

**CITY OF HAMILTON
PROVINCIAL OFFENSES ADMINISTRATION
OFFICE RELOCATION
HAMILTON, ONTARIO**

CLASS 'C' ESTIMATE UPDATE

June 4, 2015

Hanscomb

**CITY OF HAMILTON
PROVINCIAL OFFENSES ADMINISTRATION OFFICE
RELOCATION
HAMILTON, ONTARIO**

CLASS 'C' ESTIMATE UPDATE

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1. INTRODUCTION

- 1.1 Purpose: This Class 'C' Estimate Update is intended to provide a realistic allocation of direct and indirect construction costs for the City of Hamilton, Provincial Offenses Administration Office Relocation, located in Hamilton, Ontario, with exceptions of items listed in 1.4 below.
- 1.2 Methodology: From the documentation and information provided, quantities of all major elements were assessed or measured where possible and priced at rates considered competitive for a project of this type under a CCDC C5 Construction Management form of contract in Hamilton, Ontario.
- Pricing shown reflects probable construction costs obtainable in the Hamilton, Ontario area on the effective date of this report. This estimate is a determination of fair market value for the construction of this project. It is not a prediction of low bid. Pricing assumes competitive bidding for every portion of the work.
- 1.3 Specifications: For building components and systems where specifications and design details are not available, quality standards have been established based on discussions with the design team.
- 1.4 Exclusions: This Class 'C' Estimate Update does not provide for the following, if required:
- Land acquisition costs and impost charges
 - Development charges
 - Legal fees and expenses
 - Right of way charges
 - Easement costs
 - Financing costs
 - Fund raising costs
 - Owner's staff and associated management
 - Relocation of existing facilities, including furniture and equipment
 - Professional fees and expenses
 - Cost of contaminated soil removal
 - Kitchen equipment
 - Laundry equipment
 - Laboratory equipment
 - Window washing equipment
 - Maintenance equipment

1. INTRODUCTION

1.4 Exclusions:
(continued)

- Loose furniture, furnishings and equipment
- Phased construction premiums
- Preventative maintenance contracts
- Building permit
- Harmonized Sales Tax

2. DOCUMENTATION

- This Class 'C' Estimate Update has been prepared from the documentation included in Appendix D of this report

All of the above documentation was received from Invizij Architects Inc. and was supplemented with information gathered in meeting(s) and telephone conversations with the design team, as applicable.

Design changes and/or additions made subsequent to this issuance of the documentation noted above have not been incorporated in this report.

3. COST CONSIDERATIONS

- 3.1 Cost Base: All costs are estimated on the basis of a CCDC 5B Construction Management form of contract. Subcontractor and supplier work will be tendered by the Construction Manager. The Construction Manager will be selected through an RFP process.
- 3.2 Escalation: An allowance 2.5% per annum of has been made for construction cost escalation that may occur between June 2015 and the anticipated bid date of for the project. Under the construction Management process, sequential package bidding will start in September 2015 but may not be complete until April 2016.
- 3.3 Contingencies: An allowance of 10% has been included to cover design and pricing unknowns. This allowance is not intended to cover any program space modifications but rather to provide some flexibility for the designers and cost planners during the remaining contract document stages.
- A separate allowance of 5% has been made to cover construction (post contract) unknowns.
- 3.4 Unit Rates: The unit rates in the preparation of this Class 'C' Estimate Update include labour and material, equipment, subcontractor's overheads and profits.
- 3.5 Taxes: No provision has been made for the Harmonized Sales Tax. It is recommended that the owner make separate provision for HST in the project budget.
- 3.6 Statement of Probable Costs: Hanscomb has no control over the cost of labour and materials, the contractor's method of determining prices, or competitive bidding and market conditions. This opinion of probable cost of construction is made on the basis of experience, qualifications and best judgment of the professional consultant familiar with the construction industry. Hanscomb cannot and does not guarantee that proposals, bids or actual construction costs will not vary from this or subsequent cost estimates.

3. COST CONSIDERATIONS (cont'd)

3.6 Statement of
Probable Costs:
(continued)

Hanscomb has prepared this estimate in accordance with generally accepted principles and practices. Hanscomb's staff is available to discuss its contents with any interested party.

