





Consulting Engineers of Alberta members offer a wide range of services to assist their clients toward their ultimate goals. The following matrix provides a simple, easy-to-use guide to help clients in the initial selection of an appropriate consulting engineering firm.

## FIELDS OF SPECIALIZATION

LEGEND

- Chemical Engineering Communications/ Telecommunications

Electrical

8. Energy

- 6. Computer Science
- 9. Environmental 17. Materials
- 10. Export 18. Mechanical 11. Fisheries 19. Mediation
- 12. Forensic
- 13. Forestry 14. Geotechnical
  - 15. Industrial 16. Marine & Coastal
- 20. Mining Engineering 21. Municipal
- 22. Occupational Health 23. Petroleum Engineering
  - 31. Temporary Works 32. Transportation

27. Research

30. Surveying

25. Pressure Vessels

26. Project Management

28. Structural – Buildings

29. Structural - Other

A searchable database of CEA member companies and their fields of specialization is available online:

## www.cea.ca

As the matrix shows, while engineering design is a major component of the capabilities of CEA members, they can provide advice and assistance from the financial pre-feasibility phase of projects through to completion and beyond.

		AECOM	Al-Terra Engineering Ltd.	Almor Testing Services Ltd.	AN-GEO Environmental Consultants Ltd. Aplin Martin ARA Engineering Ltd.	Arrow Engineering Inc. Associated Engineering Barr Engineering & Frustronmental Science Canada Ltd	nsulting Ltd. gineering Ltd.	CAP Engineering CIMA Canada Inc. (CIMA+)	ciate	CTM Design Services Ltd.  CVL Engineers Inc.  D.E.S. Engineering Limited	DIALOG Dillon Consulting Limited Eagle Engineering Corp.	EHAN Engineering Ltd. ENA2 Innovative Consulting Inc.	exp Services Inc. Fast + Epp	FVB Energy Inc. GeoMetrix Group Engineering Ltd.	Golder Associates Ltd. Great Northern Engineering Consultants Inc.	Hatch HDR Corporation Howe Gastmeier Chapnik Limited (HGC Engineering)	IBI Group ISL Engineering and Land Services Ltd.	J. R. Paine & Associates Ltd. Jacobs	Jensen Hughes Consulting Canada Ltd. Kerr Wood Leidal Associates Ltd. KRR Engineering	Klohn Crippen Ber M2 Engineering	McElha McInto	MCW Hemisphere Ltd.  Morrison Hershfield Limited	Most Engineering Ltd. MPA Engineering Ltd.	Northwest Hydraulic Consultants Ltd.  OGL Engineering	<u>.</u> =   ŏ   ₁	ates Consulting Ltd.	Patching Associates Acoustical Engineering Ltd.  Ready Engineering Corporation  RJC Engineers	Roseke Engineering Ltd. Rotaflow Controls Inc.	Scheffer Andrew Ltd. SMA Consulting Ltd.	Smith + Anderse	Stantec Consulting Ltd. Stephenson Engineering Ltd. Stratum Logics Inc.	T2 Utility Engineers Inc. Tetra Tech Canada Inc. Thurber Engineering Ltd.	TWDTechnologies Limited Urban Systems Ltd. V3 Companies of Canada Ltd.	ring C ment
Forestry 13	Building Materials: Plywood, Lumber Manufacturing, etc. Forest Harvesting Forestry Forestry Engineering Pulp, Paper and Fiber Board	•				•		•			•				•							•					•				•	•		•
	Pulp/Paper Plants, Products Timber Engineering Timber Grading, Wood Species Identification, Wood Damage Assessment Earth Structures	•		•				•		•			•					•			• •						•				• •			•
Geotechnical 74	Foundations Laboratory Testing Site Investigations Soil and Rock Mechanics	•		• •	•			•	•	• •	•	•	•		• • •	•		• •	•	•	• •			)	•			•			• • • • • • • • • • • • • • • • • • •	• •		• •
	Ergonomics Hydraulic Engineering Machine Design/Analysis	•				•		•			•	•	•			•			•	•	• •						•	•	•		•	•	•	•
Industrial 15	Manufacturing Facilities  Materials Handling  Materials Storage  Plant Maintenance	•			•		•	•		•	•					•	•	•				•				,	• • •	•			•	• •	•	•
	Product & Process Design Prototyping and Product Development Time Motion Studies Transportation/Automotive Equipment	•						•			•	•				•	•	•				•					•		•		•	•	•	
Marine 16	Erosion Protection  Marinas  Ports and Terminals  Underwater Surveys	•	•	•		•		•			•			,	• •	•	•	•	•	•	•			•			•		)		•	• •	•	• •
