

Chapter 14

Off-Street Parking and Loading

This chapter sets standards for off-street parking and loading. Its intent, consistent with Policy 4.2.4 and other guidance from the *Town Plan*, is to minimize the area devoted to surface parking while still ensuring that there is a reasonable supply of parking, including spaces that can be safely used by those whose mobility or vision is impaired.

Minimizing the area devoted to surface parking will:

- protect watershed health, which may be adversely impacted by accelerated runoff from new impervious surfaces;
- conserve energy and make outdoor spaces more useable by moderating microclimatic extremes on intensively developed sites; and
- make it more pleasant to walk or cycle in Williston by contributing to streetscapes that are both comfortable and lively.

It is also specifically the intent of these standards to encourage shared parking arrangements, the use of parking structures, and the use of porous pavements.

14.1 Applicability

14.1.1 Do these standards apply to all development? Yes. The standards adopted in this chapter apply to all development for which a permit is required by this bylaw. Existing and proposed parking and loading areas must be clearly shown on the plans submitted with any application for a permit.

14.1.2 Do other requirements of this bylaw apply to off-street parking and loading areas? Yes. Off-street parking and loading areas must comply with all relevant standards of this bylaw. Some particularly relevant standards are cited below.

14.1.2.1 Drainage/Stormwater. Chapter 29 of this bylaw sets standards for stormwater management that apply to off-street parking and loading areas.

14.1.2.2 Landscaping. See Chapter 23 and specifically WDB 23.5 for the landscaping requirements that apply to off-street parking and loading areas.

14.1.2.3 Snow Removal/Storage. WDB 16.6 sets standards for snow removal and storage that apply to off-street parking and loading areas.

14.2 Off-Street Parking Requirements

14.2.1 How many off-street parking spaces are permitted for a given use? Table 14.A establishes the number of off-street vehicle (Column A) and bicycle (Columns B and C) parking spaces that are required for typical land uses. For uses that are not listed in the table, see WDB 14.2.3. The minimum number of accessible off-street vehicle parking spaces required is given by Table 14.B. It is important to understand that the numbers in Column A of Table 14.A are both minimums (you

must provide at least this many vehicle parking spaces) and maximums (you may not provide more vehicle parking spaces). The required number of off-street parking spaces may be changed only on the basis of a shared parking analysis (see WDB 14.2.2) or as provided by WDB 14.2.4 or 14.2.5.

14.2.2 Can parking be shared by uses that have different peak hours of operation? Yes. In fact, this may be required. Retail, office, institutional and entertainment uses are expected to share off-street parking spaces wherever possible.

14.2.2.1 Calculations. The DRB may, when reviewing a pre-application, require that shared parking calculations be made for any development that includes uses with potentially different peak periods of parking demand. Shared parking analyses may also be voluntarily submitted by adjoining land owners. In either case, the analysis shall be conducted using the shared parking methodology published by the Urban Land Institute.

14.2.2.2 Distance To. Shared off-street parking spaces shall be no more than 600 feet from a main entrance for customer parking and no more than 1000 feet from an employee entrance for employee parking.

14.2.2.3 Easement. Shared parking arrangements run with the land and must be honored by successors in interest. Failure to do so will be a violation of this bylaw, subject to enforcement as provided by WDB 7.4-7.6. Where different owners are involved in a shared parking arrangement, a draft easement providing for shared parking, including the number and location of the proposed shared spaces, must be submitted for review with the application for a discretionary permit. The signed easement, which must also specifically indicate how the costs of maintenance of the shared parking spaces will be shared, must be submitted with the final plans and recorded before a certificate of compliance may be issued, as provided by WDB 7.3.

14.2.2.4 Accessible Spaces. Given the need for proximity to the use served, the accessible parking spaces required by Table 14.B may not be shared.

14.2.3 What if a use is not listed in Table 14.A? The required number of off-street parking spaces shall be determined by the Administrator based on the similarity of the proposed use to one or more uses listed in Table 14.A and the Institute of Transportation Engineer's *Parking Generation*. The Administrator's determination of how many spaces will be permitted is subject to appeal using the procedure for the appeal administrative permits provided by WDB 5.4 of this bylaw.

