

The Mondrian
324 Laurier Avenue West
Ottawa, Ontario

specifications
Vertical Transportation Equipment Maintenance

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1. General

1.1 Scope

- .1 Provide labour, materials, products, equipment and services necessary for the full maintenance of the equipment listed as follows:

324 Laurier Avenue West	
number of units	3
designation	1, 2, 3
licence number	87070, 87071, 87072
device type	passenger
year installed	2008
installation code	B44-07
installation contractor	CNIM
rated speed (m/s, ft/min)	1.75, 350
capacity (kg, lb)	1134, 2500
operation	automatic
number of stops: 1,2, (3)	22, (25)
front openings	*G, 6-22, PH
rear openings: 1, 2, (3)	P3-P1, GR, (P3-P1, GR, 2-5)
door type	single-speed side-opening
entrance net width (in)	42
entrance net height (in)	84
cab inside depth (in)	53
cab inside width (in)	76
cab inside height (in)	96
machine type	gearless traction (MRL)
device model	Torin TSM-3535-HV
machine location	in hoistway
controller location	in penthouse machine room
motor manufacturer	Torin
motor power (kW)	21.9
controller type	microprocessor
controller model	JRT JVF-4000
drive type	solid-state, VVVF
drive model	Unidrive
emergency brake	dual brake
door operator	GAL MOVFR

door hardware	GAL
car door restrictor	provided
hall door retainers	provided
guiding method	roller-guides
car top railings	provided
machine room equipment guarding	not applicable
door reopening means	infrared multi-beam
communication means	hands-free telephone
security system	security camera
arrival signal	in-car lanterns with dual stroke gongs
firefighters' emergency operation	Phase I (auto) and Phase II
emergency power operation	provided

2. General requirements

2.1 Definition of terms

- .1 The term "Owner", as used herein, refers to OCSCC 829 - The Mondrian c/o Capital Integral Property Management.
- .2 The term "Consultant", "elevator consulting engineer", "consulting engineer" or "engineer", as used herein, refers to KJA Consultants Inc.
- .3 The term "elevator contractor" or "contractor", as used herein, refers to any person, partners, firm or corporation having a contract with the Owner to furnish labour and materials for the execution of the work herein described.
- .4 The term "sub-contractor", as used herein, refers to any person, partners, firm or corporation having a contract with the contractor to furnish labour and materials for the execution of the work herein described.
- .5 The term "inspecting authorities", as used herein, refers to authorized agents of governments and of insurance groups which are charged with the responsibility of carrying out periodic inspections and tests on vertical transportation equipment.
- .6 The term "unit", as used herein, means any elevator, dumbwaiter, escalator, platform lift, moving walk or similar device mentioned in this Specification.
- .7 The term "Code", as used herein, refers to the CAN/CSA-B44-10 Safety Code for Elevators and Escalators with updates and including Nonmandatory Appendices (which are deemed mandatory herein).

- .8 All terms in the Specifications that are not otherwise defined shall have the definitions as given in the Code.

2.2 Owner's General Terms and Conditions

- .1 Abide by the Owner's General Terms and Conditions.
- .2 Where there is a conflict between the Owner's General Terms and Conditions and these specifications the Owner's Terms and Conditions take precedence.

2.3 Purpose

- .1 The purpose of the maintenance program is to maintain the equipment in substantially new condition, to secure the Owner's equity and to provide safe, trouble-free service.

2.4 Contract duration

- .1 Provide full maintenance of the equipment for a period of five years.
- .2 Provide this service at a monthly price with annual escalation.
- .3 Limit the escalation in any one year to 3%.
- .4 Escalate 80% of the maintenance price based on the labour rate relative to the rate in effect at the date of proposal submission.
- .5 Escalate 20% of the maintenance price based on the material cost index value relative to the index value at the date of proposal submission.
- .6 Submit with the proposal the current labour rate and designation.
- .7 Submit with the proposal the current index value and designation.

2.5 Contract cancellation

- .1 The Owner may elect, at its option, to cancel the contract prior to its normal termination:
 - .1 If the maintenance is not executed in accordance with the Specifications, as evidenced by the report of a recognized independent elevator consultant, and if, within four weeks of written notice, the necessary corrective action has not been completed;
 - .2 If there is a continuing failure to perform as evidenced by more than two negative reports in any twelve month period with no positive or neutral reports in the same twelve month period. (A negative report is one which defines the level of contract performance as less than 95% of the specified requirements.)
- .2 In the event of such cancellation, the Owner may, at its option, elect to use another company to restore the equipment to the Specifications standards and to charge the cost of this to the elevator contractor.
- .3 The Owner has the option to cancel the contract upon one month's written notice if there is a significant change in the circumstances of the contract (e.g. a change in ownership of the equipment, a modernization or replacement at the Owner's cost of equipment components, a change in ownership of the maintenance company); this option to be available to the Owner for a period of three months from the date on which the changed circumstances become known to the Owner.

2.6 Work included: general

- .1 Maintain all of the components of the elevator equipment including ancillary equipment (e.g. elevator communication systems, door astragals, monitoring systems) unless specifically excluded under "Work not included".
- .2 Repair or replace equipment if it is damaged as a consequence of incorrect adjustment, incorrect alignment or inadequate maintenance.

2.7 Work not included: general

- .1 Unless damaged as a consequence of incorrect adjustment, incorrect alignment or inadequate maintenance do not maintain, repair or replace elevator car enclosure (including car ceiling lights), cab interior hand rails, floor coverings, hoistway enclosure, hoistway door and frame finishes and door sills.
- .2 Do not maintain, repair or replace conduit and wiring external to the hoistways and machine rooms, including machine room disconnect and auxiliary disconnects.
- .3 Submit to the Owner proposals for repair or replacement of parts damaged by malicious action of others, and for alterations and additions not covered under this specification but required by the inspecting authorities.

