

# RDH |Building Engineering Ltd.

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To The Owners, Strata Plan LMS 4456

c/o Mr Bruce Gleig

938 Nelson Street Vancouver, BC. V6Z 3A7

2324.70 - One Wall Centre **Glazing Rehabilitation** 

December 9, 2010

EMAIL gleigs@gmail.com

# REGARDING Construction Management Services - Glazing Replacement Program

Dear Bruce,

I was recently asked to take a look at the proposed glazing replacement program at One Wall Centre. As you know, our construction managed group has a lot of experience managing large cladding replacement projects and this expertise allows us to view problems from many different perspectives.

The glazing replacement work that has been done to date has utilized the built-in swing stage equipment on the roof of the building to replace units that have failed, as a result the work to date has been been piecemeal and inefficient. The concept of using swing stages to transport men and materials, and to serve as a work platform, is simply not appropriate for a glazing replacement program of the magnitude proposed for One Wall Centre. Swing stages are much too susceptible to wind and weather. Proceeding in this manner would make the process too unreliable, very inefficient, potentially unsafe, and expensive. The key to minimizing costs on this project will be to have the right contractors involved plus good access and efficient material movement.

Up to this point in time solutions have focused on finding glazing contractors that can perform all of the work. However, this project is very unique and it requires input and expertise from a number of specialty trades that individual glazing contractors don't possess. For instance, there are good glazing contractors available that can offer very good prices to replace the sealed units, but they have no knowledge of access systems or material handling, and they're not comfortable beyond their area of expertise.

Drawing on our experience managing similar work we've devised an implementation concept that will result in a significant savings over current budgets and a significant decrease in the proposed schedule. We don't want to raise expectations unrealistically, however, preliminary work on this concept suggests that we could cut existing construction budgets for the proposed work on the residential units in the order of \$2.5 million, and reduce the duration of work on site to 6 or 7 months.

Our concept, therefore, involves integrating the services of different firms for different facets of the work, each with a specialty skill, the right experience, and the right knowhow. The work of

these specialty trade contractors can be managed effectively under our conventional construction management program.

The other issue that we've questioned is the probability that the proposed window replacement program will trigger the requirement for compliance with the Building Envelope Renovation Regulations of the Homeowner Protection Act. If this is the case, the firm managing the work will need to be a Registered Building Envelope Renovator and provide warranty coverage. We doubt that any of the glazing contractors capable of undertaking this work meet these requirements however the RDH construction managed projects are fully compliant and we can offer bring Aon's 10-year warranty to the table.

At this point in time RDH has been retained to provide engineering services which do not include construction management support. We have a promising concept however it needs to be fully developed and vetted before we can confirm its viability and cost. We propose that RDH be retained to provide pre-construction, construction management services so that we can confirm the viability of our implementation concepts. The fees for this portion of the work are quite modest however the potential impact to the project can be quite significant. Brian Hubbs has mentioned that it may be possible to divert some of the existing engineering budget to this purpose if Bruno Wall takes over the applications to the city and production of architectural renderings.

In addition to the typical pre-construction services we provide as construction managers (as identified on page 7), specific goals we'd like to achieve at this stage include:

- Explore access and material handling options
- Confirm viability of access systems
- Confirm viability of material handling concepts
- Develop an efficient and cost-effective implementation strategy
- Discuss concepts with select trade contractors to confirm viability and budgets
- Refine and reduce the construction schedule
- Refine and reduce construction budgets
- Confirm the availability of Aon's 10-year third party warranty for this work
- Provide the owners with the information required to make the necessary decisions
- Provide the owners with more accurate costing information that can form the basis of settlement negotiations

We know that many people are familiar with the construction managed work that RDH has undertaken over the past decade. We've led the industry in this work having been retained on many high-profile and challenging projects like the \$28million rehabilitation of Governors Towers and Villas, and our recent rehabilitation of the Sheraton Guildford Hotel which remained in full operation during our work.

For those interested in more information about construction management, how it works, the advantages of the process, and information on similar projects we've included the following sections of this proposal.

