



PA10.3 Attachment 1

BOARD MEMORANDUM

2.1

TO: Gwyn Thomas

FILE NO: 5001-43

FROM: Amir Nathoo

DATE: March 13, 2009

SUBJECT: **Carpark No. 1 – 20 Charles Street
Proposed Adding of Two Parking Levels
Consulting Services Contract**

MEETING	MINUTE
March 25/09	09-032
Approved.	

MEETING DATE: March 25, 2009

RECOMMENDATION:

To award the Consulting Services contract for the proposed two floor addition for Carpark No. 1 at 20 Charles Street to Read Jones Christoffersen Ltd for the amount of \$545,000 plus \$30,000 for Finite Analysis plus \$5,000 for reimbursable amount plus \$50,000 as contingency allowance being a sum total amount of \$630,000 plus GST.

BACKGROUND:

1. The Phase I of construction for the above-grade four-level Carpark No. 1 at 20 Charles Street East provides 430 parking spaces. This carpark was opened on November 25, 1996 as municipal parking garage.
2. This Phase I parking garage structure is built over a TTC subway structure. To avoid loading the TTC subway structure, the TPA garage was designed using structural steel framing with concrete suspended slab to facilitate spanning over the TTC structure. The caisson foundations and the superstructure were designed with a Phase II future provision to add two additional parking levels over the existing carpark garage.
3. The Board, under Minute No. 93-045, dated March 24, 1993 retained RJC as the Prime Consultant for the consulting services required for Phase I work of building a four-level carpark.
4. Toronto Parking Authority wishes to retain the same Consultant, RJC for the Phase II work or the proposed addition of two new floors over the existing structure. RJC has designed this structure, is familiar with the structure, and has all the necessary background documents, details, and shop drawings to facilitate the services and work required. Secondly, keeping the same consultant is also recommended from the structural liability complications. Historically, in the past TPA has preferred to retain the same consultant for such extensions for reasons stated.

5. RJC's proposal for services required is herein attached. RJC is also carrying the same sub-consultants used in Phase I in their proposal for Phase II. The summary of their fees is as follows:

			Amount	Percentage
1	Phase I	a) Data Assembly	\$27,250	5%
		b) Preliminary Design	\$43,600	8%
		c) Site Plan Approval	\$54,500	10%
2	Phase II	a) Detailed Design & Tendering	\$190,750	35%
		b) Building Permit	\$32,700	6%
		c) Tendering and Review Service	\$32,700	6%
3	Phase III	Contract Admin	\$136,250	25%
4	Phase IV	Warranty Period & follow-up service	\$27,250	5%
5	Total Upset Fee		\$545,000	100%
6	Additional fee for Electro-Plastic Finite Element Analysis of TTC structure, if required.		\$30,000	

6. At Carpark No. 34 – 25 Dundas Street East (Dundas Square garage), TTC had requested Electro Plastic Finite Element Analysis of TTC structure as a condition for TTC approval. In other words, TTC wanted the analysis to prove that TTC structure would not be affected or move due to the construction of the new parking garage. At Carpark No. 1, TTC had not asked for this analysis and the structure already exists. While we don't anticipate for the TTC to demand this analysis, however, the Consultant has included the amount as a provision and for our information.
7. Read Jones Christoffersen has worked for TPA on various similar projects, including Dundas Square garage and St. Andrew parking garage. We were happy with their services. We recommend that the contract for Consulting Services required for the above project be awarded to RJC for reasons stated.
8. Noting the approval process involved, we anticipate to complete the design and tender this year, with construction starting towards the end of 2009 or early next year.

FINANCIAL BACKGROUND

1	Funds available under Capital Budget		\$630,000
2	RJC Consulting Services		
.1	Fee	\$545,000	
.2	Finite Analysis (if required)	\$30,000	
.3	Disbursements	\$5,000	
	Sub-total	\$580,000	
.4	Contingency	\$50,000	
	TOTAL	\$630,000	(\$630,000)
3	Funds remaining		\$0.00

Please note: funding provisions will be included in next year's budget for the construction work.



Amir Nathoo
Attached:



Read Jones Christoffersen
Consulting Engineers

Suite 500
144 Front Street West
Toronto, ON M5J 2L7
Canada

416 977-5335
Fax 416 977-1427
www.rjc.ca



March 4, 2009

Toronto Parking Authority
33 Queen Street East
Toronto, Ontario M5C 1R5

Attention: Amir Nathoo

Project: Carpark No. 1 Expansion

RJC #: 101298P001

Amir,

Thank you for considering Read Jones Christoffersen Ltd. (RJC) as your structural consultants for the Carpark No. 1 Expansion project. We are very excited at the possibility of working with you again on what we think is one of the nicer parking garages, and definitely one of the best parking garages that RJC has been involved in.