3.7 Ongoing Cost
Control:

Hanscomb recommends that the Owner and design team carefully review this document, including line item description, unit prices, clarifications, exclusions, inclusions and assumptions, contingencies, escalation and mark-ups. If the project is over budget, or if there are unresolved budgeting issues, alternative systems/schemes should be evaluated before proceeding into the next design phase.

Requests for modifications of any apparent errors or omissions to this document must be made to Hanscomb within ten (10) days of receipt of this estimate. Otherwise, it will be understood that the contents have been concurred with and accepted.

It is recommended that a final update estimate be produced by Hanscomb using Bid Documents to determine overall cost changes that may have occurred since the preparation of this estimate. The final updated estimate will address changes and additions to the documents, as well as addenda issued during the bidding process. Hanscomb cannot reconcile bid results to any estimate not produced from bid documents including all addenda.

4. GROSS FLOOR AND SITE DEVELOPED AREAS

GROSS FLOOR AREA:

Description	m2
Basement	2,642
First Floor	2,346
Second Floor	1,873
Third Floor	892
Fourth Floor	892
Fifth Floor	892
Penthouse (not in GFA)	379
Total	9,573

SITE DEVELOPED AREA:

Description	m2
Area of Site	N/A
Building Foot Print Area	N/A
Site Developed Area	N/A

Site Developed Area is the area of the site less the foot-print area of the building.

The above areas have been measured in accordance with the Canadian Institute of Quantity Surveyors' Method of Measurement of Buildings by Area and Volume.

5. CONSTRUCTION COST ESTIMATE SUMMARY

COST SUMMARY:

	<u>Qty</u>	<u>Rate</u>	<u>Cost</u>
A - Renovation			\$20,931,200
B - AHU Replacement			\$811,600
C - Level 4 and 5 Fit-out			\$1,235,800
Total- Excluding Contingencies	9,573 m2	\$2,400.36	\$22,978,600
- Design and Pricing Allowance	10%		\$2,297,900
- Escalation Allowance (12 months)	2.5%		\$631,900
Total- Including Contingencies	9,573 m2	\$2,706.40	\$25,908,400
- Harmonized Sales Tax			\$0
Total Construction Estimate	9,573 m2	\$2,706.40	\$25,908,400
- Construction Allowance	5%		\$1,295,400
Total Construction Estimate (Including Construction Contingency)	9,573 m2	\$2,841.72	\$27,203,800
- Construction Management Fee	3.5%		\$952,100
Total Construction Estimate (Including Construction Management Fee)	9,573 m2	\$2,941.18	\$28,155,900

**Appendix
A - Renovation**

Project : **PROVINCIAL OFFENCES ADMIN. OFFICES**
 : **RENOVATION**
 Location : **HAMILTON, ON**
 Owner : **CITY OF HAMILTON**
 Consultant : **INVIZIJ ARCHITECTS & +VG ARCHITECTS**

