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November 15, 2007

MH ref: 5075133.01

The Owners, VR 334
2482 Point Grey Road
Vancouver, B.C.
c/o Lisa D'Angelo,

FILE COPY

email, regional@shawbiz.ca.

Dear Ms. D'Angelo

Re: Building Envelope Consulting Services
Rehabilitation of northwest corner of the building wall areas

We understand that following the recommendation from our letter report dated March 1, 2007 and subsequent review of the windows as per letter report dated April 4, 2007, the Strata wish to proceed with retaining our services to undertake the rehabilitation of your building. We have set out below a scope of services and the steps necessary to achieve this objective, together with the fees and expenses associated with our involvement.

Background

The building is a small four-unit condominium building on a site that slopes from the south (two storey) to the north (three storey) and is approximately 20 years old. The building has no roof overhang and as such is highly exposed to window driven rain. The cladding on most of the walls and the balcony soffit is an extruded aluminum siding that provides a space behind the exposed face of the siding. The material is interlocking and fasteners are hidden by the installation of each subsequent siding piece. Main floor wall cladding of the east and west elevations and the large chimney at the north are constructed of small brick.

During our secondary review of the windows, we noted that all the original glazing consists of non-thermally broken aluminum framed windows and patio doors. Most of the windows are single glazing but the large units at the north elevation appear to be similar to the patio doors and have insulating glass units (IGU). All of the patio doors have IGUs. Suite 2478 has newer commercial glazing installed as part of a renovation at the grade level patio area.

Conclusions and Recommendations from our review

Deterioration to the north elevation wall (west side of chimney) requires repair to this entire wall between the balcony and chimney.

The remaining windows (other than those at the northwest corner) have been installed as per windows of similar age (approximately 30 years old). We found one window at the west elevation, (2484, kitchen window) where deterioration is evident in the framing and GWB. This window will require repairs.

In summary, damage appears to be localized mainly to one window. It was recommended that the Strata consider changing these windows to new units that will provide improved performance. Repairs to the remaining windows are not required but may be necessary in the future. We would recommend the Strata consider upgrading by replacing all windows with new units and improved waterproofing details. This would improve energy efficiency and reduce the risk of any further water ingress problems.

Scope of Services

Repair alternatives were provided to the Strata (in our previous letter) and this proposal is for the first option:

> *Engage the services of a consulting engineering firm to design, tender and oversee the work. Consulting costs for smaller repair projects are proportionally higher but MH will provide proven design solutions and ensure work is performed properly. Our involvement translates to less risk for the Strata.*

For the purposes of this proposal we have included the following scope of work as identified by our reports and the owners' representative:

- Remove and Replace the exterior wall assembly, windows etc. to the entire north elevation wall between the balcony and chimney. The replacement wall assembly will be a metal panel (to match existing) rain-screen wall system. In addition, the windows in this elevation and the unit 2484, kitchen window will be replaced with better performing units with waterproofed rough openings and rain-screen characteristics. The latter (unit 2484) will require some localized repairs to the damage of the framing and interior drywall. This proposal does not contemplate a full window replacement to the remaining windows.

- Remove siding/flashing in balcony area (at the north elevation) to allow installation of deck and curb waterproofing with improved detailing at transitions and penetrations.

  Because of the damage found at other balconies we would recommend the owners consider balcony repairs at the other suites. Balcony repairs would address the majority of the problems observed at the building, however this is an optional service as quoted in the fees section.

- Our proposal does not include for any involvement with respect to architectural changes. Changing the appearance of building by using different claddings other than the metal siding will likely require approval from the planning department at the City of Vancouver and will require additional architectural services. While not included in our proposal, we have provided this as an optional service if the strata is interested in this or any other architectural changes.

- Also, our proposal assumes that the project will be a lump sum contract with a general contractor. There are other project delivery methods including negotiated price, time and

material to an upset maximum price, construction management, and project management. The advantages and disadvantages of each of these options can be discussed with the strata during the design stage of the project.

The stages of the project will proceed in the order presented below. Close communication with the owners must be maintained throughout the entire process to enable accurate execution of the owners' expectations. This communication link must be established early in the project and must be effective in answering the needs of the design team quickly and accurately.

Phase 1: Design Phase

.1 Design Parameters

We will meet with the Strata Council to establish the design parameters and objectives, including the current performance requirements, occupant needs, and whether additional windows or balconies are to be included in the scope. Retrofit work is often a task of compromises where each decision has significant effect on budget and performance. These compromises reflect the fact the complex has already been built and there are many limitations placed on the retrofit design team due to existing details, design and constructed elements that cannot be changed. MH will assist the owners in establishing priorities, methods for repair, materials to be considered and outline the durability and any possible limitations of various options.