We see ourselves as a very promising candidate for this Project, offering extensive Parking garage experience and Toronto Parking Authority familiarity, specifically with Carpark No. 1. The "A" Team we propose for this project are the consultants who were responsible for the original design of Carpark No. 1. Our team has both the precise relevant experience and RJC's innovative thinking/practical results attitude necessary to make this project a success.

We are confident this proposal meets with your requirements. We look forward to the opportunity to continue our successful partnership with you.

Please feel free to contact me should you require any further details.

Yours truly,

Read Jones Christoffersen Ltd.

Scott Wallace P.Eng.
Managing Principal

TORONTO PARKING AUTHORITY MUNICIPAL PARKING GARAGE STRUCTURE CARPARK NO. 1 EXPANSION

Request for Proposal

March 4, 2009

Prepared by:
Read Jones Christoffersen Ltd.
Suite 500, 144 Front Street West
Toronto, ON M5J 2L7
RCJ #: 101298P001

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1. General Information

Read Jones Christoffersen Ltd. (RJC) will take the role of Prime Consultants and will coordinate the activities of other consultants. To complete the assignment for the proposed Carpark No. 1 expansion, RJC have assembled the group of specialist consultants who were responsible for the original design of the parking facility. We believe that this proposal will demonstrate that our team has the expertise, project understanding and enthusiasm to respond effectively to the Toronto Parking Authority's requirements. Our team includes:

Prime Consultants:

Read Jones Christoffersen Ltd.

144 Front St. West, Suite 500, Toronto, Ontario M5J 2L7
Telephone: (416) 977-5335 / Fax: (416) 977-1427
Contact: Scott Wallace, P.Eng., Principal

Architects:

IBI Group

230 Richmond Street West, 5th Floor Toronto, Ontario M5V 1V6
Telephone: (416) 596-1930 / Fax: (416) 596-0644
Contact: Chuck Beamish

Parking Planners & Structural Consultants:

Read Jones Christoffersen Ltd.

144 Front St. West, Suite 500, Toronto, Ontario M5J 2L7
Telephone: (416) 977-5335 / Fax: (416) 977-1427
Contact: Scott Wallace, P.Eng., Principal

Mechanical & Electrical Consultants:

MCW Consultants

156 Front Street West, 6th Floor, Toronto, Ontario M5J 2L6
Telephone: (416) 598-2920 / Fax: (416) 598-5394
Contact: John Sloan, Partner

Cost Consultants:

Curran McCabe Inc.

1 One St. Clair Ave. East, 7th Floor, Toronto, Ontario M4T 2V7
Telephone: (416) 925-1424 / Fax: (416) 925-2329
Contact: Greg Curran, Director

Shoring:

Isherwood

3100 Ridgeway Drive, Unit 3, Mississauga, Ontario L5L 5M5
Telephone: (905) 820-3480 / Fax: (905) 820-3492
Contact: Nadir Ansari

2. Qualifications

RJC's Experience in Parking

Read Jones Christoffersen Ltd. is among a small number of firms in North America that has truly specialized in design of parking structures. Our involvement in the parking industry includes:

- Specializing in the design of parking facilities for over 35 years
- 50% of our workload is parking-related
- Over 150 parking structures designed; over 500 parking structures evaluated and restored
- 21 national and international awards for parking structure design
- Founding member of the Canadian Parking Association (CPA) and the National Parking Association (NPA) Parking Consultants Council; members of the International Parking Institute
- Numerous papers/presentations on parking structure design and maintenance presented by staff
- Authors of "Maintenance Manual for Parking Facilities" and "Parking Facility Security" for Canadian Parking Association
- Several staff members are either past or currently sitting as members or directors of parking-related organizations, including the Parking Consultant Council (Canada) and the CSA Standard on the Design of Parking Structures (S413).

A truly successful parking facility will require sensitivity to the local residents, users, various organizations that have vested interest in the structure, ongoing operational demands and delivery of a well coordinated project on time and on budget.

