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Chair
Councillor Paul Ainslie
Interim Chief Executive Officer
Robin D. Hale

2018-07-17

REQUEST FOR QUOTATION
Chimney Masonry Repairs – VALLEY HALLA
RFQ #26 (2018-07)

The Toronto Zoo invites you to submit a quotation to provide labour, tools, materials and equipment to complete the masonry repair of all chimneys outside/inside the heritage property - Valley Halla, at the Toronto Zoo. All work is to be completed in accordance with the drawings and specifications in the Request for Quotation (RFQ).

The work shall commence as soon as possible and in accordance with the anticipated schedule, once all required documentation has been received, the project is awarded and a Purchase Order has been issued. The expected award date shall be **Wednesday, 2018-08-15**. All work, for South Chimney Repairs & Rebuild, shall commence as soon as possible, and is to be completed by **Friday, 2018-09-28**.

The Quotation package includes Instructions, Terms & Conditions, Requirements, Drawings, and Forms. Quoted prices shall remain in effect for a period of ninety (90) days from the Quotation due date.

Site Meeting: A site meeting will be held on **Tuesday, 2018-07-24, 0900 hours (9:00am)**, meeting at the Toronto Zoo, Administrative-Support Centre, 361A Old Finch Ave., Toronto, Ontario.

Due Date: Your quotation must be completed, and received by the Supervisor, Purchasing & Supply, Toronto Zoo, Administrative-Support Centre, 361A Old Finch Ave., Toronto, Ontario, M1B 5K7 by:

Wednesday, 2018-08-08, 1200 hours (noon, local time)

The Board of Management of the Toronto Zoo reserves the right to reject any or all quotes or to accept any quote, should it deem such an action to be in its interests.

If you have any queries regarding this request for quote, please contact Peter Vasilopoulos, Supervisor of Purchasing & Supply, (416) 392-5916. If you have any technical queries regarding this request for quote, please contact Joshua Jaikaran - Supervisor, Projects & Exhibitory, jjaikaran@torontozoo.ca.

Yours truly,

Taryne Haight
Interim Manager, Financial Services

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1.0 INSTRUCTIONS

- 1.1** Ensure that you have received all **twenty (20)** RFQ pages, **four (4)** specification sections, **four (4)** drawings, **three (3)** reports, and **thirteen (13)** pictures of the RFQ package.
- 1.2** A site meeting will be held on **Tuesday, 2018-07-24, 0900 hours (09:00am)** meeting at the Toronto Zoo, Administrative-Support Centre, 361A Old Finch Ave., Scarborough, Ontario.
- 1.3** Complete ALL FORMS in section 4.0 and return by due date and time received on or before **Wednesday, 2018-08-08, 1200 hours (noon, local time)** or your Quotation will not be considered. Include signed copies of any addenda with your proposal package.
- 1.4** Quotations must not be submitted by facsimile, email or any other electronic format.
- 1.5** All Prices submitted shall be quoted in Canadian currency, show itemized cost of HST if applicable.
- 1.6** Toronto Zoo reserves the right to award in whole or in part on the basis of the bids received, Lump Sum Price or Breakdown Price.
- 1.7** Bidders are requested to include separately any information provided on discounts offered, if all three (3) jobs are awarded together.
- 1.8** Use the attached submission label, when you submit your response in a sealed envelope or package and deliver to the Toronto Zoo.
- 1.9** Quotation prices shall remain in effect for a period of ninety (90) days from the Quotation due date.
- 1.10** Include product information, samples, and pictures, as necessary.
- 1.11** **Provide references of at least three (3) clients for whom your company has performed similar work. References must include photos of three (3) different installations, client company name, contact name, address and e-mail address.**
- 1.12** If applicable, suggested alternative products are acceptable, however all such products must be quoted separately and should not replace the Toronto Zoo requested product, work or service.
- 1.13** The Toronto Zoo may issue Addenda advising of changes in, or explanations of, the Drawings or Specifications from time to time. Any Bidder who finds an apparent discrepancy, inconsistency, contradiction or omission in any of the Specifications, or Drawings, or who is doubtful about the meaning or intent of any part thereof, should submit their question in writing using the enclosed QBD form and an Addendum if necessary, will be issued.
- 1.14** For any questions concerning the contract terms and conditions of this RFQ, please contact:
Peter Vasilopoulos, Supervisor,
Purchasing & Supply, Tel: 416-392-5916,
E-mail: pvasilopoulos@torontozoo.ca

Any questions regarding the work in this RFQ must be forwarded by the end of the day Thursday, 2018-08-02 to:
Joshua Jaikaran,
Supervisor, Projects & Exhibitory,
E-mail: jjaikaran@torontozoo.ca

2.0 TERMS AND CONDITIONS

- 2.1 Definitions:** Wherever used in the Request for Quotation the word
“**Board**” means the Board of Management of the Toronto Zoo;
“**Chief Operating Officer**” means the person for the time being filling the office of Chief Operating Officer of the Board or the person then acting as such;
“**Vendor**” “**Bidder**” or “**Contractor**” means the person or persons or Corporation to whom the purchase order is issued.
- 2.2 Vendor Assurance:** Unless otherwise stated, the goods, material, articles, equipment, work or services, specified or called for in or under this Quotation, shall be delivered or completely performed, as the case may be, by the Vendor as soon as possible and in any event within the period set out herein as the guaranteed period of delivery or completion.
- 2.3 Country of Origin:** Wherever possible, the goods, services, materials, articles or equipment, specified or called for in or under this Quotation, shall be of Canadian origin and manufacture.
- 2.4 Delivery:** The prices stated in this Quotation cover the services, material, articles or equipment referred to herein, being delivered F.O.B. destination, freight, express, duty and all other charges prepaid, unless otherwise indicated herein. A detailed delivery ticket or piece tally, showing the exact quantity of goods, material, articles or equipment shall accompany each delivery. A receiver’s receipt shall not bind the Board to accept the goods, material, articles or equipment covered thereby, or the particulars of the delivery ticket or piece tally therefore. The Vendor shall not be entitled to any interest upon any bill due to delay in its approval by the CEO of the Toronto Zoo or his designate.
- 2.5 Invoicing:** Unless otherwise indicated herein, the prices stated are payable in Canadian Funds at the head office of the Board. Any Harmonized Sales Tax (HST) applicable shall be shown as a separate item. The Vendor’s HST/Business registration number must be indicated on the invoice.

The Vendor shall clearly show any special charges such as packaging and freight, where applicable, as separate items on the invoice.

Payments to non-resident Vendors may be subject to withholding taxes under the Income Tax Act (Canada). Unless a non-resident Vendor provides the Board with a letter from Revenue Canada, Taxation waiving the withholding requirements, the Board will withhold the taxes it determines are required under the Income Tax Act (Canada).

- 2.6 Notice of Delivery:** The Vendor shall notify the Purchasing Agent of the Board at the address given for the mailing of invoices, in writing as soon as possible of the details of the shipment of the goods, materials, articles or equipment.
- 2.7 Right to Cancel:** The Board shall have the right to cancel at any time this Quotation or any contract or any part of any contract resulting from this Quotation in respect of the goods, material, articles, equipment, work or services set out in this Quotation or any such contract or part of such contract, not delivered or performed at the time of such cancellation, and the Board will not be responsible to make any payments in respect of any such goods, materials, articles, equipment, work or services and shall not incur any liability whatsoever in respect thereto.

In the event that the Vendor fails or neglects by any act or omission to comply with any of the conditions set out herein, this Quotation or any contract resulting from this Quotation may be unconditionally cancelled by the Board without notice to the Vendor.

- 2.8 Official Agreement:** No verbal arrangement or agreement, relating to the goods, material, articles, equipment, work or services, specified or called for under this Quotation, will be considered binding, and every notice advice or other communication pertaining thereto, must be in writing and signed by a duly authorized person.
- 2.9 Worker's Rights:** The Vendor shall comply with the conditions of the Board relating to Worker's Rights, a copy of which is available on application to the Manager, Fair Wage and Labour Trades Office, City of Toronto, 18th Floor, West Tower, City Hall, Toronto, Ontario, M5H 2N2 or by phone at 416-392-7300.
- 2.10 Insurance:** The Contractor shall, at his/her own expense obtain and, until the work is fully complete maintain, broad-scope insurance coverages, hereof, satisfactory to the Chief Executive Officer as to form and substance, with the indicated policy form of the Canadian Construction Documents Committee (CCDC), its equivalent or better subject to such modifications therein to cover unusual aspects of the work, working conditions or other circumstances as may be specified elsewhere in the Contract.
- 2.10.1 The Contractor shall effect, maintain and keep in force, at its sole cost and expense and satisfactory to the Chief Executive Officer as to form and substance the insurance described below:
- 2.10.2 All risks property insurance on property of every description and kind owned by the contractor or for which the Contractor is responsible while on the premises of the Board in an amount not less than full replacement value. The policy shall be endorsed to provide a waiver of subrogation against the Board for any loss or damage to insured property, however caused.
- 2.10.3 Commercial general liability insurance, including owners' and contractors' protective, products, completed operations, personal injury, employer's liability, contractual liability, occurrence basis property damage, liability arising from the sale of serving of alcoholic beverages and provisions for cross liability and severability of interests with a limit of not less than Two Million Dollars (\$2,000,000.00) per occurrence. The policy shall be endorsed to name the Board as an additional insured with respect to the operations of the Contractor under this agreement.
- 2.10.4 Standard automobile liability insurance for all owned vehicles with limits of not less than Two Million Dollars (\$2,000,000.00) per occurrence.
- 2.10.4.1 All policies of insurance required to be taken out by the Contractor shall be placed with insurers licensed to conduct business in the Province of Ontario and shall be subject to the approval of the Chief Executive Officer, acting reasonably.
- 2.10.4.2 The Contractor shall deliver to the Board evidence of the insurance required prior to the commencement of the agreement, in form and detail satisfactory to the Chief Executive Officer acting reasonably.
- 2.10.4.3 The provisions of this section 2.11 shall no way limit the requirements and obligations imposed on the Contractor elsewhere in the Contract, nor relieve the Contractor from compliance therewith and fulfillment thereof.
- 2.10.4.4 The parties agree that insurance policies may be subject to deductible amounts, which deductible amounts shall be borne by the Contractor.

2.10.4.5 The provisions of this article shall in no way limit the requirements and obligations imposed on the Contractor elsewhere in the Contract, nor relieve the Contractor from compliance therewith and fulfillment thereof.

2.11 Indemnity: The Vendor shall at all times well and truly save, defend, keep harmless and fully indemnify the Board, the City of Toronto, Toronto Region and Conservation Authority and their servants, employees, officers or agents, hereinafter called the “Indemnities”, from and against all actions, suits, claims, demands, losses, costs, charges, damages, and expenses, brought or made against or incurred by the Indemnities, it’s or their servants, officers, employees, agents or invitees in any way relating, directly or indirectly, to goods, material, articles or equipment supplied or to be supplied, or to the supplying of goods or services, pursuant to this Quotation, or any other claim, action, suit, demand, loss, cost, charge, damage or expense relating to copyright, trademark or patent with regard directly or indirectly with any such goods, services, material, articles or equipment or the supply or performance thereof.

2.12 Liability for Acts of Vendor Employees, Contractors or Agents: The Vendor acknowledges responsibility and accepts liability for the acts of any of its employees, contractors and agents while on Toronto Zoo property. The Toronto Zoo reserves the right to request background checks for any individual providing the services requested on behalf of the Vendor.

2.13 Guaranty of Quotation: All goods, material, articles, equipment, work or services, specified or called for in or under this Quotation, shall be supplied or performed at the price or process and on the basis set forth or referred to in and in accordance with the Offer and this Quotation. The basis on which this Quotation is given shall include any specifications, plans, price schedules, samples, addenda or other details pertaining thereto, or provided in connection therewith.

2.14 Right of Notice: Any notice that the Board may be required or desire to give to the Vendor shall for all purposes to be deemed to have been sufficiently and properly given and afforded by registered mail addressed to the Vendor at the address shown for the Vendor on this form and shall therefore be presumed to have been received by the Vendor on the third day following such registration.

2.15 Formal Contract: The Vendor may be required and shall, if requested by the solicitor for the Board so to do, to execute and enter into a formal contract that is satisfactory to the solicitor for the Board, in order to document the contract resulting from this Quotation and to embody indemnity and related provisions that in the opinion of such solicitor are required to protect the Board.

2.16 Suspension of Work

2.16.1 The Chief Operating Officer may for reasonable cause, by an order in writing, at any time, stop or suspend any part of the work, or direct any portion to be commenced or completed in priority to any other part or portion, or may cancel the order to proceed with the work, or with any part thereof, and the Contractor shall not be entitled to any additional payment for anticipated profit, or for damages or otherwise, howsoever, by reason of such order.

2.16.2 When in the opinion of the Chief Operating Officer, for any reason it is deemed advisable to discontinue the work, or any part thereof for the winter, the Contractor must, on notice from the Chief Operating Officer forthwith place the work in proper and satisfactory condition for the accommodation of the public, and for its effectual protection against damage from rain, snow, frost, ice, or other causes, and must so maintain it.

- 2.16.3 When work is ordered or permitted by the Chief Operating Officer to be done during freezing weather, the Contractor shall provide the necessary means for heating, and all the materials required in the work shall be heated.
- 2.16.4 Unless otherwise directed in writing by the Chief Operating Officer, all masonry, concrete, painting, roadway and other work liable to be injuriously affected by frost, or which cannot in the opinion of the Chief Operating Officer, be satisfactorily proceeded with because of the condition of the weather, must be put in proper and satisfactory condition and be carefully and well protected from damage by frost at all times, all at the cost and expense of the Contractor.
- 2.17 Charity Status:** The Toronto Zoo is a registered charitable organization (registration #BN 119216398RR0001) and accordingly may be eligible for preferred pricing which should be reflected in the Quotation as submitted.
- 2.18 Performance Evaluation:** The Contractor's performance will be evaluated by the Chief Executive Officer and/or Chief Executive Officer's Representative during the Contract and at the end of the Contract. In the event that the Contractor's performance is considered unsatisfactory by the Chief Executive Officer and/or Chief Executive Officer's Representative, the Contractor and/or its affiliates may become ineligible from bidding on future contracts issued by the Board.

