Part 1 General

1.1 SECTION INCLUDES

.1 Automatic electrically operated gates and accessories

1.2 RELATED SECTIONS

.1 Division 26 - : Electrical service and connections.

.2 Section 28 13 19 - Card Access Control System:

.3 Section 31 63 23 - Bored Concrete Piles: Structural portal foundations.

.4 City of Winnipeg Standard Specification CW 3550-R2.

1.3 REFERENCES

.1 DIN 50976 – Hot-Dip Batch Galvanizing.

.2 Transportation Association of Canada (TAC)

.3 Manual of Uniform Traffic Control Devices for Canada.

1.4 SYSTEM DESCRIPTION

.1 Modular cantilevered vehicular access gates.

.1 Modular lightweight construction with tensioned gate design.
.2 Low-resonance operation through guide wheels mounted on structural portals.
.3 Microprocessor electronic control using single-phase 240V power supply.

.2 Access control:

.1 Operation: Access activated by card access and exit activated by vehicle detector unit with sensing loop.

1.5 SUBMITTALS

.1 Shop Drawings:

.1 Submit shop drawings in accordance with Section 01330 - Submittal Procedures.
.2 Indicate electric power requirements, sensing loop and lead-in wire installation details, wiring diagrams.

.2 Product Data

.1 Provide detailed diagrams of all gate components.

.3 Test reports:

.1 If requested submit affidavits from the manufacturer demonstrating that the gate mechanism has been tested to 200,000 cycles without breakdown.

.2 Drive unit shall bear a label indicating that the operator mechanism has been tested to CSA standards for all electrical components.

1.6 CLOSEOUT SUBMITTALS

.1 Provide operation and maintenance data for gates for incorporation into manual specified in Section 01 78 10 - Closeout Submittals.

.2 Conduct comprehensive demonstration for maintenance staff on operation and care of gate.

1.7 QUALITY ASSURANCE

.1 Manufacturer: A company specializing in the manufacture of electric gate operators of the type specified, with a minimum of ten years experience.

.2 Installer: A minimum of three years experience installing similar equipment and approved by manufacturer.

1.8 CODES AND REGULATORY REQUIREMENTS

.1 Perform all electrical work according to local codes and National Electrical code.

Part 2 Products

2.1 CANTILEVERED ACCESS GATE

.1 Manufacturers: Heras Delta Gate; Model Heracles, electric operation; distributed by Wallace International, 90 Lowson Crescent, Winnipeg, MB, Canada. Telephone 1-866-300-1110.

2.2 MATERIALS

.1 Galvanizing to DIN 50976 – Hot-Dip Batch Galvanizing.

.2 Electrical components: CSA approved and complying with local requirements.

2.3 COMPONENTS

.1 Cantilevered Gates:

.1 Gate: Modular design, welded portals (posts).

.1 Two (2) single gates: 2500 mm high x 4875 mm wide clear opening each gate.

.2 Site tensioned extruded aluminum top and bottom beams.

.3 Galvanized tension cables.

.4 26 mm diameter pickets.

.2 Guides:

.1 Structural portals with guide wheels and running wheels.

.2 Synthetic runners screened by wheel guards.

.3 Stop column: locking style at centre median for both gates with rising plate for snug closure. Provide infill between stop columns to match gate and maintain security.

.4 Post and mounting devices for connection to standard fencing.

.3 Fasteners: Concealed, stainless steel.

.2 Electronic Gate Drive:

.1 Electric microprocessor controller unit, relays and other electrical components: to CSA approval.

.2 Control Unit: Provide entrance gate control by access control card reader, and exit gate control by loop detector with optional remote switching from loop detector to access card control card reader only.

.3 Limit Switches: Magnetic proximity switch to detect end positions of gate when in open and/or closed.

.4 Trimmers and Dipswitches: Control for frequently used user functions.

.5 Independent motor torque control.

2.4 MISCELLANEOUS ACCESSORIES

.1 Vehicle Control:

.1 Vehicle detection loops: Micro-processor based, digital type, with sensitivity to detect a wide variety of vehicle sizes.

.1 Self-tuning, detection by vehicle presence.

.2 Loop wire: direct burial wire. Loop size 1829 mm x 3658 mm.

.3 Loop groove fill: cold poured rubberized bituminous emulsion for asphalt pavement.

.2 Safety Devices:

.1 Through-beam photocell.

2.5 FINISHES

.1 Visible surface colour: Aluminum girder with galvanized bars Coated surface colour to be selected from manufacturer's standard range.

Part 3 Execution

3.1 INSTALLATION

.1 Install cantilevered sliding access gate to manufacturer's written instructions.

.2 Coordinate with Section 31 63 23 for exact piling locations.

.3 Coordinate with Division 26 for power and conduit requirements.

.4 Install structural portals in concrete foundations, completely level both horizontally and vertically.

.5 Test and adjust complete system for proper function and leave in perfect working order.

.6 Cut grooves in road surface and install vehicle detection loops and lead-in-wires, to approved shop drawings.

.7 Do not fill grooves until installation is approved by project Administrator, and tested for proper detection performance.

.8 Supply and install other electrical wiring, conduit junction boxes, transformers, circuit breakers and auxiliary components required for complete installation. Conform to CSA and local requirements.

3.2 CLEANING AND MAINTENANCE

.1 Perform cleaning and maintenance procedures in strict accordance with manufacturer's written instructions.

.2 Maintain logbook of repairs and maintenance.

END OF SECTION