Generally speaking, once the need for building enclosure rehabilitation work is confirmed there are a couple of options available to implement the construction work. Perhaps the best known option is a 'traditional approach' in which the owners hire a general contractor to perform the construction services on site. The other option that has proven to be quite efficient and effective, is to implement the work using a 'construction management' approach. Both methods have their place and RDH is pleased to work with owners using either approach. Following is a brief description of the two approaches as they apply to building envelope rehabilitation work.

In the traditional approach the owners retain a consultant to investigate the problems, design the repair work, and provide field review services during construction. The actual construction work is tendered to general contractors that have a demonstrated ability to perform the work. In this scenario the owners contracts directly with both the consultant and the general contractor while the actual work is done by trade contractors hired independently by the general contractor. Figure 1 below shows this arrangement graphically.

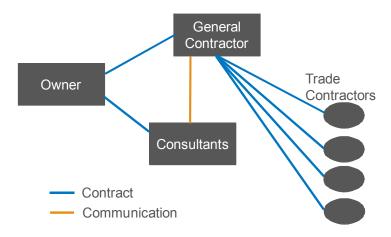


Figure 1 TRADITIONAL APPROACH

The other option is to implement the work using a construction management process. Generally speaking, once a significant building enclosure problem has been confirmed through the initial investigation, and the design of the rehabilitation is being developed, the owners can retain a construction manager to act as their agent in the coordination and management of the rehabilitation process. Construction management services also typically include tendering the work directly to trade contractors and managing construction activities on site instead of tendering the work to general contractors. Over the past several years this approach to project implementation has been very successful and it has quickly become preferred by our many clients. Figure 2 below shows this arrangement graphically.

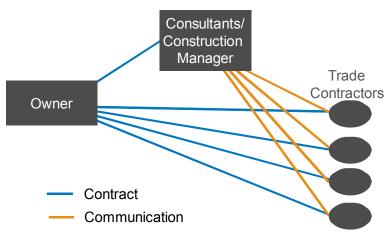


Figure 2 CONSTRUCTION MANAGEMENT APPROACH

One Wall Centre is quite different than many other buildings. Not only is the scope of the rehabilitation program quite unique, but the design of the building itself presents some interesting logistical challenges. In addition, access and material handling problems are going to require some innovative solutions. More than most, the owners of One Wall Centre can benefit significantly from a comprehensive construction management program and the knowledge we have gained from managing similar work. In the following sections of this document we will explain why this is so.

In the construction-managed program, virtually all of the administrative, supervisory, and management functions necessary to implement the construction process are handled by RDH construction managers. Our agreement with the owners includes comprehensive construction management services and expressly includes making arrangements for the provision of all necessary temporary facilities. An RDH manager is on site full time to coordinate the work of the trade contractors, review the work of the trade contractors, manage the process, deal with issues that arise, and act as an advocate for the owner's interests. A formal cost control program is implemented with regular reporting to the owners. There is no significant increase in the amount of effort or management required by the owners to implement this process. In fact, we find that our construction-managed projects reduce the level of owner involvement in many respects.

RDH specializes in providing construction management services for high rise projects like One Wall Centre. Our management team consists of specialists that have built or repaired many significant buildings in the Lower Mainland. This form of construction implementation is justifiably quite popular with our clients. We are well experienced in this form of implementation with a documented history of delivering quality projects on schedule and on budget. RDH integrates design, field review, and litigation support with construction management services to deliver an efficient, effective building enclosure rehabilitation program.

The construction management services provided by RDH are an integrated part of our engineering services and are covered by our professional liability insurance policy. In addition, our construction-managed projects typically qualify for Aon's full 10-year third party water ingress warranty.

### 1.1 ADVANTAGES OF CONSTRUCTION MANAGEMENT

Many people are familiar with the General Contractor approach since it is a traditional approach and is often used in purchasing construction services for homes and businesses. However, many sophisticated purchasers of construction services prefer the Construction-Managed approach. Basic advantages of this approach are described in the following sections:

### OPTIMIZING DESIGN AND PRE-CONSTRUCTION PLANNING

Construction management is a process that commences at the earliest stages of the conception of a project. The construction manager assists with design development providing feedback to the engineer with respect to budget and feasibility. Design developed in this manner will better allow the technical requirements to be met and, at the same time, reflect buildable cost-effective solutions.

