1.0 GENERAL

.1 Requirements Include

.1 Light pole and lighting bollard base anchors.

.2 Flagpole base and foundation sleeve.

.3 Sign post foundation sleeves.

.4 Pipe bollards.

.5 Exterior road access swing gates.

.2 General

.1 Provide 150mm reinforced vehicle rated concrete paving throughout campus, unless approval for non-vehicle rated concrete paving is provided by both Campus Development and Facilities.

.2 Strength: Minimum 32 MPa Concrete to be provided to resist freeze thaw cycles.

.3 Finish: Exterior concrete paving to be finished with either California brush finish or Sandblast finish.

.4 Joints: Provide saw cut joints with no tool markings. Wide direction to be installed perpendicular to the predominant path of travel. Maximum Sawcut Joint Spacing to be 1800mm x1200mm.

.5 Stairs: Provide vertical risers with no nosing extension, in addition add stair runnel for drainage if stairs abut a vertical surface.

.6 Raised Crossings: Provide reinforced concrete ramps with minimum slope of 1:10.

.7 Coordinate the whole of this Section with Owner's requirements for:

.1 Site Furnishings, including but not limited to: Tactile Warning Indicators, Signage, Bollards, Trench Grates, Tree Grates, Fences, Gates, Bike Racks.

.3 Quality Assurance

.1 Pre-Installation Conferences:

.1 Convene a pre-installation conference in accordance with Division 1 requirements.

.2 Schedule concrete site element pre-installation conference after installation of forms, placing of base, and installation of sleeves, but before placing of concrete.

2.0 EXECUTION

.1 Joints

.1 Provide expansion and contraction joints where required to prevent buckling and minimize cracking.

.2 Provide expansion joint at end of walks perpendicular to and terminating at curb.

.3 Align joints of sidewalk, curb, and gutter.

.4 Sawcut Joints (typically one quarter of concrete slab thickness, but not less than 25 mm).

.1 Spacing on centre:

Sidewalks	1,500 mm
Curbs	3,000 mm
Mow Strips	1,500 mm
Flat Drainage Structures	3,000 mm
Retaining Walls w/Guardrails	1,830 mm
Retaining Walls w/Chain Link Fencing	3,000 mm

.2 Finishes

.1 Curb, Gutter, Sidewalks, Mow Strips, Flat Drainage Structures, Stairs, and Miscellaneous:

.1 California broom finish.

.2 Saw cut joints.

.3 Round perimeter edges.

.4 Remove tooled edger marks.

.2 Pole Bases:

.1 Exposed portion to have rubbed finish.

.3 Retaining Walls:

.1 No joints, marks, bellies, projections, loose materials, and cut back metal ties from surfaces to be exposed.

.2 Point up voids with cement mortar, 1:2 mix, and rub exposed surface with carborundum to smooth, even surface.

.4 Fence Piers:

.1 Chamfer edges.

.3 Special Requirements

.1 Formed vertical surfaces to be full depth. No concrete to flow out from under forms in any degree.

.2 Sidewalks, Exterior Stairs, and Landings:

.1 Slope sidewalks with cross slope of 3 to 6 mm (1/8 to 1/4 in.) per 300 mm (12 in.) in direction of intended drainage.

.2 Slope sidewalks away from building 1 percent minimum.

.3 Mow Strips:

.1 Granular base not necessary under mow strips. Compact subgrade under mow strip to density of undisturbed earth.

.2 Form and cast mow strips in place.

.3 Set top of mow strip 38 mm (1-1/2 in.) above finish grade.

.4 Compact topsoil underneath mow strip to density of undisturbed earth.

.4 Bond Breakers:

.1 Provide bond breaker joints at perimeter of buildings and around light pole and signage foundation bases.

.5 Light Pole Bases:

.1 Install bond breaker between pole base and adjoining sidewalk.

.4 Field Quality Control

.1 Review: notify Consultant three (3) days minimum before placing concrete for specified concrete site elements to allow verification of grades and elevations.

*** END OF **CONCRETE PAVING** SECTION ***