

# FORM "M" MECHANICAL SUBTRADE LIST

CONTRACTOR

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PROJECT: CARMACKS ARENA AND REC CENTRE

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Mechanical contractors are to complete the following subtrade list and include a copy of it within the main envelope submitted through the Bid Depository. The list represents the Contractor and subcontractors that will be used to complete various portions of the Mechanical work on the project.

All Divisions and sections taken from Tender Specification Documents.

**Each line is to be filled out with either the name of the Contractor or subcontractor to be used, or with an N/A (not applicable).**

**At the bottom of form M is the list of exclusions that are not the responsibility of the mechanical contractor. The work or services excluded below only apply for the purposes of the Bid Depository process, and do NOT apply to the procurement by the Owner. General Contractors are still solely responsible for and must include the full cost and price of such work or services into its Bid or Proposal for the Owner.**

TABLE "A"

	Name of Contractor	Subcontractor	Own Forces (if contractor will also be General Contractor. Indicate all employees of General Contractor who will be performing work with their corresponding certification number)
<b>DIVISION 21 – FIRE SUPPRESSION</b>			
21 12 10 Portable Fire Extinguishers			
<b>DIVISION 22 - PLUMBING</b>			
22 05 00 - Common Work Results For Plumbing			
22 05 15 - Plumbing Specialties And Accessories			

22 10 10 - Plumbing Pumps			
22 11 16 - Domestic Water Piping			
22 13 16.16 - Sanitary Waste And Vent Piping - Plastic			
22 15 00 - General Service Compressed Air Systems			
22 33 00 - Domestic Water Heaters			
22 42 10 - Plumbing			
22 42 13 - Commercial Water Closets, Urinals, And Bidets			
22 42 16 - Commercial Lavatories And Sinks			
22 42 19 - Commercial Bathtubs And Showers			
<b>DIVISION 23 – HEATING, VENTILATION AND AIR CONDITIONING (HVAC)</b>			
23 05 00 - Common Work Results For HVAC			
23 05 10 - Mechanical General			
23 05 13 - Common Motor Requirements For HVAC Equipment			

23 05 15 - Common Installation Requirements For HVAC Pipework			
23 05 19 - Meters And Gauges For HVAC Piping			
23 05 19.13 - Thermometers And Pressure Gauges - Piping Systems			
23 05 29 - Hangers And Supports For HVAC Piping And Equipment			
23 05 48 - Vibration And Seismic Controls For HVAC			
23 05 50 - Identification			
23 05 90 - Testing, Adjusting and Balancing (TAB)			
23 07 10 - Thermal Insulation for Piping			
23 07 13 - Thermal Insulation for Ducting			
23 07 15 - Thermal Insulation for Equipment			
23 07 19 - HVAC Piping Insulation			
23 08 00 - Commissioning of HVAC Systems			
23 08 13 - Performance Verification HVAC Systems			
23 08 16 - Cleaning And Start-Up Of HVAC Piping Systems			

23 11 13 - Facility Fuel Oil Piping			
23 20 20 - Heating			
23 21 13.02 - Hydronic Systems: Steel			
23 21 16 - Hydronic Piping Specialties			
23 21 23 - Hydronic Pumps			
23 25 00 - HVAC Water Treatment			
23 31 13.01 - Metal Ducts: Low Pressure To 500 Pa			
23 33 00 - Air Duct Accessories			
23 33 10 - Ventilation			
23 33 14 - Dampers: Balancing			
23 33 15 - Dampers: Operating			
23 33 16 - Dampers: Fire And Smoke			
23 33 46 - Flexible Ducts			
23 33 53 - Acoustic Duct Lining			

23 34 00 - HVAC Fans			
23 35 16 - Engine Exhaust Systems			
23 37 13 - Diffusers, Registers And Grilles			
23 37 20 - Louvres, Intakes And Vents			
23 51 00 - Breeching, Chimneys And Stacks			
23 52 00 - Heating Boilers			
23 57 00 - Heat Exchangers For HVAC			
23 60 00 - Ice Plant			
23 72 00 - Air-To-Air Energy Recovery Equipment			
23 82 36 - Finned Tube Radiation Heaters			
23 82 39 - Unit Heaters			
23 83 00 - Hydronic Radiant Heating Units			
<b>DIVISION 25 – INTEGRATED AUTOMATION</b>			
25 01 11 - EMCS: Start-Up, Verification And Commissioning			

25 01 12 - EMCS: Training			
25 05 01 - EMCS: General Requirements			
25 05 02 - EMCS Submittals and Review Process			
25 05 03 - EMCS : Project Record Documents			
25 05 10 - Controls			
25 05 54 - EMCS: Identification			
25 05 60 - EMCS: Field Installation			
25 10 02 - EMCS: Operator Work Station (Ows)			
25 30 01 - EMCS: Building Controllers 25 30 02 - EMCS: Field Control Devices			
25 90 01 - EMCS: Site Requirements, Applications And Systems Sequences Of Operation			


**COMMON EXCLUSIONS FOR ALL TRADE SECTIONS AND DIVISIONS**

- temporary power, heat, water, sanitation, barriers
- heating and hoarding
- onsite first aid
- final cleaning
- initial removal of snow and ice

- fees or cash allowances for service connections unless specified in the trade section
- on site security, if specified
- testing unless specified in the trade section
- provision of gridlines and benchmarks on each level
- repairs to damage by others after completion and acceptance of the work
- temporary lighting unless specifically detailed on the electrical drawings that are part of the *Bid* for Division 2 work
- provision of garbage/refuse/recyclable containers and their removal (including disposal fees), except the *Trade Contractor* shall be responsible for removal from the site of demolition materials, hazardous materials and drywall
- cost for a reasonable number of copies of all *Project Documents* where not provided by the *Owner*
- temporary dust control and/or ventilation systems required as a project specified environmental condition for the entire project. Note: where it is a requirement to meet the needs of one specific *Trade Contractor* and specified thus, then that *Trade Contractor* shall be responsible to include for the cost of this work.

### **DIVISION 1 – MECHANICAL (and related Sections/Divisions)**

- outside service piping not shown or specified in the Division 1 plans or specifications, fittings, precast concrete and related
- work beyond one meter of the building, with the exception of gas line from the gas meter to the building
- excavation, compaction, backfilling, dewatering (except where required for geothermal heat pump systems)
- line voltage wiring or control (over 24 volt) unless specified in this section
- painting when specified in Section 09900 Painting
- pipe bollards
- asbestos abatement unless specified in this section
- asbestos abatement when also specified in another section
- cutting, patching unless due to error by this trade (except in-ground coring or drilling for geothermal heat pump systems)
- concrete work
- furring and backing
- filter fabric and drain rock
- weeping tile and/or footing drains and their cleanout risers including the cleanout
- seismic restraint, seismic restraint design, approval or seals unless specified in this section
- thermal concrete used for duct insulation (zonolytic concrete)
- buried corrugated metal culvert piping or tanks constructed of corrugated metal culvert
- non-plumbing pipe rain water leaders such as hollow steel sections (hss)
- removal of existing outside site service piping and underground piping except petroleum fuel pipes and tanks when specified in this division
- perforated piping/weeping tile drainage systems (such as for playing fields)
- x-rays for cutting, coring, patching unless due to error by this trade