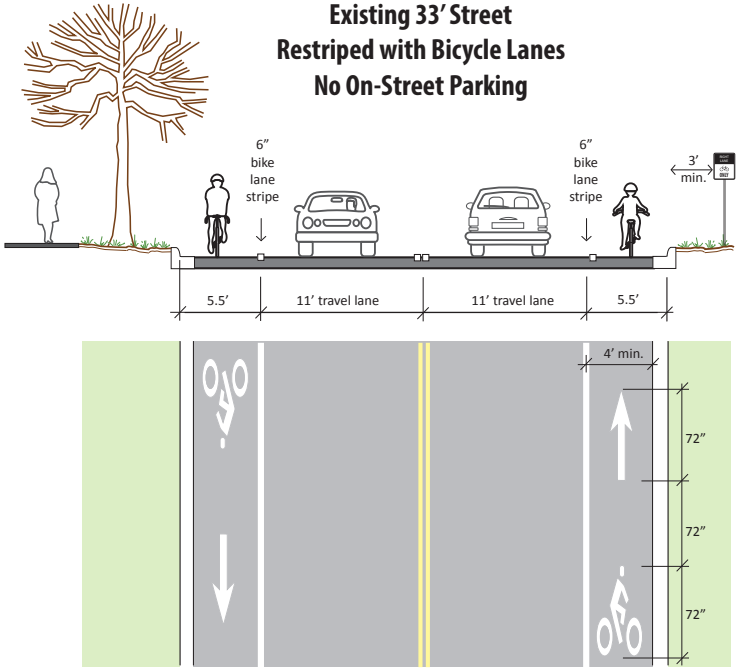
- Bike lanes shall be positioned within the intersection to minimize turning conflicts with vehicles.

- Always place bicycle lanes to the left of designated right-turn only lanes.
- Dashed lane striping or colored pavements shall be used across areas where motorists and cyclists merge and change roadway position.

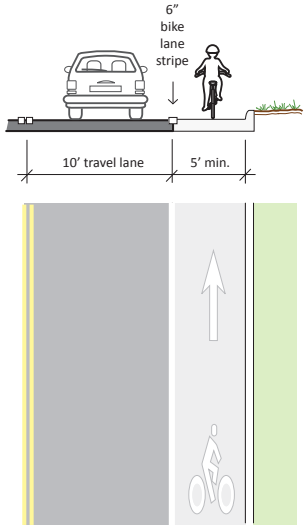
Existing 39' Street
Restriped with Bicycle Lanes
On-Street Parking Limited to One Side Only



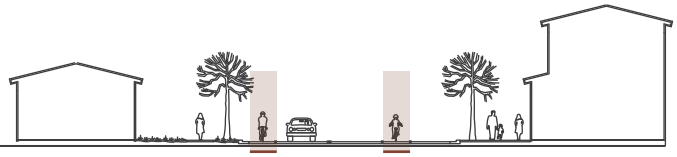
Existing 33' Street
Restriped with Bicycle Lanes
No On-Street Parking



Integral Pour Bicycle Lane
Reconstruction Option
within Limited R.O.W.



COLORED BIKE FACILITIES



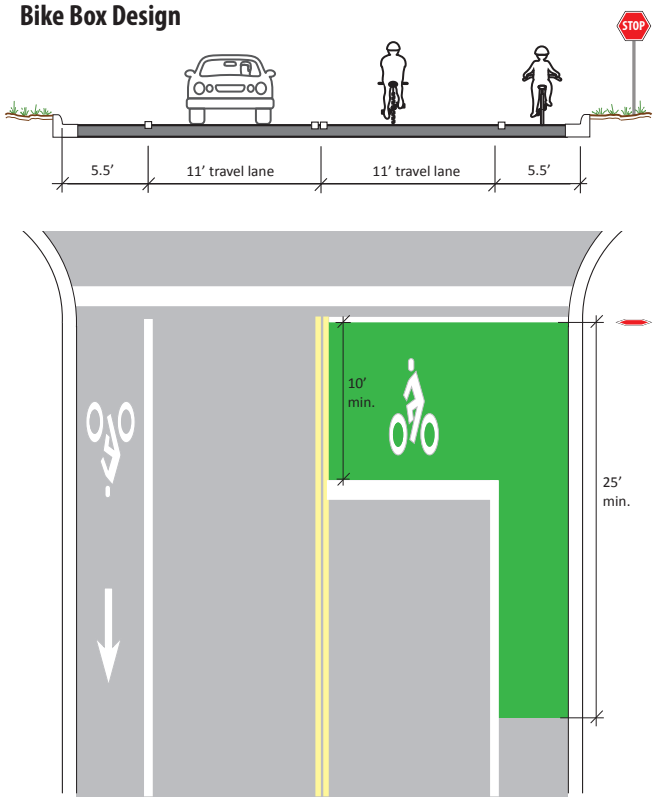
The optional use of green colored pavement in marked bicycle lanes and in extensions of bike lanes and cycle tracks through intersections and other traffic conflict areas has been approved by the National Association of City Transportation Officials (NACTO) and the Federal Highway Administration (FHWA). Such areas of colored pavement increase the visibility of the facility, identify potential areas of conflict, and reinforce priority use by bicyclists.

