

Conceptual Design for Low Carbon Sustainable Urban District

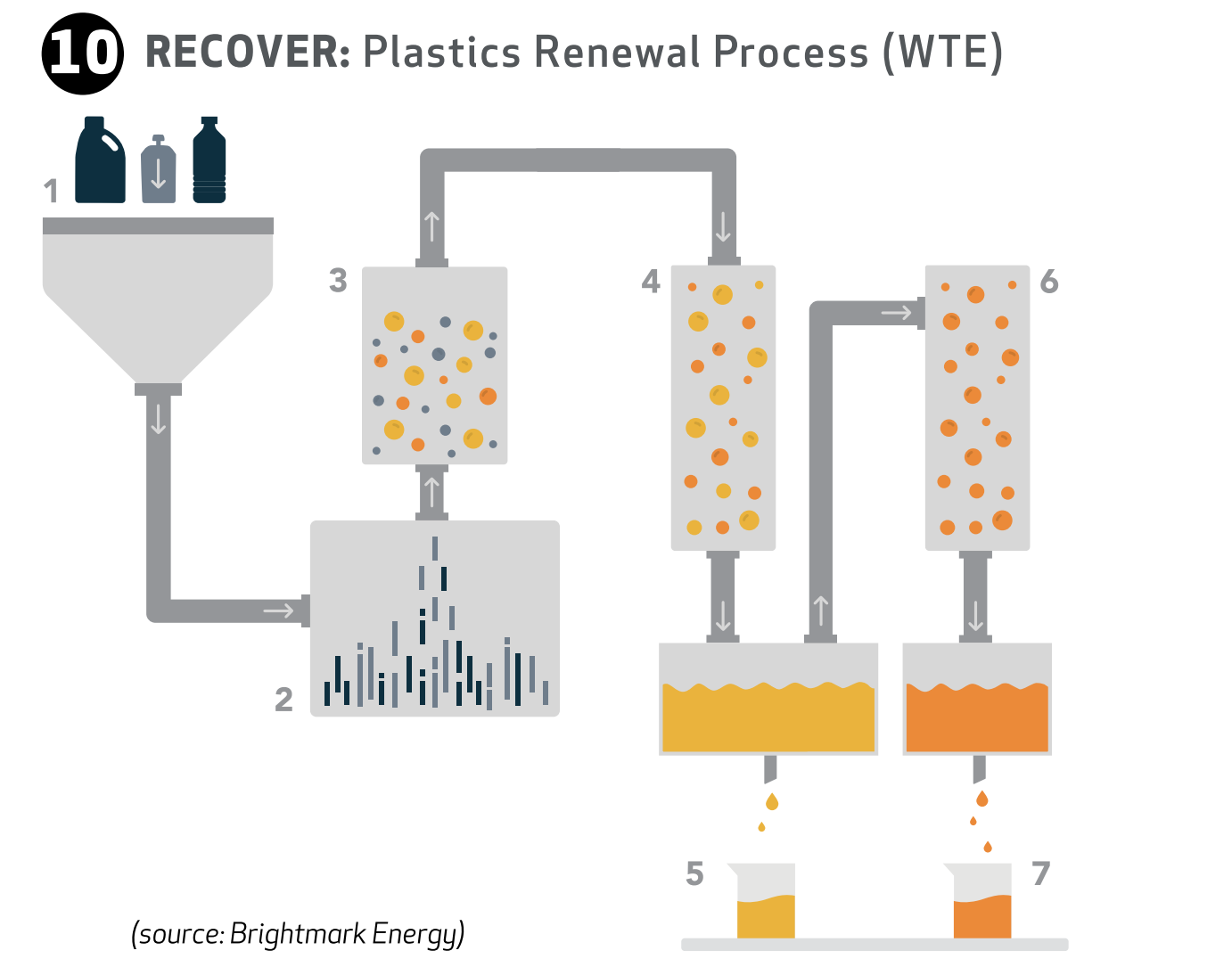
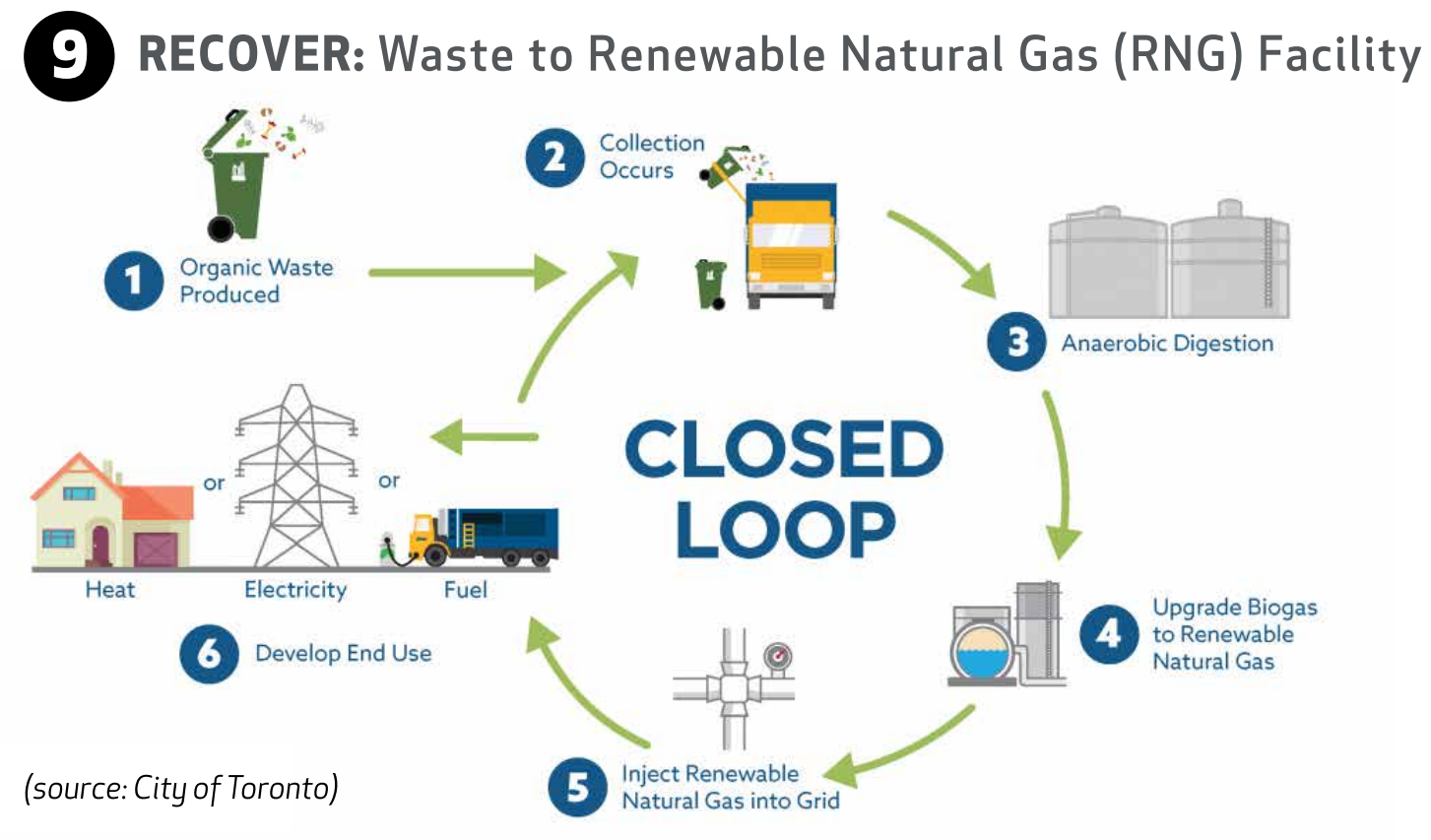