2.8 Contract transfer

- .1 Assume responsibility for, including any associated costs, and correct any pre-existing maintenance deficiencies or needed repairs (not addressed by the elevator contractor previously responsible for the site).

2.9 Extra to contract work

- .1 Where extra to contract work is done at the Owner's expense:
 - .1 Bill the work at an hourly rate in accordance with the Contract.
 - .2 Do not charge for travel time to and from the site.
 - .3 Do not add miscellaneous charges (e.g. parking charges, truck charges, sundry charges, fuel charges, etc.).

2.10 Access tools and codes

- .1 For those elevators or components that have access codes or access tools used for commissioning, programming, or other purposes, keep all access tools on site with a hard copy listing of access codes.
- .2 If the contract is cancelled, provide to the Owner, for those elevators or components that have access codes or access tools for commissioning, programming or other purposes, the access tools and a hard copy listing of the access codes.

- .3 If the Owner provides access codes or access tools, preserve these codes and tools confidential for use only on the particular equipment for which the Owner has provided them and keep these access codes or access tools on site.
- .4 Change access codes only when authorized in writing by the Owner.

2.11 Minimum standard

- .1 As a minimum standard, perform to the Specifications and to the Code.
- .2 Maintain the equipment at all times in the same or better condition as at the commencement of the maintenance work.

2.12 Reliability: elevator

- .1 Ensure that the average number of callbacks does not exceed 4.9 per elevator per year.
- .2 Ensure that the average number of entrapments does not exceed 0.9 per elevator per year.
- .3 If there is more than one elevator in the building, average the data over all of the elevators.
- .4 Starting six months after the inception of the maintenance contract, at the end of any given month should either the number of entrapments or the number of callbacks for the previous six months exceed the limits set out above, issue a credit for the elevator maintenance for the current month and continue to credit the maintenance until such time as the callbacks and entrapments are within the prescribed limits for the previous six months.

2.13 Regular hours of work

- .1 Regular hours of work are from 07:00 to 17:00 Monday to Friday, excluding holidays.
- .2 Carry out noisy work, work creating excessive odours or work that creates a disturbance to the building tenants outside of regular hours or at such other times as selected by the Owner and include in your submission the costs for such overtime work.

2.14 Peak hours

- .1 Peak hours are from 7:30 to 9:30, from 11:30 to 13:30 and from 16:00 to 18:00.
- .2 Do not remove any equipment from service for normal maintenance during peak hours.

2.15 Critical situations

- .1 A critical situation is one in which:
 - .1 there have been repetitive calls (i.e. more than 3 in the past 30 days) for one unit;
 - .2 a unit has been out-of-service for more than three consecutive working days;
 - .3 there have been repetitive calls (i.e. more than 1.5 per elevator in the past 30 days) for one group of elevators;
 - .4 there is no elevator service to a floor normally provided with elevator service;
 - .5 more than 30% of the elevators in any one group are out of service.
- .2 In a critical situation work continuously (during both regular time and overtime) applying as much labour and shift work as necessary to effect repairs until the problems are resolved.
- .3 In a critical situation report to the Owner and the Consultant the progress of the remedial work at 08:00, 11:00, 14:00, 17:00 each day the unit remains out-of-service.

2.16 Critical Unit

- .1 Perform regular maintenance and repairs at times specified by the Owner for a Critical Unit (whether it be in regular time or overtime).
- .2 Work continuously (during both regular time and overtime) applying as much labour and shift work as necessary to effect repairs to a Critical Unit.
- .3 Arrange that spare parts for a Critical Unit are available on site as soon as possible and in all cases not to exceed 24 hours.

2.17 Account representative

- .1 Assign and maintain a company representative for the properties to coordinate activities and to be responsible for communications with the Owner's representatives.
- .2 Provide persons acceptable to the Owner for this position.

2.18 Maintenance meetings

- .1 Have qualified and capable representatives attend a meeting with the Owner and the Consultant at least every three months to review work procedures, extra charges, elevator call backs, and any Owner concerns.
- .2 At the option of the Owner the meetings may be held by telephone conference.

2.19 Defective work and non-performance

- .1 The Owner reserves the right to correct any defective work and to charge the cost to the contractor.
- .2 Should the contractor fail to execute any of the Work set out in the contract the Owner reserves the right to do the Work and to charge the cost to the contractor.
- .3 The Owner reserves the right to withhold payment in the event of non-performance or to pay only for that portion of the Work that has been executed.
- .4 The Owner will give reasonable notice in writing prior to taking such action unless the defective work or non-performance prejudice the safety of people or the installation.

2.20 Codes and ordinances

- .1 Supply equipment and do work in accordance with building codes, by-laws, regulations and requirements of the local, provincial and federal authorities in effect at the time of the execution of the work.
- .2 Supply equipment and do work in accordance with the Code, and any other code which may govern the requirements of the installation.
- .3 Provide labour and material, whether or not specifically mentioned in this specification, that may be necessary to provide an installation conforming to the

applicable codes and regulations.

- .4 Comply with the requirements of the Occupational Health and Safety Act and Workplace Hazardous Materials Information System (WHMIS) regarding employee safety, use, handling, storage and disposal of hazardous materials.
- .5 Prior to submission of the proposal and throughout the duration of work, give prompt notification in writing of any regulations or requirements known to be in process which might affect the acceptability of the work.
- .6 If changes in codes or regulations result in extra costs, those taking effect subsequent to the date of proposal submission shall be treated as an extra to the contract.

2.21 Regulatory authority submissions

- .1 Complete any submissions to the regulating authorities that may be necessary for the continuing use and operation of the equipment.

2.22 Protection of the Work and property

- .1 Maintain protection of the Work and protect the Owner's property from injury or loss arising out of the execution of this contract.
- .2 Make good any injury or loss caused by your agents or employees.
- .3 Take all necessary precautions to ensure that the Work is done in a manner that does not endanger any person.