DRAFT Table 14.A - Minimum/Maximum Off-Street Parking Permitted - Minimum Bicycle Parking Permitted

	<i>Column A</i>	<i>Column B</i>	<i>Column C</i>
	Off-Street Motor Vehicle Spaces	Total Bicycle Parking Spaces	Long Term Bicycle Parking Spaces
Land Use	<i>per 1000 SF gross floor area, unless otherwise specified</i>		
Industrial Uses	1.00	5% of vehicular	75% of required spaces
<i>Industrial uses are very diverse. Use 1.00 spaces per 1000 SF GFA as a starting point. The actual requirement will be set by the Administrator or DRB.</i>			
Residential Uses			
One and Two Family Dwellings	2.00 per dwelling	none	none
Accessory Dwellings		Two reserved spaces: See WDB 17.1.23.1.3.5	
Multiple-Family Dwellings	1.75 per unit	10% of vehicular	1 per 4 units
Senior Housing (independent living)	1.00 per dwelling	5% of vehicular	1 per 8 units
Senior Housing (assisted living)	0.35 per dwelling	5% of vehicular	75% of required spaces
Lodging Uses	1.00 per room	7% of vehicular	50% of required spaces
<i>Conference space and restaurants should be accounted for separately.</i>			
Recreational Uses			
Health Club	5.00	10% of vehicular	50% of required spaces
Other Recreational Uses		Too diverse to list. Will require individual analysis	
Theaters, Places of Assembly	.25 per seat	7% of vehicular	none
<i>Includes churches, live and movie theaters, and similar gathering places. Associated offices and other spaces should be accounted for separately. Church schools should be accounted for separately.</i>			

NOTE: The DRB may permit an exception to the bicycle parking requirements as provided by WDB 14.8.5

Table 14.A, cont.

Land Use	Off-Street Motor Vehicle Spaces	Total Bicycle Parking Spaces	Long Term Bicycle Parking Spaces
<i>per 1000 SF gross floor area, unless otherwise specified</i>			
Educational and Health Care Uses			
Child Care Centers, Pre-School	.35 per student	10% of vehicular	75% of required spaces
Schools, K-8	.35 per student	30% of vehicular	20% of required spaces
Schools, 9-12	.35 per student	30% of vehicular	20% of required spaces
Community Colleges	.35 per student	30% of vehicular	20% of required spaces
Libraries	4.25	30% of vehicular	20% of required spaces
Hospitals, Clinics, Medical Offices	5.00	7% of vehicular	75% of required spaces
Nursing Homes	1.50	5% of vehicular	75% of required spaces
Veterinary Clinics	2.00	5% of vehicular	75% of required spaces
Office Uses			
Office Building	3.50	7% of vehicular	50% of required spaces
Offices w/ High Turnover	5.00	10% of vehicular	50% of required spaces
Retail Uses			
Convenience Stores	4.00	7% of vehicular	20% of required spaces
Supermarket/Groceries	5.00	7% of vehicular	20% of required spaces
Drugs	2.50	7% of vehicular	20% of required spaces
Bulky Retail (furniture, lawn and garden)	3.00	7% of vehicular	20% of required spaces
General Retail, Shopping Centers	4.00	7% of vehicular	20% of required spaces
Services			
Banks	4.75	7% of vehicular	50% of required spaces
Quality Restaurant	20.00	7% of vehicular	20% of required spaces
Fast Food Restaurant (no drive-through)	15.00	7% of vehicular	20% of required spaces

14.2.4 How could I increase the number of permitted off-street parking spaces?

14.2.4.1 Build a Parking Structure. Consistent with Policy 3.3.4 of the *Town Plan* (which says this bylaw should include an incentive for structured parking) developments may increase the number of permitted off-street parking spaces by 25% by providing a multilevel parking structure. This incentive is available only where at least 30% of the off-street parking spaces required by Table 14.A are in the structure/s. All of the additional parking spaces permitted must be in the structure/s. Note also that there is a building height incentive for the provision of structured parking in the MUCZD, MURZD and TCZD.

14.2.4.2 Use Porous Pavement. Developments may increase the number of permitted off-street parking spaces by 15% by using porous pavement for a majority of all vehicular parking spaces required by Column A of Table 14.A. Porous pavement specifications must be approved by the Administrator, with the advice of the DPW.