In our role as Prime Consultants, Parking Planners and Structural Engineers on this project, RJC will provide a client-focused leadership with extensive project experience and specialized expertise in the following areas:

- Functional design of multi-level parking facilities
- Intuitive wayfinding approach to vehicle and pedestrian users
- Coordination of a team of specialist design consultants
- Integration of architecture, lighting, safety, security, signage and building systems
- Proven structures with focus on best life cycle cost, durability and minimal maintenance
- Pro-active team-oriented approach to administering the construction contract on behalf of the Toronto Parking Authority



*Carpark No. 1,
Charles/Hayden
Parking Garage*

RJC Corporate Summary

Developing structural solutions that help turn our clients' visions into reality has been a hallmark of the Read Jones Christoffersen structural engineering practice for over half a century.



Read Jones Christoffersen Ltd. (RJC), which is privately held, is one of North America's largest structural engineering firms. The firm was founded in 1948 and has since expanded to include six offices (Toronto, Calgary, Edmonton, Victoria, Nanaimo, and Vancouver). RJC is a large but specialized firm, with a national staff of over 300 people including approximately 95 professional engineers and 37 LEED® Accredited Professionals. In our Toronto office, our staff totals 63, with 24 professional engineers and 17 LEED® Accredited Professionals. We provide structural consulting, building science, and parking planning services for building projects across North America. We have engineers registered in all of the Canadian provinces and many of the American States.

RJC emphasizes innovative engineering, prompt responsive service, and excellence in structural design. This focus has produced satisfied clients and an impressive portfolio of completed projects. RJC has the resources of a large but specialized firm. RJC's network of offices provides clients with the depth and resources of a large national organization while allowing it to offer the responsive service and accessibility of a local firm. Geographic diversity has also allowed the firm to be insulated from the boom-and-bust cycles common to local economies. At times of peak work demands, RJC is able to mobilize the resources of all of its offices made possible by having the RJC staff supported with state-of-the-art equipment, including a full range of computer hardware and software.

Philosophy

RJC is founded on a philosophy and a strong set of values that are specifically directed toward creating and maintaining a firm where:

- the public interest is protected,
- the Client feels exceptionally well served, and
- our people are part of a family that helps them grow



Architect - IBI Group



IBI Group was founded in 1974 and is a leading, international, multi-disciplinary provider of a broad range of professional services focused on the physical development of cities. IBI's business is concentrated in four main areas of development: Urban Land, Facilities, Transportation and Systems. The professional services provided by IBI include planning, design, implementation, analysis of operations and other consulting services related to these four main areas of development.

IBI's professionals have a broad range of academic backgrounds and experience in urban design and planning, architecture, civil engineering, transportation engineering, traffic engineering, systems engineering, urban geography, real estate analysis, landscape architecture, communications engineering, software development and many other areas of expertise, all contributing to the four areas in which IBI practices.

The firm's clients include national, provincial, state and local government agencies and public institutions, as well as leading companies in real estate building, land and infrastructure development, transportation and the communications industries and in other business areas. IBI provides these services in major cities across Canada, the United States and western Europe, as well as in other international cities.

IBI Group's multi disciplinary professional services in four broad areas are further outlined as:

- **Facilities Planning, Programming and Design** including urban design of building complexes and parks, planning and design of commercial, industrial, residential and institutional buildings, municipal infrastructure, transportation terminals, parking and loading facilities;
- **Urban Land** including strategic assessment of urban development and servicing options, market, economic and financial assessments, site and subdivision planning, regional economic studies, demographic projections, socio-economic impact assessments, tourism and recreation planning, housing analyses, environmental assessments, official plans, zoning by-laws, approvals assistance, consensus building and expert testimony;
- **Transportation** including people, goods and information movement within and between facilities, urban and inter-urban, road, transit, rail, air and marine modes, intermodal systems, parking and loading facilities, terminals, and ways. The firm's transportation practice includes planning, environmental assessment, financial/economic/regulatory analyses, market assessment, due diligence studies, surveys, operations, energy implications, policy evaluation; and
- **Systems** including planning/design/implementation of advanced information, communications and control systems applied to communities, buildings, transportation and commerce. Services provided include network architecture planning and design, business process re-engineering; telecommunications facility and infrastructure design and implementation, computer hardware and software development, implementation and operation support and E-business solutions.

Quantity Surveyor - Cost Consultant - cm2r inc.

cm2r

cm2r inc. provides cost control and cost management services to the Construction Industry.

cm2r inc. is one of Canada's leading and most successful construction cost management consultants.

cm2r clients benefit from professional advice, which reduces risk and delivers value in the use, modification, repair and construction of built assets of every kind.

