



**AVAC FEASIBILITY WORKING GROUP**

**T e r m s o f R e f e r e n c e**

## **BACKGROUND**

Automated Vacuum Collection (AVAC) uses negative air pressure to move waste through underground pipes to central collection points. An alternative to conventional container and truck collection systems, AVAC collection has potential quality of life, economic, and environmental benefits for space-constrained, pedestrian-oriented developments with an emphasis on the public realm.

Developed in Sweden in 1961, the first AVAC collection system was installed in 1965 in the newly built residential district of Ör-Hallonbergen. In 1974, the US Department of Housing and Urban Development installed AVAC into a new 500-unit housing project in Jersey City, NJ known as Summit Plaza.

Modern AVAC systems can be designed to accommodate up to four separate material fractions to encourage diversion.

## **WORKING GROUP MANDATE**

The mandate of the AVAC Feasibility Working Group will be to explore the feasibility and opportunity of AVAC collection systems for two planned high density, mixed use redevelopments proposed for the City of Markham.

The results of the feasibility study and recommendations for the preferred system option with a rationale which supports the recommendations will be presented to General Committee and Development Services Committee for consideration.

Once approved by resolution of Council, the report and recommendations will represent Council's vision as to how the developments should occur within the Study Area

## **STUDY AREAS**

The following redevelopments in Markham have a mandate to encourage the use of technologies and best practices in sustainable buildings and open space designs with an emphasis on air and water quality, water and energy efficiency and conservation, and efficient waste management practices. Each redevelopment has potential to include an AVAC waste system as part of the project infrastructure:

1. Cadillac Fairview (Buttonville Airport lands) 71 hectares

The proposed redevelopment of Buttonville Airport lands will be an employment and high density office/retail/residential district. The vision is to create prestige employment, office, retail, and residential uses that are pedestrian, cyclist and transit oriented.

## 2. Condor Properties (Langstaff)

It is anticipated that the Langstaff Gateway Planning District will accommodate up to 15,000 residential units or a population of approximately 32,000 and approximately 15,000 jobs. Compact, vibrant, integrated community of transit and pedestrian oriented development containing a mix of land uses and intensify of development suitable to a portion of a Regional Centre, including residential, mixed use, commercial, office, open space, recreational, cultural and institutional facilities that is transit dependent.

### **AREA OF FOCUS:**

The feasibility study will focus on the following key areas:

#### Technical Considerations:

Infrastructure – private/public ownership, maintenance, types of systems, manufactures in marketplace.

#### Financial considerations:

Develop Financing strategy, capital requirements and operating costs, economic performance; potential user fees, cost comparisons and funding options.

#### Environmental benefits:

GHG emissions, diversion, public space, quality of life issues, litter abatement.

### **CHAIR AND MEMBERSHIP**

The composition of the AVAC Feasibility Working Group may vary based on the issues being examined.

#### **Core Membership:**

Frank Scarpitti	Mayor	
Joe Li	Regional Councillor	Chair
Deputy Jack Heath	Regional Councillor	
Alan Ho	Councillor	

<b><u>Core Staff</u></b>		
Peter Loukes	Director, Environmental Services	
Rino Mostacci	Director, Planning & Urban Design	
Paul Ingham	Director, Operations	
Don Taylor	Manager, Executive Operations, Office of the CAO	

**Support Staff:**

Geoff Day	Senior Planner – West Development Team	
David Miller	Manager, Development – East	
Markham District Energy	Ad hoc	
Operations, Finance & Sustainability Departments	Ad hoc	
Region of York	Ad hoc	

Clerk's Office will provide secretariat support.

**TIMETABLE**

Study update to be presented to June 9, 2014 General Committee.

Study completion by October 2014.

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