The Town of Jackson is currently using green colored pavements as spot improvements to assist with wayfinding through intersections where bike lanes change direction, across driveways that intersect with cycle tracks, and within bicycle lanes at approaches to stop signs.

The latter approach works well to increase awareness at stop-controlled intersections – if cyclists are proceeding straight. However the design should be modified where bicyclists frequently make left turn movements (i.e. – transitioning from the Snow King Avenue bicycle lanes onto the Flat Creek Drive bike route). In such locations, the bike lane striping should become dashed prior to the intersection to indicate that turning cyclists should merge to the left. An alternative "bike box" treatment may also be used.

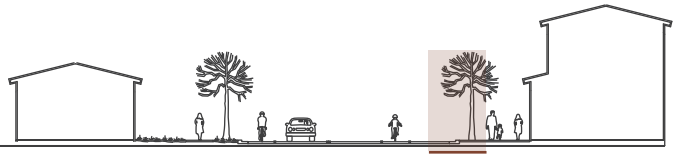
Bike boxes are designated areas at the head of a traffic lane that provide bicyclists with a safe and visible way to get ahead of queuing traffic, usually at signalized intersections. The same principle can be applied to a modified green pavement area at select stop-controlled locations with left-turning bicycle movements. This will help to educate bicycle users to move into the proper lane position when turning to minimize conflicts with through and/or right-turning vehicles.

Bike Box Design



Left Turn Movements from Improper Lane Position

CYCLE TRACKS



A cycle track is an exclusive bicycle facility that combines the user experience of a separated path with the on-street infrastructure of a conventional bike lane by being physically separated from motor vehicle traffic and distinct from the sidewalk.

Cycle tracks may be one-way or two-way, and may be at street level, at sidewalk level, or at an intermediate level. Cycle tracks are a common infrastructure element in European communities. Several cities have recently been pioneering their use in the USA, with NACTO taking the lead in developing national cycle track design guidance and standards.

Often called protected bike lanes when at street level, a wide variety of methods can be used to physically separate cycle tracks from passing traffic – raised medians, on-street parking, bollards, and/or painted buffer striping. In contrast, raised cycle tracks are at sidewalk level and separated from motor vehicle traffic by a raised curb. They are often paired with a furnishing zone between the cycle track and motor vehicle travel lane and/or pedestrian area. At intersections, raised cycle tracks can be dropped and merged onto the street, or maintained at sidewalk level, where bicyclists cross with pedestrians.

The Town of Jackson is implementing raised cycle tracks along West Broadway and the east side of WY22. The one-way facilities are located at top of back-of-curb and separated from the adjacent sidewalk by a 3'-4' buffer, planted with street trees wherever possible. The design includes use of green pavement to call attention to street and driveway crossings where the raised cycle track ramps down to street level.

Since cycle tracks represent innovative ways to retrofit urban conditions to provide greater levels of bicycle accommodation, designs are complicated and numerous details need to be addressed. The *NACTO Urban Bikeway Design Guide* shall be referenced for site-specific corridor guidance, but key design considerations include the following:

- ***Facility width*** – Provide 5' min. width for one-way cycle tracks at street level; 6.5' min. width for raised cycle tracks; 12' desired for a two-way cycle track, with 8' min. in constrained locations.
- ***Transitions between facility types*** – Consider use of NACTO intersection crossing markings to delineate path of travel between facilities (i.e. the two-way multi-use path along WY22 to the one-way cycle track on West Broadway).
- ***Pedestrian needs*** – Ensure that the pedestrian travelway is clearly identified across cycle tracks to provide ADA access to intersecting crosswalks (i.e. Scott Lane crossing of Broadway).
- ***Intersection design*** – Design cycle track approaches to all intersections to reduce turning conflicts between bicyclists and motorists. This may be accomplished in a variety of ways, but shall include clearly delineating merging areas and maintaining adequate sight triangles.

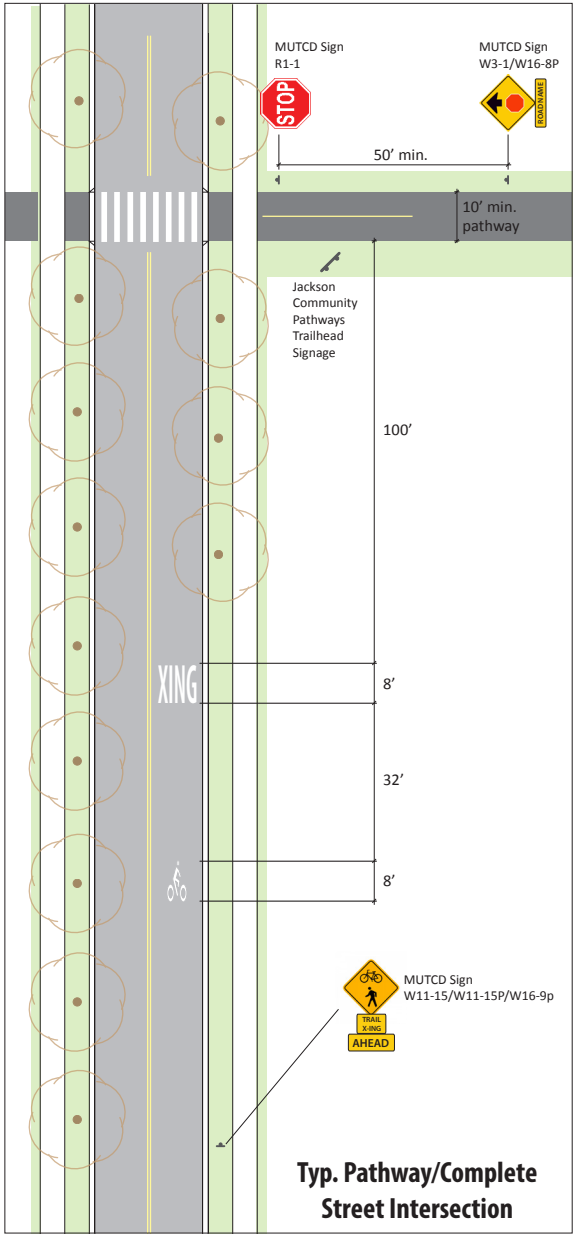
Proposed West Broadway Raised Cycle Track – *illustrations by Hershberger Design, February 2013*