14.2.4.3 Provide Spaces for Alternate Fuel Vehicles and Carpools. Off-street parking spaces that are dedicated to vehicles that operate primarily on alternative fuels (electric, hydrogen, natural gas, biodiesel) or that are dedicated to vehicles participating in a carpooling program shall not be counted towards the total number of off-street parking spaces required by Table 14.A. These spaces – which must not make up more than five percent (5%) of the total number of off-street parking spaces required - must be clearly identified with a placard reserving their use for vehicles that operate primarily on alternative fuels or that are participating in a carpooling program.

14.2.5 How could I decrease the number of off-street parking spaces required by Table 14.A?

Proposed reductions in the required number of off-street parking spaces must be approved by the DRB. They are not automatic.

14.2.5.1 Be Close to Public Transit. The DRB may permit a development that is within a 10-minute walk of a bus stop to reduce the required number of off-street parking spaces by as much as 20%, but only where the major employer/s in the proposed development commit to active participation in the Chittenden County Transit Authority's discount bus pass program.

14.2.5.2 Have On-Street Parking. The DRB may permit a one-to-one (on-street for off-street) reduction in the required number of off-street parking spaces for on-street parking that is available within 600 feet of a main entrance of the proposed development. This reduction of the number of off-street parking spaces may not, however, reduce the number of off-street parking spaces to less than two per dwelling.

14.2.5.3 Shared Parking. The number of off-street parking spaces required for a particular use may be reduced by a shared parking study required by WDB 14.2.2.

14.2.6 Can I reduce the area used for parking by using smaller spaces for compact cars? Yes.

The DRB may permit compact car spaces (see Table 14.C for the dimensions) to comprise as many as 25% of the off-street parking spaces required by Table 14.A. These spaces shall be clearly identified by a sign and/or pavement marking that says "Compact Car Only."

14.2.7 Where must off-street parking spaces be located?

14.2.7.1 Ownership. Off-street parking spaces shall be provided on the same lot or parcel and under the same ownership as the use they serve, except where a shared parking arrangement is required or permitted by WDB 14.2.2.

14.2.7.2 Distance: Nonresidential. The off-street parking spaces serving nonresidential developments must be within 600 feet of a main entrance for uses requiring customer parking and within 1,000 feet of an employee entrance for employee parking.

14.2.7.3 Distance: Residential. The off-street parking space/s serving a dwelling must be within 100 feet of the principal entrance to that dwelling. The DRB may allow a longer distance between parking and a dwelling in mixed-use developments.

14.3 Accessible Parking. Note that these requirements are more demanding in some ways than those of the Americans with Disabilities Act (ADA).

14.3.1 What is the minimum required number of accessible off-street parking spaces? See Table 14.B.

14.3.2 Don't some uses need more or fewer accessible off-street parking spaces? The DRB may find that a development needs more or fewer accessible off-street parking spaces than are required by Table 14.B and modify the requirements of that table accordingly. The DRB's action must still be consistent with the ADA. Examples of developments for which a modification may be appropriate include:

Table 14.B – Required Number of Accessible Off-Street Parking Spaces

Total Number of Spaces	Minimum Number of Accessible Spaces
1-15	1
16-30	2
31-45	3
46-60	4
61-75	5
76-100	6
greater than 100 spaces	6+ 4% of the spaces greater than 100 rounded to the nearest whole number

14.3.2.1 Hospitals and Medical Offices: at least 10% of the off-street parking spaces serving visitors and patients must be accessible. Specialty medical offices serving persons with mobility impairments may need as many as 20% accessible spaces.

14.3.2.2 Developments with Valet Parking: No accessible off-street spaces are required in parking areas used for valet parking. An accessible passenger loading zone is required.

14.3.2.3 Industrial Uses. Industrial uses may be permitted to meet the ADA standards – which are somewhat lower - for the required numbers of accessible off-street parking spaces.

14.3.3 Where should accessible off-street parking spaces be located? Accessible off-street parking spaces and the routes between those spaces and the buildings or other destinations they serve must be clearly identified on the plans submitted with applications for permits.

14.3.3.1 Location of Accessible Routes. There must be a clearly marked accessible route that meets all ADA standards between the accessible off-street parking space required by Table 14.B and an accessible building entrance or other destination. Where a development has multiple accessible entrances or destinations, the required accessible off-street parking spaces should be dispersed and located near each accessible entrance.