.2 Drawings and Specifications

Once basic design elements have been established, MH will prepare a series of conceptual design documents. Due to the relatively small scope, it is not cost-efficient to prepare comprehensive design drawings. Retrofit design is challenging due to the many unknowns in the process; the primary task for the design team is to enable the contractors to tender on the essential waterproofing details that are typical to wood frame buildings. For this phase we propose the following scope of services:

1. Prepare working elevation and plan drawings of the regions of the complex, which will be included in the retrofit and identify the actual areas where work is to be performed. The original design documents will be utilized for this purpose but these will need to be supplemented with CAD key plans and references to original design elevations. The extent of the retrofit is clearly shown on the drawings and the quantity of envelope elements is identified or estimated.

2. Prepare detail drawings that establish the principals of how each area is to be repaired and present these details in a concise package that can be extrapolated for similar conditions. The unknown requirements, such as structural members requiring replacement due to deterioration, are tendered as unit costs, which allow adjustment up or down from the estimated allowance during the course of construction.

3. When the drawings and specifications are 75% complete we believe it is prudent to provide the Strata with an updated budget that reflects the proposed scope of work contained in the construction documents.

4. Prepare the specifications, in conjunction with the drawings, which provide a written description of each component of the work. This includes *Instructions to Bidders*, the *Scope of Work*, the *General Requirements* (which include such issues as site requirements, insurance, safety, bonding, site protection, hours of work, clean-up and warranty requirements) and the various technical sections of the work.

5. Prepare the tender package, which includes all of the design components described above together with a *Bid Form* for the submission of the fixed prices, unit prices, cash allowances and separate prices to be part of the contract. We recommend the CCDC form of contract, which would be executed by the owners and the successful contractor.

.3 Tender Period and Bid Documents

The owners are well advised to allow a minimum contingency of 20% of the contract price to accommodate the unforeseen site conditions of retrofit work. For this stage we propose the following scope of services:

1. Issue the tender package, upon approval by the owners, to a pre-qualified list of contractors (i.e., 3 to 5 contractors). We understand the strata have already received interest from contractors willing to bid the project. As long as the contractor has experience in rehabilitation work we are pleased to entertain the strata's referred contractors, particularly since the project is relatively small in a market that is extremely busy and may not create much interest in fairly pricing the project.

2. Organize and lead a contractor(s') meeting at the site prior to tender closing.

3. Issue addenda, as required, clarifying bidder(s') queries so that bidder(s) gain a full understanding of the project.

4. Receive bids or "preferred contractor" quotation at our office and analyze submitted bid(s).

A package of bid documents includes all of the design components described above together with a *Bid Form* for the submission of the fixed prices, unit prices, cash allowances and separate prices to be part of the contract. We recommend the CCDC form of contract, which is the most commonly used form of agreement between owner and trade contractors for major construction and restoration projects.

.4 Contract Award

The submitted bid documents will be analyzed and a recommendation for award of contract will be made to the owner. A letter of intent will then be issued by the owners' to the contractor, which will be followed up with the execution of the CCDC-2 contract. Typically, the contractor will begin to mobilize its forces upon receipt of the letter of intent with the understanding that the contract will be in place prior to the commencement of the work.

PHASE 2: Construction

Once the contract is executed, our role will be limited to a number of site visits in order for the consultant to assess that the requirements of the design are adhered to during construction. Note that, according to the terms of the contract with the successful bidder, the work plan and schedule are developed by the contractor. The consultant's task is to assess progress of the work according to the schedule and to assess causes for deviations from schedule.

The following is a summary of the work undertaken by MH during this phase of the project:

.1 Field Review

MH will carry out sufficient field review of the work, as outlined in AIBC/APEG Guidelines for professional practice with respect to basic Building Envelope Professional Services. The field reviewer is there to assist the owner and the contractor in checking that the work proceeds in general conformance with the contract documents.

.2 Contract Administration

Administrative services will be kept to a minimum covering the following specific duties:

1. Review of construction progress through periodic site review to ensure general conformity with contract documents.
2. Maintain a site visit database supported by photographic records.
3. Review and approve window shop drawings.
4. Review progress draws and issue Certificates of Payment.
5. Prepare Substantial Performance Certificates.
6. Prepare a detailed outstanding deficiency list at the time of Substantial Performance and follow-up with satisfactory rectification.

Phase 3: Post Construction

MH will maintain a close relationship with the owner and general contractor for a smooth and proper completion of the project. MH can provide a maintenance manual and a warranty inspection two years after substantial completion of the project (cost option provided in Fees & Expenses).