SHARED-USE PATHS

The Jackson Hole Community Pathways system is currently comprised of 45 miles of shared-use pathways constructed and maintained by the Town of Jackson and Teton County. There are an additional 14 miles of National Park Service pathways in Grand Teton National Park. At completion, the combined JHCP and National Park pathways networks will be 102 miles long and will include street segments that link together off-road pathway segments to provide enhanced connectivity throughout the county and its communities.

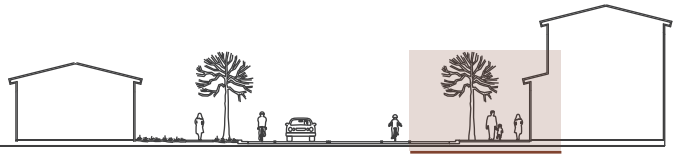
Critical to the safety of the shared-use pathway network will be design treatments for at-grade intersections with streets and roadways. Guidelines for intersection design include :

- All regulatory signs (those designed to enforce traffic laws) shall comply with *AASHTO* and *MUTCD* for uniformity in style and location per national standards, as depicted at right. Jackson Hole Bike Route signs may be used to provide supplemental wayfinding assistance.
- In most locations, trail crossings will be unsignalized and users will be required to stop and/or yield to vehicle traffic.
- Curb ramps at crossings shall extend the full width of the shared-use path.
- High-visibility ladder style crosswalks, also extending the full width of the path, shall be used to mark all trail crossings.
- Sidewalks shall extend across the approaching path to indicate priority for pedestrian travel.
- Sight triangles at intersections shall provide an unobstructed view of the entire intersection using roadway design speed and approach speed for an adult bicyclist. The sight triangle must be kept free from vegetation, fencing, and other obstructions.
- Motor vehicle use of pathways is typically not a problem, and routine use of bollards and other similar barriers to restrict vehicular entrance is not recommended. Bollards create obstacles and safety hazards to pathway users and slow access for emergency responders. If used, bollards shall be set back a min. of 30' from the street and marked with a retroreflectorized material to minimize potential collisions with the post obstruction.



Typ. Pathway/Complete Street Intersection

BICYCLE PARKING



Secure and convenient bicycle parking must be provided throughout the Town of Jackson to allow and encourage people to ride bicycles for daily trips. Bicycle parking shall be integrated within the updated *Land Development Regulations (LDRs)* as a requirement of private development site plans. Consistent with the *2010 APBP Bicycle Parking Guide,* applicants shall provide short-term bike parking for commercial and retail uses, and long-term bicycle parking for employees and residential units. In addition, short-term parking racks shall be provided by the Town of Jackson within public rights-of-way.

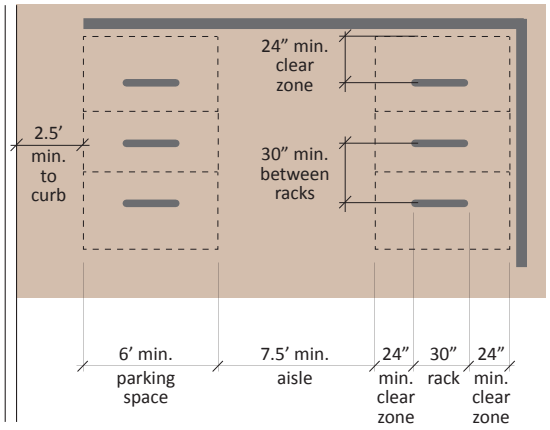
Short-Term Bike Parking – for customers, visitors, or guests who are parking for a few hours or less.

- Racks shall accommodate conventional, upright, single-rider bicycles that will be desired to be secured with a solid, U-shaped lock or cable lock.
- All rack elements shall:
  - Support the bicycle upright by its frame in two places
  - Enable the frame and one or both wheels to be secured
- Inverted-U racks or similar styles shall be used within the public R.O.W. at transit stops and within furnishing zones.
- Wheel-bending racks that provide no support for the bicycle frame (i.e. - comb, toast, schoolyard styles, etc.) shall not be used.
- Combination racks (i.e. - wave, ribbon, etc.) are not recommended as they are generally less effective than multiple single-U racks.
- The best location for a rack area is immediately adjacent to the entrance it serves. The rack area shall be as close or closer to the front entrance than the nearest car parking space, shall be visible from the front entrance, and shall not inhibit pedestrian flow. At least two bicycle parking spaces shall be provided.