Based in Toronto, the firm has extensive project experience both nationally and internationally. Since 2000 the firm has provided consulting services for more than 2,000 projects of various types and size in the institutional, commercial, academic, recreational and residential sectors.

cm2r employs 42 staff including "in-house" specialist Loan Monitoring, Mechanical & Electrical Cost Consulting, Public Private Partnership Consulting, and Project Management Services.

The firm provides the full range of Cost Consulting services to a broad base of construction industry clients including but not limited to:

- Building Owners
- Institutions (Hospitals, School Boards, Universities etc.)
- Government (Federal and Provincial)
- Architects and Engineers
- Developers
- Financial Institutions
- Legal Profession

A brief summary of services provided is as follows:

- Cost Planning and Control
- Project 'Loan' Monitoring
- Project Management
- Value Engineering
- Feasibility Studies
- Public Private Partnerships Consulting
- Expert Witness
- Building Condition Cost Reviews
- Reserve Fund Analyses
- Development Management
- Tender Analysis
- Owners Representative

Mechanical and Engineer - MCW Consultants Ltd.



Since 1964 the **MCW Group of Companies** has been building a reputation for the delivery of Professional Consulting Engineering Services, Energy Management Services, and Engineering Development Services. This reputation speaks to a successful history of providing new building design, building renewal design, new infrastructure design and infrastructure renewal design services.

By the very nature of the systems the **MCW Companies** design and develop, they deliver and consume energy to create the environment our clients require to live, educate, work, play and heal.

The MCW Group of Companies has created the largest block of verified carbon emissions savings of any Canadian Consulting firm.

For more than a decade **MCW Consultants Ltd.**, and its sister company, **MCW Custom Energy Solutions Ltd.** have been providing sustainable building designs with the goal to permanently REDUCE OUR CLIENTS' ENVIRONMENTAL FOOTPRINT.

MCW Consultants also has a list of 15 projects which are LEED accredited including: Kingston Police Headquarters, Cambridge Civic Administration Building, Minto Gardens, University of British Columbia Life Sciences Building, etc. This work has been undertaken by the twenty-seven LEED certified professional within **MCW Consultants**.

Isherwood Geotechnical Engineers - Civil Engineering

ISHERWOOD

Isherwood is a Toronto area consulting engineering firm designing geotechnical structures for new and renovation construction. Our services include: design of all types of foundations, shallow and deep, pile caps, retaining walls; design of temporary excavation support, including shafts and tunnels; design, inspection, quality control monitoring for grouting and jet grouting related work; computer analysis/modeling of geotechnical support systems; specialist monitoring (field instrumentation); advise on construction costs and field techniques.

Isherwood has been responsible for excavation shoring, underpinning and foundations for many prominent Toronto structures, including the CN Tower, Skydome Stadium (now Rogers Centre), Royal Ontario Museum, the new Toronto Opera House, Ontario Science Centre, Pearson Airport and the Toronto Subway. Similar work has been undertaken throughout Ontario, Alberta, British Columbia.

3. Project Experience

Carpark 1, Charles/Hayden Parking Garage, Toronto, Ontario



RJC was the Prime Consultant for this 450-car above grade facility expandable to 660 cars completed for the Parking Authority of Toronto. The garage straddles the existing Yonge Street subway line, which cuts diagonally across the site. In order to minimize the impact of the subway structure on the functional planning of the garage, it was necessary to minimize the size of the building foundations and therefore, the weight of the structure.

Key Personnel:

Scott Wallace, P.Eng. - Principal-in-Charge

Darren Wint, P.Eng. - Project Engineer

Reference:

Mr. Amir Nathoo, P.Eng.,

The Toronto Parking Authority

33 Queen Street East

Toronto, Ontario M5C 1R5

Tel: (416) 393-7276 / Fax: (416) 393-7352



Carpark 34, Toronto, Ontario



RJC were Prime and Structural Consultants for the design and construction of this new 280-car, below grade parking facility with an approximate area of 34,994 sq.ft. located at the City of Toronto's downtown area (Yonge & Dundas Streets) and adjacent to the subway tunnel.

Key Personnel:

Scott Wallace, P.Eng. - Principal-in-Charge

Darren Wint, P.Eng. - Project Engineer

Reference:

Mr. Amir Nathoo, P.Eng.,

The Toronto Parking Authority

33 Queen Street East

Toronto, Ontario M5C 1R5

Tel: (416) 393-7276 / Fax: (416) 393-7352

Carpark 65, Kensington



RJC was the Prime Consultant for this 300-car parking facility for the Parking Authority of Toronto completed in 1978 with an addition in 1997. RJC also completed the design of a 200-car addition to the garage incorporating street front retail space at grade.