# ADVANTAGEOUS TENDERING PROCESS

Since the work is being tendered directly to trade contractors, it is possible to control which trade contractors bid the work and which ones don't. In this way it is possible to prevent undesirable or unqualified companies from working on the project. It is not easy or practical to control which trade contractors bid the work when tendering to general contractors.

As contracts are awarded it is advantageous to be able to deal directly with trade contractors as opposed to potentially receiving incomplete information through a general contractor. In this manner, it is possible to optimize the tender process and obtain very sharp pricing by adjusting scopes of work and eliminating duplications or omissions in the tender packages.

The construction-managed process also adds the benefit of being able to 'fast-track' the tendering process and decreases the overall project schedule. This is a process by which preliminary work such as access requirements can be tendered and started even as design is being completed on the glazing assembly.

# CONTROL DURING CONSTRUCTION

During the construction process it is a significant benefit to be able to deal directly with the trade contractors with respect to cost and quality control issues. The involvement of a general contractor can make it difficult to determine what a trade

contractor's "bottom line" actually is when trying to agree on the cost of changes or to resolve disputes.

# **FULL-TIME SUPERVISION**

The construction management process provides an opportunity to have full-time supervision on site with a mandate to look after the owner's interests. The site supervisor plays a role that is similar to that of a general contractor's superintendent, however, the site supervisor is an advocate for the owner. Although general contractors employ a superintendent to supervise the work, it must be recognized that the superintendent's allegiance is to his employer and the interests of the general contractor will not always coincide with those of the owner.

Having a full-time site supervisor provides the owner with significantly more control over site activities, quality control, scheduling, and sequencing. In this manner, it is possible to co-ordinate the construction process in a way that minimizes disruption to building occupants. The cost of the site supervisor is equivalent to the cost of the general contractor's superintendent; consequently, these benefits are achieved at no additional expense to the owner.

Having full-time supervision on site may well be the single most significant opportunity available to maximize the effectiveness of the rehabilitation program.

# **COST-EFFECTIVE CONSTRUCTION**

Effective construction management operations can yield cost savings to the owner. Budgets can be trimmed in the following ways:

- Elimination of the general contractors' mark-up on trade contractors
- Elimination of contingencies that the general contractor may carry
- Elimination of administration and management costs which are duplicated by the Owner, consultant, and the general contractor
- Optimizing the tendering process by having direct access to the trade contractors
- The cost of extras can be accurately verified and minimized
- Unused contingencies or budgets are a savings to the Owner.

# QUALITY ASSURANCE

The fact that our construction managers work on an ongoing basis with our engineers, architects, and technicians means that they are very familiar with the technical requirements of proper building envelope assemblies. This translates into better project delivery and a higher standard of quality control.

The site supervisor's priority is quality assurance and they act essentially as eyes and ears for the technical team. This allows the consultant to obtain a depth of insight into the work that simply isn't possible in the general contractor approach.

### **CONSTRUCTION MANAGEMENT - PROPOSAL FOR SERVICES** 1.2

There are a number of administrative activities that RDH is required to perform whether the rehabilitation process is completed with a general contractor or by using the construction managed approach. These typical administrative activities relate to the general review and monitoring of a construction contract in addition to providing overall guidance with respect to the rehabilitation process. These administrative activities are typically included within the engineering services agreement.

With the implementation of the project on a construction-managed basis our role shifts from monitoring the work of a single contractor to directing and managing a construction process involving multiple contracts. There is a significant increase in the scope of our responsibilities and duties. It should be noted that throughout the process RDH would act, in limited capacity, as the Owner's agent for the purpose of managing the construction project.