Placement –

- All bike racks shall be installed on paved surfaces.
- Racks shall be positioned so that parked bicycles do not encroach upon the pedestrian travelway.
- Placement behind sidewalks is preferred to allow for better cleaning of snow storage areas and to reduce possible damage due to snow plowing.
- When placed within furnishings zones that are 5'-6' wide – inverted-U racks shall be installed parallel to the curb and sidewalk, located 2.5' min. from back-of-curb. 6' shall be provided between individual U's to facilitate loading and unloading of bicycles. (See pages 33 and 40.)
- On curb extensions and in areas with an unobstructed width of at least 8' – inverted-U racks may be positioned perpendicular to the sidewalk.
- When clustered, the layout of individual bike rack units shall be spaced 30" min. apart, with 7.5' provided between rows. All installations shall provide a 24" clear zone to walls and other objects. (See below.)

Parking Area Dimensions for Clustered Inverted-U Bicycle Racks



Bike Corrals – designate a portion of the on-street parking lane for clustered bicycle parking. (See above.)

- Are a temporary installment that is removed during winter snow season.
- Consist of a row of inverted-U racks installed with flexible delineator posts and parking wheelstops to define the bike corral space.
- Businesses may request installation of a bike corral from the Pathways Coordinator.
- Construction of a concrete pad with embedded anchors shall be considered at locations requesting repeat installations to provide a more permanent, low maintenance solution.

Long-Term Bike Parking – for employees/residents parking for more than a few hours – i.e. all-day or overnight.

- Racks or lockers shall be provided within a secure, well-lit, covered area with that will protect bikes from rain, snow and other elements and deter bike theft.
- The area does not have to be immediately adjacent to the access door for the business or residence, but shall be located in a secure or monitored location, or in a locked enclosure.
- At least one long-term parking space shall be provided for each residential unit and commercial unit.
- Wall racks or bike lockers are appropriate.

Chapter 4

Implementation Plan

Complete streets, as envisioned by the community in the *Jackson/Teton County Comprehensive Plan* and *Integrated Transportation Plan*, will not happen without specific steps being taken to establish policies, prioritize projects, and implement infrastructure improvements. This chapter outlines an action plan of necessary steps to help the Town of Jackson achieve its desired stewardship, growth management, and quality of life goals relating to transportation. As previously discussed, all streets should be designed and operated to enable safe, year-round access for all users, including pedestrians, bicyclists, motorists, and transit riders of all ages and abilities. The local street system should allow all modal users to travel through Jackson, circulate between neighborhoods, and have access to local destinations.

By developing and adopting new street design guidelines, the Town of Jackson intends to encourage every transportation project to make the street network better and safer for all modes. This will be accomplished in four ways:

1) Private Development Applications

The new *Land Development Regulations* and this *Community Streets Plan* combine to reflect the *Comprehensive Plan* philosophy to regulate development by providing predictable, consistent, clear, and nondiscretionary regulations. This includes enhanced public streetscapes and pedestrian environments.

As new projects are submitted through the development application review process, they shall be evaluated for compliance with the *Community Street Plan* and *LDR's*. Where needed, provisions for enhanced pedestrian frontages will be required to provide adequate space for elements such as the pedestrian travelway, sidewalk frontage zone, and transit stop amenities.

2) Construction of New Public Infrastructure

Both manuals intend to implement Character Districts that identify the form of development the community wants to see in the future, in addition to the impacts the community wishes to avoid. This includes new street construction and right-of-way retrofit projects. Every Town of Jackson Public Works project shall thus consider how best to accommodate various modes of travel, with any permitted exceptions to this policy clearly defined and documented.

3) Smart Allocation of Existing Resources

Minor modifications to routine street sweeping and winter snow removal from streets and sidewalks shall ensure safe passage by all users.

4) Prioritized Strategies for Change

Large capital improvement projects and smaller segments of missing sidewalk linkages shall be systematically funded and implemented through an identified needs-based approach. Highest priority for capital funding shall be given to corridors targeted for mixed-use reinvestment and corridors served by START transit.

Policy Application and Exceptions

Facilities for all users shall be considered in the construction, reconstruction, retrofit, repaving and rehabilitation of all streets within the Town of Jackson. All projects shall assume 25 mph maximum design speeds and full use of existing right-of-way. Specific street cross-sections, design treatments for each mode, and neighborhood character considerations shall be evaluated and selected on a corridor-by-corridor basis.

Any exceptions to applying the multimodal intent of this *Community Streets Plan* to a specific corridor must be approved by the Transportation Advisory Committee (TAC) and/or Town Council. This includes exceptions being requested because the cost of multimodal accommodation is excessively disproportionate to the need or probable use, and cases where there is a documented absence of current and future need.