Key Personnel:

Scott Wallace, P.Eng. - Principal-in-Charge
Darren Wint - P.Eng - Project Engineer

Reference:

Mr. Amir Nathoo, P.Eng.,
Toronto Parking Authority
33 Queen Street East
Toronto, Ontario M5C 1R5
Tel: (416)393-7275

Corso Italia Parking Garage, Toronto, Ontario



Prime Consultant for this testament to RJC's reputation for award-winning garage designs. Constructed adjacent to a residential area to provide short-term parking for the adjacent business district. As such, to minimize its visual impact and blend with the residential community, the 4-level garage was placed two levels below grade and the facades have been broken into residential scale divisions. Durability features include good drainage slopes, increased concrete cover, low permeability, epoxy coated reinforcing steel and waterproof membrane.

Key Personnel:

Scott Wallace, P.Eng. - Principal-in-Charge
Darren Wint, P.Eng. - Project Engineer

Reference:

Mr. Amir Nathoo, P.Eng.,
The Toronto Parking Authority
33 Queen Street East
Toronto, Ontario M5C 1R5
Tel: (416) 393-7276 / Fax: (416) 393-7352

211 Adelaide St. West Parking Garage, Toronto, Ontario



RJC was the Prime Consultants for this 7-1/2 level above grade and 1-1/2 level below grade parking facility for 304 cars, designed to maintain service areas and pedestrian connections to the adjacent office building. Incorporates barrier-free access design standards throughout.

Key Personnel:

Scott Wallace, P.Eng. - Principal-in-Charge
Darren Wint - P.Eng - Project Engineer

Reference:

Mr. Paul Hawn
SunLife Assurance Company
225 King St. West, 11th Floor, Toronto, ON M5V 3C5
Tel: (416) 408-7826 / Fax: (416) 595-1710

GO Transit Burlington Parking Facility - Burlington, Ontario



The GO Burlington Parking Structure is located at the North lot of GO Transit's Burlington Station. This 4-level parking structure provides an additional 800 parking spaces for GO patrons. The project was a design / build effort with Kenaidan Contracting Ltd. with Read Jones Christoffersen acting as prime consultants, parking planner and structural consultant. The parking structure was completed in August 2008 and features foundations self performed by Kenaidan with 2200m³ of concrete and 4500m² of formwork. The superstructure for the garage includes 4 levels of pre-cast elements, a feature stair tower near the existing North Station Entrance, and 2 ancillary stair towers servicing the P1 to P4 Levels of the facility. The design accommodates for the future installation of an additional 2 levels of parking.

Key Personnel:

Scott Wallace, P.Eng. - Principal-in-Charge
Darren Wint, P.Eng. - Project Engineer

Reference:

Mr. Tom Goodbody
Greater Toronto Transit Authority
20 Bay Street, Suite 600
Toronto, Ontario, Canada M5J 2W3
Tel: (416) 869-3600

GO Transit Streetsville Bus Facility, Streetsville, Ontario



The GO Streetsville bus facility is a 200,000 sq.ft. structural steel building, which houses areas for bus maintenance, bus storage, washing facilities and inspection plus a two-storey complex that accommodates the administration offices. Clear spans up to 40meters with minimal interior support to facilitate bus traffic. This building opened in February 2009 and is aiming for LEED Silver accreditation.

Key Personnel:

Scott Wallace, P.Eng. - Principal-in-Charge
Ralf Altenkirch, P.Eng. - Project Engineer

Reference:

Mr. Tom Goodbody
Greater Toronto Transit Authority
20 Bay Street, Suite 600
Toronto, Ontario, Canada M5J 2W3
Tel: (416) 869-3600



L. B. Pearson International Airport Terminal II, Toronto, Ontario

Evaluation, repair, and protection of a 1,800,000 square foot, five-story, above grade parking garage. Repair involved concrete repairs to the normally reinforced cast-in-place structural elements and the precast concrete elements, expansion joint seal replacement, installation of a waterproofing system on the pedestrian bridges, replacement of construction joint sealant and the installation of a new penetrating surface sealer. Repair work was phased to minimize effect of construction on operation of the garage

Key Personnel:

Philip Sarvinis, P.Eng. - Principal-in-Charge

Reference:

