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# Quantity Surveying and Cost Consulting Services (RFP #105-2014)
# Value Analysis Report
# for
# Winnipeg Police Service Headquarters

July 2014

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| Rev | Originator | Approved | Date |
|---|---|---|---|
| 0 | Joseph Coyne | Marcos Sibal | June 6, 2014 |
| 1 | Joseph Coyne | Marcos Sibal | July 9, 2014 |
| | | | |

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# 1 Introduction and Executive Summary

## 1.1 Introduction and Background

The City of Winnipeg advertised Request for Proposal No. 105-2014 requesting bids for professional services by an out of province Independent Quantity Surveyor/Cost Consultant, for the purpose of preparing a comprehensive Value Analysis report encompassing hard construction costs review, based on available relevant documentation provided. RFP submissions were received by City of Winnipeg on February 27th 2014. Turner & Townsend (TT), was thereafter, awarded the commission on March 26th 2014.

The proposed project is comprised of two (2) major components:

A. Conversion of the existing 6 storey Winnipeg Mail Processing Facility into the new Winnipeg Police Service Headquarters (approximately 677,511sf) located at 266 Graham Street, Winnipeg, Manitoba [urban site]. This facility is currently under construction and targeted to be completed in late spring/early summer 2014.

B. New 35 Lane Outdoor Police Firing Range building (approximately 9,171sf) and associated Site works, located at Wyper Road (circa 15km distance from 266 Graham) Winnipeg, Manitoba [rural site]. This facility has been substantially completed in summer 2012.

## 1.2 GMP Contract

**This analysis is limited to providing an opinion on the reasonableness of the $156,374,911.67 Guaranteed Maximum Price (GMP) value, based on scope of work defined on the drawings and specifications as well as items not explicitly shown on the documents (identified separately by the Project Management team to TT).**

We understand there has been several and significant design and scope changes from the initial November 18, 2011 GMP Agreement between the City of Winnipeg and Caspian Project Incorporated. These changes have been captured and documented in the current design drawings and specifications as listed in Appendix E of our report.

We summarize below our understanding of the GMP contract amount between the City of Winnipeg and Caspian Projects Inc.:

1. 18th November 2011; $137.1M GMP
Contract dated 18th November 2011 referred to as Principal Agreement with Caspian/City of Winnipeg

2. 11th December 2013; $156.375M GMP
$156,374,911.67 Supplemental Agreement between Caspian Projects Inc. and City of Winnipeg dated December 11, 2013.

Appended to the above 11th December 2013 agreement is the cost breakdown titled "Revised Contract Cost Breakdown" sum dated February 18, 2014 (see Appendix A), as follows:

| | Description of work | Value $ |
|---|---|---|
| a. | Headquarters Building | $ 110,770,000.00 |
| b. | Gun Range | $ 6,200,000.00 |
| c. | Change Orders (CO #1 to CO #79) | $ 30,124,569.15 |
| d. | Towers Projects (CO #81) | $ 1,917,586.91 |
| e. | Furniture, Furnishings and Equipment Adjustments(CO #80) | $ 3,786,608.00 |
| f. | Furniture, Furnishings and Equipment(FFE) | $ 3,576,147.61 |
| | **Total** | **$156,374,911.67** |

## 1.3 Executive Summary

We summarize below our findings:-

| Executive Summary | GFA (sf) | $/sf | Total |
|---|---|---|---|
| 1. Headquarters | 677,511 | $182 | $123,016,000 |
| 2. 35 Lane Wyper Road Firing Range | 9,171 | $659 | $6,045,000 |
| 3. General Requirements and Fee (based on schedule provided) | | | $15,239,000 |
| 4. **Allowances (carried as Cash Allowances as instructed by AAR per email dated April 14, 2014)** | | | |
| 4.1 Furniture, Furnishings and Equipment (FFE) | | | $4,373,000 |
| 4.2 Tower Project Cost | | | $2,238,000 |
| 5. Change Orders not shown on drawings (see section 3.4.1) | | | $3,620,000 |
| 6. Site Instructions not shown on drawings (see section 3.4.2) | | | $347,000 |
| 7. Wyper Road Target System (36 lane; Universal 90) | | | $160,000 |
| | Sub-total | | $155,038,000 |
| 8. De-Escalation (from 2Q 2014 to 1Q 2013) – Headquarters * (1.50%) | | | ($1,845,000) |
| 9. De-Escalation (from 2Q 2014 to 1Q 2012) – Wyper Road * (2.70%) | | | ($163,000) |
| **Total Value Analysis (excl.GST)** | **686,682** | **$223** | **$153,030,000** |