Permitted exceptions to street design policy that may be approved by senior level staff include the following:

	CONDITION	ACCOMMODATION	JUSTIFICATION
Exceptions to Bicycle accommodation:	If a street carries <2,000 ADT traveling at speeds <30 mph and the street corridor is not part of the Jackson Hole Community Pathways System	**A shared roadway** is acceptable (no special bicycle design treatment or designation is required)	Cars and bikes may safely share streets when both modes are traveling at similar speeds and vehicular volumes are low.
Exceptions to Pedestrian accommodation:	If the street is local (Town of Jackson jurisdiction) and: • located within the Residential **(Rs)** character district with <1 d.u./acre; • and designed for vehicular speeds <25mph	**Sidewalks are not required**, but a sidewalk on one side is preferred	Pedestrians may walk within the street due to a lack of vehicular traffic and the desired rural character of the neighborhood.
	If the street is local (Town of Jackson jurisdiction) and: • located within the Village **(Vil)** character district with 1-4 d.u./acre; • designed for vehicular speeds <25 mph; • not a BT Street; • and not a designated as a pedestrian connector corridor	**Sidewalks may be provided on one side of street only**, but sidewalks on both sides of street are preferred	Walking usage is anticipated to be low based upon land use densities. Pedestrians may easily cross the street to access a sidewalk due to lack of vehicular traffic.
	If the street is local (Town of Jackson jurisdiction) and: • located within Character District 6 where steep grades and topographical constraints are present	**Sidewalks are not required**, but a sidewalk on one side is preferred	Sidewalk construction to meet ADA requirements may not be feasible within hillside areas.
Exceptions to Large Design Vehicle accommodation on BT Streets:	If an intersection is within Town of Jackson jurisdiction and: • not located on a designated BT Street; • or is located on a BT Street, but is not a corner that needs to accommodate large-vehicle right-turning movements	**15' effective curb return radii** shall be standard.	A 28' effective curb radius shall only be required on corners where trucks and buses need to make frequent right-hand turning movements. All other street corners shall prioritize shortening pedestrian crossing distances to create safer walking environments.

Maintenance Practices

It is the responsibility of the Town and County to oversee and maintain all infrastructure provided within public street rights-of-way. Maintenance practices should holistically address the needs of multiple street users, with responsibilities per department as follows:

- ***Teton County/Jackson Parks & Recreation Department*** – street tree species selection; design of planting boxes; vegetative pruning; pathway system maintenance; snow removal from select sidewalk corridors.
- ***Town Public Works Department*** – design, operation, and maintenance of all public infrastructure, roads, water, wastewater systems, etc. including:
  - Engineering – oversees construction projects; forwards eligible complete streets projects onto the *Capital Improvement Program (CIP)*; co-reviews development plans with Planning Department to ensure compliance with Town *LDRs*
  - Streets & Sidewalks – summer street sweeping; winter street plowing; maintenance of Public Art within the Town right-of-way
  - Water & Sewer – coordination and maintenance of water mains, fire hydrants, wastewater mains, manholes, and other utility infrastructure.
- ***Town Planning & Building Department*** – supports short and long-range planning activities; co-reviews permit applications with Public Works Department to ensure compliance; co-reviews *CIP* street project concepts and design development drawings for compliance with the *LDRs* and *Community Streets Plan*.
- ***Jackson Hole Community Pathways*** – coordination of pathways maintenance policies and implementation with Parks & Recreation Department; co-review development applications with Planning Department for compliance with Town LDRs and other planning documents; co-review CIP street project concepts and design development for compliance with Community Streets Plan and other planning guidelines; bicycle parking rack seasonal installation and maintenance.
- ***Teton County*** – snow removal.

Snow & Ice Removal

With the quantity of snowfall received annually in Jackson Hole, special provisions are required for smooth and efficient operations of transportation infrastructure throughout the winter months. The Town of Jackson Public Works Department provides snow plowing services, and requests the following assistance from the public to help maintain a high quality of snow removal services:

STREETS – Town crews plow, sand, haul, and blade the streets throughout the winter. These four operations are performed from November 1, through April 15. Snow is cleared between 3:00 AM and 7:00 AM. Plowing is done according to the following priorities: Town streets, alleys, and parking areas. Individual citizens must ensure that their vehicles and/or personal property are off the public right of way from 3:00 AM to 7:00 AM, regardless of weather conditions. Failure to comply with this restriction may result in the vehicle(s) or personal property being ticketed, towed, and/or impounded by the Jackson Police Department. Private subdivisions are not subject to these same restrictions.

DRIVEWAYS & GARBAGE CANS – Snowplowing may cause a build-up of snow in driveways and on sidewalks. It is the resident's responsibility to clear his/her own driveway. Shoveling or blowing the snow back behind the curbing or asphalt and away from the driveway entrance is recommended. The Town right-of-way extends 2-10 feet from the curb line, depending upon the street, and this is where the snow is deposited. In order to prevent property damage, all fencing, trees, lot corners, underground water systems and ornamental rocks in this area shall be clearly marked. Private refuse containers shall be placed on the curb after 7:00 AM. The department offers limited snow removal assistance to elderly or disabled citizens when time, personnel, and equipment allows.

FIRE HYDRANTS – Town personnel have placed markers on all fire hydrants located within the public right-of-way. These hydrants are maintained by Town crews. The Jackson/Teton County Volunteer Fire Department has an "Adopt a Fire Hydrant" program, and they encourage area residents to help clear snow from hydrants within their neighborhood. Fire hydrants within private developments are the responsibility of the homeowners.