Materials	Waterfront Planning Analysis Corrosion Control and Remediation Design and Selection Quality Issues	•							•				•		•	•	• •	•	•	•	• •	•					•				•	0 0	•	• •
Mate	Quality Issues  Specifications and Manuals  Testing and Certification  Welding  Building Codes QP	•		•					•		•		•		•				•	•	• •				•			•				• •	•	• •
	Computational Fluid Dynamics Computer Aided Engineering Cranes and Derricks Finite Element Analysis					• • •	•	•			•	•		•	•			•	•			•			•					•	•	•	•	•
Mechanical 81	Fire Protection Systems Heating, Ventilation and A/C Machine Design Plumbing and Piping	•		•		• • •	•	•		•	• •	•		•	•	•	•	•	•	•		• •			•		•	•		•	•	•	• •	•
	Refrigeration Registered Code Agency Residential Software Development	•				•		•			•	•		•				•	•			• •			•					•	•		•	•
19 bu	Mediation and Alternative Dispute Resolution  Blasting Control  Iron and Steel Works – Rolling/Casting/Forging/etc.  Metallurgy Extractive – Ferrous Metals							•								•				•	•						•				•	•	•	
Mining 20	Metals/Minerals/Ore Dressing Non-Ferrous Metals – Fabricating/Rolling/Forging/Casting/Extruding/etc. Open Pit/Underground Mining				•		•	•	•												•						•				•	•		•
Municipal 12	Stormwater Management	•		• •	• •	•	•	• •	•	•	• •	•	•			• •	• •	•	•	• •	• •	•			•		•				• •	0 0 0	• •	
	Wastewater Collection, Treatment and Disposal Wastewater Management Water Supply, Treatment and Distribution Area Classifications – Electrical Area Classifications – Hazardous	• •	•	•	•		•	•	•	• •	•	•	•		_		• •		•		•	•	•			• •	•	•			•	• • •		• • •
Occ. Health	Area Classifications – Industrial Pre-Start Health and Safety Reviews Acquisitions and Divestitures Evaluations							•			•				•				•								•	•			•		•	•
Petroleum 53	Expert Witness Exploration Feasibility Studies Oil and Gas Production/Storage/Distribution				•			•	•	•	•					<b>3</b>		•	•	•								•			•	•	•	• •
. Bi	Reservoir Engineering Well Test Analysis Drainage Studies Industrial Parks	• •	•		• •	•		• •	•		• • •		•				• •	•	•	•	•	•	•			• •					• •		• •	• •
Planning <b>24</b>	Land Use Site Plans Subdivision Plans Urban and Rural Design	• •		• • • • • • • • • • • • • • • • • • •	• •	• • •		•	•		• • •		•			•	• • • • • • • • • • • • • • • • • • •		•		•	•	•				•	•			• •	•	• •	
25	Buildings Construction Management	•	• (	•	• •	•		•		• •	• •	•		•		• •	• •	•	•	• •	• •	• •	•			• •	• •	• • •		• •	•	•		
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Project Managem	Project Control and Risk Management Related Management Services	•		•	•		•	• •	•	•	• •			• •	• •	• •	•	•	•	• •	•	•		•	• (	•	•	•	• •		•	•	• •	• • •
27	Transportation	• (	• • •		•		• •	• •	• •	•	• • •	• •		•		• •	• •	•	•		_	•	•		• (	• •	• •	•	• •	• •	•	• •	• • •	
al – Buildings	Commercial Foundations Highrise Industrial	•	•	•		• • •	•	•	•	• •	• •	•	•	•	• (	•	•	• •	•	•		•			•		• •				• •	•		• •
Structural – Bu	Lowrise Parking Facilities	•	(	•	•	• • •	•	•		• •	• •	•	•	•	•		•	• •	•			•			•		•				• •	•	•	•
	Di lages	•		•	•			•	•	•	• •	•					•	•	•	•	•	•	• •	•	•	•	•	•			• •	•		•
Structural – Other	Bunkers and Silos Dams and Locks Nuclear Tanks and Shells	•						•			• •		•	•			•	•	•	•		•		•			•				• •	•		•
	Aerial Photography: Photogrammetry/Photo Interpretation/Cartography Construction Layout Surveys	•	• • •	•	• •		•	•	•	•	• •		•		• •		•	•	•	•	•	•	•			•	•				•	• •		
Surveying 0.0	Geographic Information Systems Remote Sensing/Satellite Data Interpretation/Imagery Resource Surveys Topographic Surveys Excavation Enclosures	•	•	•	• •	•		•		•	• •		•		• •		• •	•	•		•	•				•	•				•	• •	• •	• •
Temp. Works	Excavation Enclosures Formwork Lifting and Moving Scaffolding Structural Shoring	•					•			•	• •			•			•						•			•	•				•		•	
	Airports Highway and Road Safety Intelligent Transportation Systems	•		•	• •	•	•	•		•	• •		•	•	• •	• •		• •	•	•	•	•			•	•	•		•	• •	• •	• • •	•	• •
Transportation <b>25</b>		•		• •	• • •	•	•	•	•	•	•		•		•	•	•	• •		•	•	•				•	•		•		• •		•	• •
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