Mr. Don Alarie

Greater Toronto Airport Authority

PO Box 6031, 3111 Convair Drive, Toronto AMF, Ontario L5P 1B2

Tel: (416) 776-3591 / Fax: (416) 776-7726



L. B. Pearson International Airport Terminal III, Toronto, Ontario

Addition of 300,000 sq.ft. (approximately 1,000 vehicle spaces) to an existing 5-storey precast concrete, stand-alone parking facility. Work also involves re-configuration of traffic flow for the entire 400-car facility, new signage and graphics system, conversion to a pay-on-foot system, and the creation of a new eastern building facade. Project phased to minimize impact on current garage operations. RJC were the Prime Consultants for this project.

Key Personnel:

Scott Wallace, P.Eng. - Principal-in-Charge

Darren Wint, P.Eng. - Project Engineer

Reference:

Mr. Don Alarie

Greater Toronto Airport Authority

PO Box 6031

3111 Convair Drive, Toronto AMF, Ontario L5P 1B2

Tel: (416) 776-3591 / Fax: (416) 776-7726



Sunnybrook Health Science Centre Parking Garage 2, North York, Ontario

RJC was the Prime Consultants for this six-storey, half level below grade, 762-car parking garage expandable to 1200 cars. Normally reinforced concrete, wheelchair accessible, fully automated revenue system

Key Personnel:

Scott Wallace, P.Eng. - Principal-in-Charge

Darren Wint, P.Eng. - Project Engineer

Reference:

Mr. Norm Abrams, Senior Architect and Planner

Sunnybrook and Woman's College Hospital

2075 Bayview Avenue

North York, Ontario M4N 3M5





Oakville Trafalgar Memorial Hospital Garage, Oakville, Ontario

RJC are Prime Consultant for this 380-car garage with extensive architectural treatment, constructed in post-tensioned cast-in-place concrete with clear span beam. The primary objective of the garage was to produce a high level of personal security plus a visual blend with the existing hospital and surrounding neighbourhood. The garage was expanded to 570 cars in 2003.

Key Personnel:

Ron Mazza, P.Eng. - Principal-in-Charge (Original)

Scott Wallace, P.Eng. - Principal-in-Charge (Expansion)

Reference:

Oakville Trafalgar Memorial Hospital

327 Reynolds St.

Oakville, ON L6J 3L7

Tel: (905) 845-2571 / Fax: (905) 338-4632



Purdy's Wharf Parking Garage, Halifax, Nova Scotia

This 7-storey parking garage provides 1,100 spaces for the Purdy's Wharf Development on the Halifax Waterfront. The structure consists of precast columns and beams supporting 24" deep precast double tees spanning a minimum of 58'-0". Precast concrete cladding was selected with a white finish to match the exterior of the new adjacent towers and commercial building. Concrete caissons socketed into bedrock were required due to the poor nature of sub-soil and high ground water. A separate steel roof structure was incorporated to eliminate the need for snow removal on the upper deck.

Key Personnel:

Scott Wallace, P.Eng. - Principal

4. Team/Organization

Consultant's Project Team and Per Diem Rates

Team Member (Name and Firm)	Role	Per Diem Rate (7 Hours Per Day)
Scott Wallace Read Jones Christoffersen Ltd.	As Principal in Charge of the Carpark No. 1 project, Scott will provide innovative structural solutions in the critical early stages of the project. He is the senior contact for this project and tracks the project on an ongoing basis to determine that RJC's commitments to client service and quality structural design are being met. Scott will be heavily involved in the conceptual design stage and ongoing detailed design of this project and will ensure that adequate resources are made available to the design of the project to meet deadline and quality control goals.	\$1,610
Darren Wint Read Jones Christoffersen Ltd.	As Project Engineer, Darren will be responsible for day-to-day production and will be directly responsible for the completion of the project and will also coordinate with members of other disciplines who are involved in this project. Darren will be involved actively in the design stage, in particular during sketch planning and preparation of construction documents and specifications for costing and pre-tender submission. Darren will be responsible for supervising RJC's design team, providing adequate manpower for the project, reviewing the drawings and for periodic review of the structure during the construction phase, as well as quality control.	\$1,050
Chuck Beamish IBI Group	IBI Group will provide preliminary studies to design, working drawings and contract administration. Armed with a detailed knowledge of the client's needs and preferences, functional relationships and space requirements IBI will provide architectural services with a high degree of design excellence and professionalism.	\$1,050
Gerard McCabe Curran McCabe	The extensive and recent experiences of the staff at Curran McCabe in major parking projects will be utilized in providing accurate, comprehensive cost estimates for this project.	\$1,575
Stephan Lau (Mechanical) Desmond Lau (Electrical) MCW	The engineers at MCW have worked with RJC on the design and repair of new and existing parking garages for several years. Stephan and Desmond will be responsible for all mechanical and electrical elements.	\$1,295 \$1,295
Nadir Ansari Isherwood	Nadir will be responsible for supervising RJC's design team, providing adequate manpower for the project, reviewing the drawings and for periodic review of the structure during the construction phase, as well as quality control.	\$1,400

