Updated 2016 February 09



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Geoexchange Application Requirement List

Geoexchange Project

All of the following information is necessary to facilitate a thorough evaluation and timely decision on your application. To expedite the evaluation, all materials submitted must be clear, legible and precise. To achieve this level of customer service, staff have been instructed to accept only complete applications which **include plans prepared to professional drafting standards.** Thank you for your cooperation.

NOTE: Building and Development Permit applications must be submitted without personal information on any plans. Omitting this information will protect builders and tenants by reducing the risk of any personal information being wrongfully displayed, while also following the Province of Alberta's FOIP Act. Failure to follow this requirement may result in an incomplete application. If you consider the information to be personal, do not put it on the plans.

Project Address	

completed by applicant	office use only	Required Items
O	O	1. An approved development permit, if the Land Use Bylaw requirements are not met
O	O	2. Completed Mechanical Permit Application Form
0	•	3. Two (2) copies of a Dimensioned Site Plan (<i>Preferred scale *Metric - 1:200 or *Engineer - 1" = 20' 0"</i>) including:
		north arrow
		municipal address
		property lines
		adjacent City streets, lanes, and adjacent lots
		site area & coverage
		front, side and rear yard dimensions
		right-of-way setbacks, easements and utility rights-of-way, if any
		overhead utilities
		outline of all structures on property covered by permit
		outline of all structures on adjoining properties (private or public)
		planned ground exchanger field with bore hole placements, piping sizes, depths and spacing
		layout of all ground circuits and headers including into structure
0	O	4. System Information – contractor verification. Failing to meet standard requirements may result in replacement of any or all non-compliant equipment and materials.
		Part 3 (commercial) system per Alberta Building Code 2014 definition – Mechanical
		Engineer stamped and signed drawings. Part 9 (residential/small building) system per Alberta Building Code 2014 definition –
	_	Mechanical Engineer OR geoexchange designer drawings
		Cathodic protection system designed by Corrosion Engineer or system specialist, if
		DX system
		All pipe shall be line printed in compliance with CAN/CSA C448 and be marked with "C448" and "Geo" or "Geothermal"

O	O	5. Ground Loop Information		
Ц		Refrigerant (DX) Information ☐ refrigerant specification sheet		
		refrigerant type (per CAN/CSA B52 and/or ASHRAE 34)		
		☐ R-22 ☐ R-410A		
		Other		
		Operating pressures: Maximum Minimum		
		Thermal Transfer Fluid Information		
		☐ transfer fluid specification sheet		
		propylene glycol		
		methanol		
		ethanolOther		
		Dilution level of antifreeze: % water litres of antifreeze		
		% water litres of antifreeze % antifreeze litres total volume		
3	0	6. Additional documentation, where required		
		Thorough heat loss calculation for main structure (to meet CAN/CSA F280		
		for Part 9 applications and ASHRAE standards for Part 3 applications) Thorough and separate heat loss calculations for each peripheral heating/cooling load		
		on-demand domestic hot water (not applicable for desuperheater		
		function)		
		□ snow/ice melt		
		□ spa		
		□ pool		
		Other (description)		
		Back-up heat source specification sheet including type, size, output, etc		
		For DX systems only – Certified brazer's (refrigeration) certificate (photocopy is acceptable) For DX systems only – cathodic protection documentation (per NACE)		
		Alberta Environment approval letter for regulated open loop system		
ā		Energy Resources Conservation Board licence for bores> 150 m.		
		Geotechnical report		
		Hydrogeological report (required if Alberta Environment letter is required)		
		Copy of independent utility locate report Copies of specification sheets for each equipment item		
_		Copies of specification sheets for each equipment item		
O	O	7. Drilling company		
		Contact name & phone number		
\circ	O	8. Fee (Fee Schedule), based on marked-up construction costs, including all labour, equipment		
		and material (including drilling, trenching, excavating and backfilling)		

FOIP DISCLAIMER: The personal information on this form is being collected under the authority of The Calgary Building Permit Bylaw 64M94 (Section 5) and amendments thereto. It will be used for the permit review and inspection processes and may be communicated to relevant City Business Units, utility providers, and Alberta Health Services. It may also be used to conduct ongoing evaluations of services received from Planning, Development & Assessment. The name of the applicant and the nature of the permit will be available to the public. Please send inquiries by mail to the FOIP Program Administrator, Planning, Development & Assessment, PO Box 2100, Station M, Calgary, AB T2P 2M5 or contact us by phone at 311.

Checklists are updated periodically. Please ensure you have the most recent edition.

Phone: 403-268-5311 In Person:

Web: calgary.ca 3rd floor, Calgary Municipal Building

> 800 Macleod Trail SE, Calgary, Alberta 8:00 a.m. to 4:30 p.m. Monday - Friday

The City of Calgary

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