14.3.3.2 Design of Accessible Routes. Accessible routes must be as short as reasonably possible, safe and convenient for people with mobility and visual impairments. Accessible routes should not cross aisles, driveways, or any other part of the vehicular circulation system on the site. The DRB may, however, permit an exception to this standard where physical constraints like difficult terrain or existing development make compliance infeasible.

14.4 Dimensional Standards

14.4.1 What are the minimum required dimensions of off-street parking spaces? The dimensional standards for off-street parking spaces appear in Table 14.C. Table 14.C - Minimum Parking Space Dimensions					
Angle of Parking Space	Width of Space	Length of Space	Width of Angled Space	Length of Angled Space	Minimum Back-Up Length
STANDARD SPACES					
Parallel Parking	9.0'	22.0'	-	-	-
45° Angle	9.0'	20.0'	12.7'	20.5'	15.0'
60° Angle	9.0'	20.0'	10.4'	21.8'	18.0'
90° Angle	9.0'	20.0'	9.0'	20.0'	24.0'
Minimum aisle width (one-way)			10'		
Minimum aisle width (two-way)			20'		
COMPACT SPACES					
Parallel Parking	8.0'	20.0'	-	-	-
45° Angle	8.0'	18.0'	11.2'	18.3'	13.0'
60° Angle	8.0'	18.0'	9.2'	14.8'	15.0'
90° Angle	8.0'	18.0'	8.0'	18.0'	20.0'

14.4.2 What are the minimum required dimensions for accessible off-street parking spaces and the associated aisles? Accessible off-street parking spaces must be designed to accommodate vans. They shall be at least nine feet (9') wide with an adjacent aisle at least eight feet (8') wide. A sidewalk may be used as an access aisle for end spaces.

14.4.2.1 Shared Aisles. Accessible off-street parking spaces may share an access aisle by using front-in and back-in parking.

14.4.2.2 Obstructions. Planters, curbs, wheel stops, and similar installations, including cars overhanging a sidewalk, must not obstruct accessible routes. There shall be no snow storage along accessible routes.

14.4.2.3 Grade. The aisle serving an accessible off-street parking space must be level with that space, with a grade that does not exceed 1:50 (2%) in any direction.

14.4.2.4 Curb Ramps. Curb ramps must be located outside the aisle and parking space. To put it another way, accessible parking spaces and the adjacent aisles must be level and on the same grade. Grade changes (ramps) must be built into the adjacent sidewalk.

14.4.2.5 Signs/Pavement Markings. Accessible off-street parking spaces must be marked by a sign showing the standard symbol of accessibility. This sign must be affixed to a post or a building where it will be clearly visible from a vehicle searching for accessible parking spaces. Aisles must be marked with contrasting stripes or hatching on the pavement.

14.5 Off-Street Loading

14.5.1 Where are off-street passenger loading areas required? Off-street passenger loading areas shall be provided as explained below.

14.5.1.1 Institutional and Entertainment Uses. Day care centers, theaters, schools, and other places for public assembly must provide at least one safe off-street passenger loading area. The DRB may require additional off-street loading passenger loading areas for institutional and entertainment uses that have more than one principal entrance.

14.5.1.2 Other Uses. The DRB may require that any other use which adjoins an arterial or collector road provide a safe, off-street passenger loading area.

14.5.2 Where are off-street freight loading areas required? Safe off-street freight loading areas must be provided for commercial and industrial development buildings that include more than 10,000 SF GFA. At least one off-street freight loading area of at least 600 square feet shall be provided, along with one additional off-street freight loading area for each additional 20,000 square feet of GFA.

14.6 Access to Off-Street Parking and Loading Areas. Chapter 13 of this bylaw establishes standards for all points of access, including those to parking and loading areas.

14.7 Circulation within Off-Street Parking Areas. The pattern of circulation in off-street parking areas shall provide safe and efficient access to individual parking spaces, protect pedestrians moving through the parking area, and facilitate safe access to adjoining roads.

14.7.1 Are there minimum aisle widths for parking areas? Yes. The minimum aisle widths are included in Table 14.C, which also provides dimensional standards for parking spaces.

14.7.2 Must directional signs and/or pavement markings be provided in parking areas? Yes. Directional signs and pavement markings shall be used to guide traffic through parking areas and structures.