The services and fees relating to the construction management role are defined as follows:

# PRE-CONSTRUCTION PHASE

- 1. Confirm and plan site utilization, layout, and construction logistics for various options.
- 2. Undertake preliminary work on site to confirm appropriate methods for component removal and other restoration methodology. This information will be valuable in planning the work, discussing the project with trade contractors, completing the bid packages and negotiating contracts.
- 3. Conduct pre-bid meetings with trade contractors and define scopes of work.
- 4. Planning and scheduling of overall project requirements for the various schemes as well as detailed scheduling of the construction process related to the finalized program.
- 5. Identification of long-lead items and initiate advanced tenders for critical items necessary to achieve schedule.
- 6. Update and refine the "project construction budget" as details are refined and costing is reviewed with trade contractors.
- 7. Continue to evaluate possible alternatives as the design progresses.
- 8. Establish a cost control program to be implemented at the project level.

9. Coordinate the division of work in the drawings and specifications to facilitate the bidding and award of multiple trade contracts.

- 10. Plan and arrange for the supply of temporary services, site facilities and general condition items. Decisions regarding access, scaffolding systems, material movement, weather protection and hoarding are particularly important. Ensure that Bidders are informed of the services and facilities being provided.
- 11. Review the construction insurance needs for the project.
- 12. Review the bonding requirements for trade contractors.
- 13. Assemble and prepare multiple bid packages utilizing CCDC-2 Stipulated Price Contract with additional supplementary conditions as the basis for the construction contract between the owners and the contractors.
- 14. Analyze bids received, make award recommendations and prepare multiple trade contracts for execution by the owner.
- 15. Assemble contract documents for successful bidders and obtain pre-mobilization documentation. These include bonds, confirmation of WCB coverage, and confirmation of supplementary insurance coverage.

The fee for this portion of the work would be undertaken on a fixed fee basis of \$24,000 plus HST.

# CONSTRUCTION PHASE (COSTS NOT INCLUDED IN THIS PROPOSAL)

- 1. Monitor the work of the trade contractors and coordinate their work with owner requirements.
- 2. Maintain competent full-time supervision at the place of work to coordinate and provide general direction of the project in addition to quality assurance. An allowance for the cost of the superintendent's salary is included within the General Conditions section of the construction budgets as a reimbursable construction cost.
- 3. Establish on-site organization and lines of authority.
- 4. Conduct regularly scheduled progress meetings with the Owner's representative and trade contractors in attendance. Record minutes of meetings for distribution.
- 5. Monitor the schedule on a regular basis to identify variances and make recommendations for corrective action as required.
- 6. Review the adequacy of the trade contractors' personnel, equipment and supplies to meet project requirements.

7. Finalize arrangements for general condition items, construction facilities and services common to the requirements of all trade contractors.

- 8. Make arrangements for the supply of casual labour as required.
- 9. Provide advice and assistance with labour issues.
- 10. Implement and maintain an effective system of project cost control. This includes regular updates to the 'Project Construction Budget', incorporating approved changes, and issuing revised cash flow reports and forecasts as required.
- 11. Maintain project accounting records.
- 12. Implement systems to facilitate the recovery of tax rebates where applicable.
- 13. Develop and implement a system for the preparation, review, finalization, and documentation of Changes in the Work.
- 14. Develop and implement a procedure for the review, certification, processing and payment of applications by trade contractors for monthly progress and final payments.
- 15. Establish and implement procedures for expediting the receipt, processing, and review of shop drawings and samples.
- 16. Issue Certificates of Completion for the multiple trade contracts in accordance with the Builders Lien Act (1997). Identify deficiencies in the work and related costs to be withheld from trade contractors until the project is complete.
- 17. Confirm completion of the work of the trade contractors.

The fee for this portion of the work, exclusive of HST, plus reimbursable construction management expenses, will be quoted once the full scope and timing of the rehabilitation program is defined.

The Construction management services provided by RDH are covered by our Professional Liability Insurance policy. For projects that proceed on a construction-managed basis RDH has also pre-arranged access for clients to obtain Builder's Risk and Wrap-up Liability insurance coverage for the risks associated with the construction process.

Please have the owners confirm their acceptance of our proposal so that we can commence the work. Once we have the owners' instructions to proceed we will prepare our standard form of agreement for their review and execution.