2.23 Liability insurance

- .1 Provide, during the period this contract is in force, premises liability, including public liability insurance and property damage insurance in the amount of \$5,000,000 inclusive, to be covered against any claims for damage to property or for personal injury, including death, which may arise from operation under this contract, whether such operation is by yourself or by any sub-contractor or anyone directly or indirectly employed by you.
- .2 Upon completion of the contract, have in force a completed operations and products liability insurance, in the amount of \$5,000,000 inclusive, to be covered against any claims for damages to property or for personal injury, including death, which may arise after the premises liability is terminated.

- .3 Maintain the insurance in force for a minimum period of two years after completion of the contract.
- .4 List the Owner as an additional insured.
- .5 The certificates shall state that the insurance will not become ineffective without sufficient written notice to the Owner.
- .6 Submit certificates of such insurance with the Owner before work is begun.

2.24 Assignments

- .1 Do not assign nor sublet the contract without the written consent of the Owner.
- .2 Do not assign any payment due or to become due as a result of this contract without the written consent of the Owner.

2.25 Directives

- .1 Advise the Owner of directives received from the Inspecting Authorities and from the Regulatory Authorities.
- .2 Carry out directives from the Inspecting Authorities and from the Regulatory Authorities within the period of time set out on the directives, working in overtime if necessary to meet the required date, except for those items that are:
 - .1 The responsibility of the Owner;
 - .2 Directives resulting from changes to the existing regulations.

2.26 Deficiencies not corrected

- .1 If there is a failure to carry out instructions of the inspecting authorities (except for those items that are the responsibility of the Owner and directives resulting from changes to the existing codes) within the period of time allowed by the authorities issue a credit to the Owner for any costs, including the cost of the inspecting authority reinspection, incurred by the Owner as a result of this failure.

2.27 Submission of proposal

- .1 Submission of a proposal will be considered presumptive evidence that the proposer is conversant with local facilities and conditions, requirements of the Contract Documents and of pertinent provincial and local codes, state of labour and material markets, and in the proposal has made due allowance for all contingencies.

2.28 Request for payment

- .1 Submit monthly applications for payment for work done at the end of each month together with the necessary data, information, waivers and affidavits.

2.29 Payment

- .1 Submit invoices at the end of each month for the work performed in that month.
- .2 Invoices will be paid when the assigned work has been completed and the Consultant has been notified by the Contractor to that effect.
- .3 The invoice will be paid only if the maintenance work for the month has been executed as confirmed in the report data; otherwise there will be no payment made for the month.
- .4 The invoice will be paid only if deficiencies outstanding for more than two months have been corrected; otherwise there will be no payment made for the month.
- .5 The invoice will be paid only if those directives that are the responsibility of the elevator contractor have been addressed within the required time limit; otherwise there will be no payment made for the month.

2.30 Maintenance fee reduction

- .1 If the regular maintenance is not carried out for any unit for any given month issue a credit for the elevator maintenance for that unit for that month.

2.31 Delay in making repairs

- .1 Execute promptly the necessary repairs to a non-functioning unit to service.
- .2 Should the initiation of corrective measures required to repair a non-functioning unit be delayed beyond one normal working day (i.e. 24 hours) issue a credit for the elevator maintenance for that unit for that month.

2.32 Labour laws

- .1 Comply with applicable provisions of federal, provincial and local labour laws and with applicable union regulations.

2.33 Personnel

- .1 Supervise your personnel so that they present a neat appearance and their movement in the building is within the requirements of their work.
- .2 Provide uniforms and photo identification for personnel.
- .3 The Owner reserves the right to reject or refuse access to personnel or contractors at its sole discretion.
- .4 Assign and maintain a dedicated service representative to the work, this representative to be responsible for liaison with the Owner and the Consultant.
- .5 Assign and maintain a dedicated service supervisor to the work, this supervisor to be responsible for technical communications with the Owner and the Consultant.

2.34 Labour disruptions

- .1 In the event of a labour disruption of your technicians (e.g. strike, lockout, etc.) provide alternative qualified personnel to:
 - .1 Respond to regular call-backs on non-critical units during regular working hours.
 - .2 Respond to regular call-backs on critical units 24 hours per day, seven days per week.
 - .3 Respond to emergency call-backs 24 hours per day, seven days per week.

- .4 Complete regular maintenance activities required by the Authority Having Jurisdiction.
- .2 For units that remain operational throughout the duration of the labour dispute provide a credit of 50% towards the regular monthly maintenance fees for the duration of the labour dispute for months where no regular maintenance activities were performed.
- .3 For units that were shut down and remained out of service during the labour dispute provide a credit of 100% towards the regular monthly maintenance fees for the duration of the time that the elevator was shut down.

2.35 Coordination with Owner

- .1 Before each routine maintenance visit contact a representative specified by the Owner.
- .2 Discuss the operation of the equipment with the Owner's representative and take immediate action on problems.
- .3 Should a problem be of a nature that cannot be satisfactorily resolved during the inspection or trouble call, report back to the Owner's representative to explain why it was not possible to correct the problem and when the problem will be resolved.

2.36 Rules of work: elevators

- .1 Check with and obtain approval from the site building management prior to taking an elevator out of service.
- .2 Keep the site building management informed of work activity including, but not limited to, the following:
 - .1 When an elevator is taken out of service;
 - .2 When an elevator is placed back in service;
 - .3 When starting work each day;
 - .4 When finishing work each day.
- .3 Perform work on an elevator at a floor selected by the site building management.

- .4 Where possible restrict activities to inside the hoistway with the hall doors closed.
- .5 Do not leave materials or tools in the elevator lobbies or other public areas.
- .6 Do not leave an elevator out of service with the hall and car doors open except as approved by site building management.
- .7 When taking an elevator out of service station someone at the entrance so as to ensure that a passenger does not enter and is not trapped in the cab.
- .8 When finished working on the elevator ensure that the elevator is in proper working order.