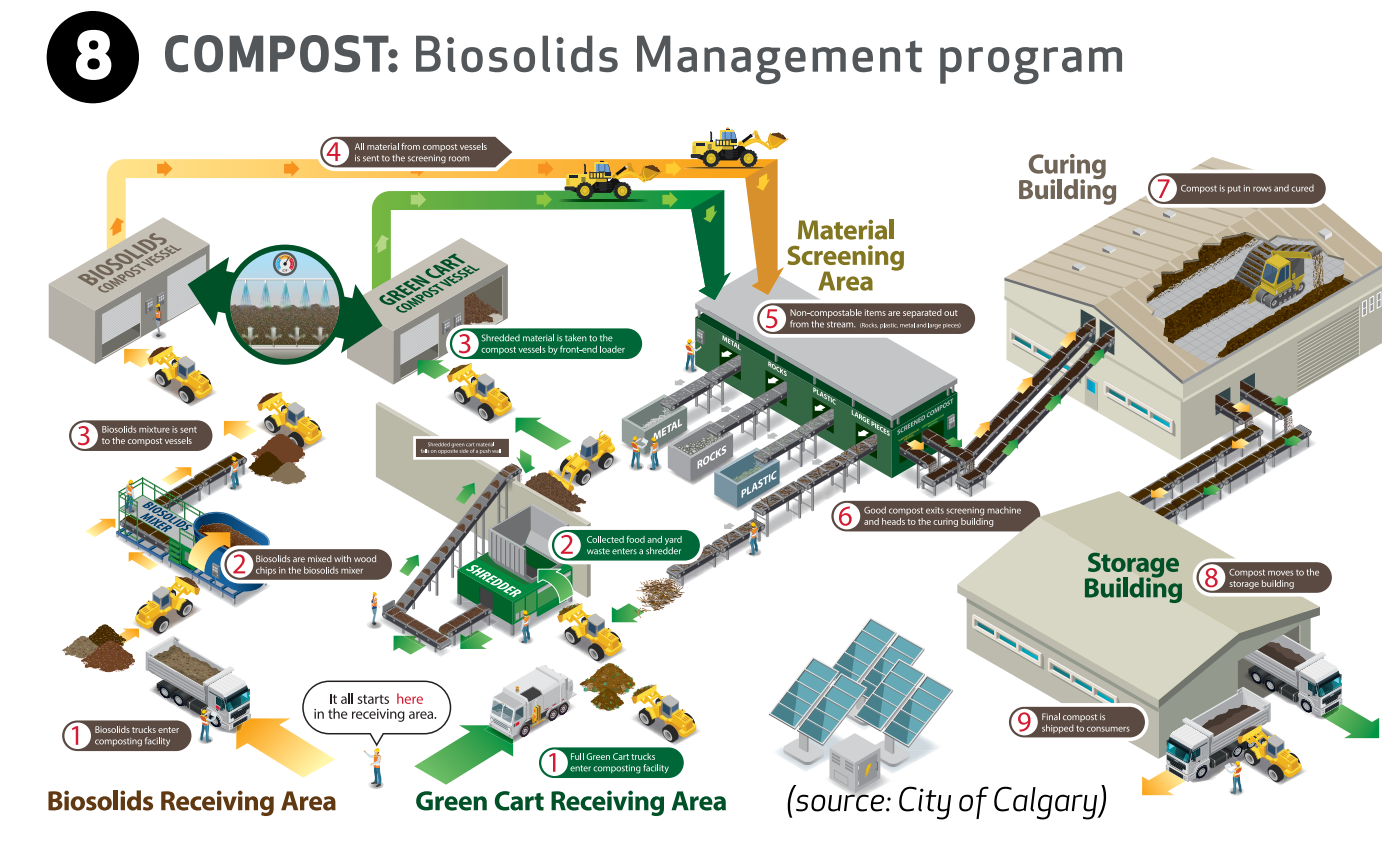
with focus on