14.7.3 How must pedestrian access around, through, and to parking areas be provided?

14.7.3.1 Around. There shall be safe pedestrian access in the form of sidewalks around all parking and loading areas. The DRB may permit the use of a recreation path or other pedestrian way as an alternative to a sidewalk.

14.7.3.2 To. Accessible routes must be provided from parking areas to the building/s of other destinations they serve. WDB 14.3 provides standards for accessible routes.

14.7.3.3 Through. The DRB will require that safe pedestrian access be provided through large parking areas.

14.8 Bicycle Parking. Proposed bicycle parking must be shown on the plans submitted with an application for a permit.

14.8.1 How many bicycle parking spaces are required? Columns B and C of Table 14.A give the minimum number of required total and long term bicycle parking spaces for typical uses. There is no maximum. Column B provides the basis for calculating the total number of bicycle parking spaces that will be required. To express it as a formula:

Total Required Bicycle Parking Spaces = Total Vehicular Parking Spaces Required
(based on Column A) X the Percentage from Column B.

For example, a 40,000 SF industrial building will require 40 vehicular parking spaces (Column A requires 1 per 1,000 GFA) and 2 bicycle parking spaces (Column B requires 5% of the vehicular total).

14.8.2 What is a short-term bicycle parking space? A short term bicycle parking space is a space in a bicycle rack that is large enough to accommodate a bicycle (approximately two by six feet), permits the locking of the bicycle frame and one wheel to the rack, and supports the bicycle in a stable position without damage. The number of short-term bicycle parking spaces that is required is calculated by subtracting the number of long term bicycle parking space required by Column C of Table 14.A from the total calculated using Column B. To express it as a formula:

Required Short-Term Bicycle Parking Spaces = Total Required Bicycle Parking Spaces – Required Long-Term Bicycle Parking Spaces from Column C

For example, a 100,000 SF GFA retail building needs 400 vehicular parking spaces (Column A requires 1 per 1,000 SF GFA), 28 total parking bicycle parking spaces, 6 long-term bicycle parking spaces (Column C says that 20% of all bicycle parking spaces must be long-term), and 22 short-term bicycle parking spaces.

14.8.3 Are there design standards for short-term bicycle parking? Yes. Short term bicycle parking must be as visible, as well lit, and as convenient for cyclists as the vehicular parking on the site is for drivers.

14.8.3.1 Visibility. Short-term bicycle parking or a directional sign leading to it shall be visible from the principal entrance of the building it serves. Short term bicycle parking serving buildings with multiple entrances shall be dispersed so that it serves every principal entrance. Short term bicycle parking will ideally be within 50 feet of the building entrance.

14.8.3.2 Security. Bicycle racks shall be securely anchored to the ground, allow the bicycle wheel and frame to be locked to the rack with a U-lock, and be in a well-lit, highly visible location.

14.8.3.3 Paving. Short-term bicycle parking shall be on a paved surface.

14.8.4 What is a long-term bicycle parking space? A long-term bicycle parking space provides secure storage in a bicycle locker or a bicycle storage room or enclosure. These facilities must protect the entire bicycle, including its components and accessories against theft and the weather. They must also include a clothes storage locker that has a minimum size of 12” wide, 18” deep, and 36” high. Lockers do not need to be in the same location as the long term bicycle parking space. The required number of long-term bicycle parking spaces is given as a percent of the required number of total bicycle parking spaces and is listed in Column C of Table 17.A.

14.8.5 Can the number of required bicycle parking spaces be reduced? The DRB may reduce the bicycle parking requirements adopted in this chapter where the location and/or nature of the proposed development make the use of bicycles highly unlikely.

14.9 End-of-Trip Facilities

14.9.1 Why are end-of-trip facilities required? End-of-trip facilities are an important element in long range strategies to reduce energy consumption and dependence on nonrenewable energy resources. Few people can ride a bicycle even a modest distance to work if there is not a place to shower and change.

14.9.2 What end-of-trip facilities are required for developments? End-of-trip facilities include showers and a changing area. Facilities must be provided on-site or via an agreement with a nearby (within 600 feet) use. Table 14.D outlines the minimum number of required end-of-trip facilities based on the number of long-term bicycle parking spaces required.

Table 14.D - Shower and Changing Facilities	
Required Long Term Bike Parking Spaces	Minimum Number of Required Shower and Changing Facilities
1-3	1
4-18	1 per gender
17-30	2 per gender
30+	3 per gender