Contribution Matrix

Task	Discipline and Hours Assigned									Total
	Project Management/ Arch	Structural	Mechanical	Electrical	Cost Consultant	Code Consultant	Elevator	Shoring	Construction Review	
Phase 1: Data Assembly, Schematic Design, Cost Estimate									Included	
Data Assembly	30									30
Schematic Design	100	40	40	40		0				220
Estimates	20				30					50
Site Plan Approval	300	10	10	10		10				340
Phase 2: Detail Design, Building Permit, Tendering										
Drawings	120	80	40	40	30			10		320
Specifications	30	10	10	10		5	30	10		105
Tender & Permit Docu	200	120	80	80	30	5	10	5		530
Tendering Process	30	10	10	10			7	5		72
Phase 3: Contract Administration										
Construction Review	260	260	260	260			20			1060
Inspection & Testing	30	30	10	10		5	7			92
Decommissioning	60	40	40	40			20			200
Phase 4: Warranty Period										
Audit	30	10	10	10			7			67
Follow-up	30	10	10	10			7			67
	1240	620	520	520	90	25	108	30		3153

5. Understanding of Project and Proposed Approach

As Prime Consultants for Carpark No. 1, Read Jones Christoffersen Ltd. will strive to provide imaginative and innovative solutions to best meet the needs of the Toronto Parking Authority. The “best” solution will be a unique balance of building function, design, budget, and construction ability.

For Carpark No.1, the most critical issues will revolve around construction sequencing and staging. The new floors must be added with minimal disruption to the operation of the garage while ensuring the safety of the TPA's patrons. This will be a formidable task on this busy downtown site. With our knowledge of the building and the experience of our team with similar expansions, we can provide the TPA with creative solutions to bring this project to life.

Key to this approach is developing a thorough understanding of:

- a) The City's specific needs for their project, including special uses, design goals, budget, schedule, etc.
- b) The design ambitions and intent of all key disciplines, architectural, mechanical, electrical, etc.
- c) Construction issues and constraints; site, schedule, method of project delivery, etc.

In today's fast-track environment our creative, project specific approach often manifests itself in building solutions that provide maximum flexibility for functional planning, mechanical, electrical, and architectural systems, or overall project delivery.

Delivering these solutions requires the involvement of senior personnel from start to finish. RJC is committed to the continuity and active participation of senior staff on this project.

We have developed a team of specialist consultants who have worked together on a number of exceptional stand-alone parking facilities, including the original Carpark No.1 structure. Collectively, we understand this building type extremely well. It is this understanding that allows us to create simple, highly efficient functional designs which in turn, provides the budget flexibility to incorporate a high level of architectural treatment on our parking projects.

RJC will lead the team through the following approach:

Phase 1 - Develop Scope of Work, Conceptual Design, and Preliminary Cost Estimate

- 1. Consultation with TPA to establish a detailed program for the facility.
- 2. Provide an assessment of the different types of pre-manufactured and conventional parking structures appropriate for this structure.
- 3. Review all existing drawings and site conditions. This will not be a lengthy step since our team is very familiar with the building.
- 4. Prepare a conceptual design layout for the site, project brief and project approval document for approval of the design. The drawings shall be sufficient in numbers, at scales and in detail to facilitate preliminary costing and to fully describe the building concept.
- 5. Incorporate the elements of structural design, appropriate façade and streetscape treatment, as well as functional operation.
- 6. Prepare site plan and facilitate site plan approval.
- 7. Prepare a detailed schedule for all phases of the project.

Phase 2 - Detailed Design and Tender Documents

1. Prepare designs, specifications and working drawings for approval and construction of the above-noted project, all of which are to be in both hard copy and electronic formats.
2. Prepare detailed cost estimates for the construction of the garage, including but not limited to, all design, construction, equipment, permits, overhead, taxes and contract administration fees.
3. Prepare all documents necessary for and obtain the building permits, site plan approval and all applicable approvals.