* de-escalated to midpoint of construction (industry standard) in order to compare with Caspian Project Inc.'s GMP breakdown; based on Statistics Canada Construction Price Index

**Strictly from a financial viewpoint and using both detailed elemental cost analysis and benchmarking studies, it is our opinion that the project value of $156,374,911.67 for the Winnipeg Police Headquarters and Wyper Road Firing Range is within the acceptable range of cost for a facility of this nature.**

1) Turner and Townsend's Value Analysis in the amount of $153,030,000 is within 2.2 % of the GMP amount agreed by the City of Winnipeg with Caspian Project Inc. per supplemental agreement dated December 11, 2013. We find this percentage to be within tolerable/acceptable range. Refer to Section 3 of our report.

2) Based on benchmarking study, the cost per sf of the Winnipeg Police HQ project is within the anticipated range of cost for a project of this nature and program requirements ($170 to $223 per sf). Refer to section 4 of our report.

# 2 Methodology

## 2.1 Basis of Pricing

This Value Analysis reflects pricing in current 2Q 2014 dollars and reflective of the present market conditions in the City of Winnipeg (see also section 2.3). In order to compare with Caspian Project Inc.'s GMP value, the analysis is "de-escalated" to 2013/2012 for the HQ and Wyper Road projects respectively (see also section 2.4). **The pricing assumes normal tendering conditions ie. 5 to 8 General Contractors "bidding" for the project and obtaining competitive pricing from their respective sub-trades (typically 3 sub-trade quotes for all major trades).**

## 2.2 Meetings and Documentation Transmittal

Following award of commission and personnel security clearance approval, TT attended meetings at the 2nd floor project office located in 266 Graham St. in Winnipeg, on April 9 and 10 2014. The intent was to have initial briefing from the City Representatives and Project Management team Adjeleian Allen Rubeli Ltd. (AAR) and grc architects (GRC) as well to discuss and understand the overall scope and limit of work, request for relevant documentation, collate project data and conduct a site observation of the Winnipeg Police HQ building and the Outdoor Firing Range.

Documentation to serve as the basis for evaluation and preparation of our Value Analysis was then subsequently received by our office as follows:-

April 9, 2014:

1. Winnipeg Police Services Firearm Training Facility, "As-Built drawing set" by Caspian and dated October 4, 2012. This set included the following:
   - Architectural Drawings by grc architects dated May 4, 2012
   - Structural Drawings by WOLFROM dated May 1, 2012
   - Mechanical and Electrical Drawings by NOVA 3 dated May 1, 2012

April 11, 2014:

2. Winnipeg Police Services Headquarters, "Issued for Quantity Audit" issued by AAR. This set included the following:
   - Architectural drawings by grc Architects dated April 11, 2014
   - Structural Drawings by WOLFROM Engineering dated April 11, 2014
   - Mechanical and Electrical Drawings by NOVA 3 April 11, 2014
3. Sprinkler layouts by Troy dated February 25, 2014
4. Architectural and Structural Specifications by AAR/grc architects dated July 24, 2012
5. Mechanical and Electrical Specifications by AAR/NOVA 3 dated November 9, 2012.

In addition, breakdown of values from Caspian Projects Inc. (see Appendix A) in the amount of $156,374,911.67 was provided as part of the RFP process.

Following review and assessment of these documents an initial list of queries was issued by TT to the design team to clarify unclear or missing information. It was agreed that a follow-up "face to face" meeting in the first week of May 2014 with City Representatives and the Project Management team would be appropriate to ensure that these issues would be addressed.