We trust that you will find the foregoing to be in order but please do not hesitate to contact us at your convenience if you have any questions or comments.

Yours truly,

RDH Building Engineering Ltd.

Kevin Ganzert

Director of Construction Services;

Principal

ganzert@rdhbe.com

Accepted by:

Signature	Date

Name (Print) Title

The Owners, Strata Plan LMS 4456

cc Brian Hubbs, RDH Building Engineering Ltd. Ed Thiessen, RDH Building Engineering Ltd.

TEL 604 873 1181

604 873 1181

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# ···· KEVIN GANZERT

# **Expertise & Role**

Mr. Ganzert leads the construction management service area at RDH. He is an accomplished construction manager who has played an integral role in the construction and management of many high profile projects. Kevin is a 'solutions oriented' manager who combines an intimate knowledge of hands-on procedures with solid management practices. He is as comfortable in dealing with real issues on a construction site as he is in dealing with complex construction agreements in the boardroom.

Kevin's project and construction management expertise, combined with his excellent communication skills, has resulted in him being retained as an expert in construction related claims. He is also invited to speak at a variety of

## PROJECT MANAGER/CONSTRUCTION MANAGER

As a project manager, Kevin has overall responsibility for delivery of the project on time and on budget but also for ensuring the quality for which RDH is known. As a construction manager, it is Kevin's mandate to work closely with clients and other RDH team members to deliver construction management services that include:

- Directing the work of design consultants
- Consultation during design and document preparation
- Managing the preparation of working drawings, specifications and contracts
- Defining scopes of work and tendering construction ....**>**
- Project planning and scheduling
- Preparation of construction budgets
- Co-ordination of the contract documents
- Negotiating construction contracts
- ....**)** Budgeting, cost control, and reporting
- ....\$ Management of construction activities
- Project completion and handover

Prior to joining RDH in 1988, Kevin's construction management skills were developed at three prominent building and development firms. Kevin was one of the original team members selected by Concord Pacific Group Inc. to help construct Concord Pacific Place - one of the largest residential developments in North America.

Kevin is a shareholder and Principal of RDH and therefore participates in the overall direction and management of the firm.

# **Education**

- Diploma of Building Technology, Honours, British Columbia Institute of Technology
- Recipient of several awards and distinctions including top graduate, Building Technology
- B.Ed., Industrial Education, University of British Columbia

# Memberships

- Vancouver Regional Construction Association, Member
- HPO Licensed Renovator, RDH Director responsible

# **Director of Construction Services**



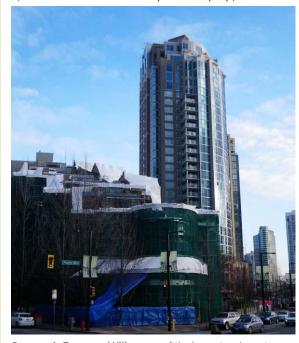
# **Typical Projects**

Over the years, Kevin has directed the construction program for numerous projects with a focus on control and innovation.

### REHABILITATION PROIECTS

Kevin was the RDH Construction Manager for building envelope rehabilitation of the following notable high-rise, non-combustible residential buildings:

- La Mirage, Burnaby, BC, \$13 million
- Lakeside Terrace, Coquitlam, BC, \$7 million
- Pacific Point, Vancouver, BC, \$10 million
- Discovery Quay, Vancouver, BC, \$4.5 million ----}
- Governor's Tower and Villas, Vancouver, BC, \$28 million



Governor's Tower and Villas; one of the largest and most complex building envelope rehabilitations undertaken to date. While RDH works on projects of all types and sizes, if the issues are large, complicated, and challenging, RDH usually gets the call.

Biography 1/2

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# **KEVIN GANZERT**



RDH managed a cladding replacement program on the Sheraton Guildford Hotel while it carried on business as normal. RDH developed a rehabilitation design based on utilizing mast-climbers to minimize disruption to hotel activities. The clients indicated no year/year loss of volume and minimal disruption to commercial activity throughout the process.