Tender

1. Prepare tender documents suitable for companies to competitively bid on the construction of the project in the form of a lump sum contract using CCDC-2/1994 contract document.
2. Provide assistance to the President, in carrying out a pre-qualification of General Contractors; oversee the tender process, bid evaluation and award of the most appropriate tender submission.

Phase 3 - Contract Administration

1. Provide contract administration services and provide clarification and interpretation of construction documents.
2. Review of shop drawings submitted by the Contractor.
3. Monitor and report to the client on the progress of construction including but not limited to deficiency inspections, change order and site instruction preparation and progress draw approvals.
4. Attend construction meetings, prepare and maintain a record of proceedings of these meetings.
5. Verification of Contractor's claims.
6. Prescribe remedial action by Contractor where materials or workmanship fail to comply with Contract requirements.
7. Prepare of AutoCAD "as-built" record drawings.
8. Construction review of all building systems compliant with the requirements of the authority having jurisdiction and includes the following:
 - Site visits by qualified personnel, with such frequency, as RJC deems appropriate to observe the various stages of the construction of the work and to ascertain that it is done in general conformity the contract documents.
9. Submit an interim Certificate of Completion for approval and processing.
10. Perform final review of Contractor's work and submit a final Certificate of Completion for approval and processing.

Phase 4 - Post-Construction Follow-up/Warranty Period

1. During the warranty period, expedite contractor's resolution of warranty items.
2. Perform post-construction warranty review.

Qualifications:

1. We have anticipated a normal site plan application process and allowed for the following:
 - Meeting with city planners to present the schematic designs and receive comments
 - SPA submission
 - Review and incorporation of comments from planning and one re-submission
 - Follow-up to respond to queries as required.
 - Attendance at one council meeting.

We have not allowed for multiple submissions, committee of adjustment process or OMB appeals. If these elements are required we will complete the work on a time rate basis or at an agreed fee.

2. We have anticipated a normal review process for TTC approval and have allowed for the following:
- Preliminary meeting with TTC to review project scope and their submission requirements
 - Detailed submission to TTC for approval including permit drawings and calculations related to TTC structures.
 - One meeting with TTC staff to review comments. Incorporation of TTC requested revisions.
 - Development of specifications for independent monitoring of TTC structures (cost of monitoring to be included in construction budget).

We have not allowed for multiple submissions to the TTC nor have we included an Elasto-Plastic Finite Element Analysis of the soil/TTC structures. We have indentified this analysis as an additional cost which may be required.

Health and Safety Program

Read Jones Christoffersen Ltd. has a Health and Safety Program and has instituted the following partial list of measures to ensure compliance to the Occupational Health and Safety Act (OHSA):

- Our Health and Safety Policy Statement, which was communicated to the staff, is prominently displayed in a public area accessible to all employees along with the WSIB "In Case of Injury at Work" poster.
- Two Joint Occupational Health and Safety Committee (JOHSC) have been properly certified.
- Our first aid station, which is accessible to all the employees, has a first aid box that is inspected regularly. A St. John Ambulance certified first aid person is in place.
- Prior to employees going to the field, they are sent to seminars relevant to the type of work they will perform; e.g. Fall Arrest Seminars, etc.
- Employees are made aware of reporting process for any work-related injury and all reported work-related injuries are reported to WSIB.
- Report accurate payroll information to WSIB.
- When dealing with Contractors and sub-consultants, we ensure that they have the proper professional liability insurance coverage. We review their performance throughout the course of construction for general conformance with the Act. We also request them to submit their company policy on workplace safety for our review.

We are currently registered and are in good standing with the WSIB.

[illegible]

7. Fees and Payment Schedule

Fee Breakdown by Task Schedule

NO.	Task		Amount	
			Upset Fee	Percentage
1	Phase 1	a) Data Assembly	\$27,250	5%
		b) Preliminary Design	\$43,600	8%
		c) Site Plan Approval	\$54,500	10%
2	Phase II	a) Detailed Design & Tender Documents	\$190,750	35%
		b) Building Permit Service	\$32,700	6%
		c) Tendering and Review Service	\$32,700	6%
3	Phase III	Contract Administration Service	\$136,250	25%
4	Phase IV	Warranty Period Follow-up Service	\$27,250	5%
Total Upset Fee			\$545,000	
* Additional fee for Electro-Plastic Finite Element Analysis of TTC structures if require			\$30,000	