

SCHEDULE “B”

(DC2) SITE SPECIFIC DEVELOPMENT CONTROL PROVISION

1. General Purpose

To establish a Comprehensive Site Specific Development Control Provision to accommodate the Edmonton Waste Management Centre (EWMC) which includes an integrated waste management site, a receiving and administration site, an electrical generating facility, and a wastewater treatment site and its constituent elements as defined and regulated by the Environment Protection and Enhancement Act and the Public Health Act by the application of regulations intended to minimize impacts associated with the Edmonton Waste Management Centre in a river valley location and on surrounding land uses.

2. Area of Application

The DC2 Provision shall apply to the Edmonton Waste Management Centre located east of Meridian Street, west of 17 Avenue NE, south of 137 Avenue NE, and north of 130 Avenue NE, being legally as Lots 1PUL, 2PUL, 4PUL, 5PUL, 6PUL, 7PUL, 8PUL, & 9PUL, Block 1, Plan 962 4397; Lot 10PUL, Block 1, Plan 022 7886; Lots 11PUL, & 12PUL, Block 1, Plan 094 1790; and a portion of the NE and SW 21-53-23-4, as shown on the Overall Plan (Appendix A). The Overall Plan is comprised of Appendix B – the West Integrated Waste Management Site (Area A) and Appendix C – the East Integrated Waste Management Site (Area B).

3. Uses

West Integrated Waste Management Site (Area A)

Area A is approximately 74.14 ha as shown on Appendix A of this Bylaw and is legally described as Lots 1PUL, 2PUL, 4PUL, 5PUL, 6PUL, 7PUL, 8PUL, & 9PUL, Block 1, Plan 9624397; Lot 10PUL, Block 1, Plan 0227886; Lots 11PUL & 12PUL, Block 1, Plan 094 1790 and a portion of the SW 21-53-23-4.

- a. Administration Building
- b. Operations Building
- c. Research and Development Facility

For the purposes of this DC Provision, these uses may include laboratories, pilot-scale processes, fabrication shops, work areas and offices where researchers and operators will undertake the design and implementation of

projects to increase knowledge of waste management processes and to test new processes and equipment intended to improve the management of waste.

d. Special Waste Transfer Facility

e. Recycled Materials Drop-Off Centre

f. Composting Facility

For the purposes of this DC Provision, this use may process non-hazardous municipal solid waste (MSW) and municipal sewage sludge (MSS) into pathogen free compost and inert residuals.

g. Biofuels Facility

For the purposes of this DC Provision, this use may process prepared waste-derived feedstocks to produce methanol, ethanol, synthetic gas, heat, and other similar chemical and energy products for marketing and for use at the EWMC site. Residual wastes including glass and stones and high-carbon char will either be landfilled or used in other applications as markets dictate.

h. Leachate Treatment Plant

For the purposes of this DC Provision, this use may treat leachate produced at the Clover Bar Landfill to achieve an effluent discharge quality that complies with the criteria of the City Sewers Use Bylaw.

i. Materials Recovery Facility

For the purposes of this DC Provision, this use may process mixed recyclables collected from the municipal wet/dry system and from community recycling depots in order to ready these materials for marketing.

j. Construction and Demolition Waste Recycling Operations

For the purposes of this DC Provision, this use may include the receiving, sorting, stockpiling, and further processing by crushing, grinding, compacting and similar processes as appropriate of construction and demolition waste to recover re-usable materials and prepare residuals for haul to landfill disposal. Materials received and processed will include concrete and asphalt, wood, metals, glass, drywall, shingles and similar materials typically arising from urban construction and from the demolition of structures.

k. Electronics Recycling Facility

For the purposes of this DC Provision, this use may include receiving end-of-life consumer and industrial/commercial electronic components and processing them to recover re-usable metals, plastics, glass and other materials.

l. Paper/Textiles Recycling Facility

- m. Glass Recycling Facility
- n. Other Waste Processing and Recycling Facilities