3. Maintenance procedures

3.1 Routine maintenance

- .1 Provide labour, materials, products, equipment and services necessary to complete maintenance testing and inspections required by the Authority Having Jurisdiction at the appropriate intervals (i.e. monthly, quarterly, semi-annual, annual, 5-year, Category 1, Category 3, Category 5, etc.).
- .2 Perform a routine maintenance inspection once a month, as a minimum.
- .3 In the course of the examination, should faulty parts be discovered replace them at once, and should any unusual operations or noises be found take corrective action immediately.
- .4 Schedule parts showing excessive wear for replacement on the next regular examination.

3.2 Maintenance Control Program

- .1 Provide to the Owner and the Consultant a copy of the Maintenance Control Program for each device type.
- .2 During the course of the maintenance contract update the Maintenance Control Program as necessary and forward to the Owner and the Consultant a copy of the updated Maintenance Control Program.
- .3 The Maintenance Control Program is the property of the Owner.

- .4 Store the Maintenance Control Program on site in accordance with the requirements of the Authority Having Jurisdiction.
- .5 Execute the maintenance in accordance with these specifications and the Maintenance Control Program.
- .6 As a minimum, perform tasks as required by the Authority Having Jurisdiction at the appropriate intervals.
- .7 Where maintenance and testing frequencies in the Maintenance Control Program are less than these specifications, these specifications take precedence.
- .8 The Owner, acting reasonably, may approve changes to these specifications provided that the minimum requirements of the Authority Having Jurisdiction are respected.
- .9 Six months in advance of performing any tests that may result in damage to the building or equipment, submit to the Owner and Consultant a written plan outlining:
 - .1 Step-by-step instructions of how the testing will be performed;
 - .2 Names and resumes of qualified personnel selected to perform the testing;
 - .3 Incremental testing procedures;
 - .4 Alternative testing means;
 - .5 Schedules.
- .10 If testing is performed prior to submitting an adequate plan and receiving approval from the Owner, the Contractor is responsible for correcting damage that may result from the testing.
- .11 In the event that the plan submitted is unsatisfactory to the Owner or Consultant, the Owner may elect to use another contractor to perform the testing.
- .12 Where the maintaining contractor is the original equipment manufacturer, installer and has maintained the equipment since installation, the maintaining contractor is responsible for correcting damage that may result from the testing.

- .13 Where damage results as a consequence of the testing the Owner may elect to have an inspection by the Consultant for the purpose of determining fault and corrective steps.
- .14 Where the Consultant determines that damage is the result of maintenance deficiencies or improper testing procedures, the Contractor is responsible for correcting damage.

3.3 Repairs

- .1 For scheduled repair work, outside of the regular maintenance procedure, give the Owner at least two weeks prior notice.
- .2 For unscheduled repair work, outside of the regular maintenance procedure, give the Owner immediate notice.
- .3 Communicate, in writing, the status of repairs to the Owner at the beginning and close of the normal working day.
- .4 Where possible indicate the time required for completion of repairs.

3.4 Mis-adjustment

- .1 Keep the equipment in substantially new condition and maintain its performance as or better than new.
- .2 Do not change any of the adjustments in such a way as to lead to a de-rating of the performance.
- .3 Do not, in the course of routine maintenance or trouble shooting, re-adjust any of those settings which affect either the performance or the safety of the equipment.
- .4 Should it appear that some setting has changed or some problem has arisen such as to alter the performance of the equipment, arrange that a qualified adjuster with the appropriate tools, manuals and training make the necessary re-adjustments in an organized, systematic way.
- .5 Do not allow ad hoc adjustments to the equipment.

3.5 Safety devices

- .1 At no time permit the equipment to operate while any of the safety devices, mechanical or electrical are in-operative.
- .2 In the event that any of the emergency safety devices such as final limits, safety operated switches, governor switches, overspeed devices, underspeed devices, car safeties, are activated while the equipment is in use by the public submit within 24 hours of the event a written report to the Owner and the Consultant detailing the incident and the corrective action taken.

3.6 Equipment defects

- .1 Should a defect in the equipment or the design of the equipment become apparent based on experience with this installation or similar installations elsewhere, advise the Owner immediately in writing setting out the steps to be taken to correct the problem.
- .2 Forward to the Owner copies of any memoranda, internal or external, published or unpublished, dealing with actual or potential flaws in the equipment and design.

3.7 Call-back service

- .1 Include, as part of the maintenance program, regular and emergency call-back service.
- .2 Provide regular and emergency call-back service 24 hours per day, seven days per week.
- .3 An emergency is a situation such as an entrapment, an incident, an accident, a shut down of more than one elevator in a group, the absence of elevator service to a floor during a key time period as defined by the Owner (e.g. holidays, weekends, etc.).
- .4 At the time the call is placed the Owner may choose to indicate that the call can be handled during regular hours; otherwise, answer the call immediately whether it be in overtime or regular time.
- .5 Respond only to calls placed by the Owner except in the case of emergency calls.
- .6 Provide a telephone answering service staffed twenty-four hours per day.

- .7 Ensure that calls received by the answering service are transmitted immediately to a responsible person for action.
- .8 Provide regular call-back response within a maximum of two hours from the time a call is placed until the arrival of a maintenance person at the site.
- .9 Provide emergency call-back response within a maximum of 45 minutes from the time a call is placed until the arrival of a maintenance person at the site.