ELEMENTAL COST SUMMARY

Bldg Type : 310
 C.T. Index : 0.0
 GFA : 9,573 m2

Element	Ratio to GFA	Elemental Cost		Elemental Amount		Rate per m2		%
		Quantity	Unit rate	Sub-Total	Total	Sub-Total	Total	
A SHELL		9,573 m2			6,688,100		698.64	32.0
A1 SUBSTRUCTURE					0		0.00	0.0
A11 Foundations				0		0.00		
A12 Basement Excavation				0		0.00		
A13 Special Conditions				0		0.00		
A2 STRUCTURE					0		0.00	0.0
A21 Lowest Floor Construction				0		0.00		
A22 Upper Floor Construction				0		0.00		
A23 Roof Construction				0		0.00		
A3 EXTERIOR ENCLOSURE					6,688,100		698.64	32.0
A31 Walls Below Grade				0		0.00		
A32 Walls Above Grade	0.278	2,661 m2	2,257.35	6,006,800		627.47		
A33 Windows & Entrances	0.003	32 m2	1,115.63	35,700		3.73		
A34 Roof Coverings	1.000	9,573 m2	59.06	565,400		59.06		
A35 Projections	0.000	1 Sum	80,200.00	80,200		8.38		
B INTERIORS		9,573 m2			4,149,300		433.44	19.8
B1 PARTITIONS & DOORS					978,400		102.20	4.7
B11 Partitions	0.329	3,148 m2	148.03	466,000		48.68		
B12 Doors	0.019	184 Lvs	2,784.78	512,400		53.53		
B2 FINISHES					1,312,600		137.11	6.3
B21 Floor Finishes	0.691	6,616 m2	72.39	478,900		50.03		
B22 Ceiling Finishes	0.691	6,616 m2	85.81	567,700		59.30		
B23 Wall Finishes	0.782	7,484 m2	35.54	266,000		27.79		
B3 FITTINGS & EQUIPMENT					1,858,300		194.12	8.9
B31 Fittings & Fixtures	0.691	6,616 m2	139.51	923,000		96.42		
B32 Equipment	1.000	9,573 m2	15.39	147,300		15.39		
B33 Elevators	0.000	4 No.	197,000.00	788,000		82.31		
B34 Escalators				0		0.00		
C SERVICES		9,573 m2			5,189,800		542.13	24.8
C1 MECHANICAL					2,390,500		249.71	11.4
C11 Plumbing & Drainage	1.000	9,573 m2	67.65	647,600		67.65		
C12 Fire Protection	1.000	9,573 m2	47.39	453,700		47.39		
C13 HVAC	1.000	9,573 m2	107.34	1,027,600		107.34		
C14 Controls	1.000	9,573 m2	27.33	261,600		27.33		
C2 ELECTRICAL					2,799,300		292.42	13.4
C21 Service & Distribution	1.000	9,573 m2	31.22	298,900		31.22		
C22 Lighting, Devices & Heating	1.000	9,573 m2	133.73	1,280,200		133.73		
C23 Systems & Ancillaries	1.000	9,573 m2	127.46	1,220,200		127.46		
NET BUILDING COST - EXCLUDING SITE					\$ 16,027,200		1,674.21	76.6
D SITE & ANCILLARY WORK		9,573 m2			3,353,500		350.31	16.0
D1 SITE WORK					421,900		44.07	2.0
D11 Site Development	0.000	1 Sum	352,400.00	352,400		36.81		
D12 Mechanical Site Services				0		0.00		
D13 Electrical Site Services	0.000	1 Sum	69,500.00	69,500		7.26		
D2 ANCILLARY WORK					2,931,600		306.24	14.0
D21 Demolitions	1.000	9,573 m2	219.34	2,099,700		219.34		
D22 Alterations	1.000	9,573 m2	86.90	831,900		86.90		
NET BUILDING COST - INCLUDING SITE					\$ 19,380,700		2,024.52	92.6
Z1 GENERAL REQUIREMENTS & FEE					1,550,500		161.97	7.4
Z11 General Requirements		8.0 %		0		0.00		
Z12 Fee				1,550,500		161.97		
TOTAL CONSTRUCTION ESTIMATE - EXCLUDING ALLOWANCES					\$ 20,931,200		2,186.48	100.0
Z2 ALLOWANCES					2,668,700		278.77	
Z21 Design & Pricing Allowance		10.0 %		2,093,100		218.65		
Z22 Escalation Allowance (12 mos.)		2.5 %		575,600		60.13		
Z23 Construction Allowance		0.0 %		0		0.00		
TOTAL CONSTRUCTION ESTIMATE - INCLUDING ALLOWANCES					\$ 23,599,900		2,465.26	
VALUE ADDED TAX (GST/HST)					0		0.00	
Value Added Tax (GST/HST)		0.0 %		0		0.00		
TOTAL CONSTRUCTION ESTIMATE					\$ 23,599,900		\$ 2,465.26	

**PROVINCIAL OFFENCES ADMIN. OFFICES
RENOVATION
HAMILTON, ON**

A3 EXTERIOR ENCLOSURE		Quantity	Unit rate	Amount
A32 Walls Above Grade				
1	Remove existing curtain wall system and replace with new curtain wall and new spandrel panels	2,661 m2	1,020.00	2,714,200
2	Extra over for laminated security glazing	115 m2	240.00	27,600
3	Extra over to replace existing curtain wall system using custom fabricated system to replicate framing existing design and to utilize existing spandrel panels	2,661 m2	1,076.00	2,863,200
4	Allowance to replace, patch and repoint existing stone cladding, allow 5% of stone	40 m2	850.00	34,000
5	Replace exterior insulation system	1,356 m2	142.20	192,800
	- Remove existing marble base trim and store for reuse	270 m	10.00	2,700
	- Remove existing plaster and metal lathe c/w furrings	1,365 m2	20.00	27,300
	- Install new drainage mat to interior surface	1,356 m2	35.00	47,500
	- Install new 64mm metal stud framing	1,356 m2	25.00	33,900
	- Install spray-applied insulation, 25mm	1,356 m2	26.00	35,300
	- Install new gypsum board wall finish	1,356 m2	32.00	43,400
	- Reinstall existing marble base	270 m	10.00	2,700
6	Subcontractor general work requirements	1 Sum	175,000.00	175,000
A32 Walls Above Grade		TOTAL : \$	2,257.35	6,006,800
A33 Windows & Entrances				
1	Remove and replace existing basement level windows	27 No.	1,000.00	27,000
2	Extra over for laminate security glazing	32 m2	240.00	7,700
Carried Forward :				34,700