On May 5 and 6, 2014, TT attended further meetings at the 5th floor project office located in 266 Graham St. in Winnipeg. Following these meetings, additional information was transmitted to TT via several email correspondences.

Refer to Appendix E for the complete list of document used in this Analysis.

## 2.3 Elemental Cost Analysis

Refer to Appendix D of our report for a full Elemental Cost Analysis for the two major components of the project:-

A. Winnipeg Police HQ
B. Outdoor Firing Range

The Elemental Cost Analysis is prepared in accordance with the Canadian Institute of Quantity of Surveyors (CIQS) Method of Measurement Fourth Edition (refer to Appendix F). The Elemental format is broken down into the following major categories:-

a. Substructure
b. Structure
c. Exterior Enclosure
d. Partitions and Doors
e. Finishes
f. Fittings and Equipment
g. Mechanical
h. Electrical
i. Site Work
j. Ancillary Work
k. General Requirements/Conditions and Fee

The above format is an industry accepted method of preparing an estimate/analysis and reporting.

Detailed quantities are measured from drawings and appropriate and reasonable "fair market" unit rates applied to each items reflective of the local Winnipeg market (see also section 2.1). For the purpose of this analysis we have assumed that all the sub-trade work are competitively tendered (no single sourced items and at least 3 quotes received by General Contractor for all major trades). Factors that impact cost such as economies of scale, sub-trade site access, complexity of work etc. are also deemed to be included in the unit rates.

## 2.4 Escalation

The analysis is "de-escalated" to midpoint of construction as follows:-

a) Winnipeg Police Headquarter building- "de-escalated" to 1Q 2013
b) Outdoor Firing Range- "de-escalated" to 1Q 2012

The index used for the "de-escalation" factors is the Statistics Canada Construction Price Index.

## 2.5 Benchmarking

This Value Analysis includes a separate section dedicated to benchmarking study (refer to section 4 of our report).

This section is beneficial in order to understand how the cost of this proposed project compares with other Police Headquarter facilities of reasonably similar or comparable program.

## 2.6 Level of Accuracy

Our estimate is typically intended to "fall between" or in the middle of the low and high end of the bids received from a number of General Contractors tendering competitively on a typical project. For an estimate / analysis based on +/- 100% Working Drawings and Specification, the industry standard for level of accuracy is between 1% to 5%

# 3 Value Analysis

## 3.1 Summary of Value Analysis

| Executive Summary | GFA (sf) | $/sf | Total |
|---|---|---|---|
| 1. Headquarters | 677,511 | $182 | $123,016,000 |
| 2. 35 Lane Wyper Road Firing Range | 9,171 | $659 | $6,045,000 |
| 3. General Requirements and Fee (based on schedule provided) | | | $15,239,000 |
| 4. **Allowances (carried as Cash Allowances as instructed by AAR per email dated April 14, 2014)** | | | |
| 4.1 Furniture, Furnishings and Equipment (FFE) | | | $4,373,000 |
| 4.2 Tower Project Cost | | | $2,238,000 |
| 5. Change Orders not shown on drawings (see section 3.4.1) | | | $3,620,000 |
| 6. Site Instructions not shown on drawings (see section 3.4.2) | | | $347,000 |
| 7. Wyper Road Target System (36 lane; Universal 90) | | | $160,000 |
| | Sub-total | | $155,038,000 |
| 8. De-Escalation (from 2Q 2014 to 1Q 2013) – Headquarter * (1.50%) | | | ($1,845,000) |
| 9. De-Escalation (from 2Q 2014 to 2Q 2012) – Wyper Road * (2.70%) | | | ($163,000) |
| **Total Value Analysis (excl. GST)** | **686,682** | **$223** | **$153,030,000** |

A full detailed Elemental back-up is provided in Appendix D; Refer to Section 5 of our report for specific exclusions and assumptions to this detailed analysis.