SOLID WASTE INFRASTRUCTURE

PROGRAMS AND POLICIES

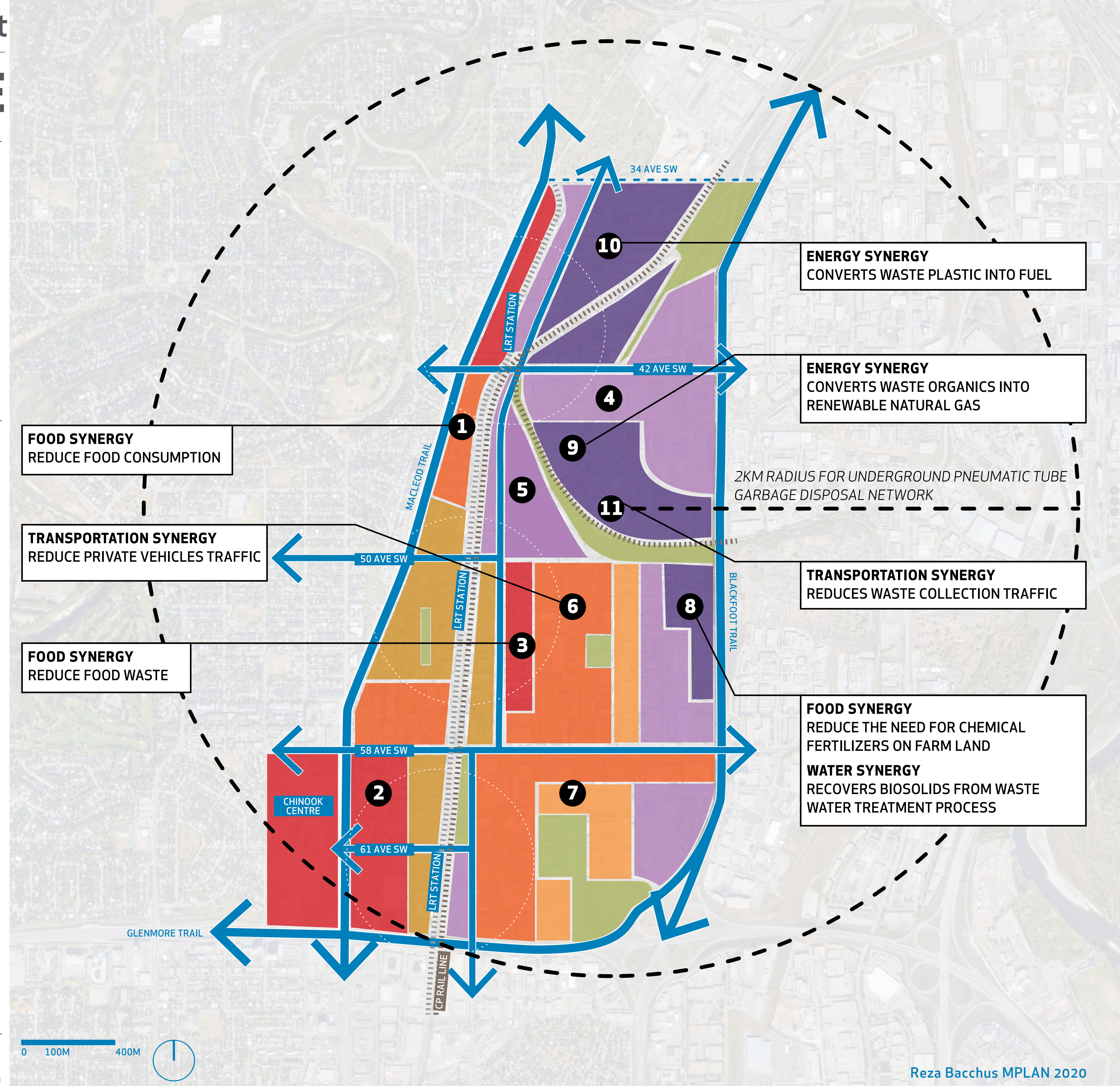
- 1 REDUCE:** Educate younger generation to reduce overall consumption culture moving toward 2060
- 2 REDUCE:** Zero Waste Packaging Act
- 3 REDUCE:** Food waste program collects surplus, imperfect fruits/vegetables and redistributes them to local food banks
- 4 REDUCE:** PAY-AS-YOU-THROW Program for Light Industrial sector to encourage less consumption and more reuse
- 5 REUSE:** Maker Spaces reuse discarded materials from local businesses; local industry sector
- 6 REUSE:** Bicycle Share and Repair program is an extension of the public transportation system
- 7 RECYCLE:** Green Bylaw mandates waste reduction and recycling on demolition and construction projects

PHYSICAL INFRASTRUCTURE



PRECEDENTS INFORMING DESIGN

- REDUCE**
Private Member's Bill C-429, the Zero Waste Packaging Act • Single-Use Plastic Retail Bag Bylaw (Devon, Alberta - Bylaw 935/2019)
San Jose's PAY-AS-YOU-THROW (PAYT) Program • City of Toronto's Community Reduce & Reuse Programs
- REUSE**
City of Toronto's Community Reduce & Reuse Programs • City of Edmonton's Re-use Centre
- RECYCLE**
City of Vancouver Green Demolition Bylaw • City of Calgary's Composting Facility • Private Sector Actors like ThermaGreen
- RECOVER**
City of Toronto's Waste to Renewable Natural Gas (RNG) Facility • Brightmark Energy's pyrolysis waste to energy technology (WTE) - Plastics Renewal Process
- DISPOSE**
Envac system of underground pneumatic garbage disposal tubes



 NEIGHBOURHOOD COMMERCIAL MAJOR	 NEIGHBOURHOOD COMMERCIAL MINOR	 NEIGHBOURHOOD COMMERCIAL LOCAL	 NEIGHBOURHOOD HOUSING MAJOR	 NEIGHBOURHOOD INDUSTRIAL	 INDUSTRIAL GENERAL	 OPEN SPACE
--------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------

PROGRAM

Year: 2060	193 ha Residential	<p>CIRCULAR ECONOMY</p>
Calgary population approx. 2.2M	109 ha Jobs	
100,000 Manchester Residents	100 ha Roads (20%)	
35,000 Jobs	60 ha Parks (12%)	
Zero Waste to Landfill	38 ha Public Works & Agriculture	