3.0 PROJECT REQUIREMENTS

The work shall commence once all required documentation has been received, the project has been awarded, and a form of contract issued (I.e.: Purchase Order). The scope of work includes supply of all labour, tools, materials and equipment necessary to complete the masonry repair and rebuild of the South Chimney located on the heritage property - Valley Halla, at the Toronto Zoo. All work is to be completed in accordance with the drawings and specifications in the Request for Quotation (RFQ). The contractor is responsible for all pricing and all other arrangements with all subcontractors as required.

3.1 SCOPE OF WORK

1. Supply all labour, tools, materials and equipment to complete the work as outlined in the quotation documents, drawings and specifications. (Including existing scaffolding, and all associated work and/or consulting.)
2. All work to be completed in accordance with applicable codes (e.g. Building Code, Electrical Code, Fire Code, Heritage, etc.)
3. The contractor shall supply the Zoo with copies of relevant forms, certificates and licences for the contractor, and all workers whom operate under the contractor, prior to commencement of work.
4. All measurements to be site verified.
5. Protect all areas not affected by the work. Any damage to these areas will be the responsibility of the contractor to rectify. (Appropriate and required protection should be taken, as this is a Heritage Property.)
6. Clean the work area and remove all debris from site on a daily basis.
7. Excess material will be stored on the Toronto Zoo site for future use. Toronto Zoo staff will designate a suitable area for stockpiling of additional material.

8. The contractor is required to provide closeout documents including but not limited to as built drawings, manuals, warranty, and inspection certificates.

The Contractor is responsible for all pricing and all other arrangements with their subcontractors as required. Work is to be completed by as follows:

- South Chimney Repairs & Rebuild – Friday, 2018-09-28
- North Chimney Repairs & Rebuild – Friday, 2019-05-31
- West Chimney Repairs & Rebuild – Friday, 2019-08-02

The following are attached:

	SPECIFICATIONS	
01 11 13	Division 01 – General Requirements – Summary of Work	3
01 30 00	Division 01 – General Requirements – General Instructions	7
02 40 00	Division 01 – General Requirements – Demolition	3
04 01 20	Division 04 – Masonry – Masonry Restoration	9
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VH-SC	Exterior House Elevations – South Chimney	5
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3.2 CONTRACTOR RESPONSIBILITIES

1. Regular meetings/communication with the Toronto Zoo Project Team to review project status and to discuss issues that may arise during the project.
2. Provide samples, mock ups, etc. as required to the Project Team.
3. Provide product information, MSDS sheets and colour samples to the Project Team prior to start of the work where applicable.
4. Provide the Zoo with not less than a five (5) year warranty upon completion of the project.
5. Protect adjacent areas not included in the project. Any damage caused will be the responsibility of the contractor to rectify at no additional cost to the Zoo. (Appropriate and required protection should be taken, as this is a Heritage Property.)
6. Clean-up the work area daily and make good any damage caused as a result of the work.
7. Secure the work site and provide construction signs and barriers to prevent injury to Zoo personnel and the public who will require access to the space during the work.
8. All temporary connections for electricity shall be subject to the approval of the Owner. All temporary lines will be furnished, installed, connected, and maintained by the Contractor in a professional manner satisfactory to the Owner and shall be removed by the Contractor in like manner upon completion of the work.

9. Upon award of contract, Contractor is to finish all work, including clean up and demobilization by the completion date specified.
10. Submit all shop drawings for review and approval prior to start of fabrication. Review of shop drawings shall not mean that the Toronto Zoo approves detail design inherent in shop drawings, responsibility for which shall remain with the Contractor submitting same, and such review shall not relieve the Contractor of his responsibility for errors or omissions in shop drawings or of his responsibility for meeting all requirements of the subcontract documents.
11. Submit close out documents as requested. Include warranties and “As built” drawings.

3.3 SAFETY SPECIFICATIONS

1. It is the responsibility of the Contractor to protect the site as required during construction.
2. Ensure that awareness of public safety is considered and protect visitors in the vicinity during the construction period.
3. All necessary personal protective equipment must be worn at all times and MSDS sheets must be available on site as required.
4. The contractor is to abide by applicable Toronto Zoo Health & Safety Policies,
 - i. SAFE-002 Health & Safety Hazard Reporting
 - ii. SAFE-017 Contractors Safety
 - iii. SAFE-018 Vehicles on Site
 - iv. SAFE-007 Working in Confined Space
 - v. SAFE-025 Hot Work
 - vi. SAFE-013 Equipment Lockout/Tagoutand the Ontario Health and Safety Acts, the Ontario Building Code and all other applicable Federal/Provincial/Municipal codes including the Fire Codes.
5. The contractor is to abide to Toronto Zoo’s Commitment to the City of Toronto’s Corporate Smog Response Plan.
6. It is the responsibility of the Contractor to ensure that the work site is properly protected at all times. All work sites must be marked and barriered adequately with construction signs posted to secure and isolate the work site from the public or other personnel that have access to the area.

3.4 OTHER INFORMATION

The successful bidder must demonstrate the ability to complete the work to standards acceptable to the Zoo and prove past performance in the completion of similar types of work for other clients by providing relevant examples of work and references. The successful bidder must also demonstrate and guarantee that they can produce the work in the allotted time.

4.0 SUBMISSION FORMS:

I/We, hereby, submit the Quotation and will comply with all terms, conditions, specifications and drawings (when provided) as set out within the Board’s Quotation.

I/We, hereby, have received, allowed for and included as part of our submission all issued Addendum numbered _____.

This form must be completed, properly signed and received on or before the date and time specified or your Quotation will not be considered. Quotation prices shall remain in effect for a period of ninety (90) days from the Quotation due date.

The Board of Management of the Toronto Zoo reserves the right to reject any or all Quotations or to accept any Quotation, should it deem such action to be in its interests.

By signing and submitting this FORM, you are agreeing to the release of your quotation information, as deemed necessary by the Board, in order to conduct business associated with this quotation or project.

COMPANY INFORMATION	
Company Name:	
Name of authorized Signing Officer	Title:
Signature of authorized Signing Officer:	Date:
Contact Name:	Title:
Address:	
Telephone #:	Fax #:
Email:	Web Site:
HST #:	

4.1 QUOTATION PRICING - LUMP SUM PRICE

DESCRIPTION	Price complete, excluding HST	
South Chimney Repairs & Rebuild		
	Based on stated completion date-2018-09-28	Based on alternative completion date
To provide all labour, tools, materials and equipment necessary to complete the mobilization, demobilization, application and obtain all required permits, site safety, administration, site clean-up, warranties, general instructions, barriers, temporary works, protection, signage, traffic control, coordination, etc. at the South Chimney of heritage property - Valley Halla, at the Toronto Zoo, as specified in the quotation documents, drawings & specifications of the RFQ package.	\$	\$
To provide all labour, tools, materials and equipment necessary to complete the South Chimney Repairs/Rebuild including documentation, demolition of the existing chimney above eaves trough and construction of a new chimney including masonry walls, clay liner, smoke box, and all associated items, at the South Chimney of heritage property - Valley Halla, at the Toronto Zoo, as specified in the quotation documents, drawings & specifications of the RFQ package.	\$	\$
To provide all labour, tools, materials and equipment necessary to complete the South Chimney Repairs/Rebuild including documentation, demolition of the existing chimney below eaves trough and construction of a new chimney including masonry walls, clay liner, smoke box, and all associated items, at the South Chimney of heritage property - Valley Halla, at the Toronto Zoo, as specified in the quotation documents, drawings & specifications of the RFQ package.	\$	\$
Credit for purchasing existing “AS IS” scaffolding, installed at the south chimney*	\$ ()	
Sub-Total	\$	
HST	\$	
Total	\$	

COMMITMENT TO DELIVER	YES / NO (If no state alternative completion date)
Please confirm that you are able to complete the work by Friday, 2018-09-28 .	

*Ownership is transferred to the contractor upon of award by the Toronto Zoo and the Contractor will be responsible for any/all repairs & maintenance, certification by a professional engineer and/or consulting to meet MOL safety regulations and guidelines. Furthermore, should the contractor purchase existing scaffolding the contractor will be responsible for any labour, tools, materials and equipment necessary to complete the mobilization, demobilization, application and obtain all required permits, site safety,

administration, site clean-up, warranties, general instructions, barriers, temporary works, protection, signage, traffic control, coordination, etc.)

4.2 SEPARATE PRICES – LUMP SUM

The following are our Separate Prices for the work listed hereunder. Such work and amounts are **NOT** included in our Lump Sum Price. The individual price(s) are to include all additional costs associated with mobilization/demobilization, labour, material, taxes (excluding Harmonized Sales Tax), charges, payroll, burden and profit, etc. to facilitate the work listed below.

DESCRIPTION OF SEPARATE PRICE WORK	UNIT	ESTIMATE D QUANTITY	UNIT PRICE	TOTAL ITEM PRICE (EXCLUDING HST)	
<u>North Chimney Repairs & Rebuild</u>					
S1	To provide all labour, tools, materials and equipment necessary to complete the mobilization, demobilization, application and obtain all required permits, site safety, administration, site clean-up, warranties, general instructions, barriers, temporary works, protection, signage, traffic control, coordination, etc. at the North Chimney of heritage property - Valley Halla, at the Toronto Zoo, as specified in the quotation documents, drawings & specifications of the RFQ package.	Lump Sum	N/A	N/A	\$
S2	Document, remove and label stones above eaves trough , and store for reinstatement. Mark-out brick masonry repair areas for Consultant approval. Install stone ties, re-instate stones to match existing pattern.	Lump Sum	N/A	N/A	\$
S3	Remove full brick masonry structure above eaves trough , and re-build with new brick masonry.	Lump Sum	N/A	N/A	\$
S4	Remove and replace existing chimney liner. Diameter and height to match existing. Supply and install new clay liner, as specified.	Lump Sum	N/A	N/A	\$
S5	To provide all labour, tools, materials and equipment necessary to complete the North	Lump Sum	N/A	N/A	\$

	Chimney Repairs/Rebuild including documentation, demolition of the existing chimney above eaves trough and construction of a new chimney including masonry walls, clay liner, smoke box, and all associated items, at the North Chimney of heritage property - Valley Halla, at the Toronto Zoo, as specified in the quotation documents, drawings & specifications of the RFQ package.				
S6	Document, remove and label stones below eaves trough , and store for reinstatement. Mark-out brick masonry repair areas for Consultant approval. Install stone ties, re-instate stones to match existing pattern.	Lump Sum	N/A	N/A	\$
S7	Remove full brick masonry structure below eaves trough , and re-build with new brick masonry.	Lump Sum	N/A	N/A	\$
S8	Remove and replace existing chimney liner. Diameter and height to match existing. Supply and install new clay liner, as specified.	Lump Sum	N/A	N/A	\$
S9	To provide all labour, tools, materials and equipment necessary to complete the North Chimney Repairs/Rebuild including documentation, demolition of the existing chimney below eaves trough and construction of a new chimney including masonry walls, clay liner, smoke box, and all associated items, at the North Chimney of heritage property - Valley Halla, at the Toronto Zoo, as specified in the quotation documents, drawings & specifications of the RFQ package.	Lump Sum	N/A	N/A	\$
<u>West Chimney Repairs & Rebuild</u>					
S10	To provide all labour, tools, materials and equipment necessary to complete the mobilization, demobilization,	Lump Sum	N/A	N/A	\$

	application and obtain all required permits, site safety, administration, site clean-up, warranties, general instructions, barriers, temporary works, protection, signage, traffic control, coordination, etc. at the West Chimney of heritage property - Valley Halla, at the Toronto Zoo, as specified in the quotation documents, drawings & specifications of the RFQ package.				
S11	Document, remove and label stones above eaves trough , and store for reinstatement. Mark-out brick masonry repair areas for Consultant approval. Install stone ties, re-instate stones to match existing pattern.	Lump Sum	N/A	N/A	\$
S12	Remove full brick masonry structure above eaves trough , and re-build with new brick masonry.	Lump Sum	N/A	N/A	\$
S13	Remove and replace existing chimney liner. Diameter and height to match existing. Supply and install new clay liner, as specified.	Lump Sum	N/A	N/A	\$
S14	To provide all labour, tools, materials and equipment necessary to complete the West Chimney Repairs/Rebuild including documentation, demolition of the existing chimney above eaves trough and construction of a new chimney including masonry walls, clay liner, smoke box, and all associated items, at the West Chimney of heritage property - Valley Halla, at the Toronto Zoo, as specified in the quotation documents, drawings & specifications of the RFQ package.	Lump Sum	N/A	N/A	\$
S15	Document, remove and label stones below eaves trough , and store for reinstatement. Mark-out brick masonry repair areas for Consultant approval. Install stone ties, re-instate stones to match existing pattern.	Lump Sum	N/A	N/A	\$

S16	Remove full brick masonry structure below eaves trough , and re-build with new brick masonry.	Lump Sum	N/A	N/A	\$
S17	Remove and replace existing chimney liner. Diameter and height to match existing. Supply and install new clay liner, as specified.	Lump Sum	N/A	N/A	\$
S18	To provide all labour, tools, materials and equipment necessary to complete the West Chimney Repairs/Rebuild including documentation, demolition of the existing chimney below eaves trough and construction of a new chimney including masonry walls, clay liner, smoke box, and all associated items, at the West Chimney of heritage property - Valley Halla, at the Toronto Zoo, as specified in the quotation documents, drawings & specifications of the RFQ package.	Lump Sum	N/A	N/A	\$

COMMITMENT TO DELIVER	YES / NO
North Chimney Repairs & Rebuild	
The scheduled period to complete this work is: Start: Monday, 2019-04-01. (April 01, 2019) Complete: Friday, 2019-05-31. (May 31, 2019) Please confirm that you are able to complete the work by Friday, 2019-05-31. (May 31, 2019)	
West Chimney Repairs & Rebuild	
The scheduled period to complete this work is: Start: Monday, 2019-06-03. (June 03, 2019) Complete: Friday, 2019-08-02. (August 02, 2019) Please confirm that you are able to complete the work by Friday, 2019-08-02. (August 02, 2019)	

4.3 UNIT PRICES

The following are our Unit Prices for the work listed hereunder, beyond the specified scope. Such work and rates are NOT included in our Lump Sum Price. The individual rates are to include all additional costs associated with mobilization/demobilization, labour, material, taxes (excluding Harmonized Sales Tax), charges, payroll, burden and profit, etc. to facilitate the work listed below.