Grand Central Park Place, Burnaby, BC, \$7 million



After working initially with another consultant and bidding to general contractors, the owners of **Grand Central Park Place** were facing a dysfunctional process that was significantly over budget. RDH was retained to take over engineering and construction management duties resulting in a savings to the owners in excess of \$1 million.

Carnarvon Towers, New Westminster, BC, \$2.5 million



Rehabilitation of Carnarvon Towers commenced initially under the direction of another consultant and quickly began to spiral out of control. RDH was retained to take over engineering and construction management duties on an emergency basis. The project was quickly brought under control and completed at a savings to the owners. In addition to managing construction activities, Kevin also provided litigation support services.

Ocean Park Towers, Victoria, BC, \$4 million



Ocean Park Towers in Victoria was one of the first projects of its kind. RDH pioneered many of the methods and processes that have become widely accepted as standard industry practice today. In addition to managing construction activities, Kevin also provided litigation support services.

- Royal Quays, Victoria, BC, \$4 million
- Riverwest, Ladner, BC, \$3 million

# **New Construction Projects**

- The Peninsula, Vancouver, BC, \$28 million Superintendent; Centreville/Concord Pacific
- Concordia I, Vancouver, BC, \$16.5 million, Superintendent; Centreville/Concord Pacific
- Roundhouse Housing Co-op, Vancouver, BC, \$17.5 million, Project Manager; Concord Pacific Group Inc.
- Waterfront Centre Hotel and Office, Vancouver, BC, \$100 million, Contracts Manager; Foundation Company
- Prince Rupert Grain Terminal, Prince Rupert, BC, \$150 million, Project Administrator; Foundation Company

# **SHERATON GUILDFORD HOTEL**

# **Project Details**

Project No. 2214.10
Year of Completion 2008
Location Surrey, BC
Construction Cost \$6,800,000

**Project Team** 

Client Retirement Concepts

Capstar Hotels

Consultant RDH Building Engineering Ltd.
Construction Manager RDH Building Engineering Ltd.

# **RDH Services**

- Condition assessment
- Design
- Construction documents
- --- Tendering
- --- Construction management
- Field review
- Post construction
- Litigation support
- --- Maintenance and renewals plan
- Assistance with ongoing renewals, including interior building elements

# **RDH Staff**

Technical Manager Warren Knowles
Construction Manager Kevin Ganzert
Project Coordinator Michael Roche
Site Superintendent Rick Hughes
Key Staff Ed Thiessen
Ray Wong

# **Project Description**

- Number of Suites: 279 and 2 levels of amenity rooms

Mike Battistel

- Number of Storeys: 20-23
- Use/Occupancy: Hotel and conference centre
- --- Composite metal panel cladding.
- --> Concrete repair, painted and sealed mass concrete
- Targeted repairs of EIFS assemblies at lower levels.
- Used two-stage mast climbers on occupied elevations.
- Hotel reported no net loss of revenue during rehabilitation work and no significant disruption to conferences and hotel occupants.





# **....** GOVERNOR'S TOWER & VILLAS

# **Project Details**

Project No. 2832.10-30
Year of Completion 2011
Location Vancouver, BC
Construction Cost \$28,000,000

# **Project Team**

Client Strata Plan LMS 1725

Consultant RDH Building Engineering Ltd.
Construction Manager RDH Building Engineering Ltd.

# **RDH Services**

- -- Condition assessment
- ---- Design
- Construction documents
- Tendering
- --- Construction management
- --- Field review
- --- Maintenance and renewals plan

# **RDH Staff**

Technical Manager Ed Thiessen
Construction Manager Kevin Ganzert
Project Coordinator Michael Roche
Site Superintendent John Da Silva
Key Staff Warren Knowles
Shawn McIsaac

# **Project Description**

- Number of Suites: 237
- Number of Storeys: 12-30
- --> Use/Occupancy: Residential
- Separated into three phases of construction.
- Exterior-insulated rainscreen wall assembly.
- Window wall and punch window & door replacement.
- --- Guardrail replacement.
- Worked with the owners and the City of Vancouver to develop a new, updated cladding and colour scheme for the complex.
- Use of mast climbers combined with conventional scaffold.
- Extremely complex project combining the rehabilitation of window wall system from mast climber, replacement of oversize windows at penthouse level, removal and reinstallation of brick assemblies, and addition of canopies from mast climbers.
- Incorporated revised glazing schedules in order to reduce overheating problems in suites, improve ventilation, and improve usability.





