

APPENDIX 4E

ROADS, GROUNDS AND LANDSCAPE MAINTENANCE SERVICES

TABLE OF CONTENTS

PART 1.	SERVICES	1
1.1	General Requirements	1
PART 2.	ROADS, GROUNDS AND LANDSCAPE MAINTENANCE SERVICES.....	1
2.1	Services	1
2.2	Reporting	4

APPENDIX 4E

ROADS, GROUNDS AND LANDSCAPE MAINTENANCE SERVICES

PART 1. SERVICES

1.1 General Requirements

1.1.1 In addition to the standards and specifications set out in Schedule 4 [Services Protocols and Specifications], Project Co will deliver the Roads, Grounds and Landscape Maintenance Services:

- 1.1.1.1 24 hours per day, 365 (366) days per year, as applicable;
- 1.1.1.2 in a manner integrated and coordinated with all other Services, so as to facilitate the smooth operation of the Facility; and
- 1.1.1.3 in accordance with the Environmental Management System and the Environmental Management Plan and so as to minimize the environmental impact of the Roads, Grounds and Landscape Maintenance Services, including the impact on environmental noise sensitivity.

PART 2. ROADS, GROUNDS AND LANDSCAPE MAINTENANCE SERVICES

2.1 Services

2.1.1 Project Co will provide Roads, Grounds and Landscape Maintenance Services for all Roads, Grounds and Landscape Maintained Elements, including:

- 2.1.1.1 provision of Scheduled Maintenance in accordance with the then current Annual Service Plan and Five Year Maintenance Plan, the Life Cycle Plan, the Environmental Management System, the Environmental Management Plan and the Operational Policies and Procedures;
- 2.1.1.2 Maintenance of the Roads, Grounds and Landscape Maintained Elements, in accordance with the applicable service standards set out in Table 1 [Service Standards] to this Appendix 4E and so as to: (i) facilitate the smooth operation of the Facility, including ensuring safe, logical, clear and barrier-free access to the Facility and across the Site at all times; and (ii) promote a positive image of the Facility and the Authority;
- 2.1.1.3 Maintenance of irrigation systems, exterior lighting, internal roadways and parking areas including off site parking, and other Site Improvements;

- 2.1.1.4 provision of a full horticulture service across the Site which will include:
 - 2.1.1.4(1) tree maintenance/surgery;
 - 2.1.1.4(2) planting, including shrubs, trees, and flower beds; and
 - 2.1.1.4(3) effective irrigation procedures (in accordance with LEED requirements and sustainable practices; and
 - 2.1.1.4(4) work in conformance with Section 3.12 [Sustainability Features] of Schedule 3 [Design and Construction Specifications];
- 2.1.1.5 protecting all existing and new plants, Site services, curbs, paving, structures, finishes and any other features from damage, during the course of providing the Services;
- 2.1.1.6 obtaining the approval of the Authority before using any herbicides, pesticides, fertilizers or other chemicals in the delivery of the Roads, Grounds and Landscape Maintenance Services and maintaining records of all herbicides, pesticides, fertilizers or other chemicals used on the Site;
- 2.1.1.7 ensuring all external areas of the Facility are functional, sound, safe, tidy, of good appearance and maintained in accordance with Table 1 [Service Standards] to this Appendix;
- 2.1.1.8 provision of snow and ice removal from sidewalks and roadways as required by the City, including:
 - 2.1.1.8(1) snow ploughing, clearing, sanding and salting, including the application of other ice melt products, use products and supplies that adhere to sustainable principles and are not hazardous and nontoxic, and the direct costs will be a flow through to the Authority and will be invoiced on a monthly basis, without mark up;
 - 2.1.1.8(2) development of a snow and ice clearing priority protocol, in consultation with the Authority;
 - 2.1.1.8(3) removal of snow and ice to a storage area which: (i) will not create a hazard to Students, Authority Persons or other Facility