A3 EXTERIOR ENCLOSURE		Quantity	Unit rate	Amount	
A33	Windows & Entrances (Continued)		Brought Forward :	34,700	
3	Subcontractor general work requirements	1 Sum	1,000.00	1,000	
A33	Windows & Entrances	TOTAL : \$	32 m2	1,115.63	35,700
A34 Roof Coverings					
1	Main entrance roof	220 m2	140.00	30,800	
	- Remove existing paving stones, store for reuse	140 m2	12.00	1,700	
	- Remove existing concrete topping, 50mm and remove from site	140 m2	25.00	3,500	
	- Remove existing soil from planter, 600mm (remove plantings)	72 m3	10.00	700	
	- Remove concrete liner	80 m2	25.00	2,000	
	- Remove waterproofing membrane and make good existing concrete deck	220 m2	10.00	2,200	
	- Install new waterproof roofing membrane	220 m2	45.00	9,900	
	- Install new concrete topping	140 m2	27.00	3,800	
	- Install new concrete liner	80 m2	34.00	2,700	
	- Replace paving stones	140 m2	15.00	2,100	
	- Replacc existing soil	72 m3	30.00	2,200	
2	First, second and fifth floor roof	2,043 m2	215.50	440,300	
	- Remove existing roof covering c/w insulation, protection board and all flashings	2,043 m2	25.00	51,100	
	- Install new protection board	2,043 m2	9.00	18,400	
	- Install new sheathing board, 6mm	2,043 m2	18.00	36,800	
	- Install new vapour barrier	2,043 m2	5.00	10,200	
	- Install new polyiso insulation, 100mm	2,043 m2	40.00	81,700	
	- Install new sloped fibreboard	2,043 m2	20.00	40,900	
	- Install new modified bitumen roofing membrane	2,043 m2	65.00	132,800	
	- Cant strip, allow	655 m	8.00	5,200	
	- Flashings, allow	1 Sum	10,000.00	10,000	
	- Pre-finished steel capping	591 m	90.00	53,200	
3	Penthouse roof	379 m2	205.30	77,800	
	- Remove existing roof covering c/w insulation, protection board and all flashings	379 m2	20.00	7,600	
	(Continued)				
Carried Forward :				548,900	

A3 EXTERIOR ENCLOSURE		Quantity	Unit rate	Amount
A34	Roof Coverings (Continued)		Brought Forward :	548,900
3	Penthouse roof (Continued)			
	- Install new protection board	379 m2	9.00	3,400
	- Install new sheathing board, 6mm	379 m2	18.00	6,800
	- Install new vapour barrier	379 m2	5.00	1,900
	- Install new polyiso insulation, 50mm	379 m2	30.00	11,400
	- Install new sloped fibreboard	379 m2	20.00	7,600
	- Install new modified bitumen roofing membrane	379 m2	65.00	24,600
	- Cant strip, allow	160 m	8.00	1,300
	- Flashings, allow	1 Sum	2,000.00	2,000
	- Perimeter capping, allow	160 m	70.00	11,200
4	Subcontractor general work requirements	1 Sum	16,500.00	16,500
A34	Roof Coverings	TOTAL : \$	9,573 m2	59.06
				565,400
A35	Projections			
1	Modify existing front entrance canopy, replace existing signage	1 Sum	50,000.00	50,000
2	Modify/replace existing fall arrest roof anchors as required	56 No.	400.00	22,400
3	Add additional roof anchors to comply with current legislation	1 Sum	5,000.00	5,000
4	Remove existing penthouse access ladder replace after roofing installed	1 Sum	500.00	500
5	Subcontractor general work requirements	1 Sum	2,300.00	2,300
A35	Projections	TOTAL : \$	1 Sum	80,200.00
				80,200