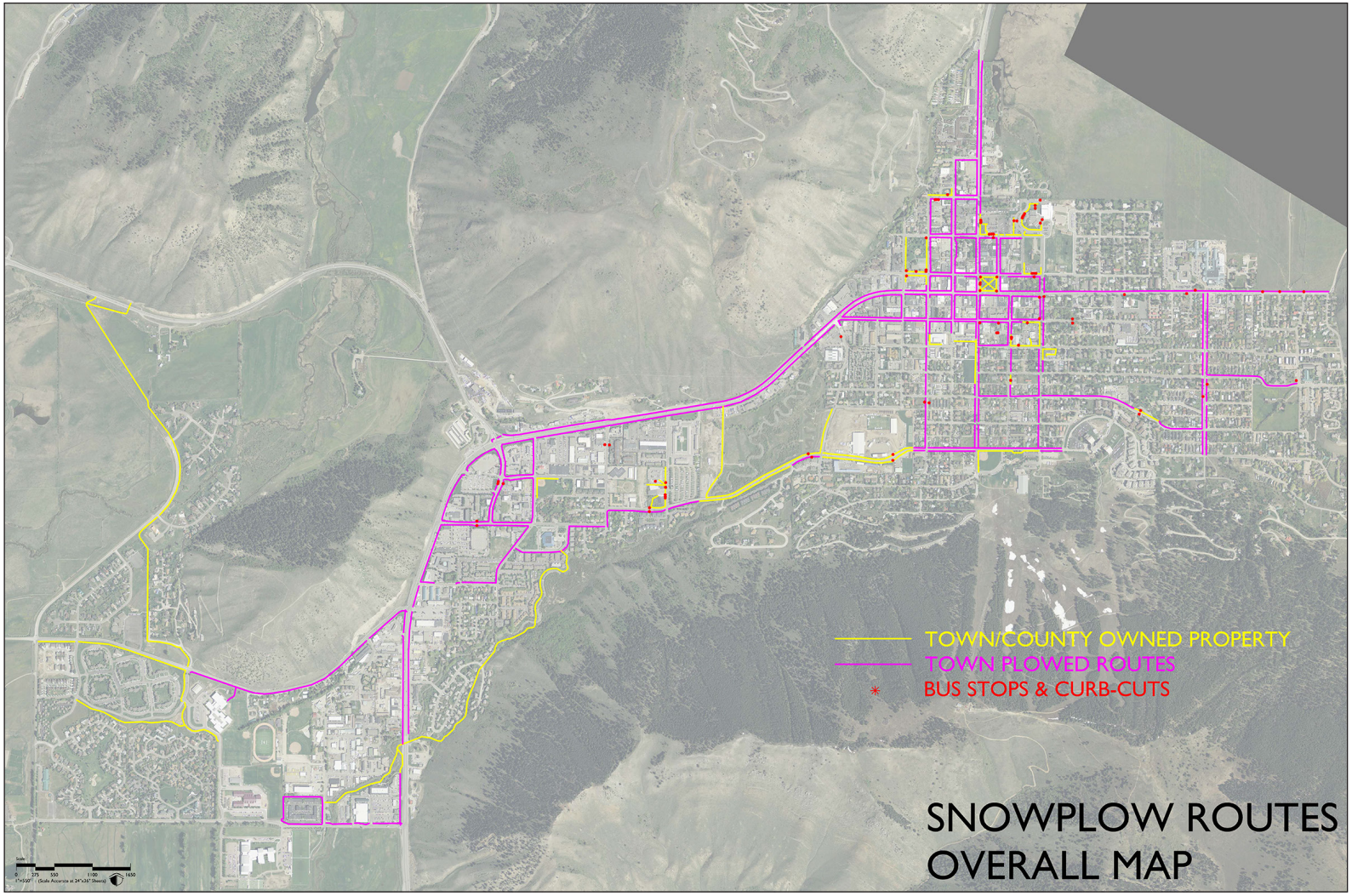
WINTER OVERNIGHT PARKING – The Town of Jackson prohibits parking on all streets and alleys between 3:00 AM and 7:00 AM from November 1 until April 15. Enforcement will take place every morning during these dates. Overnight parking is allowed in the Public Parking Garage located at the intersection of Millward and Simpson for up to 72 hours.

SIDEWALKS – Town Ordinance requires the removal of snow and ice from sidewalks in front of residences, businesses, and lots of land within Town limits. Every person in charge or control of any building or lot of land within the Town fronting or abutting on a paved sidewalk or boardwalk shall remove and clear away snow and ice from the sidewalk. The snow removed from sidewalks may not be deposited onto any roadway (street or alleyway), sidewalk, or in front of fire hydrants.

In business districts, snow and ice needs to be removed from sidewalks within six business hours after the cessation of any fall of snow, sleet or freezing rain, or by the beginning of business hours the next day following such a fall, whichever period is longer. All other sidewalks need to have snow and ice removed the same day of cessation of any fall of snow, sleet or freezing rain or within the first six hours of daylight after the cessation, whichever period is longer. *Municipal Code 12.20.020(A)*

Exceptions include those streets identified on the map at right. The Teton County/ Jackson Parks and Recreation Department is responsible for removing snow from these sidewalks.

