

# ParkCAD Overview and Typical Workflow

## Toolbar Overview

The following is a review of all features available in the ParkCAD3.0 software.



### Program Settings

Sets various general program settings, such as general units, information and hint dialog display, licensing information, as well as provides functions for upgrading a license and for moving a program license between computers



### Properties

Sets the layers\levels for ParkCAD object creation, as well as controls for displaying or drawing reference construction geometry.



### Design Parameters

Provides the ability to select or create parking standards, as well as the ability to define the default sizing and rules for end or connecting islands, mid-islands, stall numbering, and wheel stop creation.



### Generate Row from Points

Generates rows of parking between two or more selected points onscreen based on the active parking standard. During the generation process controls are available to enable the automatic creation of end islands, mid-islands, wheel stops, row type, and traffic flow, while the information dialog displays a dynamic stall count.



### Generate Row from Elements

Generates rows of parking along lines or arc geometry (either on or offset to the geometry) based on the active parking standard. During the generation process controls are available to enable the automatic creation of end islands, mid-islands, wheel stops, row type, and traffic flow, while the information dialog displays a dynamic stall count.



### Generate lot from Boundary

Generates both perimeter and parallel rows of interior parking within bounded areas that have been created on specific layers\levels. During the generation process controls are available to enable the automatic generation of end islands, mid-islands, wheel stops, row type, parking layout (Perimeter

and Interior), and traffic flow, while the information dialog displays a dynamic stall count during dragging row alignments to any angle or snapping parallel to any side.



### Site Setup Tool

Allows the group selection of individual parking rows and lots to define the parking for a site to aid in the percentage calculations of accessibility parking and for stall count and quantity take-off reporting.



### Editing Tools

A fly-out toolbar or separate floating or dock-able toolbar for performing comprehensive editing operations on ParkCAD objects



### Edit Lot

Provides the abilities to change or define the lot name, shift the interior parking rows, update an existing lot for changes in the boundary geometry, or to have excess drive aisle space evenly distributed between all parking rows.



### Edit Exclusion Area

Provides the ability to select a geometric shape on required ParkCAD layers to add to the lot definition for areas internal to or spanning the lot boundaries where parking should not be generated.



### Edit Row

Provides the ability to change the row name, the row type, add or change a center path, move or extend a row end, snap rows parallel to other rows, delete or add previously generated rows in a lot, or to extend two rows to join with a connecting island.



### Edit Side

Provides the ability to change the layout of a row side, change the aisle width between one-way or two-way aisles, and add wheel stops to a row side.



### Edit Stall

Provides the ability to change the name, type (standard, user-defined, mid-island), symbols, and width of stalls, as well as to add/remove wheel stops, exclude stalls from stall numbering, or to shift edit stalls along a row for specific placement.



### **Edit Island**

Provides the ability to set whether or not selected islands display, change the inside and outside radii, change the minimum depth of the islands, and set whether or not the inside corners are convex or concave.



### **Edit Site**

Provides the ability to change the name or to add or remove individual rows or lots from the site definition.



### **Stall Numbering**

Provides the ability to add or remove incremental stall numbering to selected rows of parking.



### **Accessible Parking**

Provides the ability to place accessibility parking (including symbols and access aisles) based on the active accessibility parking standard. During placement, percentage calculations can be specified with visual cues to indicate the required or remaining quantity of accessibility stalls to meet requirements.



### **Create Report**

Provides the ability to review or save summary stall count and quantity take-off and construction estimate reports externally to the CAD drawing (.csv) for selected parking objects. The reports will detail the stall and object quantities, percentages, lengths, areas, and totals including costs.



### **Help**

Provides in-depth information on features as well as step-by-step instructions for specific features and tasks

## Typical Workflow

ParkCAD's 3.0's primary benefits include built in standards and the ability to generate parking lots dynamically, a complete lot at a time, based on boundary geometry to optimize the available parking area. Parking studies can be assessed on the fly by changing the parking layout, row alignments, and stall configurations while reviewing a running stall count to achieve the maximum yield.

1. Check Program Settings to ensure that the ParkCAD Units match the working units for your design.
2. Check Properties to ensure that you have Construction Aisles set to be drawn.
3. Ensure that you have selected the appropriate parking and accessibility standards and have applied estimating costs for parking objects; estimating costs can be defined at any time before required reporting.
4. Generate perimeter parking using the Generate Row from Points or Generate Row from Elements for areas where parking rows will be parallel to main site entrances or along the edges of internal structures or buildings.
5. Utilize the Construction Aisles and offset curb geometry to ensure proper main drive aisle width, and as the starting geometry for sub-lot boundaries.
6. Ensure that sub-lot boundary geometry has been placed on the required boundary levels/layers.
7. Use the Generate Lot from Boundary command to populate the bounded areas with rows of parking.

NOTE: Either rotate the parking rows through any alignment, watching the Information Dialog for a maximum parking yield, or enable the Snap to Side setting to snap to a boundary side for a logical alignment. You can change the row layouts and configurations on the fly to perform a dynamic parking study to determine if other layouts and configurations can maximize the parking yield.

8. Use Site Setup to define a selection set of ParkCAD rows and lots to be used for requirement calculations and reporting.
9. Perform editing operations to modify rows, islands, and customized stall applications (user-defined stalls).
10. Use the Accessibility Parking tool and calculate accessibility requirements based on the active standard and the parking yield from the Site selection.
11. Place the required amount of Accessibility Parking spaces.
12. Generate a Stall Count report and review the quantity and percentage totals.
13. Generate a Quantity Take-Off Costing report for early estimates.
14. Use Edit Lot – Update Lot to be able to update previously generated parking in cases where the parking boundaries have been moved.