3.8 Maintenance: assistance for inspections & testing

- .1 Provide all necessary co-operation and assistance to allow inspections of the equipment by the Consultant and by the Inspecting Authorities.
- .2 Provide all necessary co-operation and assistance, either in regular time or overtime, to allow testing of those systems associated with the equipment such as smoke detectors, fire detectors, heat detectors, emergency power, firefighters emergency operation, communication systems, security systems and other systems ancillary to the equipment.
- .3 In the event that this requires the supply of one crew for more than an average of three hours per unit per year, submit a request to the Owner for an extra to contract payment.
- .4 Should the tests fail because of problems with the elevator or escalator equipment provide any necessary additional assistance at no extra charge.

3.9 Fire service testing

- .1 Perform annual testing of the Firefighters' Emergency Operation for buildings that are not designated as High Buildings.
- .2 Perform quarterly testing of the Firefighters' Emergency Operation for buildings designated as High Buildings.
- .3 Execute the tests, at the option of the Owner, either in regular hours of work or outside of regular hours of work at no extra cost to the Owner.
- .4 Carry out the testing as required by the regulatory authorities.
- .5 Record the results of the testing and forward to the Owner a copy of the record.

3.10 Safety inspections

- .1 Carry out instructions of the inspecting authorities within the period of time allowed by the authorities or, if no period is designated, 30 days of notice of deficiency except for those items that are the responsibility of the Owner and directives resulting from changes to the existing codes.

3.11 Manufacturers' parts

- .1 Supply replacement parts identical in make and model to the original parts where at all possible.
- .2 Where identical parts are not available or a better substitute is available submit the alternative part for the approval of the Owner.

3.12 Substitute parts

- .1 Where items visible to the general public, in particular exposed finishes and fixtures, are to be replaced, submit drawings, photographs or samples, as required, in ample time for consideration and review.
- .2 Submit samples of metals, plastic laminates and finishes properly identified as to project, location and material.
- .3 Supply materials in accordance with the reviewed samples.
- .4 The review does not include the checking of measurements nor the approval of variations from the Specifications or the Contract Documents.

3.13 Tools maintained locally

- .1 Arrange that the following tools are available in a service vehicle or from the local maintenance office and allow the Owner, at his request, to inspect these tools:
 - .1 One blower;
 - .2 One door pressure gauge;
 - .3 One rechargeable fluorescent portable light;
 - .4 Signs stating "REGULAR MAINTENANCE BEING PERFORMED";
 - .5 One vacuum cleaner;

- .6 One step ladder;
- .7 Twelve cable pullers;
- .8 Two chain blocks or lift pulls;
- .9 Two sets of feeler gauges;
- .10 One sound level meter;
- .11 A micrometer;
- .12 One F.E.T. volt-ohm-millimeter;
- .13 One paging unit for each maintenance mechanic;
- .14 Four wire rope slings;
- .15 One stop watch;
- .16 One tachometer;
- .17 Test weights totaling 2000 kg (4500 lb) and a hand cart for transportation.

3.14 Parts cabinet

- .1 Provide a maintenance parts cabinet in the machine room.
- .2 Provide a cabinet of steel finished in baked enamel and of a minimum 0.15 cubic metres capacity.

3.15 Parts stocked locally

- .1 Arrange that the following spare parts are available on site (in a metal cabinet with a baked enamel finish), in a service vehicle or from the local maintenance office and allow the Owner, at his request, to inspect these parts:
 - .1 Hall fixtures: two complete hall station assemblies (with call registered light assemblies), four button heads, and a hall lantern of each type;
 - .2 Car operating panel fixtures: three complete car push button switch assemblies (with call registered light assemblies), four button heads, and

one position indicator;

- .3 Car door equipment: two car door sheaves and one set of door gibs;
- .4 Hall door equipment: one complete hoistway door closer assembly, two interlocks, four hall door sheaves, and two sets of door gibs;
- .5 Three fuses of each size used in the controller and in the main line disconnect;
- .6 Relays: one complete relay of each type with spare contacts and coils;
- .7 An adequate supply of cleaning solvent, wipers, general purpose oil and door operator oil.

3.16 Parts available as required

- .1 Arrange that the following spare parts are available within 48 hours on site and provide to the Owner, at his request, the methods and procedures used to ensure that this delivery time can be met:
 - .1 A printed circuit board of each type used, completely assembled and verified;
 - .2 One complete door operator assembly;
 - .3 One complete door protective device assembly;
 - .4 One complete roller guide assembly of each size used;
 - .5 Spares for parts used in quantity on the equipment in the ratio of one spare for every 100 such parts.

3.17 Building log

- .1 Complete required entries for building log systems.

3.18 Maintenance log book

- .1 Provide a maintenance log in a permanently bound journal having pre-numbered pages.
- .2 Indicate in the journal the following information: date, time, name of maintenance technician, regular maintenance, regular time callback, over time callback, action taken, work completed, and further repairs required.
- .3 The journal is the property of the Owner.
- .4 Maintain the journal current, on the premises, and available for inspection by the Owner at any time.
- .5 Make entries in ink, legibly, consecutively and without blanks.

3.19 Time tickets

- .1 Indicate the section of the normal maintenance schedule on each time ticket with details of the portion of the section completed.
- .2 Submit time tickets for each call-back detailing the cause of the call-back and the action taken.
- .3 If electronic time tickets are used, make these tickets accessible to the owner through internet at all times.

3.20 Data submission

- .1 Submit data to a Consultant website in an electronic format prescribed by the Owner.
- .2 In the absence of other requirements, submit data each month for call-backs and maintenance work in a Comma-Separated-Values (.csv) file with each line having the following information: Licence #; Call Time; Response Time; Resolution Time; Problem Description; Corrective Action; Entry Type; Scorecard Exemption; Exemption Reason with each item having the following meaning:
 - .1 Licence #: The licence number assigned to the unit by the Authority Having Jurisdiction (where one has not been assigned, is not unique or is not known please coordinate with KJA).
 - .2 Call Time: Date and time the call-back is reported by the client or date

and time the elevating device is removed from service for maintenance or repair in format YYYY-MM-DD HH:MM.