* de-escalated to midpoint of construction (industry standard) in order to compare with Caspian Project Inc.'s GMP breakdown; based on Statistics Canada Construction Price Index

## 3.2 General Requirements and CM Fee

### 3.2.1 General Requirements

All Construction projects require management and supervision of the works. These General Requirement costs are either Fixed Costs (ie. mobilization/demobilization) or Time Related Costs (i.e. project supervision, rental of equipment, etc.). General Requirements include but are not limited to:-

1) supervision
2) insurance/Bonds
3) cranes
4) hoisting
5) schedule preparation and management
6) site meetings
7) safety and safety meetings material and work quality control
8) protection
9) heating and hoarding/winter weather work premiums
10) setting out
11) phasing
12) hoarding
13) dust partitions
14) temporary power & light
15) temporary works
16) site offices & furniture
17) safety manuals
18) security
19) small plant & tool equipment

For the Winnipeg Police HQ, we have been advised of a 4 month pre-contract period and a 32 month construction period with building completion in late spring 2014/early summer 2014.

For the Outdoor Firing Range, we have been advised of a 4 month pre-contract period and an 11 month construction period with building completion in summer 2012.

Both schedule appear appropriate for the scope and nature of the project.

We have prepared an independent project specific General Requirements calculation for each of the two components, based on the stated timeline and schedules and on the assumption that the project is competitively tendered (ie what General Contractors would typically include for in their bid).

Specific to this project, we have likewise included street lane closure costs, swing stage scaffold envelope construction support systems, winter weather working conditions, urban site location, renovation condition variables but have excluded certain items that are paid by the City directly.

Our General Requirement evaluation also reflects the following sub trade general requirements for:

1) Scaffolding
2) Cleaning
3) Temporary protection
4) Housekeeping
5) Safety and supplies
6) Temporary lighting
7) Canteen
8) Hoisting
9) Garbage disposal

We understand that the following are paid by the City directly and do not form part of General Requirements:-

1) Heating of existing building
2) Fuel costs of building
3) Permit fees and utility charges
4) Insurance of existing building HQ

### 3.2.2 Construction Management (CM) Fee / Margin

The project administration cost (including sub-trade tender process) managed by the General Contractor attracts remuneration by way of a percentage fee / margin on cost to tendered sub-trade work packages. The CM fee is generally applied to sub-trade works as well as to self-performed work (such as rough carpentry, concrete frame, caulking, etc.).

For this project, we have allowed a 3% fee / margin on cost to sub-trade and self performed work representative of the nature and complexity of the project. Typical range is between 1% to 3%.

Included in our CM fee are the following scope for the General Contractor:-

1) sub-trade tendering process including bidding, reporting, analysis and recommendation
2) sub-trade contract and administration
3) sub-trade management and final account completion

Based on the above our evaluation of the General Requirements and CM Fee is **$15,239,000** or ± 10% of the cost of the work. Refer to Appendix G for a detailed breakdown of our calculation.

The typical range would be in the order of 8% to 12% of the net trade cost.

We note that this value is developed totally independent of Caspian Project Inc.'s breakdown. This component tend to vary from one General Contractor to the other. Our evaluation represents, in our opinion the appropriate / competitive market value for General Conditions and Fee for this type of project and work environment.

### 3.3 Cash Allowances

As instructed by the Project Management team, TT is to carry the following Cash Allowances in our report (we understand that these are previously agreed amounts with Caspian Projects Inc , allocated to this project for "accounting purposes" only and therefore require no further analysis):-

a. Furniture, Fittings and Equipment (FFE) at **$4,373,017.55**. We note that this is not consistent with Caspian Projects Inc amount of **$3,576,147.61**, carried in their February 18th 2014 breakdown, due to the following:

- Blinds at $561,030.10 have been moved from Change Order (CO) to the Cash Allowance (refer to CO #25)
- Furniture item for Firearms Training Facility is adjusted from $52,510.36 to $275,263.36
- Hand Dryers added at $15,000
- Minor Deletions – Desk Extension at ($699.78) and stainless steel table ($1,213.38) = ($1,913.16)

| | |
|---|---|
| Original Amount | $ 3,576,147.61 |
| Add blinds | $ 561,030.10 |
| Add Adjusted Furniture and Furniture Consultant for Outdoor Shooting Range | $ 222,753.00 |
| Add Hand Dryers | $ 15,000.00 |
| Delete Desk Extension/Stainless Steel Table | ($ 1,913.16) |
| **Revised FFE Amount to be carried in Turner & Townsend Analysis** | **$ 4,373,017.55** |

b. Tower Cost at **$2,238,000.12**. This is contrary to Caspian Projects Inc amount of $1,917,586.91, carried in the February 18th 2014 breakdown. We understand that the variance is due to the increase in scope for the 5th floor washroom renovation from $91,777.08 to $412,813.08 as well as minor adjustment for replacement of switch gear from $635,622.79 to $635,000.