ENFORCEMENT – In order to increase walkability of the community in the winter, the Town of Jackson enforces the restriction against depositing snow on sidewalks. Shoveled or plowed snow dumped on the sidewalk limits the ability for pedestrians to utilize the sidewalk, particularly members of our elderly community. No person, partnership, corporation, joint-stock company or syndicate shall deposit or cause to be deposited any snow and ice on or against a fire hydrant or on any sidewalk or roadway. *Municipal Code 12.20.030*



Additional Considerations for Multimodal Corridors

With the adoption of this *Community Streets Plan*, winter maintenance resources are recommended to be enhanced and/or reallocated to provide a higher level of snow removal services within select multimodal corridors. Future policy modifications to be considered include the following:

- Corridors served by START transit should provide an accessible, maintained winter walking route leading to a paved landing area at all bus stops.
- Corridors striped with on-street bicycle lanes adjacent to curbs should have additional maintenance focus on the right-hand pavement edge to prevent wind-rowing of snow within the bicycle lane. When constructing or reconstructing streets to provide curb-side bicycle lanes, detached sidewalks with furnishings zones should be required for snow storage purposes.
- Construction of attached sidewalks are not recommended, in part due to conflicts with street snow plowing activities. Detached sidewalks with furnishings zones are preferred for snow storage purposes, as well as to enhance the all-season quality of the overall pedestrian environment. However, attached sidewalks may be considered for exemption from future snow plowing requirements when there is a continuous detached sidewalk that receives winter maintenance provided on the opposite side of the street.

Priority Corridor Improvements

Finally, this *Community Streets Plan* recognizes that while many existing streets within the Town of Jackson do not provide desired levels of multimodal accommodation, especially adequate pedestrian facilities, the Town lacks resources to add sidewalks and make improvements along all routes within a short-term time frame. For this reason, the map on the following page identifies priority corridors where various streetscape enhancements are most needed. These major capital retrofit projects shall be combined with a reallocation of maintenance resources to make the existing Town street system work most efficiently work for all users, while maintaining the long-term vision to implement complete streets throughout the community. Design elements shall additionally be routinely considered and incorporated within development application and review processes, following design guidance provided within this toolkit and the new *Land Development Regulations*.

Priority action items include the following:

1) Road Corridor Enhancements

The *2012 Comprehensive Plan* recommended focusing on select corridors to enhance pedestrian and commercial vitality. South Cache Street was reconstructed in 2014 to add sidewalks and pedestrian amenities, and other corridors have received funding for preliminary streetscape design work.

2) Internal Connectivity Project

The *2014 Integrated Transportation Plan* recommended improving multimodal connectivity in general within communities, and specifically along Snow King Avenue/Maple Way within the Town of Jackson. This identified *ITP* Capital Project is scheduled for construction by 2024.

