

# Maine Department of Transportation

## Highway Program

### Design Guidance

Title: On and Off-Street Parking

Issue Date: January 17, 2019

Discipline: Highway Engineering

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### **Background:**

The MaineDOT may incorporate some form of on-street or off-street parking into certain highway projects. When such facilities are appropriate, this document is intended to provide guidance on the design of these parking facilities.

### **Guidance:**

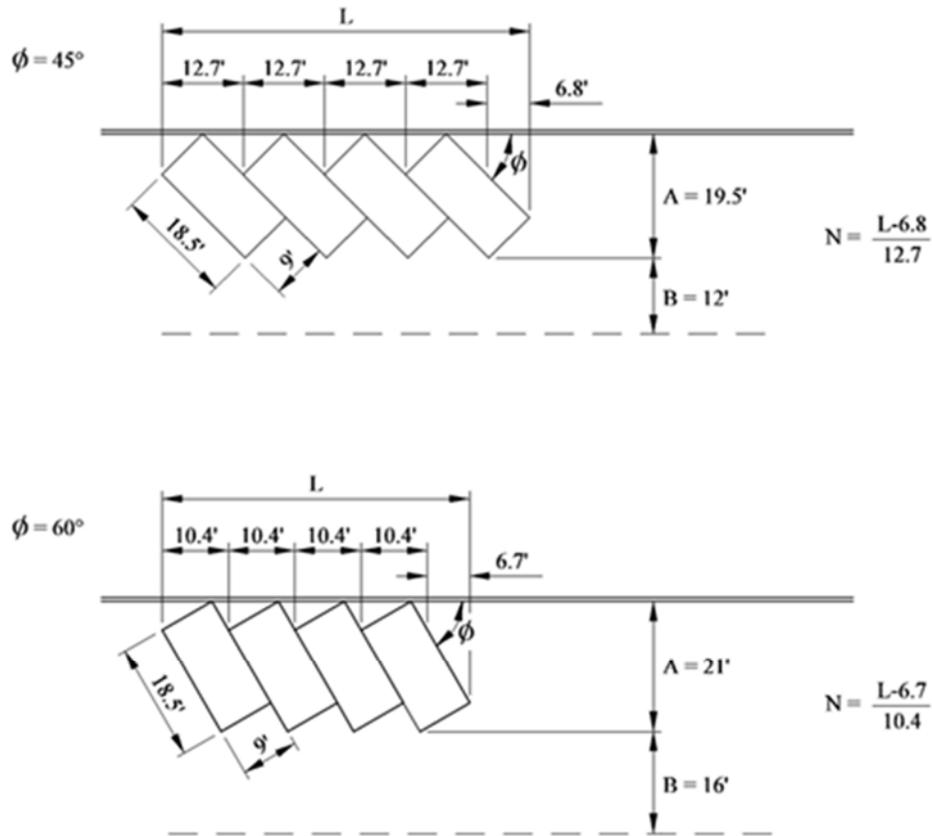
#### On-Street Parking

##### Parallel Parking

When on-street parking is appropriate, parallel parking is preferred. The basic design criteria for on-street parallel parking are contained in Chapter 4 of the AASHTO publication *A Policy on Geometric Design of Highways and Streets* (the Green Book).

##### Angle Parking

At locations where angle parking currently exists, parking should be converted to parallel parking where practical. When this is not practical, it is acceptable to retain angle parking in the proposed project design. Angle parking should be head-in/back-out. To reduce the chance of vehicles backing out into traffic, additional width should be provided between the parking lanes and the travel lanes. Figure 1 illustrates on-street angle parking criteria.



$L$  = Curb length within parking spaces.

$N$  = Number of parking spaces over distance  $L$ .

$B$  = Minimum clear distance needed for a parked vehicle to back out of stall while just clearing adjacent parked vehicles.