| | |
|---|---|
| Original Amount | $ 1,917,586.91 |
| Add 5th floor work amount adjustment | $ 321,036.00 |
| Minor adjustment to switch gear | ($ 622.79) |
| **Revised Tower Cost to be carried in Turner & Townsend Analysis** | **$ 2,238,000.12** |

The instruction to carry these allowances is as per email dated April 14 and June 30, 2014 from AAR (see Appendix B).

### 3.4 Items not shown on drawings

Through our review and discussion with the Project Management team it is our understanding that certain scope of work is not shown on the drawings provided for our analysis. Our approach to evaluating such items is outlined below:-

#### 3.4.1 Change Orders

It is our understanding that all Change Orders as described on Caspian Projects Inc. "Revised Contract Cost Breakdown" dated February 18, 2014 are reflected in the drawings received by TT on April 9th and April 11th, 2014 except for the following:-

- CO #02 – Replacement of Existing Level P2 Slab
- CO #04 – Armory Workshop-Addition of Fumehood and Additional Millwork
- CO #09 – Wyper Light Pole Protection
- CO #12 – Wyper Modifications to Ammo Vault Door & Hardware and Tower Control
- CO #14 – Wyper HQ 3rd Floor CPU Hold Rooms Electrified Locks
- CO #15 – HQ 5th Floor Central Vacuum System Modification
- CO #19 – HQ Level P1 Scope Change Floor Levelling
- CO #22 – HQ Rapid Rise Garage Doors
- CO #23 – HQ Antistatic Laminate Floor at 911 Call Centre
- CO #35 – HQ Fire Proofing of Floor Assembly over Main Lobby
- CO #36 – HQ Video Production Unit - A/V Studio 5410
- CO #37 – HQ Modifications to Consultant Rooms and Interview Rooms
- CO #39 – HQ Main Lobby Desk Modifications
- CO #40 – HQ Millwork Additions/Modifications
- CO #44 – HQ Additional Catwalk at 5th Floor Level
- CO #79 – Construction of Wyper Road

The above Change Order items are measured and evaluated separately from the elemental cost analysis and totals **$3,620,000** (refer to Appendix D for detailed back-up).

#### 3.4.2 Site Instructions

A similar approach has been applied for the Site Instructions (SI) that are not reflected on the documentation received. We understand that SI numbers 1 to 293 are all documented and reflected in the drawings, however SI numbers 294 to 361 are not documented and have been measured and evaluated separately.

Cost of all Site Instructions beyond SI no 361 has been excluded from our analysis.

The cost for SI's #294 to #361 totals **$347,000** (refer to Appendix D for detailed back-up).

#### 3.4.3 Others

The Wyper Road Target System is neither covered by a change order or a site instruction but we understand that it is included in the GMP contract. Based on the specification provided (Universal 90; 36 lanes) we have allowed $160,000 for this item in our Value Analysis.

### 3.4.4 Abortive Work

It is our understanding that certain redundant/abortive works are not recorded and are not shown on the drawings provided. These works were identified and recorded at the May 5th and 6th 2014 meetings with the Project Management team. Based on these discussions, we have evaluated and included in our analysis the following:

1. Infloor heating on level 5. We understand that 20% of the work was completed and required removal due to system re-design.
2. Raised floor Power & Communications modification - this is due to furniture layout modification at the 4th and 5th floors.
3. Pyro cable in lieu of Draka (due to building code revision). We understand that 25% of the Draka cable has already been installed at the time of the code revision. These Draka cables required removal prior to installation of the code compliant Pyro cable. In addition, we understand that 25% of the total Draka cable requirement has been purchased prior to the code revision. We have likewise included in our analysis the purchase cost of these cables (no installation allowed). In summary, we have allowed as part of Abortive Work the following:
    a) 25% Draka cable supplied, installed and removed
    b) 25% Draka cable purchased only