**PROVINCIAL OFFENCES ADMIN. OFFICES
RENOVATION
HAMILTON, ON**

B1 PARTITIONS & DOORS		Quantity	Unit rate	Amount
B11 Partitions				
1	New concrete block walls to basement	458 m2	160.00	73,300
2	Replace existing basement concrete block partitions where required, allow 15% of remaining walls	245 m2	160.00	39,200
3	New gypsum board partition walls to first and second floor, allow	2,150 m2	100.00	215,000
4	New gypsum board partition walls to third, fourth and fifth floors, allow	125 m2	100.00	12,500
5	EXtra over for moisture resistant gypsum board	498 m2	6.00	3,000
6	Allowance to make good gypsum board where required	575 m2	30.00	17,300
7	Extra over for greater STC rating where required	1,160 m2	60.00	69,600
8	Extra over for glazed partitions, allow 2% of new first and second floor	50 m2	450.00	22,500
9	Subcontractor general work requirements	1 Sum	13,600.00	13,600
B11 Partitions		TOTAL : \$	3,148 m2	148.03
				466,000
B12 Doors				
1	New doors to basement, allow	17 No.	1,600.00	27,200
2	New doors to basement holding cells, allow	3 No.	3,000.00	9,000
3	New overhead doors to basement	3 No.	12,000.00	36,000
	- Exterior doors	2 No.	12,000.00	24,000
	- Interior door	1 No.	12,000.00	12,000
Carried Forward :				72,200

**PROVINCIAL OFFENCES ADMIN. OFFICES
RENOVATION
HAMILTON, ON**

B1 PARTITIONS & DOORS		Quantity	Unit rate	Amount
B12	Doors (Continued)		Brought Forward :	72,200
4	New doors to first and second floors, allow	150 Lvs	2,000.00	300,000
5	New doors to third, fourth and fifth floor	11 Lvs	2,000.00	22,000
6	Hardware upgrades	1 Sum	103,300.00	103,300
	- Card readers, allow	31 No.	750.00	23,300
	- Power operated openers, allow	25 No.	3,200.00	80,000
7	Subcontractor general work requirements	1 Sum	14,900.00	14,900
B12 Doors		TOTAL : \$	184 Lvs	2,784.78
				512,400

B2 FINISHES		Quantity	Unit rate	Amount	
B21 Floor Finishes					
1	Allowance for finishes to basement c/w base trim where required	503 m2	65.00	32,700	
2	Area of basement floor without new finishes	2,139 m2	0.00	0	
3	Allowance for floor finishes for first and second floor	3,901 m2	85.00	331,600	
4	Area of second floor without new finishes	318 m2	0.00	0	
5	Third, fourth and fifth floor finishes	815 m2	74.50	60,700	
	- Existing marble flooring treated to provide non-slip coating	186 m2	30.00	5,600	
	- Carpet tile flooring	398 m2	60.00	23,900	
	- Linoleum flooring	168 m2	85.00	14,300	
	- Ceramic tile flooring	63 m2	140.00	8,800	
	- Rubber base trim, measured linear	504 m	10.00	5,000	
	- Ceramic tile base trim, measured linear	96 m	32.00	3,100	
6	Area of third floor without new finishes	697 m2	0.00	0	
7	Allowance to make good terrazzo stairs	1 Sum	40,000.00	40,000	
8	Fourth and Fifth Floor office finishes carried in Appendix C	1 Nil	0.00	0	
9	Subcontractor general work requirements	1 Sum	13,900.00	13,900	
B21 Floor Finishes		TOTAL : \$	6,616 m2	72.39	478,900
B22 Ceiling Finishes					
1	Allowance for ceiling finishes to the basement where required	503 m2	65.00	32,700	
2	Area of basement ceiling without new finishes	2,139 m2	0.00	0	
				Carried Forward :	32,700