# roject Profile

# --- PACIFIC POINT

# **Project Details**

Project No. 1808.00 Year of Completion 2006

Vancouver, BC Location **Construction Cost** \$10,000,000

**Project Team** 

Client Strata Plan VR 2540

RDH Building Engineering Ltd. Construction Manager Property Manager Crosby Property Management Ltd.

# **RDH Services**

- Condition assessment
- Design
- Construction documents
- Tendering
- Construction management ....}
- ---} Field review
- Post construction
- Litigation support
- Maintenance and renewals plan

# **RDH Staff**

Technical Manager Marcus Dell Construction Manager Kevin Ganzert **Project Coordinator** Mark Will Site Superintendent Walter Neufeld Michael Roche Key Staff Tim Bryant

Ed Thiessen

# **Project Description**

- Size: High-rise, mid-rise, and connector
- Number of Suites: 153
- Number of Storeys: 8-16
- Use/Occupancy: Residential
- The building, primarily clad in EIFS, was constructed in 1990. Water ingress through the building enclosure had been a problem for the owners since shortly after construction.
- After conducting a condition assessment, RDH undertook the design of a comprehensive enclosure rehabilitation program in 2003 comprising three phases of work, which was substantially completed in 2006.
- RDH provided construction management services during the rehabilitation.
- Corrective features included: exterior insulation rainscreen stucco assembly, high performance window and door replacement, thermally broken window wall, and SBS roof and deck replacements.
- RDH assisted the owners with their litigation claim.







May 16, 2006



# To Whom It May Concern:

Strata VR2540, Pacific Point has worked with the RDH Engineering firm for the past 4 years. Pacific Point consists of 2 towers and a connector building. Recently our complex was featured in a write up on leaky condos in the Vancouver Sun. The photo on pages 3 and 4 captures the essence but not the complexity of the building remediation.

We interviewed several engineering firms who work on leaky condos in the Lower Mainland and in Victoria. The initial interview confirmed the personnel at RDH had a high level of training, experience and a highly qualified building envelope specialist certified to provide a Scott Schedule for legal proceedings. RDH presented a report with an assessment of the scope of the damage and proposed solutions. This report gave Owners the information to vote for a full building exterior remediation at a special general meeting. The meeting, attended by 3 RDH Engineers, provided repair options and answered Owner's questions. The Owners asked RDH to prepare a tender package.

The tender package detailed projected costs and a comprehensive meticulous report of labour and materials of each trade cost. RDH were helpful in recommending to the Strata trades and suppliers competent to supply material and to work on the building. The Strata and RDH reviewed these and invited bids from the selection. RDH conducted several site meeting with contractors resulting in a clear understanding of the scope of work prior to tendering the bid.

This is a difficult project to manage. RDH has an excellent site superintendent managing the work schedule, dealing with Owners and supervising the performance of the trades working on the building. The remediation was divided into 3 Phases. The 1<sup>st</sup> and 2<sup>nd</sup> Phases have been issued substantial completion certificates. Phase 1 was just under budget. Phase 2 was considerably under budget. Phase 3 is still work in progress but promises to come in significantly under budget.

RDH keeps the Strata informed on progress of work and when repairs differ from contract specifications. At times the cost of the contract has been reduced when RDH engineers find better cheaper way to complete the work.

We are now in the final phase of remediation. We are pleased with the effective manner RDH controlled costs and managed the work and scheduling on all 3 Phases. We have no hesitancy in recommending RDH for building remediation. Should you have any questions, or would like to visit the complex; you may contact me at the numbers below.