    Finally we note that although the current Electrical drawings provided to TT still show Draka cable, all cables installed on site are of the Pyro type (code compliant) as confirmed by the Project Management team (refer to email dated 14 and 16 April 2014 from AAR) and therefore priced as such in our analysis.
4. Wyper Road access road – We understand that this was constructed twice due to revision in width of road from 8.5 m to 10.5 m.
5. 25 number rated doors replaced with temperature rise $1^1/_2$ /hr ULC rated doors (SI 288r1).

The cost of all the above Abortive Work totals **$1,438,450** and have been incorporated in our elemental analysis (refer to items 1. and 2. of our section 3.1).

# 4 Benchmarking

## 4.1 Benchmarking Analysis

This section is included to understand how the proposed Winnipeg Police HQ project compares with other similar facilities. In order to do this TT compiled internal data of its Police Headquarters projects from actual tendered values (excluding change orders) received from General Contractors. As in any benchmarking analysis it is important to identify any unique/abnormal/premium cost in the considered facilities in order to "level" the comparison. These "abnormal" costs are then deleted/isolated from the data to establish a "fair" comparison. We summarize below our approach to this benchmarking section:

1) Four (4) projects are identified from our internal data as follows:-

| Project (HQ) | Tendered Dates | Gross Floor Area (sf) | $/sf before adjustments/levelling/indexing |
|---|---|---|---|
| Kingston, ON | 4Q 2004 | 121,439 | 219 |
| London, ON | 3Q 2007 | 102,376 | 205 |
| Saskatoon, SK | 2Q 2011 | 349,141 | 289 |
| Niagara, ON | 3Q 2013 | 217,336 | 209 |

2) All four (4) projects were built either as new construction or new expansion compared to the proposed Winnipeg Police HQ which is a conversion/renovation project. The cost of framing and structure (concrete works and structural steel) are deleted from both the Caspian Project Incorporated breakdown as well as from the four (4) selected facilities to ensure proper "leveling" and comparison. This is due to the fact that new construction projects tend to have significantly higher structural cost compared to renovation projects. In addition, for the Saskatoon project, the amount for consultant design fees was likewise deleted from its breakdown as this cost is not applicable to the other four (4) facilities.

The cost of the structural component of the Winnipeg Police HQ Project is outlined below:-

| Item | Description | Amount |
|---|---|---|
| 1 | Concrete (item 1HQ) – Lowest Floor Construction | $138,000 |
| 2 | Structural Steel (item 2HQ) – Lowest Floor Construction | $322,000 |
| 3 | Concrete (item 3HQ) – Upper Floor Construction | $1,416,000 |
| 4 | Structural Steel (item 4HQ) – Upper Floor Construction | $3,040,000 |
| 5 | Reinforcing (item 5HQ) | $580,000 |
| 6 | Walls Below Grade – Poured concrete walls – (item 8HQ) | $58,000 |
| 7 | GMP Cost Average: 3300 Concrete (item 137HQ) | ($592,000) |
| 8 | GMP Cost Overage:5100 Structural Steel Framing (138 HQ) | ($786,431) |
| | Total | **$4,175,569** |

The above items and values are extracts from the Caspian Project Inc. Revised Construction Cost Breakdown (refer to Appendix A).