B2 FINISHES		Quantity	Unit rate	Amount
B22	Ceiling Finishes (Continued)		Brought Forward :	32,700
3	Allowance for ceiling finishes to first and second floors	3,901 m2	75.00	292,600
4	Area of second floor ceiling without new finishes	318 m2	0.00	0
5	Ceiling finishes to third floor	815 m2	87.00	70,900
	- Acoustic ceiling tile, 305mmx305mm c/w concealed suspension system	351 m2	125.00	43,900
	- Acoustic ceiling tile, 610mmx1220mm c/w standard T-bar suspension system	401 m2	50.00	20,100
	- Suspended gypsum board ceiling c/w metal framed joist system, painted	63 m2	110.00	6,900
6	Area of third floor ceiling without new finishes	697 m2	0.00	0
7	Allowance for specialty finishes	1 Sum	155,000.00	155,000
8	Fourth and Fifth Floor office finishes carried in Appendix C	1 Nil	0.00	0
9	Subcontractor general work requirements	1 Sum	16,500.00	16,500
B22	Ceiling Finishes TOTAL : \$	6,616 m2	85.81	567,700
B23	Wall Finishes			
1	Allowance for wall finishes to the basement	1,300 m2	2.50	3,300
2	Paint to walls at first and second floor	4,736 m2	10.00	47,400
3	Paint to walls at third, fourth and fifth floors	1,001 m2	10.00	10,000
4	Ceramic tile to washrooms	447 m2	140.00	62,600
	- First and second floor	198 m2	140.00	27,700
	- Third, fourth and fifth floor	249 m2	140.00	34,900
			Carried Forward :	123,300

**PROVINCIAL OFFENCES ADMIN. OFFICES
RENOVATION
HAMILTON, ON**

B2 FINISHES		Quantity	Unit rate	Amount
B23	Wall Finishes	(Continued)	Brought Forward :	123,300
5	Allowance for specialty finishes	1 Sum	135,000.00	135,000
6	Subcontractor general work requirements	1 Sum	7,700.00	7,700

B23	Wall Finishes	TOTAL : \$	7,484 m2	35.54	266,000
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B3 FITTINGS & EQUIPMENT		Quantity	Unit rate	Amount
B31 Fittings & Fixtures				
1	Millwork	1 Sum	686,400.00	686,400
	- Lunchroom kitchenettes	2 No.	3,500.00	7,000
	- Large court room millwork, allow	2 No.	150,000.00	300,000
	- Reg. court room millwork, allow	3 No.	100,000.00	300,000
	- Misc. millwork	6,616 m2	12.00	79,400
2	Rough carpentry	1 Sum	49,600.00	49,600
	- Misc. rough carpentry, blocking, etc.	6,616 m2	5.00	33,100
	- Caulking and sealing, allow	6,616 m2	2.50	16,500
3	Miscellaneous metals	1 Sum	16,500.00	16,500
	- Misc. metal supports, brackets, etc.	6,616 m2	2.50	16,500
4	Washroom accessories	1 Sum	37,800.00	37,800
	- Public wasroom accessories, allow	6 No.	3,200.00	19,200
	- Universal washroom accessories, allow	14 No.	1,200.00	16,800
	- Janitorial accessories, allow	6 No.	300.00	1,800
5	Specialties	1 Sum	79,400.00	79,400
	- Allowance for misc. visual display specialties	6,616 m2	12.00	79,400
6	Interior signage	1 Sum	26,500.00	26,500
	- Allowance for interior signage and wayfinding	6,616 m2	4.00	26,500
7	Subcontractor general work requirements	1 Sum	26,800.00	26,800
B31 Fittings & Fixtures		TOTAL : \$	139.51	923,000
B32 Equipment				
1	Systems furniture	1 Sum	0.00	0
	- Loose furniture, workstations, desks, tables, seating, etc. (NIC)	1 Nil	0.00	0
2	Window coverings	1 Sum	68,000.00	68,000
	- Manual roller blinds	755 m2	90.00	68,000
Carried Forward :				68,000

**PROVINCIAL OFFENCES ADMIN. OFFICES
RENOVATION
HAMILTON, ON**

B3 FITTINGS & EQUIPMENT		Quantity	Unit rate	Amount
B32	Equipment (Continued)		Brought Forward :	68,000
3	Kitchen equipment	1 Sum	0.00	0
	- Kitchen equipment (NIC)	1 Nil	0.00	0
4	Security equipment, x-ray and metal detectors, allow	1 Sum	75,000.00	75,000
5	Subcontractor general work requirements	1 Sum	4,300.00	4,300
B32 Equipment		TOTAL : \$	9,573 m2	147,300
B33 Elevators				
1	Modernize existing elevators #1 and #2	2 No.	175,000.00	350,000
2	Modify existing travel for elevator #3, install new custom car	1 No.	190,000.00	190,000
3	New elevator #4, structural elements carried elsewhere	1 No.	225,000.00	225,000
4	Subcontractor general work requirements	1 Sum	23,000.00	23,000
B33 Elevators		TOTAL : \$	4 No.	788,000