DESCRIPTION OF UNIT PRICE WORK		UNIT RATE	
U1	Repoint mortar joints in the stone masonry.	/LM	\$
U2	Repoint deteriorated mortar joints in the brick masonry.	/LM	\$
U3	Remove existing localized bricks, supply and install new clay brick masonry units.	/m2	\$
U4	Supply new stone finish where missing/damaged beyond repair	/Stone	\$
U5	Supply new coping stone where missing/damaged beyond repair	/Stone	\$
U6	Supply new flue top where missing/damaged beyond repair, to match existing.	/each	\$

WARRANTY	Specify
<p>The Contractor shall submit a warranty for all Work completed, covering a period of not less than five (5) years from the date of Substantial Performance of the Contract. Substantial completion shall be determined by the Consultant and the Owner.</p> <p>Defective work shall include, but is not limited to, cracking, crumbling, loss of adhesion, loss of cohesion, discolouration, premature deterioration and out of plane movement.</p>	

DISCOUNT	Discount	Days
Discount allowed for prompt payment and period within which invoice must be paid to qualify.	%	

Name of Firm:	
Signature of Signing Officer(s)	

SUBMISSION LABEL

This address label should be printed and affixed to the front of your sealed tender, quotation and proposal envelope/package submission. Toronto Zoo will not be held responsible for envelopes and packages that are not properly labelled or submitted to an address other than the one listed on this label.

Vendor Name _____

RFQ #26 (2018-07) – CHIMNEY MASONRY REPAIRS

Due Date: Wednesday, 2018-08-08, 1200 hours (noon, local time)

TO BE RETURNED TO

**TORONTO ZOO
C/O SUPERVISOR, PURCHASING & SUPPLY
ADMINISTRATIVE SUPPORT CENTRE
361A OLD FINCH AVE.
TORONTO, ONTARIO
M1B 5K7**

NOTICE OF NO BID

INSTRUCTIONS:

It is important to the Toronto Zoo to receive a reply from all invited bidders. If you are unable, or do not wish to submit a bid, please complete the following portions of this form. State your reason for not bidding by checking the applicable box(es) or by explaining briefly in the space provided. It is not necessary to return any other Request for Proposal/Quotation/Tender documents or forms. Please just return this completed form by fax or by mail prior to the official closing date. **Purchasing and Supply Fax Number: (416) 392-6711.**

A Proposal/Quotation/Tender is not submitted for the following reason(s):	
Project/quantity too large.	Project/quantity too small.
We do not offer services or commodities to these requirements	Cannot meet delivery or completion requirement
We do not offer this service or commodity.	Agreements with other company do not permit us to sell directly.
Cannot handle due to present commitments.	Licensing restrictions
Unable to bid competitively.	We do not wish to bid on this service or commodity in the future.
Insufficient information to prepare quote/proposal/tender	Specifications are not sufficiently defined
We are unable to meet bonding or insurance requirements.	

<u>Other reasons or additional comments (please explain):</u>

Company Name:	
Address	
Contact Person:	
Signature of Company Representative:	
Date:	
Phone Number:	
Email address	
Fax Number:	

APPENDIX A – LIST OF SUB-CONTRACTOR

The Bidder proposes to sublet the following portions of the Work to the persons firms or corporations indicated. The Bidder (Contractor) is responsible for all pricing with all subcontractors.

The Bidder submits that in proposing the under mentioned subcontractors, the Bidder has consulted each and have ascertained to our completed satisfaction that those names are fully acquainted with the extent and nature of the work and that they will execute their work with the requirements of the contract documents.

Work or services to be provided	Name and address of sub-contractor or person	Telephone

Name of Bidder:	
------------------------	--

PART 1 GENERAL

1.1 DESCRIPTION

- .1 The project includes South Chimney Repairs at Valley Halla, Toronto Zoo.

PART 2 SUMMARY OF WORK

2.1 BASE BID

- .1 Work of this Project includes, but is not limited to, the following items, not necessarily listed in sequential order, for which the detailed descriptions, intent and requirements for the work items are contained in these documents.
- .2 All materials referenced are to be new, supplied and installed by the Contractor, unless otherwise noted.
- .3 The contractor shall examine the site of the Work comprising this Contract and ascertain the extent and nature of the Work to be done, and limitations on access and working conditions.
- .4 Information shown on the Contract Documents is furnished in good faith for the guidance of the Contractor but shall in no way relieve the Contractor of the responsibility of ascertaining satisfactorily the nature of all conditions on site.
- .5 Include in the Bid Prices for all costs arising from the site and working conditions.

Item 1: Mobilization, demobilization, application and obtain all required permits, engineering site safety, administration, site clean-up, warranties, general instructions, barriers, temporary works, protection, signage, traffic control, coordination, etc.

The Lump Sum Price indicated will be the total charge for all work of the Contract required to mobilize all equipment, material and labour necessary to carry out the work of this contract, to perform site cleanup during the progress of this contract, to remove all equipment and material from site, to perform all necessary site clean-up upon completion of all work (to the satisfaction of the owner), and to conform to the General Instructions of the Contract, to install hoarding and dust protection at the perimeter of the work area and entrance, to phase the work as required to maintain access, to obtain necessary permits, etc. Make allowances as required to facilitate the Consultant's and the Owners' review of the work at all aspects of the Work. Contractor may not exceed the allowable live load of the roof structure. If necessary, provide engineered shoring inside the building to support the roof structure below the location of site setup. All cost related to providing access to the area of work such and protection of the affected areas including but not limited to vegetation, roof, etc., should be included in this section.

Payment for this item will be based on release of 25% of this item on the first progress draw, 50% will be released based on a pro-rata basis per month through the duration of the contract and the Contract Lump Sum Price and the remaining 25% will be released on the final progress draw.

Item 2: South Chimney Repairs

Provide all labour, equipment and materials required for south chimney repairs including demolition of the existing chimney from the grade level and construction of a new chimney including masonry walls, clay liner, smoke box and all associated items.

Perform work in accordance with the Heritage Property Standards. A contractor with more than 5 years' experience in performing heritage work is acceptable to Toronto Zoo. The contractor shall utilize installers having demonstrated experience on projects of similar type and size.

The contractor shall protect all the interior portion of the chimney inside the house from any damages and shall be responsible to repair all interior damages resulting from the construction.

Remove, clean, and store existing exterior stones of the chimney, concrete coping stones, and flue tops at the grade level. Label the stones for reinstatement in the same pattern. The removed stone shall be numbered as per the existing pattern. Record the existing stone pattern on drawing(s) completed using drafting software (hand sketches are not acceptable). The drawing(s) shall show dimensions of the chimney and existing stone layout. This drawing(s) will be submitted to the Consultant and the Owner before and after completion of the project as record drawing(s).

Ensure not to damage stones, salvage cracked stones during dismantling. Supply and install new stones to match the existing in profile, texture and colour. Provide samples for approval prior to the order and installation.

Remove and dispose off-site the existing back-up chimney brick masonry walls to the grade level and replace with new brick masonry walls. Tool all mortar joints. Construct the exterior chimney walls to match the existing in dimensions and the thickness of the masonry. Attach the labeled stones on the new brick masonry wall using mortar and new stone ties. Supply and install the new stone ties, maximum 457mm (18") on center in both directions, with minimum of 2 ties per row, with rows staggered.

Supply and install new flue clay liner to comply with ASTM C315. The thickness of the new flue clay liner shall be minimum 15.9 mm(5/8") and shall resist temperature up to 1100°C. Provide firestop at the floor levels.

Include for the installation of the smoke chamber and damper.

The contractor shall purchase the existing scaffolding installed at the chimney and disassemble offsite the scaffolding once the work completed.

Remove and reinstate the existing lighting arrestor. Supply and install new animal screen cap on the chimney flues.

The new exterior chimney shall match the existing. The stone finish shall be installed to match the existing layout and pattern. Include for a coloring agent for the mortar if needed. Provide sample of the mortar colour for review and approval prior to proceed with the work. Include for a mock up for the stone installation. Allow the mock-up to dry 7 days and request the Client and the Consultant approval prior to proceed with the work.

Install copper flashing beneath chimney concrete coping stones. Allow minimum 25 mm (1”) drip edge projection.

Cut exterior walls on each side of the chimney butting against the chimney to dismantle the stones. Repair the exterior walls to match the existing after the completion of the work including painting to match existing. Seal the joints between the new chimney walls and the existing walls.

Include for removal of the copper step flashing at the sloped roof of the chimney. Supply and install new copper step flashing at the chimney walls. Ensure the interface between the new chimney wall and the existing roof is water tight and sealed.

Contractor is responsible to protect all existing landscaping areas during the work. Contractor shall document all existing site conditions prior to start of work and reinstate all areas to their original condition. All damages to the existing landscaping shall be reinstated by the contractor to the original condition.

END OF SECTION 01 11 13

1 STANDARD, CODES AND BY-LAWS

- .1 Conform to the requirements of the 2012 Ontario Building Code, including all amendments to date, and any applicable acts of any authority having jurisdiction and the following:
- Occupational Health and Safety Act and Regulations for Construction Projects
 - Ontario Fire Marshall and Ontario Fire Protection and Prevention Act
 - All By-Laws respecting Demolition and Construction and Building Management
 - City Heritage Conservation policies and guidelines

2 SUPPLEMENTARY DEFINITIONS

- .1 In the Specifications references such as, “shown on the drawings”, “specified”, “scheduled”, “called for”, and the like shall be deemed to include work required by the Contract Documents.
- .2 In the Specifications the expression “Trade(s)” is synonymous with Subcontractor(s) if the context permits. The expression “all Trades” shall be deemed to include the Contractor.

3 PERMITS, INSPECTIONS AND APPROVAL CERTIFICATES

- .1 The Contractor shall be responsible to obtain and pay any costs for permits, tests and certificates required by the local municipality.
- .2 The building permit cost levied by the municipality having jurisdiction will be paid for, by the Owner, if required.
- .3 File and post the “Notice of Project” as required by the Occupational Health and Safety Act and Regulations for Construction Projects.
- .4 Submit copies of inspection/approval certificates with any progress billings or invoices.

4 WORK SCHEDULE

- .1 Within five (5) working days after contract award, provide to the Owner and the Consultant in the form of a Gantt chart, a schedule showing progress stages and final completion of the work within the time period(s) required by the contract documents. A digital copy of the schedule completed in Microsoft Project is the preferred format.
- .2 Periodically and whenever requested by the Consultant and the Owner, review progress in relation to the schedule and employ such methods or work as may be required in order to meet the specified time of completion.
- .3 Changes to the Work approved under Change Order or Change Directive must be identified on the Order or Directive and reflected in a revised schedule, to be submitted to the Consultant and the Owner immediately upon becoming aware of the impact of the Changes to the schedule.

5 COORDINATION

- .1 The Specifications are divided into Divisions and Sections for convenience only. The Contractor, not the Contract Documents, shall establish the lines of demarcation and assign tasks to qualified Trades.
- .2 A responsible representative for the Contractor (acting as Constructor) must be present as supervisor on site at all times when work is being done, regardless of whether or not the Contractor's own forces are involved in the Work at that time. Delegating a subcontractor as the representative is not acceptable. The cost of said supervision is to be included in the Bid Price.
- .3 Ensure that the subcontractors and trades cooperate and coordinate with other subcontractors and trades whose work attaches to or is affected by their work.
- .4 Ensure that the subcontractors and trades receive specifications, drawings and instructions necessary to proceed with the work.

6 OPERATIONS AND PROTECTION OF PREMISES

- .1 Be solely responsible for the safety and security of the project area and all other areas directly related to, or affected by, the Work.
- .2 Provide access to building maintenance staff to enter into electrical, mechanical and storage rooms.
- .3 Protect the premises and all persons from hazards that may occur as a result of the Work.
- .4 Prior to beginning work, submit to the Owner for approval proposed pedestrian and vehicular control measures, signing, site security, dust control measures and temporary lighting plans. Do not proceed until approval is given in writing. Modify procedures when required by the Owner and at no added cost to Owner.
- .5 Keep noise to a minimum.
- .6 Do not permit public access to areas of Work or directly below areas of Work.
- .7 At least two weeks prior to mobilizing on site, submit to the Consultant and Owner for approval, drawings indicating work areas and phases, proposed pedestrian control measures, signage, site security, plans for transporting materials and equipment on and off site, dust control measures, temporary lighting plans, and emergency exits and egress pathways if applicable. Do not proceed until approval is given in writing. Modify procedures when required by the Owner and the Consultant at no added cost to the Owner.
- .8 Obtain fire department approval for any work or plans which negatively impact fire routes, exit travel paths, sprinkler systems, etc. prior to commencing the Work. Abide by the requirements of the Fire Department regarding same. Provide copies of any notices, reports or other related to same.