- .3 Response Time: Date and time technician arrives on site to respond to the call-back or date and time the elevating device is removed from service for maintenance or repair in format YYYY-MM-DD HH:MM (in the event of a deferred call-back, the elapsed time will start based on 07:00 on the first business day following the original Call Time).
 - .4 Resolution Time: Date and time the elevating device is returned to service in format YYYY-MM-DD HH:MM.
 - .5 Problem Description: Description of problem as reported.
 - .6 Corrective Action: Description of work done to correct problem as reported by the technician.
 - .7 Entry Type: Type of call as "C" for call-back, "E" for call-back with entrapment, "D" for call-back with deferred response. "R" for maintenance or repair.
 - .8 Scorecard Exemption: Marked "Y" or "Yes" if the Contractor is requesting an exemption from the scorecard for this call-back (null values or "N" are the only other acceptable values).
 - .9 Exemption Reason: Description of why the Contractor is requesting the call-back or repair be exempted from the scorecard calculations (an entry in this field is required when the Scorecard Exemption field is "Y" or "Yes").
- .3 Submit the data for the month on or before the fifth day of the following month.
 - .4 The Owner, acting reasonably, may at any point during the contract:
 - .1 Change the format of the data submission.
 - .2 Require a direct electronic exchange of data using standard protocols for data exchange to a Consultant website.

3.21 Accidents and claims

- .1 In the event of an accident causing death, personal injury or property damage, arising out of or in connection with the equipment or the performance of the Work whether on or adjacent to the site advise the Owner immediately giving a verbal report and submit to the Owner within 24 hours of the accident signed written reports from each of the maintenance personnel involved.
- .2 In the event of an injury to anyone working on or using the equipment, take whatever immediate action is necessary to aid the injured person and to prevent further injury to others.

3.22 Maintenance manual

- .1 Supply to the Owner and the Consultant at the start of the contract a maintenance manual.
- .2 Incorporate in the manual a description of the controller user interface, fault and error codes, troubleshooting and diagnostic procedures, methods of use and the adjustment of programmable parameters together with their settings at the time of final adjustment.
- .3 Update the maintenance manual annually and supply to the Owner and Consultant a copy of the updated maintenance manual.

3.23 Electrical diagrams

- .1 Provide a set of schematic electrical diagrams either covered in clear plastic and mounted on the machine room wall or bound permanently in a durable binder if the diagrams are of dimensions less than 300 mm (12") by 600 mm (24").
- .2 If, in the course of the maintenance contract, changes are made to the wiring or control, supply to the Owner marked-up prints of the altered schematics and field wiring diagrams showing the changes.

3.24 Annual report

- .1 Each year, on the anniversary date of the contract, submit to the Owner a report consisting of the following items:
 - .1 A complete summary of the activity for the year including, but not limited to, call backs, repair work, complaints;
 - .2 A certification that the various items listed herein were checked at the specified times and that they were found to be functioning correctly or, if not functioning correctly, notations of the problems and the corrective action taken;
 - .3 An evaluation of the standard of maintenance for the year as compared to prior years and to the standards of the industry for similar installations.

3.25 Major parts replacement report: elevator

- .1 Each year, on the anniversary date of the contract, submit to the Owner a report on the anticipated life expectancy of the major equipment components and the budget provisions for their replacement, including following items:
 - .1 Elevator suspension means;
 - .2 The machine.

3.26 Consultant's reports

- .1 Carry out such maintenance, repair and replacement, as listed on the Consultant's reports.

4. Performance

4.1 Performance data

- .1 Maintain the elevators so that at all times they comply with the following performance parameters.

	geared machine with solid state drive	gearless machine with solid state drive
Operating time	< 8.0 s	< 7.8 s
Levelling accuracy	+/- 6 mm	+/- 6 mm

Speed accuracy	+/- 1.5 %	+/- 1.5 %
Door noise level	< 60 dB	< 60 dB
Cab noise level	< 55 dB	< 55 dB
M/R noise level	< 75 dB	< 75 dB
Average acceleration	< 0.95 m/s/s	< 0.95 m/s/s
Peak acceleration	< 1.2 m/s/s	< 1.2 m/s/s
Change in acceleration	< 1.9 m/s/s/s	< 1.9 m/s/s/s
Max horizontal vibration	0.15 gal	0.15 gal

4.2 Performance data measurement method

- .1 The horizontal vibration, front to rear or side to side, is measured in the elevator cab with the elevator travelling with a load of less than 10 per cent of capacity from top to bottom and bottom to top (measured between two consecutive points of opposite value).
- .2 The door noise level is measured using an ANSI type 2 sound level meter on the "A" scale with an "F" response within the cab during a full door open, door close and door reversal cycle.
- .3 The cab noise level is measured using an ANSI type 2 sound level meter on the "A" scale with an "F" response within the elevator cab with the elevator travelling from one end of the hoistway to the other with the cab fan on.
- .4 The machine room noise level is measured with the elevator running by a meter positioned in the centre of the machine room.
- .5 The operating time is measured for a typical floor run (less than 4000 mm [13'] from the time when the fully opened doors begin to close until the car is stopped level with the next floor and the car and hall doors are 800 mm (32") open. For door types other than centre-opening or slow rated speed, the specified operating time is adjusted as follows:
 - .1 For elevators with side-opening doors and a door width under 1100 mm (43"), add 2.0 seconds to the specified operating time.
 - .2 For elevators with wider entrances and centre-opening doors, add 0.25 seconds per additional 150 mm (6") of door width to the specified operating time.
 - .3 For elevators with wider entrances and side-opening doors add 0.5

seconds per additional 150 mm (6") of door width to the specified operating time.