.3 Project Schedule

The project schedule can be adjusted to suit the needs of the owners. It is reasonable to expect a project of the magnitude contemplated for this building to take in the order of **two to four months** from the initial contractor mobilization stages through to the completion of the retrofit work.

FEES & EXPENSES

MH would be pleased to enter into an agreement with the Owners of Strata Corporation VR 334 upon the following terms. For the purposes of this proposal, we have assumed a fixed fee for Phase 1 and a fee based on a site visit allowance during construction for Phase 2. Please note that all fees are exclusive of GST.

Our proposed fee for the pre-design brief, as outlined above is **$ 2,500.00** plus GST, which includes our anticipated expenses.

Phase 1: Design

The fee for undertaking design services through to finalizing the construction package and award of contract will be **$10,000.00** including expenses, plus GST. This fee is based on the assumption of replacing the windows at the northwest wall area, unit 2484 kitchen window and the two northwest balconies.

The optional inclusion of replacement of all windows for the complete building and/or complete balcony repairs will be undertaken on time and expense (in accordance with the attached Fee schedule) until such point that the scope is pinned down, at which time we will provide an additional services proposal.

Phase 2: Contract Administration and Field Review during Construction

Our fees for this phase of the project will depend on the contractor's duration to complete the scope. We recommend that a budget for our involvement in this phase is based on a cost per site visit to review construction progress. In our experience the average cost for a person to visit the site (incl. travel time), write a report and answer contractor's queries and report to the engineer of record any significant findings is $850 per visit. We propose a site visit allowance of 6 visits to evaluate contract compliance (approximately 2 visits per month for a 3 month construction schedule) at a **budget cost of $7,650** plus GST.

Included in this budget are three (3) structural reviews to assess frame damage that will need to be cut out and re-framed. Also included in the budget cost is contract administration related activities noted above over the 3 month construction period.

If the scope of repairs increases, such as expanding the replacement of windows or complete balcony repairs, or if the framing replacement requires additional review, then the construction schedule will extend and any additional site visits will be billed at the unit allowance of $850 per site visit.

Phase 3: Post Construction

The fee option of providing a maintenance manual for the building envelope rehabilitated elements is $4,000.00 including expenses.

A warranty inspection can be carried out prior to the end of the contractor's warranty period (two years after issuing the Substantial Performance Certificate for the project), on a time and expense basis.

Insurance and Other Requirements

Morrison Hershfield Limited carries Professional Liability Insurance coverage in the per claim and aggregate amount of $2,000,000. A certificate attesting to that coverage is available from our insurers upon request.

This proposal is open for acceptance for 90 days. The Goods and Services Tax (GST) will be added to the above fees and will be shown as a separate item on our invoices. Invoices will be submitted to you monthly and/or at the conclusion of stages. Payment is due within 30 days of this invoice date. We will conform and enforce strict compliance with the Occupational Health and Safety Act at all times when engaged in the work.

We will be pleased to keep the contract simple (as a reflection of the small scope of repairs) and attach an "Authorization to Proceed" for your signature, which along with this scope of services letter and the Standard Terms & Rates will form the basis of our Contract and retainer.

If you have any questions concerning the above information or if you wish that we provide additional services, please do not hesitate to contact our office at 604-454-0402.

Yours very truly,
Morrison Hershfield Limited

R. F. Taylor

Richard F. Taylor, MRAIC
Principal

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AUTHORIZATION TO PROCEED

This proposal to provide consulting engineering services in connection with a Building Envelope Rehabilitation at Point Grey Road, VR 334, Vancouver, B.C. is accepted. Morrison Hershfield Limited is hereby authorized by VR 334 to provide the services as outlined in the proposal dated November 14, 2007.

The following **Base Services** are included with optional services as outlined in the proposal:

Pre-design Brief	$ 2,500.00	☐
Tender Documents & Award	$10,000.00	☐
Field Review & Construction Admin.	$ 7,650.00 (budget allowance: $850/visit)	☐
Optional Services:		
Architectural Services (material changes requiring City of Vancouver approval)	Time & Expense	☐
Additional Windows or Balconies	T & E (scope to be defined for fixed fee)	☐
Post Construction Maintenance Manual	$ 4,000.00	☐
Extended Construction Review	$ 850.00 per site visit	☐

Note: All fees exclude GST.

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Client (Print)

_____ _____

Signing Officer (Print) Signature

_____ _____

Position Date

Thank you for retaining Morrison Hershfield Limited for the above noted project. Please sign and date this authorization and return via facsimile to 604-454-0403. Please keep the original for your records.

APPENDIX A:

Standard Rate Schedules and Terms