Betty Rumball

President Strata VR2540

306 431 Pacific St

Vancouver BC V6Z 2P6

604 683 8054 604 861 2256 (cell)

Tumball



101 - 4126 Norland Avenue Burnaby, BC V5G 3S8

Phone: 604-294-4141 Fax: 604-294-8956

September 26, 2007

0013 - 2007

RDH Building Engineering Ltd. 224 West 8<sup>th</sup> Avenue Vancouver, BC V5Y 1N5

Attention: Warren Knowles

Dear Mr. Knowles,

Now that the building repair project for our two towers has been successfully completed I have been asked by the Strata Council, on behalf of all Owners at La Mirage, to express our appreciation to yourself and the members of your team at RDH that worked on our buildings. During the design and construction phases as well as during the initial building review and proposal stages, everyone that we dealt with at RDH, without exception, exhibited a consistently high level of professionalism, competence and dedication. From the beginning we felt comfortable that RDH was working on our behalf to achieve a cost effective and permanent solution to the water ingress problems that we were suffering from.

I know that there are many who worked quietly in the background to make the project a success and I will rely on you to pass on our thanks to those individuals as appropriate. However, I do want to specifically mention a few individuals that we dealt with more directly during the project and who, I think, deserve individual recognition.

First and foremost I would like to thank you for your advice, guidance and persuasive presentations that helped calm the owner's initial panic and skepticism. You also helped immeasurably to reassure Council that we were doing the 'right thing' and that RDH was fully capable of defining and carrying out the project to resolve the water ingress problems and design deficiencies with our buildings. I should also mention that I personally appreciate the time you took to share your knowledge to help me understand some of the details of the process for my own interest and so that I could be better prepared to answer questions from the Owners.

The other key person has been Kevin Ganzert, central to managing any project, and especially larger projects, is a comprehensive and realistic budget tracked by a timely and detailed reporting system supported by effective procedures and processes to keep it current. The fact that the initial repair budget from the spring of 2005 held virtually true until the end, even with the intervention of the weather in November/December 2006, hidden surprises in the 'as built' construction details and the tight construction labour and contract climate, speaks volumes. Kevin's knowledge regarding contracts and his relationships with the trades and contractors were obvious and extremely helpful. As Treasurer I note that the project cost reports were clear and accurate and helpful.

RDH Building Engineering Ltd. September 26, 2007

John DeSilva and Corey Scott also deserve a special mention for their dedication, long hours, attention to detail and diplomacy. Dealing with the trades, weather and schedules is difficult enough; however, having to do a major construction project while people are living in the building and walking through the construction site makes everything more difficult and adds to their stress. On top of all this, dealing with the very small minority of owners who make trivial complaints or demand special service is, most often I am sure, a thankless job, so a special 'thank you' to both Corey and John for their efforts and their diplomacy. They can take pride not only in how the buildings turned out technically but also, due in large part to their effort and skill in the professional manner that this was accomplished.

Graeme Scott also deserves recognition for his contributions ranging from colour selection, managing the initial interaction with Stantec to obtain their proposal to address the amenity area HVAC upgrade and help in dealing with our resident mould expert. These were all in addition to his normal responsibilities from an architectural aspect. His calm manner and clear communications were appreciated.

As Treasurer dealing with the financial aspects of the project I want to make special mention of the help that I have consistently received from Michael Roche. Michael has carefully and accurately prepared the project reports and the Certificates of Payment packages in a timely manner each month. Whenever I had questions about the package details, he always responded quickly and helpfully with patience. In the few cases where minor adjustments were in order, he invariably ensured that they were included in the following month billings. I know that he strived always to meet his deadlines and to try to help me with mine. During his family bereavement in England, he still managed to ensure that the packages were delivered on time and accurately. Please convey a special 'thank you' from me for what may often be a thankless job.

As in any organization, it is likely that some individuals are seen to shine only because the unseen supporting cast does their individual jobs well. So to all the RDH team – from reception to accounting and technical support; from engineering to design and drafting; senior staff to site supervisors and field review – "Thank you".

Regards,

On behalf of the Strata Council

Jan M Lean

lan McLean, Treasurer

La Mirage, Strata Plan NW 2489

nw2489/correspondence/2007/contractors/Sept 24 ebIM (RDH) re thank you