3) In addition to above, "Abnormal" or "project specific premium" items present in the Winnipeg Police HQ Project were likewise deleted from the Caspian Project Inc. breakdown as part of the "levelling / filtering" process. These items represent costs that are not typically present in a "new build" project. These items include:-

| Item | Description | Amount |
|---|---|---|
| 1 | Concrete Modification, Coring and Demolition (item 57HQ) | $2,350,000 |
| 2 | Structural Concrete, Coring and Demolition (item 62 HQ) | $4,407,000 |
| 3 | Demolition (item 66, 67, 68 HQ) | $6,160,000 |
| 4 | Replacement of P2 slab (item 72HQ) | $1,689,700 |
| 5 | HQ Level P1 Scope Change Floor leveling (item 92 HQ) | $532,420.35 |
| 6 | HQ Elevator Hoistings Structural Modifications (item 114HQ) | $210,930.72 |
| 7 | Tower Projects; item 157-164 HQ (separate project) | $1,917,586.91 |
| 8 | Furniture, Finishings, Equipment (FFE) (item 150 HQ, 34 W, 35 W, 36 W, 37 W, 74 – 76 HQ, 78 – 81 HQ) | $3,576,147.61 |
| 9 | Abortive Work (refer to section 3.4.4) | $1,438,450 |
| | Total | **$22,282,235.59** |

4) The Adjusted cost/sf for the Winnipeg Police Project then is as follows (using a gross floor area of 686,682 sf):-

| | |
|---|---|
| Original Total | $156,374,911.67 |
| Less Structural Cost (item 2) | ($4,175,569.00) |
| Less Project Specific Premiums (item 3) | ($22,282,235.59) |
| Revised Total | **$129,917,107.10** |
| | or **+/- $189/sf** |

5) Following the levelling as outlined in items 2), 3), and 4) above, we summarize the benchmark table as follows:-

| Item | Facility | Date * | Gross Floor Area (sf) | Cost per sf (un-adjusted) ** | Cost per sf * (adjusted and indexed) |
|---|---|---|---|---|---|
| 1 | Saskatoon Police HQ | 2Q 2011 | 349,141 | $289 / sf | $223/ sf |
| 2 | Kingston, ON Police HQ | 4Q 2004 | 121,439 | $219 / sf | $219/ sf |
| **3** | **Winnipeg Police HQ** | **1Q 2013** | **686,682** | **$228 /sf** | **$189/ sf** |
| 4 | London, ON Police HQ | 3Q 2007 | 102,376 | $205 / sf | $181/ sf |
| 5 | Niagara, ON Police HQ | 3Q 2013 | 217,336 | $209 / sf | $170/ sf |

*Dates for items 1, 2, 4 and 5 reflect actual tendered dates; the costs for these facilities are escalated (or de-escalated as the case maybe) and indexed to 1Q 2013 to compare with Winnipeg Police HQ's midpoints of construction. All "levelling" processes have likewise been incorporated ("abnormal" and structural cost removed).

** Actual Tendered Values of the projects without "levelling" adjustment for escalation, structural cost, etc.

**The above table indicates that the cost per sf of the proposed Winnipeg Police HQ and Firing Range is within the range cost for these types of facilities.**

# 5 Exclusions and Assumptions

## 5.1 Exclusions

The following have been specifically excluded from our Value Analysis (mostly representing Project Soft Costs carried by City separately or outside of the GMP :

| | | A. Winnipeg Police HQ | B. Outdoor Shooting Range |
|---|---|---|---|
| 1 | GST (Goods Sale Tax) | √ | √ |
| 2 | Client Administration Cost | √ | √ |
| 3 | Professional and Specialist Consultant fees | √ | √ |
| 4 | Legal fees | √ | √ |
| 5 | Acquisition fees | √ | √ |
| 6 | Planning fees | √ | √ |
| 7 | Building Permit fees | √ | √ |
| 8 | Statutory fees | √ | √ |
| 9 | Finance charges | √ | √ |
| 10 | Surveys and subsequent works required as a result including:<br>asbestos; traffic impact assessment; existing buildings; site investigation; noise; acoustics; services; topographical; drainage/CCTV; archaeological; | √ | √ |
| 11 | 3rd party commissioning | √ | √ |
| 12 | Road opening and Licence fees | √ | √ |
| 13 | Site purchase or compensation payments | √ | √ |
| 14 | Works beyond the boundary of the site | √ | √ |
| 15 | Public artworks | √ | √ |
| 16 | City of Winnipeg Payments (permit fees, utility fees, building heating and fuel) | √ | √ |
| 17 | Utilities connection charges | √ | √ |
| 18 | Operating Costs | √ | √ |
| 19 | HQ Hydro charges | √ | √ |
| 20 | Wyper Road new Manitoba Hydro sub-station (paid by City of Winnipeg) | √ | √ |
| 21 | Fuel charges for hoarding / heating and building heating (By City of Winnipeg) | √ | √ |
| 22 | Bonding (Labour / Material) | √ | √ |
| 23 | Modification to existing HQ foundation/piling unless shown | √ | NA |
| 24 | Laboratory benching – per direction by Project Management team | √ | √ |
| 25 | AV Equipment | √ | √ |
| 26 | Communication active hardware | √ | √ |
| 27 | 6” domestic water income main – existing to Remain | √ | √ |