- .9 During material delivery, concrete placement, or any work affecting traffic flow, the Contractor will be required to supply a traffic control person to direct traffic and pedestrian; the cost of such person is included in the Contractor's bid price.

7 TEMPORARY PROTECTION

- .1 Provide protection barriers, dust-tight partitions, and any other required measure around the work areas to prevent the release of construction dust and debris from the work area and to protect the building and adjacent areas from flying debris, dust, water impingement and any and all such hazards as may cause injury, damage or destruction to persons, vehicle, furnishings, or elements of structure. Protect or cover parked vehicles to prevent damage from dust however caused.
 - .1 Hoarding shall be constructed of 6 foot tall chain link fence, protected with polyethylene tarpaulins and adequately secured using ground supports. Hoarding shall be inspected and maintained daily. Provide locked access gates as required for access the site.
- .2 Provide signage of professional quality to inform and protect the pedestrians and vehicles from construction activity.
 - .1 Signs shall be standard construction signage with black lettering on orange background with plywood backing.
 - .2 All signs shall have a minimum of 100 mm (4") lettering.
 - .3 Secure all signs to hoarding or provide signage stands. Stands shall have ballast to prevent overturning.
 - .4 Upon removal of signs, patch repair all holes.
 - .5 The following construction signs must be provided as directed by the Owner or Consultant/Owner:
 - .1 No parking
 - .2 Directional arrows to vehicle exit
 - .3 This Section is Closed for Repairs
 - .4 Two-Way Traffic Proceed With Caution
 - .5 Keep Left / Keep Right
 - .6 Directional arrows to pedestrian exits
 - .6 Confirm the signage requirements with the Consultant and the Owner prior to ordering.
- .3 Rectify any damage resulting from inadequate protection during the execution of the Work.

8 HEAT AND VENTILATION

- .1 Furnish and install all temporary heat and ventilation as required to:
 - Facilitate progress of the Work
 - Protect the Work and products against dampness and cold
 - Prevent moisture condensation on surfaces
 - Provide required ambient temperatures and humidity levels for storage, installation and curing of materials.
 - Provide adequate ventilation for a safe working environment.
- .2 Take any and all necessary precautions to prevent fumes, odours, dust and deleterious matter entering areas adjacent to the Work.

9 FIRE PROTECTION

- .1 Provide all temporary fire protection equipment as required and maintain in good order the same throughout the construction period.
- .2 Do not impede building fire detection, suppression, or power systems without prior written approval from the Owner and coordination with the Owner's forces. Make arrangements for temporary provision of affected items as required.

10 CONTRACTOR'S USE OF SITE

- .1 Limit areas of work and storage to areas agreed to by the Owner.
- .2 Maintain vehicle access routes free and safe.
- .3 Electric power and water can be obtained from the building's electric power and domestic water distribution systems at no charge to the Contractor. The Contractor shall make all arrangements and pay for all permits, connections, equipment and the like to extend these services to the point required by the Contractor. Provide copies of electrical permits and review notices for temporary electrical power systems.
- .4 The Contractor shall provide, maintain, and pay for temporary sanitary facilities for the workforce in accordance with the governing regulations. Maintain temporary toilets in a sanitary condition for the whole duration of the Work. Arrange to have toilets emptied and cleaned no less than once a week, regardless of usage, or more frequently as directed or required by jurisdictional authorities. Clean and disinfect site of temporary toilets upon removal.
- .5 Parking is available on site for the Contractor's workforce vehicles or for Contractor's vehicles.
- .6 No office, storage space or telephone will be provided by the Owner.
- .7 Do not use wick pen or indelible marker on face of products or finished work.
- .8 Do not cut, bore or sleeve the structure without first obtaining the Consultant's and Owner's written authorization for each condition, unless shown on the Drawings.

11 MATERIAL HANDLING AND STORAGE

- .1 Do not exceed the safe live capacity of the structure.
- .2 Store all construction material off the roof deck, at an on-grade area agreed to by the Owner.
- .3 Coordinate all deliveries in advance with the Owner or the Owner's on-site representative. Do not obstruct the Owner's maintenance and service operations.
- .4 Store package materials in the original undamaged containers with the manufacturer's labels and seals intact, in the manner specified by the product manufacturer.
- .5 Prevent damage to materials during handling and storage and protect surfaces.
- .6 Trademarks and labels, except those essential to identify mechanical and electrical equipment, shall not be visible in the finished work.

12 EXISTING CONDITIONS

- .1 Regardless of whether or not such detection has been expressly identified for pricing, be responsible for ascertaining the location of any buried or hidden services in the structure or below grade locations prior to cutting/digging/coring/etc. and take protective measures.
- .2 The Owner and the Consultant will not be liable for any difficulties encountered or expenses incurred resulting from any condition known, or visible, at the time of Bid.
- .3 Check and verify on site all dimensions, details and measurements required for any work that is to fit to or conform to work already installed.
- .4 Examine surfaces prepared by others that affect the Work and ensure that defects are corrected. Commencement of work constitutes acceptance of the prepared work.
- .5 Contractor is responsible to provide pre-construction deficiency list prior to commencement of any work in no extra charge to the Owner.

13 CLEANING

- .1 At the commencement of the Work, power-sweep all areas within the scope of this Contract.
- .2 Promptly remove dust, sweepings, rubbish, debris and unwanted materials and dispose of off the site.
- .3 Maintain areas in a clean and safe condition during the course of the Work and upon completion.
- .4 Upon completion of the Work and immediately prior to final inspection by the Consultant and the Owner, thoroughly clean the Work and make ready for immediate occupancy. Clean all windows, walls, pipes, panels, exit light boxes, fans, louvers and the like from dust, spills or drippings caused by the Contractor's work.

- .5 Cleaning as a minimum shall consist of power washing all slabs, walls, columns, ceilings and cleaning all fixtures, piping, etc. affected by the construction activity in and outside of the work area.

14 QUALITY CONTROL

- .1 Implement a system of quality control to ensure that the minimum standards herein are attained.
- .2 List the names, qualifications, duties and responsibilities of field supervisory and quality control personnel.
- .3 Bring to the attention of the Consultant and the Owner any defects in the work or departures from the Contract Documents that occur during construction. The Consultant and the Owner will decide upon corrective action and make recommendations in writing.

15 CONSTRUCTION REVIEW

- .1 The Consultant's and the Owner's general review during construction and inspection and testing by independent inspection and testing agencies reporting to the Consultant and Owner are both undertaken to inform the Owner of the Contractor's performance and shall in no way augment the Contractor's quality control or relieve the Contractor of contractual responsibilities.
- .2 Should additional work and site visits by the Consultant and the Owner be required because of the Contractor's failure to perform in accordance with the Contract Documents, or if additional design or drafting time is required by the Consultant and Owner to provide/review corrective measures caused by the Contractor's failure to perform in accordance with the Contract Documents, the Contractor shall reimburse the Consultant and/or the Owner at a rate of direct personnel expense plus 150% overhead plus travel, equipment and material cost plus HST where applicable.

16 NOTIFICATION

- .1 Prior to commencing significant portions of the Work, give the Consultant and the Owner and independent inspection and testing agencies appropriate notification so as to afford them reasonable opportunity to review the work. Failure to meet this requirement may be cause for the Consultant and the Owner to classify the affected portion of the Work as defective.

17 INSPECTION AND TESTING

- .1 The Consultant and the Owner will appoint the independent inspection and testing agencies to make inspections or perform tests as the Consultant and the Owner directs. The inspection and testing agencies shall be responsible only to the Consultant and the Owner, shall address reports to the Consultant and the Owner and shall make only such inspections or tests as the Consultant and the Owner may direct. Authorized inspection and testing shall be charged against the cash allowance carried in the Contract, except

that the Contractor will pay for subsequent inspections and tests when inspection and tests results show that the Work or portions of the Work do not meet the requirements of the Contract Documents.

- .2 The Contractor shall be responsible for coordinating with the designated testing agency and for arranging for testing of the concrete.
- .3 When defects are revealed, the Consultant and the Owner may request, at the Contractor's expense, additional inspection or testing to ascertain the full extent of the defect.

18 SUBMITTALS

- .1 No less than two weeks prior to commencing the Work, the Contractor shall submit the following documentation:
 - Insurance Certificates (the Owner and Consultant as additional named insured)
 - Schedule
 - Site safety & site setup plan
 - Material safety data sheets
 - Shoring drawings
 - Shop drawings
 - Record of three previous heritage projects performed in the past three years
 - WSIB
 - Notice of Project
 - Samples
 - Provide CV of one or more members of senior management having knowledge of conservation theory.

19 RECORD DRAWINGS

- .1 Maintain at the site one set of white prints of the Drawings and record on them any deviation from the Contract and all locations, sizes and types of concrete repair.
- .2 Regularly update this record and make it available for review at any time. Provide two copies of these record drawings to the Consultant and the Owner at the completion of the Work.

END OF SECTION

PART 1 - GENERAL

1.1 RELATED SECTIONS

1. All sections.

1.2 STANDARDS, CODES AND BY-LAWS

1. Conform with the requirements of the 2012 Ontario Building Code, including all amendments to date, and any applicable acts of any authority having jurisdiction and the following:
 1. Ontario Occupational Health and Safety Act, and Regulations for Construction Projects.
 2. Comply with all fire safety regulations and procedures required by Construction Safety Act of Ontario, Ontario Building Code and Municipal Authorities having jurisdiction.

1.3 SUBMITTALS

1. Submit for approval, drawings, diagrams and details clearly showing the sequence of disassembly and demolition, if required by authorities having jurisdiction.

1.4 PERMITS, INSPECTIONS AND APPROVAL CERTIFICATES

1. Obtain any permits necessary for demolition and removal of waste materials to an authorized disposal or recycling site.
2. Include in the prices the cost of obtaining and paying for all required permits.
3. File and post the "Notice of Project" as required by the Occupational Health and Safety Act and Regulations for Construction Projects.

1.5 PROTECTION OF PREMISES AND OPERATIONS

1. Be solely responsible for the safety and security of the project areas.
2. Protect workmen and occupants from contact with toxic substances contained in/or fumes from materials being demolished.
3. Provide barricades, guard rails, overhead protection, and other protection required, to give full protection to occupants, general public, and workers employed on the demolition, and to adjacent properties and landscaping.

4. Provide temporary protection against weather where work leaves unprotected openings in exterior surfaces of the building.
5. Maintain free and safe passage to and from the building exits. Do not compromise building exiting.
6. Prior to beginning work, submit to Owner for approval proposed pedestrian and vehicular control measures, signing, site security, dust control measures and temporary lighting plans. Do not proceed until approval is given in writing. Modify procedures when required by the Owner and at no added cost to Owner.
7. Keep noise to a minimum.
8. Do not permit public access to areas of work or directly below work areas.
9. Cease operations and notify the Consultant and the Owner immediately if the safety of structure appears to be endangered. Take all precautions to properly support the existing structure. Do not resume operations until permission is granted by the Owner.

PART 2 - Products

None Specified.

PART 3 - EXECUTION

3.1 DEMOLITION

1. Demolish in a manner to minimize dusting. Keep dusty materials wetted.
2. Remove existing equipment, service doors and obstacles, where required for refinishing or making good of existing surfaces, and replace with same as work progresses.
3. Repair all demolition performed in excess of that indicated or required, to the approval of the Consultant and the Owner at no additional cost.
4. Remove only areas of the existing exterior walls which can be repaired on the same day.
5. Inform the Consultant and the Owner of any unusual or deteriorated construction revealed during the masonry removal. Allow the Consultant and the Owner review conditions prior replacement.
6. Leave site in a condition acceptable to the Consultant and the Owner.
7. Leave work in safe condition so that no part is in danger of toppling or falling at the end of each day's work.
8. Do not use hoists or other equipment in a manner which would overload the structure.

3.2 TEMPORARY PROTECTION

1. The contractor is solely responsible for the design, adequacy and safety of all temporary shoring and support structures required during the course of repair.
2. The contractor shall retain a qualified Professional Engineering who is licensed to practice in the Province of Ontario to design shoring and scaffolding, if required in the laydown area, as required to hoist the materials to and from the roof. The design engineer will be responsible for performing inspections and promptly reporting on the site installation and compliance with their design.

3.3 DISPOSAL

1. Dispose of debris on a continuous basis. Do not leave any waste materials on site where they may be accessible to the public. Do not stockpile debris in a manner, which would overload the structure. Dispose of demolished materials except where noted otherwise.
2. Remove materials to an authorized disposal or recycling site.
3. Segregate from debris all materials that presently can be recycled or reused. Transport these materials to a reuse or recycling facility.
4. Materials not acceptable for reuse or recycling shall be disposed of at an appropriate and authorized landfill site. Cost of transporting to dump site and for dumping of materials, etc., are to be included in the Base Bid Price.
5. Burning of debris or selling of materials on site will not be permitted. Take measures to control dust during disposal operations.

END OF SECTION

PART 1 GENERAL

1.1 DESCRIPTION

- .1 Provide all material, labour and equipment as necessary to demolish the existing chimney from the grade level and build-up a new chimney including masonry walls, clay liner, smoke box and all associated items.