- .4 For electric elevators with a contract speed under 1.78 metres per second (350 fpm), add 1.5 seconds to the specified operating time.
- .5 For hydraulic elevators with a contract speed under 0.76 metres per second (150 fpm), add 1.5 seconds to the specified operating time.

5. MRL (Machine-Room-Less) elevators

5.1 Work included:

- .1 Maintenance, repair or replacement of all of the elevator equipment, including the following:
 - .1 Machines, suspension means, solid state drives, controller parts, relays, brake coils, brake linings, door operating equipment, door equipment, elevator intercommunication system, and other mechanical and electrical parts required for the operation of the equipment.

5.2 Work not included:

- .1 Maintenance, repair or replacement of:
 - .1 Cab finishes (including ceiling lights), handrails (except for attachments on the exterior of the cab), flooring, hoistway enclosure, and hall door, sill and frame finishes;
 - .2 Electrical conduit and wiring outside the hoistway and control room.
- .2 Submit to the Owner proposals for repair or replacement of parts damaged by malicious action of others.
- .3 Submit to the Owner proposals for alterations and additions required by newly imposed regulations of the inspecting authorities.
- .4 Repair or replacement of parts deemed obsolete by the contractor and agreed to by the Consultant, where a cost premium is in excess of \$400 with the cost premium being defined as follows:
 - .1 The difference between the cost of repair or replacement where a part is deemed obsolete and the cost of repair or replacement if the obsolete

part were readily available, as estimated by the Consultant.

- .2 The cost premium shall be based on the material cost plus labour at the contract rates.
- .3 The cost premium shall be exclusive of taxes, travel or handling fees.
- .4 The contractor shall supply time tickets to support the labour cost, otherwise the work will be deemed included in the contract.

Example: If a control board fails and needs to be replaced but the original equipment manufacturer is no longer in business, that part might be deemed obsolete (mutually agreed to decision between Consultant and contractor based on information supplied by the manufacturer (if available)). If a replacement board is manufactured by a third party and the cost is substantially equivalent to the original equipment, this replacement would be covered by the contract. If, however, a new board needs to be custom-manufactured and the cost premium of the new board as compared to the original board cost exceeds \$400, the cost premium would be deemed extra to contract.

5.3 Monthly checks

- .1 Check the following elements at least once a month:
 - .1 Car ride and general operation;
 - .2 Levelling;
 - .3 Hall and car door operation;
 - .4 Alarm bell;
 - .5 Communication system;
 - .6 Door open button;
 - .7 Door force (maximum of 135 Newtons [30 lb]);
 - .8 Door protective devices;
 - .9 Position indicators;
 - .10 Car operating panel devices.

5.4 Quarterly checks

.1 Perform the following duties at least once every three months:

- .1 Clean pits;
- .2 Clean tops of cars;
- .3 Clean the motor with vacuum and blower;
- .4 Check and lubricate the governor tension sheave;
- .5 Check and lubricate the governor;
- .6 Check the buffers and the buffer oil (where applicable);
- .7 Check compensating chains (where applicable).

5.5 Semi-annual checks

.1 Perform the following duties at least once every six months:

- .1 Check the door open pause times to ensure that they are consistent from one car to another in a group;
- .2 Check the door open pause time cancellation (i.e. monitor) circuit;
- .3 Check the load weighing devices;
- .4 Check the governor ropes and lift suspension devices.

5.6 Yearly checks

.1 Perform the following duties at least once every year:

- .1 Clean the machine with vacuum and blower;
- .2 Check the tachometer mechanical drive linkage;
- .3 Check the tachometer electrical connections;
- .4 Check rotating electrical equipment connections;

- .5 Clean the suspension means by washing with soap and water or by such means as recommended by the manufacturer;
- .6 Remove the covers of the car operating panels and check the internal components and connections;
- .7 Lubricate and clean car door tracks;
- .8 Clean control room and control room floor;
- .9 Check the car door contacts;
- .10 Check the hoistway door interlocks.
- .11 Check the car door rollers and eccentrics;
- .12 Check the car door clutch assembly;
- .13 Check door operator, clean and lubricate pivot points;
- .14 Clean guide rails and guide rail fastenings;
- .15 Vacuum hoistways from top to bottom;
- .16 Replace the filters on the controller air inlets;
- .17 Check suspension hitches;
- .18 Inspect suspension means for wear in accordance with the manufacturer's standards;
- .19 Check suspension means stretch and remove buffer blocks if required;
- .20 Clean and check safety mechanism;
- .21 Perform a safety test and forward to the Owner a declaration certifying the successful completion of the test;
- .22 Check sheaves and shafts for soundness and wear;
- .23 Check the terminal slowdown device;
- .24 Strip, clean and lubricate the brake;

- .25 Check that the brake stops the elevator with full load in the car from full speed in the down direction with an average deceleration of approximately 0.1g without shock or jar;
- .26 Check to ensure that the brake holds a minimum of 125 percent of the contract load;
- .27 Ensure that the brake operates quietly so that no noise can be detected either in the elevator cab, at the top floor landing;
- .28 If oil buffers are provided, check the buffer oil levels, check for water in the oil and test the buffers;
- .29 Check travelling cables for wear;
- .30 Check hangers and junction box connections;
- .31 Check guide rail fastenings;
- .32 Check the speed, acceleration and jerk profiles and if necessary adjust the drive parameters;
- .33 Measure performance parameters (noise levels, vibration, operating times) and re-adjust if required;
- .34 Check components and fastenings that under failure might create a dangerous situation (e.g. sheave bolts and welds, gear bolts, car slings et cetera);
- .35 Submit a report to the Owner confirming that the annual checks have been carried out and listing the items checked and the measured performance parameters.

5.7 Motor repair

- .1 When repairing or replacing a motor:
 - .1 Ensure that the unit has the same characteristics and performance as the original equipment.