| | | A. Winnipeg Police HQ | B. Outdoor Shooting Range |
|---|---|---|---|
| 28 | 6" fire water income main & BFP assembly – existing to remain | √ | √ |
| 29 | Siameses connection and fire test station – existing to remain | √ | √ |
| 30 | Cost Impact of SI no 362 onward | √ | √ |

## 5.2 Assumptions

In absence of information or proper documentation provided the following assumptions are made (for greater clarity to understand what is included in our analysis):-

| Winnipeg Police Headquarters | |
|---|---|
| **Issue** | **Strategy** |
| 1. Existing Equipment Removal | TT allowed $500,000 (photographic evidence only provided) |
| 2. No design for temporary shoring of building | Allowance of $700,000 for bracing to cladding during demolition ; allowance of $172,200 at ramp area at parking levels |
| 3. "Spy Tunnels" / Elevated Walkways in the existing building | Demolition allowance of $104,312 for removal spy tunnels based on Canada Post Drawings |
| 4. Column and Drywall corner guard information not fully detailed | Quantity provided by Project Management team; Total Allowance of $119,380 |
| 5. CO #2 – Slab demolition quantities is inconsistent (quotation versus change notice) | TT is advised that the slab removal extent is from grid c-m / 2-9& M-Pb (refer to page 161 for detailed back-up) |
| 6. Seismic restraint requirement for mechanical is unclear | TT allowance of $708,600 is included for Plumbing, Fire protection and HVAC works |

| Winnipeg Police Headquarters | |
|---|---|
| **Issue** | **Strategy** |
| 7. Ballistic glazing scope unclear | TT allowed ballistic glazing to the following locations:-<br>Entrance vestibule<br>Cladding at east elevation<br>Suspended ballistic framing to 5th floor<br>Total Allowance of $1,087,718 |
| 8. Exterior and Interior material / finishes specification not fully developed | TT made appropriate material allowance throughout various elements |
| 9. Wall Finishes Schedule unclear in certain areas, in particular for epoxy and porcelain tile. | TT allowed epoxy to laboratory area and porcelain tile to feature wall |
| 10. Types of demolished partitions not specified | TT allowed $2.50/sf etc. |

| Outdoor Firing Range | |
|---|---|
| **Issue** | **Strategy** |
| 1. No design for access road (8.5m wide design) – aborted work | 10.5M drawing used and adjusted accordingly |
| 2. No AAR/GRC design for Building foundation | Use previous Consultant design drawings as instructed by Project Management team |
| 3. No design for Landscaping | See item 2 above |

# 6 Conclusion

**Strictly from a financial viewpoint and using both detailed elemental cost analysis and benchmarking study, it is our opinion that the project value of $156,374,911.67 for the Winnipeg Police Headquarters and Wyper Road Firing Range is within the acceptable range of cost for a facility of this nature.**

1) Turner and Townsend's Value Analysis in the amount of $153,030,000 **is within** 2.2 % of the GMP amount agreed by the City of Winnipeg with Caspian Project Inc. per supplemental agreement dated December 11, 2013. We find this percentage to be within tolerable/acceptable range. Refer to Section 3 of our report.

2) Based on benchmarking study, the cost per sf of the Winnipeg Police HQ project **is within** the anticipated range of cost for a project of this nature and program requirements ($170 to $223 per sf). Refer to section 4 of our report.