1.2 CODES AND STANDARDS

- .1 Conform to the requirements of the 2012 Ontario Building Code, including all amendments to date, and any applicable acts of any authority having jurisdiction and the following:
 - .1 CAN/CSA A23.1-14/A23.2-14 - Concrete materials and methods of concrete construction / Test methods and standard practices for concrete
 - .2 CAN/CSA-A23.3-14 - Design of Concrete Structures
 - .3 CAN/CSA-A82.1-M87 (R2003) - Burned Clay Brick
 - .4 CSA A179-14: Mortar and Grout for Unit Masonry
 - .5 CSA A165 Series-14: Concrete Masonry Units
 - .6 CSA A371-14: Masonry Construction for Buildings
 - .7 CSA A370-14: Connectors for Masonry
 - .8 CSA S304.1-14: Masonry Design for Buildings

1.3 QUALIFICATIONS

- .1 All work shall be done by a Contractor who has at least five years of proven satisfactory experience.
- .2 Work of this section is to be performed only by qualified personnel specially trained for this type of work.
- .3 Use single masonry Contractor for all masonry work.

1.4 SUBMITTALS

- .1 Two weeks prior to the commencement of work, data sheets of the proposed mortar to illustrate the finish colour and the texture for approval by the Consultant and the Owner.

1.5 MOCK-UP

- .1 If requested by the Consultant and the Owner, construct a typical sample prior to commencing with the general work at a location agreed with the Consultant and the Owner to show the mortar colour and tooling.
 - .1 Upon receipt of written confirmation from the Consultant and the Owner, the sample installation may remain as part of the finished work.

1.6 DELIVERY, STORAGE AND PROTECTION

- .1 Store cementitious materials and aggregates in accordance with CSA Standard A23.1
- .2 Store mortar in a cool dry place so as not to be in contact with earth and to be protected from elements.
- .3 Keep the materials dry and protected from the weather, freezing and contamination.
- .4 Ensure that the labels and seals on all materials are intact upon delivery.
- .5 Remove rejected or contaminated materials from the site.

1.7 WARRANTY

- .1 The Contractor shall submit a warranty of the Work of this section covering a period of not less than five years from the date of Substantial Performance of the Contract. Substantial completion shall be determined by the Consultant and the Owner.
- .2 Defective work shall include, but is not limited to, cracking, crumbling, loss of adhesion, loss of cohesion, discolouration, premature deterioration and out of plane movement.

1.8 ENVIRONMENTAL REQUIREMENTS

- .1 All work shall be performed in strict accordance with manufacturer's written requirements for all products specified in the Specification.
- .2 Should a conflict arise between the requirements of this section and the manufacturer's requirements, the more stringent requirements shall govern.
- .3 Do not repoint mortar joints or repair masonry unless air temperatures are between 4°C and 27°C and will remain so for at least 48 hours after completion of work.
- .4 Prevent mortar used in repointing and repair work from staining face of surrounding masonry and other surfaces. Remove immediately mortar in contact with exposed masonry and other surfaces.
- .5 Protect sills, ledges and projections from mortar droppings.

1.9 EXISTING CONDITIONS

- .1 The decision to replace and repoint the existing masonry is based on cracked mortar joints, loose and spalled faces. Should any other masonry deterioration be detected during the execution of the Work that is unrelated to the noted visual defects, immediately inform the Consultant and the Owner.
- .2 Report, in writing to the Consultant and the Owner, any areas of deteriorated masonry revealed that are not a part of this work. Obtain the Consultant's and the Owner's approval and instruction for the repair and replacement of the masonry units before proceeding with the repair work.
- .3 Assist in the investigation of possible structural problems and report prior to commencing with the masonry work.

1.10 INSPECTION AND TESTING

- .1 Mortar testing shall be performed as required by the Consultant and the Owner.
- .2 Testing shall be performed by a certified testing agency in accordance with CSA A283, retained and paid for by the Owner and approved by the Consultant and the Owner.
- .3 Provide casual labour to the testing firm's field personnel for the purpose of obtaining and handling sample materials. Provide free access to all portions of the Work, and cooperate with the testing firm.

PART 2 PRODUCTS

2.1 CLAY BRICK MASONRY

- .1 New brick masonry to match the existing texture, size, colour and physical properties.
- .2 Acceptable manufacturer:
 - .1 Hanson Brick;
 - .2 Brampton Brock; or
 - .3 Approved alternate.
- .3 New brick masonry to conform to CAN/CSA-A82.1-M87 (R2003).

2.2 MASONRY MORTAR

- .1 Water: potable and free from contamination
- .2 Mortar: Custom coloured blend of Pozzolanitic lime, hydrated type S lime, an air entraining agent, and masonry sand. Follow the manufacturer's instruction for mixing procedure. Acceptable Material: PHL-500 by King Packaged Materials or approved alternative.

- .3 Use same manufacturer brands and suppliers for sources of mortar materials for entire project.
- .4 Equipment: All lime putty-based mortars shall be prepared in a mortar mill comprising a mortar pan with adjustable cast iron sprung rollers on a cranked roller shaft and with steel scrapers and blades. Acceptable equipment: Heritage mixer by GTA Supply Inc, Toronto or approved alternate.

2.3 Copper FLASHING

- .1 Copper Flashing: acceptable minimum weight is 16 oz.
- .2 Adhesive: self-adhering copper fabric flashing. Acceptable Material: Copper-Tuff™ SA by BLOK-LOK or approved alternate.
- .3 Fasteners: copper fasteners of sufficient length to provide a minimum 38 mm (1-1/2 in.) penetration into substrate.

2.4 Sealants

- .1 The Contractor shall obtain written confirmation of the sealant suitability for this project. A copy of this confirmation shall be forwarded to the Consultant and the Owner prior to commencing with the work of this section.
- .2 For joints at flashing: one-component, medium modulus, neutral-cure silicone rubber sealant. Acceptable Material: 795 Silicone by Dow, or Spectrem 2 by Tremco Ltd or approved alternate.
- .3 For brick masonry: one-component, low or medium modulus, neutral-cure silicone rubber sealant. Acceptable Material: 790 Silicon Sealant by Dow Corning, or Spectrem 2 by Tremco Ltd or approved alternate.

2.5 BRICK MASONRY TO STONE MASONRY TIE

- .1 The stone veneer is to be stabilized to the brick masonry back-up in a dry set manner.
- .2 Acceptable product:
 - .1 BL-345 Corrugated Buck Anchor, Stainless Steel, 12 gauge; or
 - .2 Approved alternate.

PART 3 EXECUTION

3.1 EXAMINATION

- .1 Verify that surfaces and conditions are ready to accept the work of this section.
- .2 Commencing with the installation means acceptance of the existing substrates by the Contractor.
- .3 The Contractor shall sound and identify all masonry wall areas covered under contract for deteriorated mortar.
- .4 Prior to commencing repairs, confirm cracked and broken brick locations and quantities with Consultant and the Owner.

3.2 PREPARATION

- .1 Protect adjacent finished materials from marking or damage due to the Work.
- .2 Supply, install, and maintain all necessary signage and protection in compliance with authorities having jurisdiction and to the approval of the Owner. Remove protection at the completion of the work as and when directed by the Owner.
- .3 Protect building and adjacent mechanical and electrical equipment from damage which might occur due to masonry work. Do not interfere with Owner's usage of adjacent areas and maintain safe access to these areas.
- .4 Seal and protect openings, including interior chimney opening, doors, windows and adjacent areas to minimize the potential for damage and the spread of dust, water or other materials into the building or adjacent sidewalks and properties.
- .5 Brace all openings to remain plumb.
- .6 Any part of the scaffolding or lifting equipment shall not directly bear against the masonry. The Contractor to provide any isolating materials required to prevent damage to the existing masonry and flooring.
- .7 Provide and install the safety devices and signs near the work area.

3.3 REMOVAL AND RE-STATEMENT OF STONE

- .1 Perform work as described in Section 01 11 13, Summary of Work, Item 2, paragraph 4 and 5 (Page 2).
- .2 Remove existing stones and store in secure location. Ensure stones are labeled for reinstatement to match existing pattern.
- .3 Bond, coursing and jointing to match the existing.
- .4 Ensure stone is plumb.

3.4 REPLACEMENT OF DETERIORATED BRICK

- .1 The brick is damaged or deteriorated when it is cracked, chipped, spalled or the outer face is hollow, detached or missing.

- .2 The Contractor shall mark the locations of masonry to be removed for verification by the Consultant and the Owner prior to commencing with the removal process.
- .3 The Contractor shall verify and monitor the brick replacement quantities at regular intervals during construction (i.e. 10%, 20%, 30%, etc.). In any area, should the amount of deteriorated brick rise above five percent of the quantity reviewed by the Consultant and the Owner, the Contractor must stop all work and notify the Consultant and the Owner immediately.
 - .1 The Contractor must obtain written approval from the Consultant and the Owner prior to replacing amounts of brick totaling above five percent of the approved quantity.
 - .2 If the Contractor proceeds above five percent without written approval from the Consultant and the Owner, payment will not be received for all brick quantities above five percent of the approved quantity.
- .4 The Contractor shall maintain the stability of the structure/masonry wall at all times. Provide all necessary access equipment and shoring to facilitate the brick replacement work. If more than three stacked bricks are removed, provide adequate shoring using post-shores or lumber to adequate support the veneer.
- .5 Bond, coursing and jointing to match the existing.
- .6 Immediately prior to placing the masonry, thoroughly wet the adjacent substrates in order to control absorption.
- .7 Allow water to soak into the masonry, leaving no standing water but remaining wet. Should the surfaces dry prior to pointing, the substrates should be wet again.
- .8 Set the brick in a full bed of mortar, true to line, and level with the adjacent units.
- .9 Tool the mortar joints flush to match the existing.
- .10 Slushing of the joints after the bricks are placed is not permitted.
- .11 In the summer, the bricks shall be thoroughly wetted for a period of three to twenty-four hours prior to use.
- .12 Full head joints shall be obtained by double buttering of the ends of each brick being installed.
- .13 Mortar joint thickness and brick coursing shall match the existing. Variation in the brick size shall be evenly distributed in the wall so that the size is consistent.
- .14 Feathered edges and mortar smears onto adjacent masonry surfaces are not acceptable.

3.5 POINTING OF JOINTS - MORTAR REMOVAL

- .1 Mortar is defective when it is cracked, spalled, chalked or otherwise crumbling.

- .2 Where mortar is found to be defective beyond the specified raking depth, the Contractor shall continue raking until solid mortar is encountered. Remove all loose mortar, dirt and other undesirable material.
- .3 Be aware that additional raking beyond specified depths will be necessary and that voiding can be expected. Back pointing will be required at these locations prior to repointing.
- .4 If masonry unseats or the bond is broken, remove the unit and reset in accordance with applicable Codes and Standards.
- .5 Tools and Techniques:
 - .1 Tools used for cutting out of the mortar joints shall be narrower than the joint.
 - .2 Cutting out of the joint shall be performed using hand and held rotary saws or any type of grinder or wheel is permitted.
 - .3 The joints shall be cleaned back for the full depth. All mortar should be removed on the masonry surfaces to a square surface of existing mortar at the back of the joint.
 - .4 All loose particles in the mortar joints shall be removed with compressed air and left open for review by the Consultant and the Owner.
- .6 Damage:
 - .1 The Contractor shall take all reasonable precautions in order to prevent damage to the masonry units resulting from the removal process.
 - .2 Such damage to the masonry includes but is not limited to the widening of the joints, nicks, gouges, and chipped or scratched surfaces from the cutting out tools due to improper workmanship.
 - .3 The Contractor shall replace or repair all damaged units to the satisfaction of the Consultant and the Owner with no change in the contract price or schedule.
- .7 Depth of Raking:
 - .1 The depth of the raking shall be carried out 2 to 2 ½ times the joint width, to a minimum depth of 25mm, as measured from the face of the masonry unit and beyond the existing depth of repointing.
 - .2 Mortar removal profile to be rectangular.

3.6 POINTING OF JOINTS - MORTAR INSTALLATION

- .1 Obtain the Consultant's and the Owner's written acceptance of raked out and back pointed work prior to commencing with the pointing operation.

- .2 Prevent the mortar from being placed or smeared on to the face of the masonry to minimize the potential for staining on the faces during the pointing.
- .3 Immediately prior to pointing, thoroughly wet the joints in order to control absorption.
- .4 Allow water to soak into masonry and mortar, leaving no standing water but remaining wet. Prior to pointing, the joints should be wet.
- .5 Fill all bed and head joints full with pointing mortar, compact joints firmly to ensure positive adhesion to all inner surfaces.
- .6 Thoroughly compact the mortar into the joints.
- .7 At initial set, finish neatly the joints to have a concave profile.
- .8 Keep the work area clean; remove all droppings as the work proceeds, and again at the end of each day.

3.7 FIELD QUALITY CONTROL

- .1 All shop and field materials and workmanship shall be subject to review by the Consultant and the Owner at all times. These reviews shall not relieve the Contractor from the obligations to provide materials conforming to all requirements of the contract documents.
- .2 Promptly remove any defective, damaged, or otherwise rejected material from the site. Installed materials which are damaged, or which in the opinion of the Consultant and the Owner do not conform to the contract documents, shall be removed and replaced with acceptable material at no additional cost to the Owner.

3.8 CLEANING

- .1 Clean masonry as work progresses using soft, clean cloths within few minutes after being placed. Upon completion, when mortar has set, so that it will not be damaged by cleaning, clean with soft sponge or brush and clean water. Polish with soft, clean cloths.
- .2 Clean masonry as work progresses. Allow mortar droppings on masonry to partially dry then remove by means of a trowel, followed by rubbing lightly with a masonry unit and brushing.
- .3 All holes in the mortar joints shall be filled with mortar and tooled.
- .4 Dry brush the masonry surfaces at the end of each day's work and after the final pointing.
- .5 Remove mortar smears and droppings from the surfaces after they have dried.
- .6 Clean the finished brickwork. Remove all mortar stains on any exposed brickwork and clean the masonry with low pressure clean water and a soft bristle brush.