For the purposes of this DC Provision, this use may include facilities to process and/or recycle waste to recover usable resources and to minimize amounts landfilled, such facilities being, in the opinion of the Development Officer, consistent with the intent and nature of the Edmonton Waste Management Centre and with this bylaw.
- o. Ancillary Uses to Waste Management Operations

For the purposes of this DC Provision, these uses may include such facilities and activities as weigh scales, screening for construction and storage areas, office and administration areas, facilities for equipment storage and repair, general industrial uses, and other such uses which in the opinion of the Development Officer are accessory to the other uses listed in this Zone.
- p. Public Park
- q. Fascia On-premises Signs
- r. Freestanding On-premises Signs
- s. Temporary On-premises Signs
- t. Minor Digital On-premises Signs
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4. Specific Development Criteria for Area A

- a. Development on the site shall be generally in accordance with the facility concept plan as shown on Area A with the following to the satisfaction of the Development Officer:
 - i. Individual facilities shown on Area A may involve the construction of more than one building; and
 - ii. In accordance to Section 3(n) and 3(o), other Waste Processing and Recycling Facilities, and Ancillary Uses to Waste Management Operations are allowed under this DC provision. These facilities are not shown on Area A, but shall be allowed if such facilities are, in the opinion of the Development Officer, consistent with the intent and nature of the Edmonton Waste Management Centre and with this Bylaw.
- b. The separation distance between composting facilities and any water features shall conform to the Guidelines for the Production and Use of Compost in Alberta.
- c. The wetland as shown on Area A shall be retained and enhanced for the purposes of creating a naturalized wetland environment containing, and

capable of sustaining, native plant and wildlife communities. Floating nesting sites shall be installed in the wetland to encourage waterfowl nesting and loafing. The wetland shall also make provision for public access on a supervised basis. A development setback minimum of 10 metres in width shall be provided from the wetland normal water line. This setback may be increased at the discretion of the Development Officer for the purposes of ensuring an adequate separation distance between the wetland high water line and the adjoining uses. The Development Officer shall consider the need for, and may require, a security fence to be provided at the perimeter of the setback to protect the integrity of the wetland area. The slopes between the wetland high water line to a 0.1 metre below the surface of the normal water line of the wetland shall be contoured to a 1:5 gradient. The slopes below a point one metre below the surface of the normal water line for the wetland shall be contoured to a 1:3 gradient.

5. Uses

East Integrated Waste Management Site (Area B)

Area B is approximately 58.09 ha as shown on Appendix B and is legally described as a portion of NE 21-53-23-4.

a. Wastewater Lagoons

For the purposes of this DC Provision, this use may receive and store biosolids from the Gold Bar and Alberta Capital Region Wastewater Treatment Plants. After gravity thickening the biosolids will be removed for further processing and recycling. After processing at the Supernatant Treatment Facility, supernatant will be pumped by pipeline to the Gold Bar Wastewater Treatment Plant for final treatment.

b. Sanitary Grit & Wet Solids Treatment Facility

For the purposes of this DC Provision, this use may de-water sanitary grits and commercial solids. Liquids produced from this process are to be treated in the same manner as lagoon supernatant.

c. Supernatant Treatment Facility

For the purposes of this DC Provision, this use may treat lagoon supernatant to reduce the phosphorus content being discharged into the drainage collection system. Reducing phosphorus in the supernatant will enhance operation of the lagoons and the wastewater treatment plants. If removed as struvite crystals, this solid may be re-used as a phosphorus-rich fertilizer.

d. Maintenance Building

For the purposes of this DC Provision, this use may accommodate centralized and secure storage of equipment, spare parts, and materials essential for daily operation of the existing Clover Bar lagoons. The facility will allow for improved on-site maintenance.

e. Product Processing, Curing, and Preparation Area

For the purposes of this DC Provision, this use may include a graded and prepared area for the processing of dewatered biosolids into compost or other products, final curing of both biosolids/wood chip compost, MSW-biosolids compost and compost from other organic feedstocks, and final preparation (screening and blending), storage and staging of various composts for market. Also included are ancillary facilities for site storm water collection and management and receipt and storage of bulking agents for composting.

f. Biosolids Technology Testing Facility

g. Other potential biosolids uses:

- i. Thermal biosolids drying
- ii. Biosolids peletization
- iii. Biosolids gasification
- iv. Biosolids conversion to activated carbon
- v. Similar alternative technologies for management of biosolids.

