

# Bid Specifications

## Apex 2™ 2-Position Bicycle Rack

UNIQUE AND CRITICAL FEATURES

1. The bicycle rack shall transport up to two (2) bicycles simultaneously, each bicycle up to 75 lbs. in weight.
2. The bicycle rack shall feature a single-sided support arm that is linearly extendable, supporting the bicycle tire near the intersection of the front tire and head tube, to minimize lateral movement.
3. The bicycle rack shall support a full-size bicycle tire at the top +/- 30° to maximize retention of the bicycle.
4. To accommodate loading and unloading when a vehicle is in a kneeled position, no parts shall extend or move below the rack frame.
5. To extend the useful life and reduce maintenance costs, replacement parts, and failures - the rack shall not utilize gas springs.
6. The bicycle rack shall accommodate bicycles with wheelbase dimensions up to 48" and tire widths up to 3.2" with standard wheel trays; wheelbase dimensions up to 51" and tire widths up to 5.5" with optional fat tire kit.
7. The bicycle rack shall feature durable and ergonomic support arm handles and support bikes with wheel diameters 16-29" (standard wheel tray and support arm) or 24-29" (when equipped with fat tire wheel tray and support arm).
8. The pedals of one bicycle shall never become intertwined with wheel spokes of an adjacent bicycle, and re-orientation of the pedals shall not be required when loading or unloading bicycles from the rack.
9. The bicycle rack shall be compatible with an optional pivot plate and mounting bracket combination, which, when mounted on a compatible bumper enables quick removal with no tools. Once removed, the full energy-absorbing features of the bumper shall be maintained with no components protruding through the bumper.
10. The latch pin shall have a top and bottom flat surface width of at least ½" to minimize wear on the pivot plate quadrant.
11. To maximize strength and reduce fatigue cracks, the frame tubes to which the trays are affixed shall have no through-holes.
12. The latch mechanism shall be asymmetrically located near one of the two pivot locations to reduce vertical movement of the rack when in use.
13. The bicycle rack shall support up to 250 lbs. of centrally located static load when deployed and the vehicle is not in motion.
14. The bicycle rack shall be of modular construction with removable wheel trays, providing the ability for field-upgrade of wheel tray options and to easily replace parts that may be damaged by collision.
15. All parts of the moving portion of the bicycle rack shall be made of stainless steel, aluminum, or other corrosion-resistant materials to extend the service life of the rack. Plated steel components subject to wear shall not be used.
16. No straps or cords shall be required to secure the bicycle, eliminating service items that require maintenance and frequent replacement.
17. The bicycle rack shall only have contact with the bicycle tires, to reduce scratching and/or damage to the bicycle.
18. The bicycle rack shall be designed and manufactured specifically for commercial transit use by a vendor that has proven successful deployments of at least 10,000 bicycle racks at a minimum of 50 transit authorities in North America.
19. The bicycle rack shall comply with Buy America requirements and be designed and manufactured in the United States.
20. Lift weight to stow the rack shall be less than 30 pounds to allow for easy one-hand operation below OSHA and NIOSH limits.
21. The bicycle rack shall be designed to encourage loading and unloading from either the "curb-side" or the front of the vehicle to ensure safety of passengers utilizing the rack.
22. The bicycle rack shall allow access to load and unload any bicycle independent of others, to support quick and easy use of the rack without removal of other bicycles.
23. The bicycle rack shall feature a secure latch for deployed and stowed positions with a rack support arm that is "self-stowing" therefore requiring no action from the rider for proper and safe stowage, and be clearly marked with instructions for easy operation, supporting fast bicycle securement and schedule compliance.
24. Additional options and accessories for the bicycle rack shall include:
 

a. Custom Colors	d. Bicycle counter sensor	i. Auxiliary headlight mounting kit
b. Two bicycle trays in any combination: Standard trays for up to 3.2" tires and/or fat tire trays for up to 5.5" tires	e. Bilingual decals	j. Deployment wand
c. Deployment sensor	f. Right-hand drive	k. Electric trolley isolator kit
	g. Ten Second Bracket™ (compatible bumper required)	l. Additional torsion spring kit
	h. Advertising panel	

Part Numbers:            Apex 2 Rack –101082 (Standard), 101082-FAT (Fat tire trays and support arms)  
                                   Apex 2 Pivot Plate –101175

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