Model PG *High Performance* Grilles
STANDARD SPECIFICATIONS

PART 1 GENERAL

1.01 SUMMARY

A. Model PG High Performance Grilles shall be manufactured by Lawrence Roll-Up Doors, Inc.

1.02 SYSTEM DESCRIPTION

A. Grilles shall be springless and designed for 500,000 cycles usage.
B. Grilles shall have an average operating speed of up to 24 inches per second to open, 12 inches per second to close.
C. Grilles shall be used on openings up to 30 ft. wide and 16 ft. high.

1.03 WARRANTY

A. Grilles shall be warranted against defects in workmanship and materials for two years on the grille and five years on the motor operator from date of shipment, provided designed cycle life is not exceeded. Factory finishes are excluded from warranty.

PART 2 PRODUCTS

2.01 MATERIALS

A. **Curtain** shall be a heavy straight link HL9 [HL4] pattern, assembled from horizontal 5/16" diameter aluminum rods on 1 1/2" vertical centers, passing through flexibly connected 3/4" wide vertical aluminum links on 9" [4 1/2"] horizontal centers. Vertical 2-hole links shall be 3/16" thick and assembled with grommets to form vertical chains. Curtain alignment shall be maintained by stainless steel spacer tubes placed between end links on every rod and aluminum spacer tubes placed between all other links on every 4th rod. Ends of rods shall be drilled and secured with cotter pins. HL9 pattern shall provide approximately 76% open area through the curtain.

B. **Bottom bar** shall be a rectangular aluminum extrusion, 4 5/8" high x 1 3/4" wide, attached to bottom of curtain to limit vertical and lateral deflection. Bottom bar shall be self-leveling to accommodate slopes up to 1/2".

C. **Guides** shall be 3/16" steel U-channels fitted with replaceable extruded UHMW wear strips, bolted to 1/4" minimum steel wall angles [3/16" steel tube supports], with integrated mounting for light curtain. Guides shall be assembled with 3/8" minimum bolts no more than 24" on center and attached to wall with 1/2" minimum bolts no more than 24" on center [attached to floor and structure above]. Removable curtain stops shall be provided. [Neoprene isolation strips shall be provided between wall angles and wall, with neoprene washers on wall bolts, to reduce vibration and noise from the grille to the structure.]

D. **Barrel** shall be steel pipe, 8 5/8" minimum diameter. Pipe shall be sized to minimize operating revolutions and support curtain with a maximum deflection of 0.03" per ft. of width. Steel shafts, 1 1/2" minimum diameter, shall be used to support each end of barrel.

E. **Brackets** shall be 1/4" minimum steel plates bolted to wall angles. Plates shall be sized to support curtain and barrel and provided with flanges for hood attachment. Brackets shall be fitted with self-aligning 4-bolt iron flange bearings.

F. **Hood** [option on all grilles] shall be formed from 24 gauge minimum galvanized steel [18 gauge (0.04") aluminum] sheet with top and bottom reinforcements to reduce deflection. Intermediate support(s) shall be provided when necessary.

G. **Operation** of grilles shall be by a Model HGH inline gear drive motor operator, UL Listed, 2 HP minimum, 208/230-3ph [460v-3ph] (230v-1ph available on 2 HP), continuous duty motor, auxiliary chain hoist, integral speed governor to prevent curtain free-fall in event of operator component failure, adjustable soft start/stop variable speed controller, solenoid actuated brake, adjustable limit switches, delay on reverse, non-resettable cycle counter, adjustable reclose timer and auxiliary transformer to support secondary sensors and ancillary control devices, 3-button open-close-stop control, NEMA 1 enclosures. Drive chain shall be minimum #80 roller chain. Motor operator shall be mounted horizontally in front of and parallel to the grille coil and shall not require additional clearance above the top of the coil. Control panel shall be mounted on the wall and connected to the motor operator via pre-assembled 18 ft. wiring harnesses. Average operating speeds shall be up to 24" per second to open, 12" per second to close, and shall slow prior to full open and full close.

H. **Sensing devices** shall be provided to stop and reverse the grille when closing, and stop when opening, if an obstruction in the opening is detected. A monitored light curtain and wireless monitored sensing edge, consisting of a rubber dual-chamber profile with integral isolated conductive elastomer switches, shall be attached to the bottom of the bottom bar shall be provided to stop and reverse a closing grille upon sensing an obstruction. Upon monitoring a sensing edge system fault condition, the grille will stay in or return to the open position and revert to a constant pressure close function to allow partial operability until the fault is corrected. Photo eyes near the top of the guides shall also be provided to stop an opening grille upon sensing an obstruction. [Loop detectors [presence sensors] shall be installed to stop and reverse a closing grille upon sensing the presence of a vehicle.]

2.02 FINISHES

A. Aluminum curtain [hood] shall be mill finish [clear anodized (28 ft. max. width)]; stainless steel spacer tubes shall have a 2B finish. Aluminum bottom bar shall be clear anodized. Steel guides and brackets shall be shop painted with a black color rust-inhibiting primer. [Galvanized steel hood shall have a baked-on primer and grey polyester top coat].
NOTE: Bronze or other color anodized finish on curtain is not recommended due to likelihood of more noticeable finish wear.

PART 3 EXECUTION

3.01 INSTALLATION

A. Grilles shall be installed in accordance with Lawrence Roll-Up Doors, Inc. installation instructions.

3.02 SCHEDULES

A. Grilles shall be inspected and maintained at least every 3 months or 25,000 cycles by a Lawrence Roll-Up Doors, Inc. authorized dealer. A written record of inspections and maintenance shall be kept for the warranty period.