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## VR-M3 MANUAL VERTICAL BARRIER GATE Specifications

**GENERAL:** The barrier gate shall be Model VR-M3, manually operated, as manufactured by B&B Roadway, (888) 560-2060.

**APPLICATIONS:** The barrier shall be designed for use as a warning, traffic control and access control gate where manual operation is desired for closure of up to two lanes.

**GATE STAND and MOUNTING PROVISIONS:** Gate stand shall use heavy structural steel, welded in a rigid configuration. Entire stand shall be hot dip galvanized after fabrication. The base shall be mounted to a foundation specified by the project engineer with four 3/4" diameter by 12" long L-shaped anchor bolts or alternate anchor bolt as specified by the project engineer.

**SIDE ARM CHANNELS and CROSSMEMBER:** Steel, hot-dip galvanized side arm channels and cross members shall form a sturdy mounting frame to support the arm. The cross member section shall provide for mounting of the arm base.

**LATCHING / LOCKING PROVISIONS:** The design shall permit 90 degree vertical rotation of the arm. An adjustment plate shall allow adjustment of the raised and lowered positions to account for sloping roadways. The arm shall latch in both the open and closed positions. Provision for padlocking shall be provided in both the raised and lowered positions.

**BEARINGS:** Relubricating bronze bearings shall be provided as standard equipment for smooth, reliable operation.

**ARM:** The gate arm shall be 4" square (102mm), 6005-T6 aluminum extruded tubing, fitted with an aluminum eye at each end to slip over the bollards. Standard maximum clear opening between the bollards shall be 30'. Front and rear arm surfaces shall be covered with red and white high intensity reflective sheeting. Stripes shall be 16" (406mm) wide, and vertical according to MUTCD. Remaining exposed arm surfaces shall be painted white.

**RESISTANCE STRAPS:** Inside the arm tube shall run a continuous loop or loops of nylon strapping, of a size and quantity to suit the capacity requirements of the project. Resistance straps shall be guided through the eyes at each end of the arm such that the loop will engage the bollards in the arm-lowered position. Arm design shall fully enclose the straps to protect them from exposure to sun and weather so far as possible.

**BOLLARDS:** A pair of heavy steel bollard posts shall be mounted on either side of the roadway. The bollards shall be designed as the load carrying structure in the event of a vehicle collision and shall have a lip to assist in retaining the resistance straps.

**WARRANTY:** A 1 year warranty shall cover the gate and related equipment against defective material and components.

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