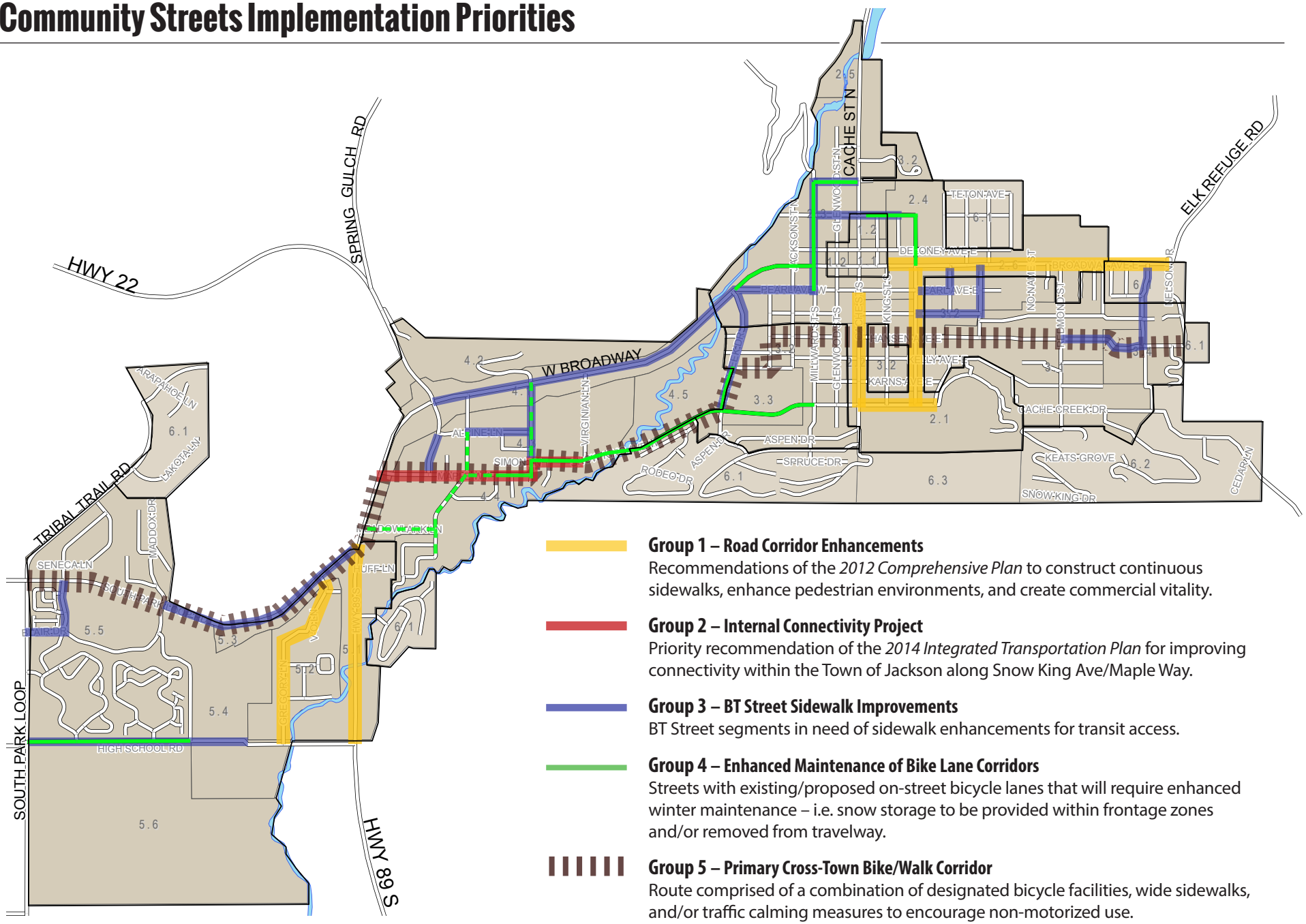
3) BT Street Sidewalk Improvements

Two implementation goals of the *Integrated Transportation Plan* are to double transit ridership by 2024, and to improve internal connectivity within the town and villages. Providing complete and comfortable pedestrian routes to access START transit is recommended as a first step in enhancing the internal connectivity of the sidewalk and multi-use pathway system within the Town of Jackson.

4) Enhanced Maintenance of Bike Lane Corridors

A final near-term action item shall be to re-prioritize winter maintenance along streets with striped bicycle lanes. Wind-rows of snow routinely accumulate along the outside edges of streets and shall be removed and stored at back-of-curb, within sidewalk frontage zones. Alternatively, snow may be plowed to the center of the roadway and removed from the travelway.

Community Streets Implementation Priorities



Community Streets Action Plan 2015 - 2029

Plans and Ordinances		FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	TBD	
Adopt *Town of Jackson Community Streets Plan*	Planning Dept. Public Works Dept.																	
Incorporate recommendations of this plan into LDRs as part of ongoing LDR update process	Planning Dept.																	
Major Capital Projects																		*Notes:*
Group 1	S. Cache	Public Works																*(project complete)*
	East Broadway	Public Works, Planning Dept.																*complete street design & public outreach*
																		water, sewer & street construction
	Gregory Lane	Public Works, Planning Dept.																*complete street design & public outreach*
																		sewer & street construction
	Willow Street (Gill Ave to Snow King)	Public Works, Planning Dept.																*complete street design & public outreach*
	Snow King (Cache to eastern end)																	*to be coordinated with development*
	Highway 89 South	Public Works, WYDOT																*to be coordinated with development*
Group 2	Snow King/Maple Way Connectivity Project	Public Works, Planning Dept.																*complete street design & public outreach*
																		sewer & street construction
Group 3	Scott Lane	Public Works, Planning Dept.																*complete streets*
	Millward Streetscape																	*water & street construction*
	Gill Avenue																	*complete streets*
	High School Road																	*complete streets*
Other Needs	North Cache	Public Works, Planning Dept.																*pedestrian streetscape - Phase II*
	Rancher Street																	*water & street construction*
	East Broadway																	*water, sewer & street construction*
	S. Glenwood																	*complete streets*
	S. King Street																	*complete streets*

**all projects include surface retrofit of full right-of-way to create complete streets, with supplemental utility work to be included where noted*

Community Streets Action Plan 2015 - 2029, cont.				
Transit System Enhancements				
Group 3	Sidewalk Gaps	Public Works Dept. w/ START Transit	TBD	*recommend annual review of site-specific needs for future construction programming*
	Bus Stop Improvements		TBD	
	Curb Extensions to aid right-turning Bus movements		Vine Street, turning right onto Kelly Ave	*on-street parking currently on north side of Kelly Ave, but could shift parking to south side, restripe, and add curb extension*
			Vine Street, turning right onto Snow King	*would eliminate parking close to corner*
			Broadway, turning right onto Scott Lane	*would narrow street west of business entrance, then widen to allow on-street parking; coordinate with bicycle network improvements*
			Gill Avenue, turning north onto Cache Street	*would require reconfiguring lane striping at intersection approach*
Enhanced Maintenance				
Group 4	Allocation of additional resources for Snow removal	Town Council Public Works Dept.	all streets with curbside bike lanes and/or attached sidewalks	*would require plowing to center of street and removing snow from right-of-way*
Primary Cross-Town Bike/Walk Corridor				
Group 5	Designated Bicycle Facilities, Wide Sidewalks and/or Traffic Calming Measures	Public Works Dept. w/ Jackson Community Pathways	Cross-town route follows: • S. Park Loop Road • Meadowlark Lane • Powderhorn Lane • Maple Way • Snow King Avenue • Flat Creek Drive • Karns Avenue • Clissold Street • Hansen Avenue	*selection and implementation of design treatment(s) will vary by street segment, dependent on context and travelway considerations*