$A$  = Required distance between face of curb and back of stall, if the bumper of parked car does not extend beyond curb face. In restricted locations, it can be assumed that the car will move forward until its tire contacts the curb. In these cases, “ $A$ ” distance in the figure may be reduced as follows:

45° Angle of Parking      Reduce “ $A$ ” by 1.8 feet

60° Angle of Parking      Reduce “ $A$ ” by 2.2 feet

**FIGURE 1 – Angled Parking**

## Parking Restrictions

On-street parking should be prohibited:

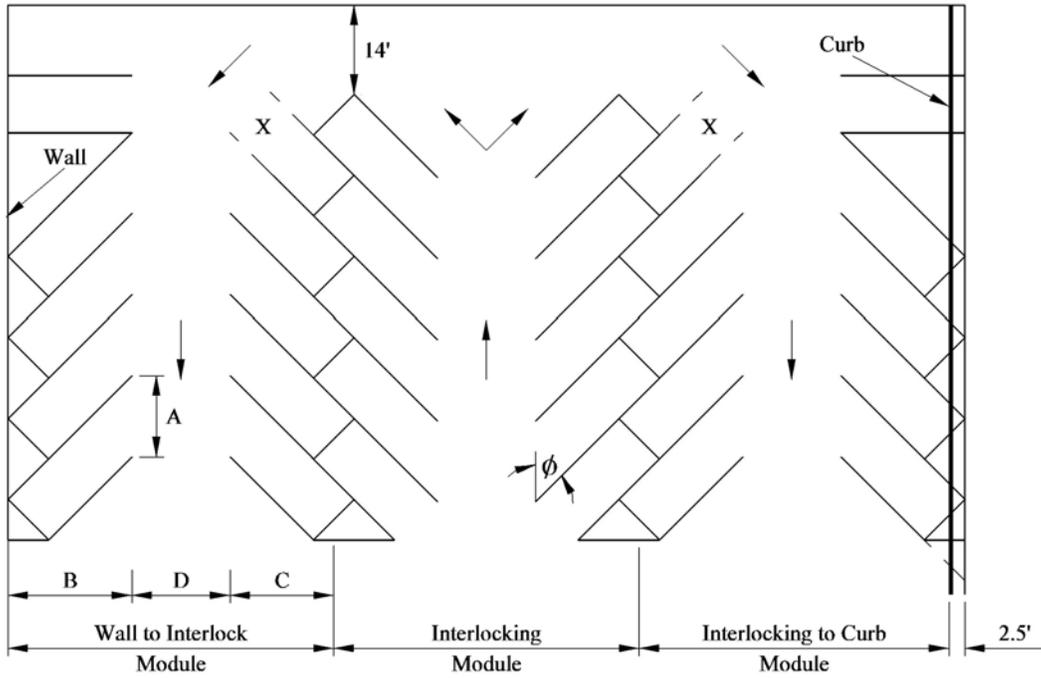
1. within 20 feet of any crosswalk;
2. within 25 feet of the terminus of the corner radius along the curb line at street intersections;
3. in front of all entrances and 10 feet to either side;
4. within 15 feet of any hydrant; and
5. within 50 feet of the nearest rail of a railroad/highway crossing.

## Off-Street Parking

A proposed highway project may incorporate some form of off-street parking. Typical applications may include:

1. providing off-street parking to replace on-street parking which will be removed as part of a proposed project;
2. the replacement of existing off-street parking impacted by a proposed project; and
3. the construction of a park-and-ride facility.

Figure 2 illustrates off-street parking criteria. Consideration should also be given to transit needs, Americans with Disabilities Act (ADA) needs, drainage, and snow removal. For additional criteria, refer to the AASHTO publication *Guide for Park-and-Ride Facilities*.



Basic Stall Width (ft)	A	B	C	D	Modules	
	Stall Width Parallel to Aisle (ft)	Stall Depth to Wall (ft)	Stall Depth to Interlock (ft)	Aisle Width (ft)	Wall-to-Wall (ft)	Interlock-to-Interlock (ft)
2-Way Aisle x 90° 9.0	9.0	17.5	17.5	26	61	61
2-Way Aisle x 60° 9.0	10.4	17.8	16.5	26	61.6	59
1-Way Aisle x 75° 9.0	9.3	18.5	17.5	22	59	57
1-Way Aisle x 60° 9.0	10.4	17.8	16.5	18	53.6	51
1-Way Aisle x 45° 9.0	12.7	16.5	14.5	15	48	44

X = Stall not accessible in certain layouts.

Notes: These dimensions are subject to slight reductions by local agencies under high cost conditions (such as garages) or slight increases in areas subject to special needs (such as extensive snowfall).

**FIGURE 2 – Off-Street Parking**