- .7 Remove all equipment and materials from the site upon completion of the work. Surfaces damaged during the course of the work shall be replaced by the Contractor at no cost to the Owner.
- .8 Complete a thorough clean-up of the work area and affected locations upon completion of the work.

END OF SECTION 04 01 20



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Toronto ON M2J 5A9
Tel: (416) 635 9970
www.stephenson-eng.com
info@stephenson-eng.com

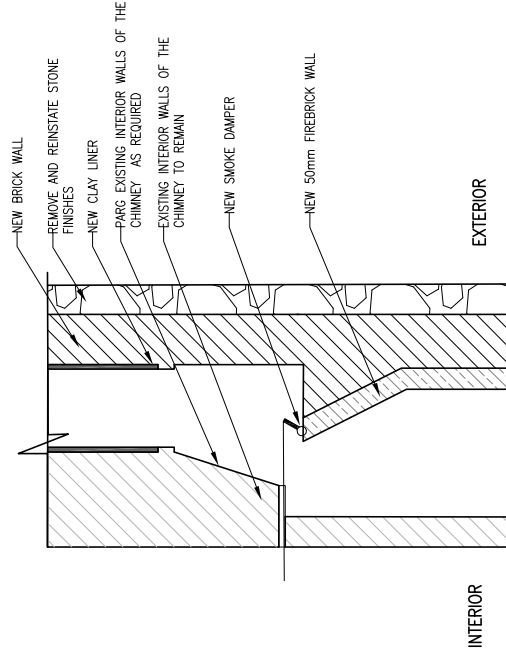
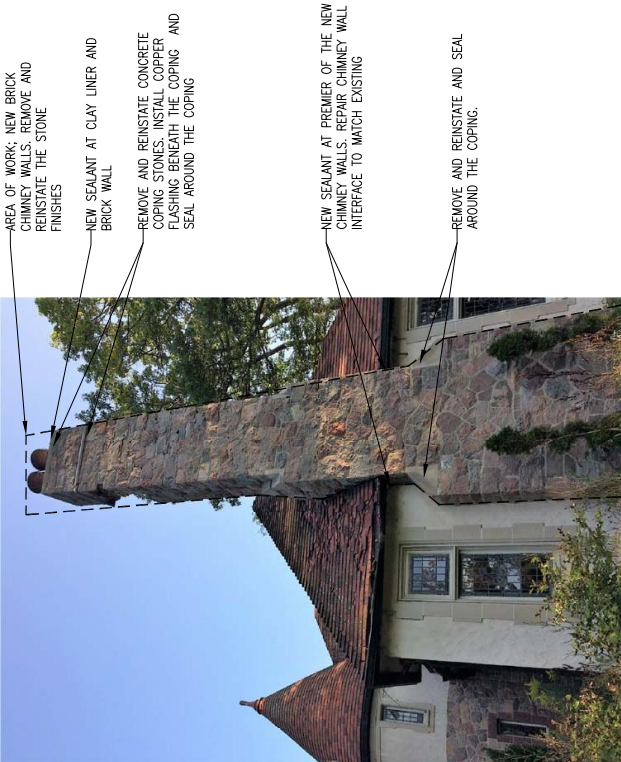
PROJECT

VALLEY HALLA SOUTH CHIMNEY REPAIRS
ELEVATION

Project No.	20181067
DATE	JULY 2018
BY	LA/PP
SHEET	A1

No.	Description	Date
1	ISSUED FOR CLIENT REVIEW	JUNE 2018
1	ISSUED FOR TENDER	JULY 2018

NOTES:
 CONTRACTOR IS RESPONSIBLE TO SITE VERIFY ALL SITE CONDITIONS PRIOR TO BIDDING, ORDERING, DELIVERY, AND INSTALLATION. CONTRACTOR SHALL EXAMINE THE SITE OF THE WORK COMPRISING THIS CONTRACT AND ASCERTAIN THE EXTENT AND NATURE OF THE WORK TO BE DONE, AND LIMITATIONS ON ACCESS AND WORKING CONDITIONS.

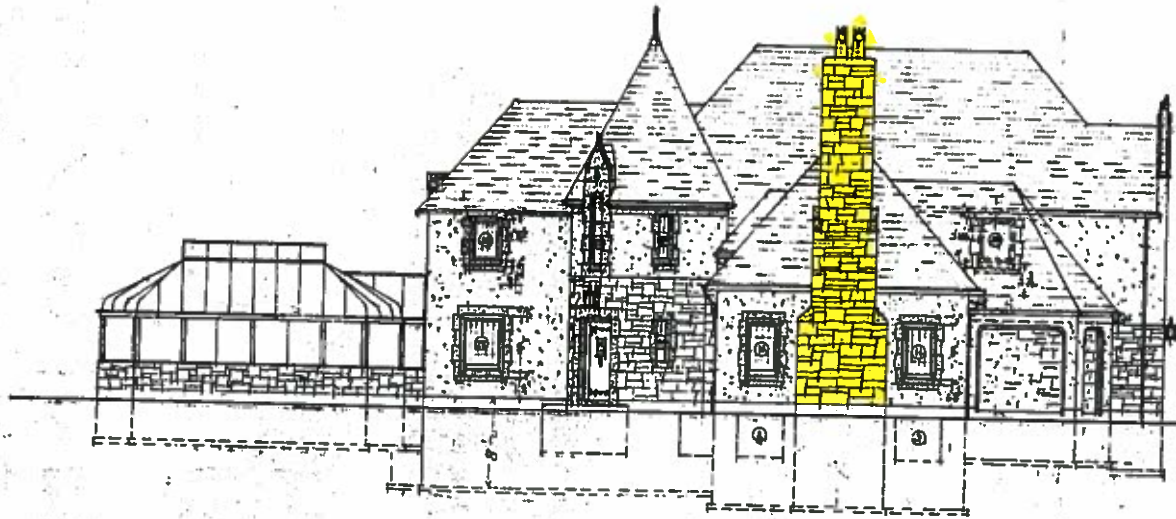


SCHEMATIC DETAIL FOR THE CHIMNEY

FRONT ELEVATION



SIDE ELEVATION



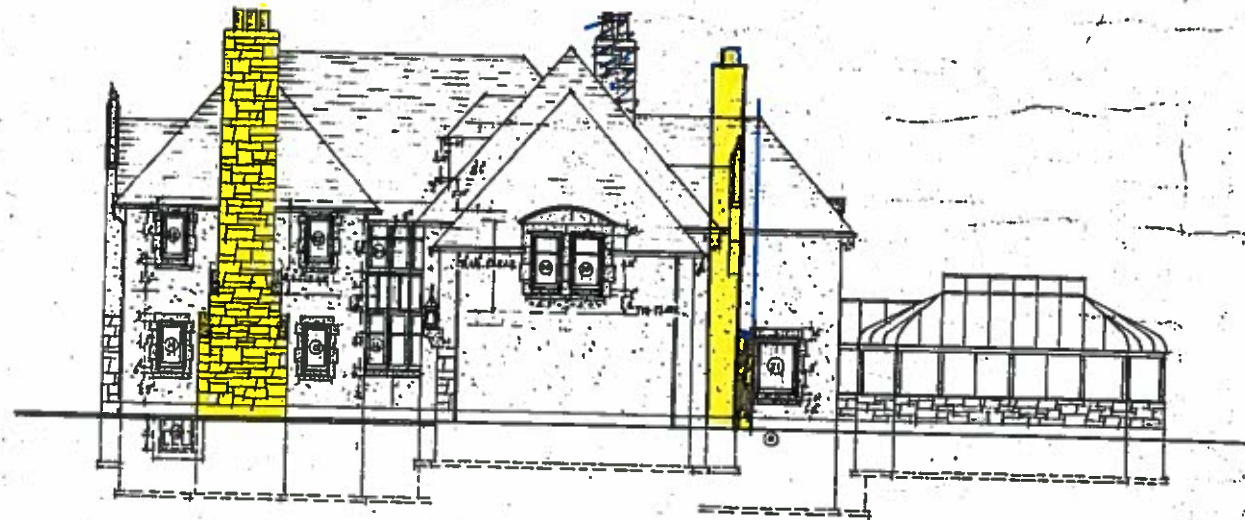
SOUTH ELEVATION



EAST ELEVATION



WEST ELEVATION



~~SOUTH~~ NORTH ELEVATION

RESIDENCE FOR DR. R. G. JACKSON	
CON. 3 / CARBORO	
SMITH & WRIGHT ARCHITECTS / M.M.R.A.C.	DATE 5:22 SHEET NO. 1
SCALE:	



A-D Engineering Group Ltd.

Office: 1201 Nicholson Road, Suite 200 Newmarket, ON L3Y 9C3
 905-898-3514 Toll Free 1-855-998-3514 FAX 905-898-1998
 Email: info@adengineering.ca www.adengineering.ca

NOTES: SCAFFOLD DESIGNED FOR 50 PSF LOADING, ONLY ONE LEVEL TO BE OCCUPIED AT A TIME. MATERIALS NOT TO BE STORED OR STAGED ON SCAFFOLD BAYS BUILT OFF OF EXISTING BUILDING ROOF.

SCAFFOLD NOT TO BE ENCLOSED IN TARP WITHOUT NOTIFYING ENGINEER; DESIGN REVISIONS REQUIRED IF SCAFFOLD IS TO BE TARPED.

No.	Description	Date

Project Name **ACCESS SCAFFOLDING**

Client **THE TORONTO ZOO**

Address **VALLEY HALLA ESTATE
SCARBOROUGH, ON**

Scale: DO NOT SCALE Date: MAY 24, 2018

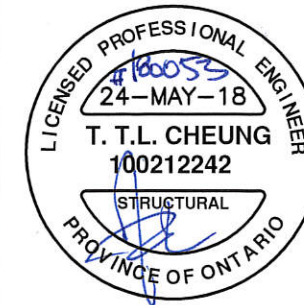
Designed: TC

Drawn: TC

Proj. Eng.: CJN

Approved: CJN

Sheet:

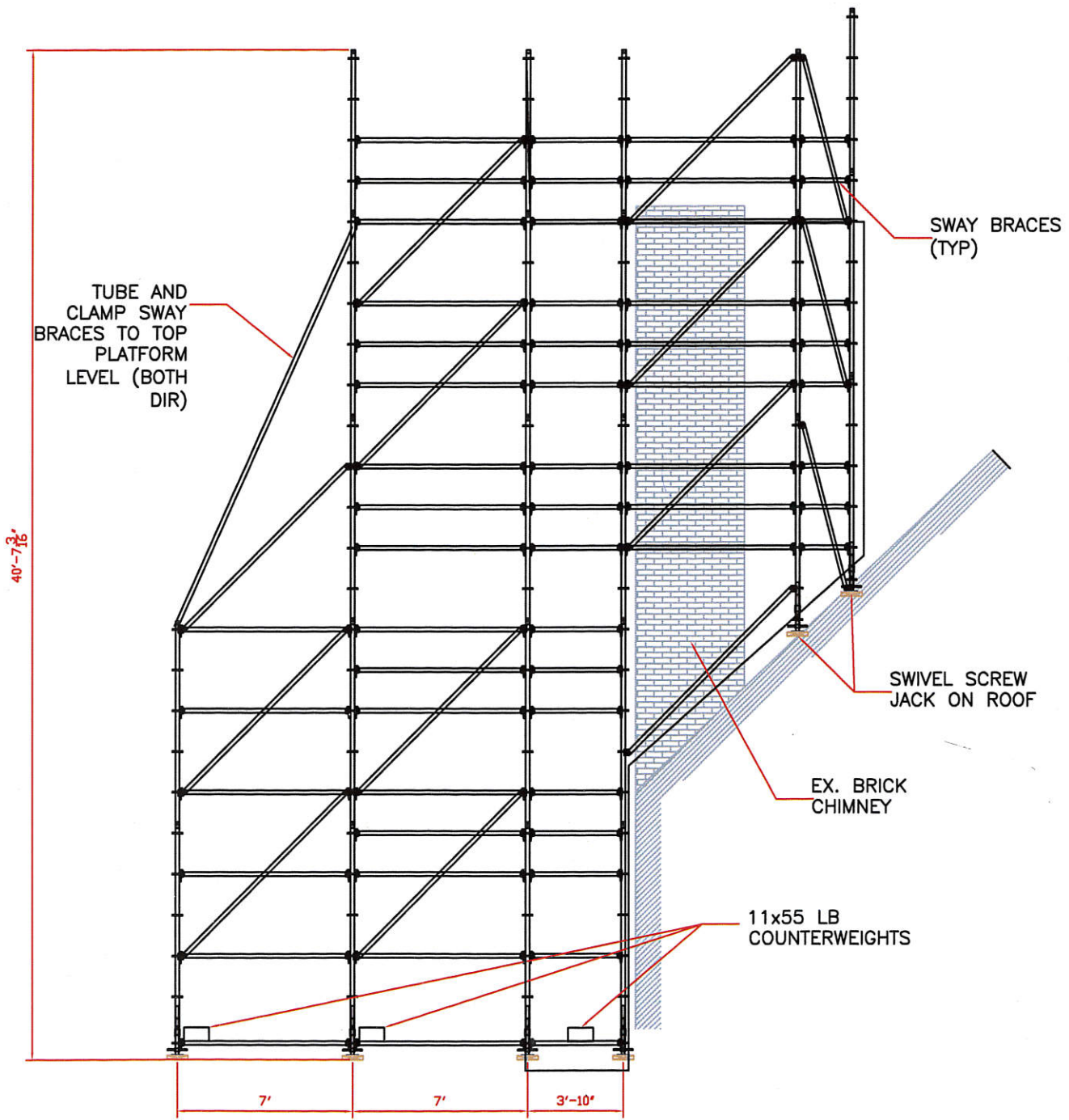


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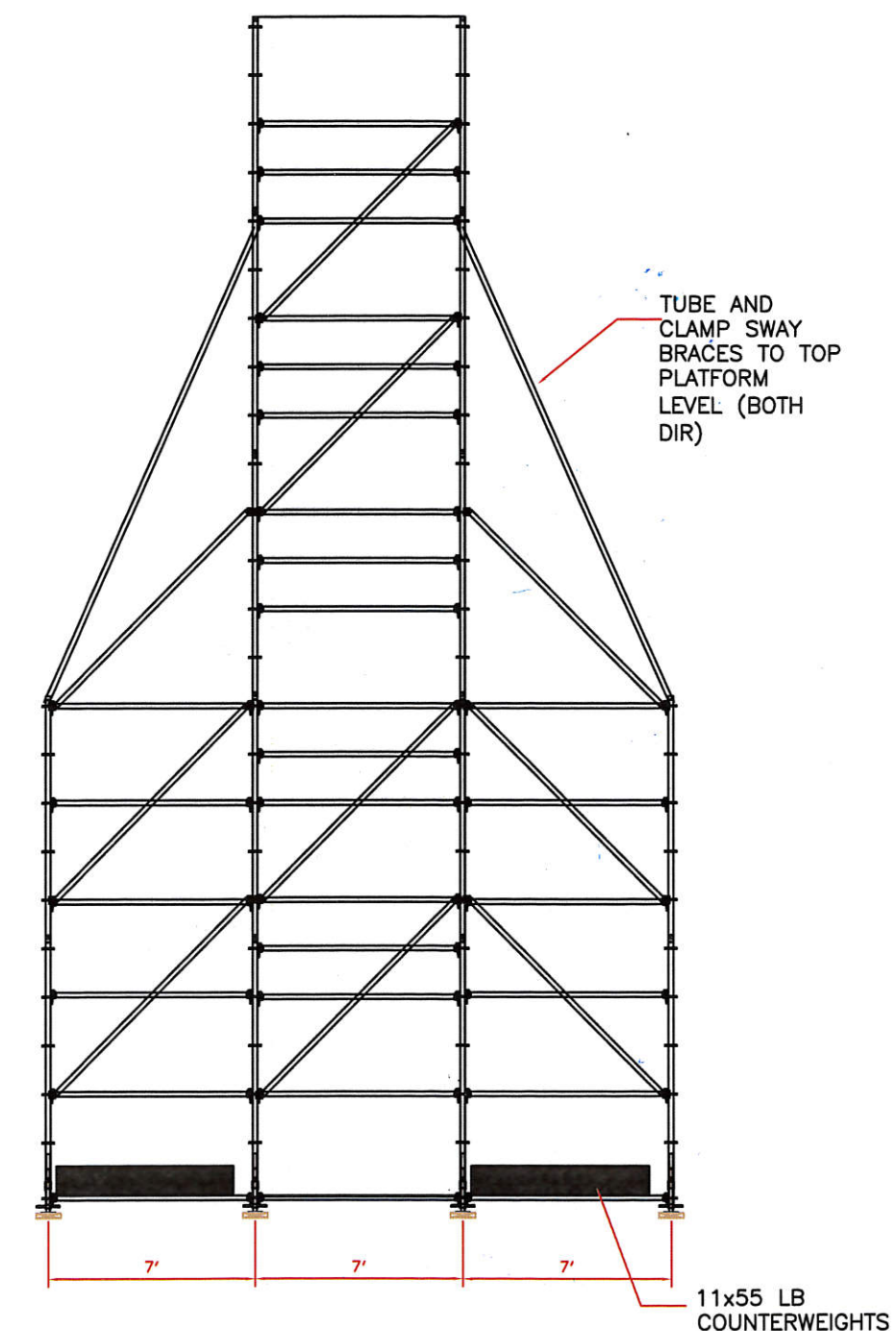
Title **SCAFFOLD SECTIONS**

Project Number

180053



1 SCAFFOLD SECTION
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2 SCAFFOLD PROFILE
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Consulting Engineers

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No.	Description	Date

Project Name ACCESS SCAFFOLDING

Client THE TORONTO ZOO

Address VALLEY HALLA ESTATE
SCARBOROUGH, ON

Scale: DO NOT SCALE **Date:** MAY 24, 2018

	Designed:	TC
	Drawn:	TC
	Proj. Eng.:	CJN
	Approved:	CJN
	Sheet:	SC-1

Title SCAFFOLD PLAN AND NOTES

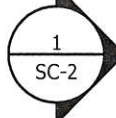
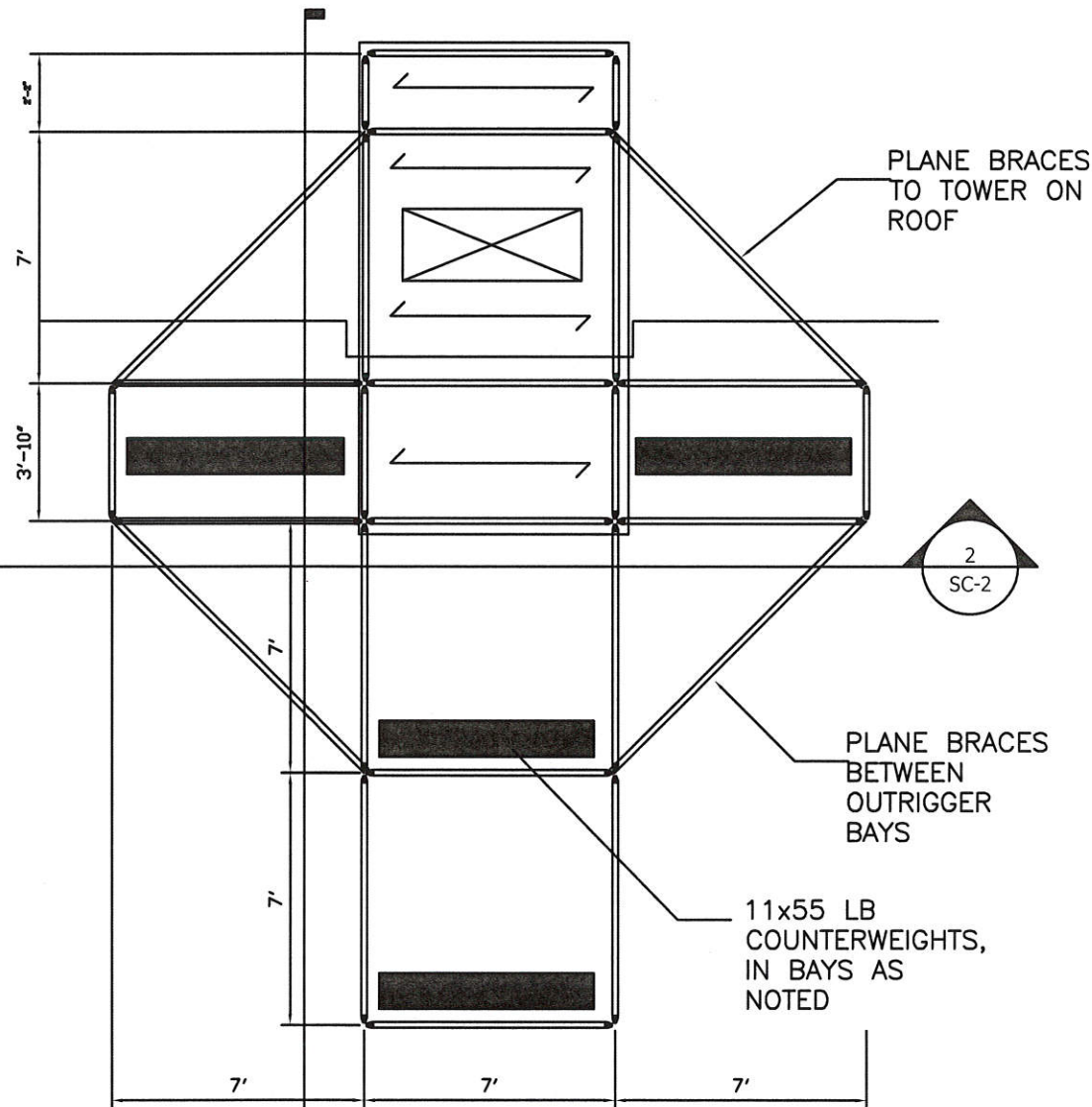
Project Number 180053

GENERAL

- USE ONLY THE LATEST ISSUES OF ANY GOVERNMENT CODES, STANDARDS, OR REGULATIONS MENTIONED IN THE FOLLOWING NOTES.
- EXCEPT WHERE NOTED OTHERWISE, PROVIDE ALL MATERIALS AND WORKMANSHIP IN ACCORDANCE WITH THE REQUIREMENTS OF THE ONTARIO BUILDING CODE (OBC) AND ITS LATEST REGULATIONS.
- CHECK ALL DIMENSIONS, LEVELS AND ELEVATIONS PROVIDED BY THE SCAFFOLD DRAWINGS WITH OTHER CONTRACT DOCUMENTS AND REPORT ANY INCONSISTENCIES TO THE ENGINEER BEFORE PROCEEDING WITH THE WORK.
- ALL DETAILS AND DIMENSIONS SHOWN REGARDING THE EXISTING STRUCTURE AND ITS LOCATION RELATIVE TO THE NEW STRUCTURE HAVE BEEN TAKEN FROM ORIGINAL DESIGN DRAWINGS FOR THE STRUCTURE. NO SHOP DRAWINGS FOR THE EXISTING STRUCTURAL ELEMENTS ARE AVAILABLE. VERIFY SITE CONDITIONS AND REPORT ANY DISCREPANCIES TO THE ENGINEER BEFORE PROCEEDING WITH THE WORK.
- VERIFY ALL DIMENSIONS AND REPORT ANY DISCREPANCIES TO THE ENGINEER BEFORE PROCEEDING WITH THE WORK. DO NOT SCALE THESE DRAWINGS.
- READ THE SCAFFOLD DRAWINGS IN CONJUNCTION WITH SPECIFICATIONS AND OTHER CONTRACT DRAWINGS.
- FOR DETAILS AND DIMENSIONS NOT GIVEN ON SCAFFOLD DRAWINGS SEE ARCHITECTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS.
- SPECIFIC NOTES AND DETAILS SHOWN ON THE SCAFFOLD DRAWINGS TAKE PRECEDENCE OVER THE GENERAL NOTES AND TYPICAL DETAILS.
- CO-ORDINATE WITH ALL OTHER TRADES WHERE SUCH TRADES AFFECT THE STRUCTURE.
- SAFEGUARD ALL EXISTING STRUCTURES AFFECTED BY THIS CONSTRUCTION. EXAMINE AND NOTE THE CONDITION OF EXISTING ADJACENT STRUCTURES BEFORE AND DURING CONSTRUCTION.
- THE STRUCTURAL DESIGN OF THE SCAFFOLD IS BASED ON THE FULL INTERACTION OF ALL ITS COMPONENT PARTS. NO PROVISIONS HAVE BEEN MADE FOR CONDITIONS OCCURRING DURING CONSTRUCTION. MAKE ADEQUATE PROVISIONS FOR CONSTRUCTION STRESSES AND FOR SUFFICIENT TEMPORARY BRACING AND SHORING TO KEEP THE STRUCTURE PLUMB AND LEVEL DURING ALL PHASES OF THE WORK.
- ALL DESIGN LOADINGS INDICATED ON THESE DRAWINGS ARE SPECIFIED (i.e. UNFACTORED SERVICE) LOADINGS UNLESS OTHERWISE INDICATED.

SCAFFOLDING

- SCAFFOLD MUST BE ERECTED PLUMB AND LEVEL IN ACCORDANCE WITH ACCEPTED GOOD PRACTICE. ALL ALUMINUM TUBING TO BE MINIMUM 1.9" O.D. X 0.2" WALL T6061-T6 MATERIAL.
- ALLOWANCE FOR CONSTRUCTION LOADS IS 25 PSF AT ALL WORK STATIONS (MEN AND THEIR TOOLS ONLY) UNLESS NOTED OTHERWISE.
- TIE SCAFFOLD ASSEMBLY TO BUILDING WALLS AS FOLLOWS:
 - 1.90" Ø X 0.20" WALL TUBING, WITH END PLATE,
 - 3/8" Ø BOLTS,
 - 3/8" Ø EYE BOLTS,
 - #9 WIRE TWIST TIES,
 - EXPANSION ANCHORS (3/8" Ø EXPANSION INSERTS), AND
 - CLAMP VANTHEIL OR EQUIVALENT (HORIZONTAL TUBES TO LEGS).
- COMPLY WITH THE OCCUPATIONAL HEALTH AND SAFETY ACT OF ONTARIO.
- SAFEGUARD ALL EXISTING STRUCTURES AFFECTED BY THIS CONSTRUCTION. EXAMINE AND NOTE THE CONDITION OF EXISTING AND ADJACENT STRUCTURES BEFORE AND DURING CONSTRUCTION.
- SCAFFOLDING COMPONENTS: TO CSA STANDARD S269.1-1975 "FALSEWORK FOR CONSTRUCTION PURPOSES."
- PLYWOOD: TO CSA STANDARD 0121-M78, 5/8" SPRUCE.
- MAKE GOOD ALL DAMAGES TO FINISHES AFFECTED BY THIS CONSTRUCTION.
- ALL LUMBER: NO. 1 GRADE (SPF), ROUGH (FULL SIZE).
- SCAFFOLDS: TO CSA STANDARD S269.2-M87 "ACCESS SCAFFOLDING FOR CONSTRUCTION PURPOSES".
- ALUMINUM DECK TO CSA STANDARD S157-M83.
- ALUMINUM BEAMS: 6 1/2" DEEP ALUMA BEAM BY ALUMA SYSTEMS OR APPROVED EQUIVALENT.
- AVOID USE OF TARPULINS; USE NETTING PROTECTION.
- MUD SILLS (2X10) TO BE USED UNDER SCREW JACKS UNLESS NOTED OTHERWISE.
- GRADE TO BE CORRECTED BY OTHERS WITH CRUSHED GRAVEL WHERE REQUIRED.
- ALL SCAFFOLDING AND ACCESSORIES MUST BE PROPERLY ATTACHED AND SECURELY FASTENER BEFORE USE.
- ALL ALUMINUM TUBING TO BE MINIMUM 1.9" O.D. X 0.20" WALL T6061-T6 MATERIAL.