Users; (ii) will not restrict surface or subsurface drainage systems; and (iii) which is acceptable to the Authority; and

- 2.1.1.8(4) provision of winter fencing, as required;
- 2.1.1.9 conducting inspections to ensure that the Roads, Grounds or Landscape Maintained Elements are at all times maintained in accordance with the requirements of this Appendix 4E [Roads, Grounds and Landscape Maintenance Services];
- 2.1.1.10 maintaining all Roads,, Grounds and Landscape Maintained Elements in compliance with Crime Prevention through Environmental Design (CPTED) principles;
- 2.1.1.11 performing regular inspections of all internal road and parking area components of the Roads, Grounds and Landscape Maintained Elements and promptly reporting all identified issues, such as the following, to the Help Desk:
 - 2.1.1.11(1) damaged car park (including off site parking) or road surfaces;
 - 2.1.1.11(2) damaged curbing or footpaths;
 - 2.1.1.11(3) overhanging or obtrusive vegetation;
 - 2.1.1.11(4) inadequate street or car park lighting(including off site parking);
 - 2.1.1.11(5) inadequate road or parking space line markings;
 - 2.1.1.11(6) inadequate or damaged signage; and
 - 2.1.1.11(7) other hazards,and ensuring that all identified issues are promptly Rectified in accordance with the requirements of this Appendix 4E [Roads, Grounds and Landscape Maintenance Services];
- 2.1.1.12 providing and maintaining parking (including off site parking), which must be clearly signed and separately designated for each of the following categories:

- 2.1.1.12(1) visitors;
- 2.1.1.12(2) students;
- 2.1.1.12(3) employees;
- 2.1.1.12(4) persons with disabilities;
- 2.1.1.12(5) taxi parking/queuing;
- 2.1.1.12(6) drop off zone; and
- 2.1.1.12(7) bicycle and motorcycle.

2.2 **Reporting**

- 2.2.1 Project Co will prepare and maintain an electronic daily log and, upon request prepare and submit to the Authority periodic monitoring reports with respect to the performance of the Roads, Grounds and Landscape Maintenance Services, showing applicable Site areas, materials used, activities carried out, date of each activity and such other information as the Authority may reasonably request, all in accordance with the requirements of Schedule 14 [Records and Reports].

Table 1 – Service Standards

Maintained Element	Standard
General	<ul style="list-style-type: none"> ○ maintain, Repair and refresh all Roads, Grounds or Landscape Maintained Elements from time to time, as required, in order to maintain compliance with the specifications and design criteria set out in Schedule 3 [Design and Construction Specifications] and the requirements of these Services Protocols and Specifications and so as to maintain the Site in accordance with all applicable Laws, Authority Policies and Procedures and Good Industry Practice; and ○ ensure that access to all areas in which the Roads, Grounds and Landscape Maintenance Services are being performed is restricted to authorized personnel.
Site Improvements and Infrastructure	<ul style="list-style-type: none"> ○ maintain the Site substantially free from litter (including cigarette ends and chewing gum), graffiti and vandalism. ○ ensure that the Site is accessible for elderly and disabled persons, including the visually and mobility impaired and wheelchair users; ○ ensure that all external furniture, and hard landscaping Maintained Elements are: <ul style="list-style-type: none"> - functional, safe, secure, operationally sound, of good appearance, substantially free from damage and otherwise in compliance with the specifications and design criteria set out in Schedule 3 [Design and Construction Specifications]; - free from moss, algae and interstitial weeds; and - substantially free from graffiti and/or vandalism; ○ empty waste bins as required so as to ensure that the waste bins are at all times less than 75% capacity and free from malodour; ○ ensure that all irrigation and exterior lighting systems are functional and maintained in accordance with the specifications and design criteria as set out in Schedule 3 [Design and Construction Specifications]; ○ maintain all gutters, drains and storm water systems substantially free from litter, leaves, weeds and extraneous material; ○ ensure that all fences, walls and gates remain: <ul style="list-style-type: none"> - intact, functional, safe, secure, operationally sound and of good appearance; - substantially free from graffiti, damage and/or vandalism; and ○ ensure that all locks are operational.