Pilot testing and use of specified biosolids technologies are to be permitted pending approval of the Development Officer.

h. Landfill Gas Processing Facility

For the purposes of this DC Provision, this use may treat biogas produced by adjacent Clover Bar Landfill to create a fuel suitable for combustion in electrical generating equipment or for other uses.

i. Electrical Generation Facility

For the purposes of this DC Provision, this use may utilize electrical generation equipment to generate electricity for delivery onto the electrical grid. Electrical generation equipment will be fueled by processed gases from the Landfill Gas Processing Facility.

j. Gas Flaring

Landfill gases not utilized for electrical generation shall be flared at a flare within the Area.

k. Ancillary Uses

For the purposes of this DC Provision, these uses include facilities to process organic or inert waste materials to economically and

environmentally produce products and minimize the loss of potential resources, such facilities being, in the opinion of the Development Officer, consistent with the intent and nature of the Edmonton Waste Management Centre and with this bylaw.

- l. Offices and administration areas, storage areas, parking areas, and general industrial uses which, in the opinion of the Development Officer, are accessory to the other uses listed in this provision.
- m. Public Park
- n. Fascia On-premises Signs
- o. Freestanding On-premises Signs
- p. Temporary On-premises Signs
- q. Minor Digital On-premises Signs
- r.

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6. Specific Development Criteria for Area B

- a. Development on the site shall be generally in accordance with the facility concept plan as shown on Area B with the following to the satisfaction of the Development Officer:
 - i. Individual facilities shown on Area B may involve the construction of more than one building; and
 - ii. In accordance to Section 5(k) and 5(l), Ancillary Uses, and Offices and administration areas, storage areas, parking areas, and general industrial uses are allowed under this DC provision. These facilities are not shown on Area B, but shall be allowed if such facilities are, in the opinion of the Development Officer, consistent with the intent and nature of the Edmonton Waste Management Centre and with this Bylaw.
- b. The maximum height of exhaust stacks or flare stacks shall be 15 m.

7. General Development Criteria for the Edmonton Waste Management Centre

- a. A continuous minimum of 1.80 metre high security fence shall be provided around the inside perimeter of the Edmonton Waste Management Centre.
- b. A development setback a minimum of 10 metres in width shall be provided for the perimeter of the Edmonton Waste Management Centre.
- c. A landscaped yard, a minimum of 10 m width, shall be provided for the east, north and west perimeter of the Edmonton Waste Management Centre with the exception of those breaks in the yard required to permit access/egress to Edmonton Waste Management Centre. Landscaping within this yard shall

include a mix of deciduous and coniferous trees with a minimum of five (5) trees for each 50m of lineal yard. Trees required to be installed shall be a minimum caliper of 7 cm for deciduous plants and a minimum height of 3 metres for coniferous plants. Existing trees within this yard shall be retained where possible and may be used to meet the requirements of the planting module to the satisfaction of the Development Officer. A berm a minimum of 2.5 metres in height shall be centered within this landscaped yard. Installation of required landscaping shall be staged with site development.

- d. All topsoil and subsoil from berms and other areas disturbed during construction shall be salvaged for use in landscaping, reclamation of green spaces or enhancement of perimeter berms or the final reclamation of the site. Soil supplements produced on-site may be used to enhance the quality of existing soils.
- e. The maximum building height shall be 25 metres. Where in the opinion of the Development Officer, it is unreasonable for a building to comply with this provision because of characteristics fundamental to the design and operation of a use, the Development Officer may relax the requirements of this Clause.
- f. No parking, loading, storage, trash collection, outdoor service or display area shall be permitted within the required yard.
- g. Unless specified otherwise, a detailed landscaping plan prepared by a registered landscape architect for each facility shall be submitted to, and approved by, the Development Officer prior to the issuance of a development permit for each facility.
- h. Undeveloped slope Class 6 to 7 lands as identified in the Clover Bar Waste Management Environmental Impact Assessment shall be grassed and treed to minimize erosion. Slope Class 8 lands shall be contoured to minimize erosion and address safety concerns. Undeveloped areas and/or areas of orthic black chernozem soils on the above noted slope classes shall remain vegetated or shall be vegetated to minimize erosion. Where accesses, roadways and site services must pass through the above noted slope classes, disturbance to the natural grades and vegetation shall be minimized.
- i. Signs shall comply with ~~the regulations of~~ Section 59 and Schedule 59F of the Edmonton Zoning Bylaw.