5.8 Elevator suspension means: replacement

- .1 When replacing the elevator suspension means:
 - .1 Provide suspension means of size and characteristics to suit the equipment in accordance with the manufacturer's requirements;
 - .2 Ensure that devices are all from one manufacturing run;
 - .3 Provide sufficient removable counterweight buffer blocking to allow adjustment for suspension means stretch without requiring shortening.

END OF SPECIFICATION

AGREEMENT
FOR ELEVATOR MAINTENANCE

324 LAURIER AVENUE WEST, OTTAWA ON

Between: OCSCC 829
(Hereinafter referred to as the Owner)

And: Thyssenkrupp Elevator (Canada) Ltd.
(Hereinafter referred to as the Contractor)

In consideration of the premises and of the respective covenants in this Agreement, the Owner and the Contractor agree as follows:

- 1) The Contractor hereby undertakes to provide all labour, materials, products, equipment and services required to carry out, in a good workmanlike manner and to the satisfaction of the Owner, maintenance of the three elevators at 324 Laurier Avenue West, Ottawa ON.
- 2) In consideration of the performance by the Contractor of its obligations under this Agreement, the Owner undertakes to pay to the Contractor monthly sum of \$1,257 in accordance with the elevator maintenance specifications:
 - a) This figure include all local, provincial, and federal taxes or assessments in effect at the time of the signing of this Agreement with the exception of the Harmonized Sales Tax (HST);
 - b) This monthly sum is due at the end of each corresponding month;
 - c) The Contractor will not invoice the maintenance of an elevator taken out of service for an alteration during the alteration of that elevator;
- 3) The term of this Agreement shall commence on November 01, 2018 and terminate on October 31, 2023 both dates inclusive.
- 4) Schedules: The following schedules are attached and form part of this agreement:



10/18

i. Schedule "A" - Contractor Hourly Rates.

- 5) For purposes of the elevator maintenance work to be effected pursuant to this Agreement, the Contract Documents consist of the following (hereinafter the "Contract Documents"):
 - a) The present Agreement duly executed by the parties hereto;
 - b) The elevator specifications (226004 r02) prepared by KJA Consultants Inc. dated 2018-08.
- 6) The parties declare that the Contract Documents constitute the entire agreement between them with respect to the within subject matter. The Contract Documents may not be amended in any manner except by written instrument signed by the duly authorized representative of each of the parties hereto. Time is of the essence of the Contract Documents.
- 7) The duties and obligations imposed by the Contract Documents and the rights and remedies available thereunder shall be in addition to and not a limitation of any duties, obligations, rights and remedies otherwise imposed or available by law.
- 8) No action or failure to act by the Owner or Contractor shall constitute a waiver of any right or duty afforded any of them under the Contract Documents, nor shall any such action or failure to act constitute an approval of or acquiescence in any breach thereunder, except as may be specifically agreed in writing.
- 9) Any notice required to be given under the Contract Documents shall be given in writing at the address hereinafter mentioned (or at such other address as one party may notify in writing the other party), and shall be deemed to have been given either at the time of personal delivery to the addresses or on the business day following delivery by telecopier, or on the second business day following mailing thereof by registered mail, postage prepaid:
 - a) Notice To Owner: OCSSCC #829 / Attention:
 - b) Notice To Contractor: Thyssenkrupp Elevator / 1151 Parisien Road / Ottawa ON K1B 4W4 / Attention: Mr. Jeff Pugh
 - c) In the event of any disruption of the postage service, actual or threatened, all notices hereunder shall be given by personal delivery or delivered by telecopier.

- 10) Each of the parties which together constitute the Contractor shall be held jointly and severally responsible with the other parties constituting the Contractor for the performance of all of the Contractor's obligations under the Contract Documents, each of such parties hereby waiving the benefits of division and discussion, and a default by any one of such parties constituting the Contractor shall be deemed a default of all such parties and of the Contractor hereunder.
- 11) The laws of Ontario will apply to this Agreement.
- 12) This Agreement is drawn in English at the specific request of all parties hereto; cette convention est rédigée en anglais à la demande expresse des deux parties.
- 13) The Contractor shall not assign or transfer the Contract Documents nor its interest therein without the prior written consent of the Owner which consent may be arbitrarily withheld.
- 14) Any material and equipment stored on site by the Contractor is stored at the Contractor's sole risk and the Contractor hereby releases the Owner from any liability for damage, theft or other loss with respect thereto. Both parties would take reasonable precautions.
- 15) In the event that the Owner, for whatever reason, pays for overtime worked to complete the work - unless already included in the Specifications - as set out in the Specifications, he shall pay only the difference between Overtime and Regular Time. Any overtime must have prior authorization by Owner in writing.
- 16) The provisions of the Contract Documents enure to the benefit of and are binding upon the parties hereto and, their respective, legal representatives, successors and assigns.

IN WITNESS WHEREOF, the parties hereto have executed this contract and by the hands of their proper officers thereinto duly authorized.



904 Lady Ellen Pl.
Ottawa, ON
K1Z 5L5
T. 1-613-722-1232
F. 1-613-651-0306

www.cimmanagement.ca

SIGNED AND DELIVERED in the presence of:

Owner:

By: [Signature]
Name: ANTONIO GIOVENTU
Title: PRESIDENT CC829
Date: October 18, 18

[Signature]
Maxime Neelkanton
Treasurer, OCSCC No 829
19-Oct-2019

Contractor:

By: [Signature]
Name: JEFF RUGH
Title: DISTRICT MANAGER
Date: NW / 8/2019

Schedule A

Contractor Hourly Rates

Labour	Regular (\$/h)	Overtime (\$/h)	Double time (\$/h)
Driver / helper	\$223.66	\$335.50	\$447.34
Mechanic	\$279.59	\$419.38	\$559.17
Adjustor	\$314.54	\$471.80	\$629.06
Team of two	\$503.25	\$754.88	\$1006.50