<p>External Sign Posting (including lighting)</p>	<ul style="list-style-type: none"> • All external signage and lighting Maintained Elements: <ul style="list-style-type: none"> ○ are functional, safe, secure, operationally sound, of good appearance, substantially free from damage and otherwise in compliance with the requirements of Schedule 3 [Design and Construction Specifications] and these Services Protocols and Specifications; ○ do not hinder visibility for drivers or pedestrians at junctions; ○ are appropriately located; ○ are highly visible, both day and night; ○ offer clear and concise information; and ○ are substantially free from graffiti and/or vandalism.
<p>Roads, Grounds and Landscape Maintenance</p>	<p>Trees, Shrubs and Hedges:</p> <ul style="list-style-type: none"> • All trees, shrubs and hedges are: <ul style="list-style-type: none"> ○ trimmed, pruned and/or cut to maintain healthy growth. ○ substantially free from dead or dying branches. ○ substantially free from litter. ○ substantially free from disease and/or infestation. • Project Co will replace trees, shrubs and hedges as and when necessary to maintain the appearance of the Facility. • Hiding spaces are minimized and camera views are not obscured. <p>Grassed Areas:</p> <ul style="list-style-type: none"> • All grassed areas are: <ul style="list-style-type: none"> ○ of uniform appearance with no dead patches with all edges neatly trimmed. ○ substantially free from disease and/or infestation. ○ substantially free from fallen leaves, weeds, litter and excrement. ○ a uniform length between 25 and 50 mm. <p>Flower Beds:</p> <ul style="list-style-type: none"> • All flower beds are: <ul style="list-style-type: none"> ○ fully stocked with an appropriate mix of annual, perennial and display plants, in keeping with the creative design aesthetic of the Authority, to provide aesthetically pleasing beds throughout the year. ○ substantially free from fallen leaves, weeds, litter and excrement. ○ substantially free from disease and/or infestation. <p>Roads and Parking Areas: (includes off site Authority designated parking)</p> <ul style="list-style-type: none"> • Project Co will: <ul style="list-style-type: none"> ○ maintain all road and parking area Maintained Elements sound, safe, with even surfaces and with no potholes, sinking or tripping hazards.

	<ul style="list-style-type: none">○ ensure that all curb, paving stone and edging Maintained Elements are not loose and are otherwise sound.○ maintain all road marking, signage and parking stripe Maintained Elements such that they are clear and complete.○ maintain all roads and parking area Maintained Elements swept and clear of debris and hazards and substantially free from graffiti and/or vandalism.○ maintain Site circulation routes clear and accessible and provide good access for elderly and disabled persons, including the visually and mobility impaired and wheelchair users.○ protect all vehicles from chemical sprays. <p>External Recreation Areas:</p> <ul style="list-style-type: none">● All external recreation areas will remain:<ul style="list-style-type: none">○ functional, safe, secure and of good appearance;○ accessible and easily observable by Authority Persons; and○ substantially free from graffiti and/or vandalism. <p>Snow and Ice Removal:</p> <ul style="list-style-type: none">○ apply and re-apply salt, sand and/or ice melting non-toxic, environmentally friendly products as required to keep all paved and concrete areas, including roadways, emergency routes, parking areas and sidewalks free from ice.○ commence snow ploughing and clearing within two hours of an accumulation of 5 cm (2 inches) in depth and continue to plough and clear on an on-going basis, as required, so as to reduce the risk of injury, accidents and so as to maintain access to the Facility at all times.○ ensure that snow dumping and storage on-Site is limited to designated areas and does not impede fire lanes, pedestrian or vehicle traffic or restrict availability of visitor or employees parking. (included off site parking)○ install winter fencing, if required to maintain access to the Facility at all times.
--	--

END OF SECTION