~~k.j.~~ All development shall comply with the Performance Standards for Industrial Development and the IM Zone under Section 57 of the Zoning Bylaw, with regard to emission of air and water contaminants, noise, fire and explosion hazards, and appearance.

~~l.k.~~ The Development Officer may grant relaxations to Sections 40 - 60 inclusive of the Zoning Bylaw and the provisions of this Zone if, in the

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Development Officer's opinion, such a variance would be in keeping with the general purpose of this Zone and would not prejudice the future reclamation of the overall site or negatively impact the amenities, and use and enjoyment of the neighbourhood properties.

m.1. Buildings handling malodorous material shall include air systems to treat air prior to its being vented to the atmosphere where such odours would otherwise be unacceptable to either users of the EWMC or to the adjacent community. Activities which dust, such as rubble recycling, shall employ dust suppression measures where necessary to prevent environmental or nuisance issues.

m.1. The site has no stormwater sewer system. Site drainage is via a network of internal ditches and swales and, in the case of Area A, adjacent roadway ditches. All stormwater from Area A is routed to the internal wetland lake, which has no discharge beyond the site as it discharges to the underlying granular soils. As such, there is no requirement for a stormwater management assessment to be approved by Drainage Services prior to Development Permit issuance for facilities in Area A. However, the Waste Management Branch, as owner of the site, will review stormwater drainage plans for compliance with the overall servicing plan for Area A and will provide the Development Officer with a letter confirming compliance. For facilities in Area B, a stormwater assessment must be submitted and approved by the Drainage Branch prior to issuance of Development Permit. The assessment shall address the impact of the facility development on water quantity and quality at the point it leaves the EWMC site. The assessment shall demonstrate that the flows will meet the quantity and quality control requirements specified in the Sewers and Sewers Use Bylaws and the regulations of the Alberta Environmental Protection and Enhancement Act. The assessment shall address the potential for the contamination of surface runoff and local groundwater vis-right-of-way operational aspects of each facility and the local geological conditions. The assessment shall, if necessary, specify the measures required to ensure that surface runoff will meet discharge water quality standards before being released into a receiving water body at a controlled rate to prevent erosion and that contamination of local groundwater is prevented. Any measures identified as being required shall be implemented as a condition of Development Permit approval.

n. A program of local groundwater quality monitoring shall be maintained as required by Alberta Environmental Protection.

o. An overall site reclamation plan shall be submitted to, and approved by, the Development Officer and affected Provincial agencies prior to decommissioning of the site.

- | ¶.p. Asset Management and Public Works shall enter into a Memorandum of Agreement for payment of the proportionate share of the Arterial Roadway Assessment for the construction of arterial roadways in the catchment areas.
- | ¶.q. Access to the site from Meridian Street is existing. Any change to the existing access requires the review and approval of the Transportation Department.
- | ¶.r. Cross lot access easements must be registered on the Certificates of Title for all properties using the existing site access to Meridian Street.
- | ¶.s. As part of the development of Anthony Henday Drive, a new access for the Edmonton Waste Management Centre will be required as will a connection to planned 130 Avenue.
- | ¶.t. The existing site access to Meridian Street will be closed with construction of the proposed Northeast Leg of Anthony Henday Drive. Temporary detour roads may be required to maintain access to the Edmonton Waste Management Centre.
- | ¶.u. Future development proposed in the areas shown on Appendix D shall be subject to the requirements of the North Saskatchewan River Valley Area Redevelopment Plan review.

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