1 PLAN VIEW
DO NOT SCALE





July 9, 2018

The Board of Management of the Toronto Zoo
361A Old Finch Ave, Toronto
M1B 5K7

Attention: Mr. Joshua Jaikaran

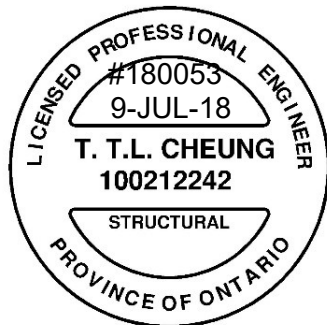
RE: ACCESS SCAFFOLDING
VALLEY HALLA, SCARBOROUGH, ONTARIO
OUR JOB NO. 180053

Dear Mr. Jaikaran:

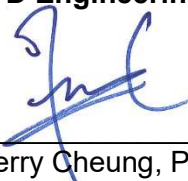
Following your instruction, we scheduled a visit to the Valley Halla Estate in Scarborough, Ontario during the afternoon of July 9, 2018 to conduct a review by random visual sampling of the scaffolding erected at the subject location. Applicable documentation also consists of our Drawing Nos. 180053-SC1 to SC2, dated May 24, 2018, and our previous report dated June 14, 2018.

The entirety of the scaffold had been erected at the time of our review. We were able to confirm during this site visit that the remaining items noted in our previous report dated June 14, 2018 had been provided. Please note that the scaffold is not to be enclosed with tarp or hoarding at this time, and that loading limits provided on the design drawings are to be followed. If the scaffold is to be enclosed with tarp in the future or any other sort of enclosure which would subject it to significant wind loading, additional components (either in the form of outrigger bays or additional counterweights) may be required to accommodate for this condition as we have determined that the scaffold should not be tied into the existing brick chimney.

Based on the terms of this report, we are satisfied that the subject scaffold installation is complete and that it complies with the structural design intent, drawing details, applicable regulations and standards, and good construction practice.



Yours very truly,
A-D Engineering Group Ltd.


Terry Cheung, P.Eng

THE CORPORATION OF THE
BOROUGH OF SCARBOROUGH

BY-LAW NUMBER 19130

to designate Valley Halla Villa, e/s Steeles Avenue East at the junction of Kirkhams Road and Meadowvale Road as being of historical and architectural value.

WHEREAS the Ontario Heritage Act, 1974, S.O. Chapter 122, authorizes the Council of a municipality to enact by-laws to designate a real property, including all the buildings and structures thereon, to be of historic or architectural value or interest; and

WHEREAS the Council of The Corporation of the Borough of Scarborough has caused to be served upon the owners of the lands and premises known as "Valley Halla Villa" on the e/s Steeles Avenue East at the Junction of Kirkhams Road and Meadowvale Road and upon the Ontario Heritage Foundation notice of intention to so designate the aforesaid real property and has caused such notice of intention to be published in a newspaper having a general circulation in the municipality once for each of three consecutive weeks; and

WHEREAS the reasons for designation are set out in Schedule "B" hereto; and

WHEREAS no notice of objection to the said proposed designation has been served upon the Clerk of the municipality;

THEREFORE, THE COUNCIL OF THE CORPORATION OF THE BOROUGH OF SCARBOROUGH ENACTS AS FOLLOWS:

1. There is designated as being of architectural value or interest the real property more particularly described in Schedule "A" hereto, known as the "Valley Halla Villa" on the east side Steeles Avenue East at the Junction of Kirkhams Road and Meadowvale Road.
2. The Borough Solicitor is hereby authorized to cause a copy of this by-law to be registered against the property described in Schedule "A" hereto in the proper land registry office.
3. The Borough Clerk is hereby authorized to cause a copy of this by-law to be served upon the owner of the aforesaid property and upon the Ontario Heritage Foundation and to cause notice of this by-law to be published in a newspaper having general circulation in the Borough of Scarborough.

FIRST, SECOND and THIRD readings, July 21st, 1980.

.....
Mayor

.....
Deputy Clerk

SCHEDULE "A" - By-law 19130

Legal Description: "Valley Halla Villa", e/s Steeles Avenue
East at the Junction of Kirkhams Road
and Meadowvale Road.

ALL AND SINGULAR that certain parcel or tract of land and
premises situate, lying and being in the Borough of Scarborough
in the Municipality of Metropolitan Toronto, being composed of
that part of Lot 4 in Concession III of the said Borough designated
as PART 1 on a Reference Plan deposited in the Registry Office for
the Registry Division of Toronto Boroughs and York South as 64R-
7774.

SCHEDULE "B" - By-law 19130

Reasons for the designation of "Valley Halla Villa" on the east side of Steeles Avenue East at the Junction of Kirkhams Road and Meadowvale Road.

"Valley Halla Villa" is an excellent example of a twentieth century villa built on a grand scale. Its variety of sheathing, numerous projections and irregularities of plan and roofline are characteristic of the Queen Anne Revival. Its detailing, however, hints of the Norman Revival style. Built by Dr. R. G. Jackson in 1936, it has a number of interesting features such as a solarium, a formal garden, stained glass windows, wrought iron fixtures and elaborate interior carving. Among its seventeen rooms is a two-storey ballroom with a minstrel's gallery. This extravagant villa is unlike any other to be found in Scarborough.

DATED July 21st, A. D. 1980.

THE CORPORATION OF THE BOROUGH
OF SCARBOROUGH

SCARBOROUGH 604604

REGISTRY DIVISION OF
TORONTO AND YORK
CERTIFY THAT THIS INSTRUMENT IS REGISTERED
OF..... 12.43..... AM
AUG 1 1980 IN THE

Registry Office
Toronto,
Ontario.

[Signature]
LAND REGISTRAR

BY-LAW NUMBER 19130

74

Law Department
The Corporation of the Borough of
Scarborough,
150 Borough Drive,
SCARBOROUGH, Ontario,
M1P 4N7.

3-165

THE CORPORATION OF THE
BOROUGH OF SCARBOROUGH

BY-LAW NUMBER 19130

to designate Valley Halla Villa, e/s Steeles Avenue East at the junction of Kirkhams Road and Meadowvale Road as being of historical and architectural value.

WHEREAS the Ontario Heritage Act, 1974, S.O. Chapter 122, authorizes the Council of a municipality to enact by-laws to designate a real property, including all the buildings and structures thereon, to be of historic or architectural value or interest; and

WHEREAS the Council of The Corporation of the Borough of Scarborough has caused to be served upon the owners of the lands and premises known as "Valley Halla Villa" on the e/s Steeles Avenue East at the Junction of Kirkhams Road and Meadowvale Road and upon the Ontario Heritage Foundation notice of intention to so designate the aforesaid real property and has caused such notice of intention to be published in a newspaper having a general circulation in the municipality once for each of three consecutive weeks; and

WHEREAS the reasons for designation are set out in Schedule "B" hereto; and

WHEREAS no notice of objection to the said proposed designation has been served upon the Clerk of the municipality;

THEREFORE, THE COUNCIL OF THE CORPORATION OF THE BOROUGH OF SCARBOROUGH ENACTS AS FOLLOWS:

1. There is designated as being of architectural value or interest the real property more particularly described in Schedule "A" hereto, known as the "Valley Halla Villa" on the east side Steeles Avenue East at the Junction of Kirkhams Road and Meadowvale Road.
2. The Borough Solicitor is hereby authorized to cause a copy of this by-law to be registered against the property described in Schedule "A" hereto in the proper land registry office.
3. The Borough Clerk is hereby authorized to cause a copy of this by-law to be served upon the owner of the aforesaid property and upon the Ontario Heritage Foundation and to cause notice of this by-law to be published in a newspaper having general circulation in the Borough of Scarborough.

FIRST, SECOND and THIRD readings, July 21st, 1980.



[Signature]
.....
Mayor
[Signature]
.....
Deputy Clerk

SCHEDULE "A" - By-law 19130

Legal Description: "Valley Halla Villa", e/s Steeles Avenue
East at the Junction of Kirkhams Road
and Meadowvale Road.

ALL AND SINGULAR that certain parcel or tract of land and
premises situate, lying and being in the Borough of Scarborough
in the Municipality of Metropolitan Toronto, being composed of
that part of Lot 4 in Concession III of the said Borough designated
as PART 1 on a Reference Plan deposited in the Registry Office for
the Registry Division of Toronto Boroughs and York South as 64R-
7774.

SCHEDULE "B" - By-law 19130

Reasons for the designation of "Valley Halla Villa" on the east side of Steeles Avenue East at the Junction of Kirkhams Road and Meadowvale Road.

"Valley Halla Villa" is an excellent example of a twentieth century villa built on a grand scale. Its variety of sheathing, numerous projections and irregularities of plan and roofline are characteristic of the Queen Anne Revival. Its detailing, however, hints of the Norman Revival style. Built by Dr. R. G. Jackson in 1936, it has a number of interesting features such as a solarium, a formal garden, stained glass windows, wrought iron fixtures and elaborate interior carving. Among its seventeen rooms is a two-storey ballroom with a minstrel's gallery. This extravagant villa is unlike any other to be found in Scarborough.



NORTH CHIMNEY



NORTH CHIMNEY



SOUTH CHIMNEY



SOUTH CHIMNEY



SOUTH CHIMNEY



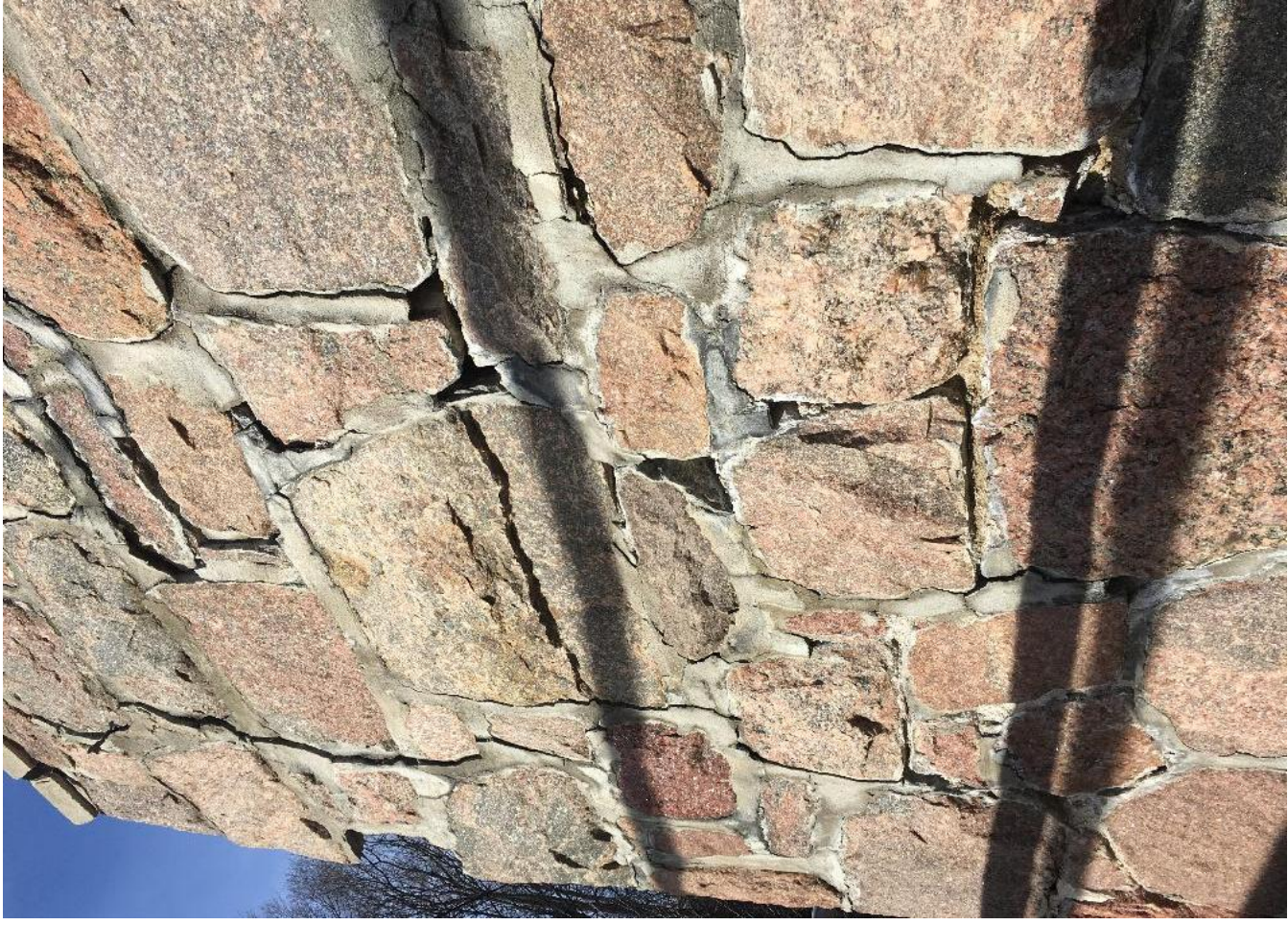
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WEST CHIMNEY