C1 MECHANICAL		Quantity	Unit rate	Amount
C11 Plumbing & Drainage				
1	Fixtures and rough-in	1 Sum	83,000.00	83,000
	- Water closet	37 No.	900.00	33,300
	- Urinal	7 No.	1,100.00	7,700
	- Lavatory	36 No.	800.00	28,800
	- Kitchen sink	2 No.	600.00	1,200
	- Wall mounted eye wash, allow	6 No.	750.00	4,500
	- Drinking fountain	5 No.	1,500.00	7,500
2	Domestic water	1 Sum	230,900.00	230,900
	- Connect to existing service in meter room	1 Sum	1,000.00	1,000
	- New BFP	1 No.	3,500.00	3,500
	- New hot water heater	1 No.	7,500.00	7,500
	- New recirc, exp tank, mixing valve	1 Sum	4,000.00	4,000
	- Domestic water pipe	1 Sum	95,000.00	95,000
	- Thermal pipe insulation	1 Sum	32,000.00	32,000
	- Fixture rough-in	93 No.	300.00	27,900
	- Core drill & patch	200 No.	200.00	40,000
	- Irrigation connection - allow	1 Sum	20,000.00	20,000
3	Sanitary waste and vents	1 Sum	217,400.00	217,400
	- Connect to existing service - split from storm	1 Sum	2,500.00	2,500
	- Sanitary drain and vents - below grade	1 Sum	15,000.00	15,000
	- Sanitary drain and vents - above grade	1 Sum	112,000.00	112,000
	- Excavation and backfill	1 Sum	7,500.00	7,500
	- Concrete cut and patch - slab	1 Sum	10,000.00	10,000
	- Core drill and patch	120 No.	200.00	24,000
	- New duplex sanitary pit	1 Sum	7,500.00	7,500
	- Fixture rough-in	93 No.	300.00	27,900
	- Floor drain	44 No.	250.00	11,000
4	Storm drain	1 Sum	97,400.00	97,400
	- New incoming storm drain from street	1 Sum	30,000.00	30,000
	- Storm drain - above grade	1 Sum	40,000.00	40,000
	- Excavation and backfill	1 sum	1,500.00	1,500
	- Concrete cut and patch - slab	1 Sum	3,500.00	3,500
	- Core drill and patch	40 No.	200.00	8,000
	- New duplex weeper pit	1 Sum	7,500.00	7,500
	- Roof drain	14 No.	350.00	4,900
	- Area drain	4 No.	500.00	2,000
Carried Forward :				628,700

**PROVINCIAL OFFENCES ADMIN. OFFICES
RENOVATION
HAMILTON, ON**

C1 MECHANICAL		Quantity	Unit rate	Amount
C11 Plumbing & Drainage	(Continued)		Brought Forward :	628,700
5 Subcontractor general work requirements		1 Sum	18,900.00	18,900
C11 Plumbing & Drainage	TOTAL : \$	9,573 m2	67.65	647,600
C12 Fire Protection				
1 Fire extinguisher		1 Sum	3,000.00	3,000
- Wall mounted FE		12 No.	250.00	3,000
2 Sprinklers		1 Sum	437,500.00	437,500
- New 8" incoming services from street		1 Sum	20,000.00	20,000
- New 8" main through parking - traced/insulated		1 Sum	25,000.00	25,000
- New BFP		1 Sum	10,000.00	10,000
- New booster pump		1 Sum	75,000.00	75,000
- Upgrade dry system compressor and controls		1 Sum	7,500.00	7,500
- New sprinkler system		1,200 head	250.00	300,000
3 Fire standpipe		1 Sum	0.00	0
- No work required		1 Nil	0.00	0
4 Subcontractor general work requirements		1 Sum	13,200.00	13,200
C12 Fire Protection	TOTAL : \$	9,573 m2	47.39	453,700
C13 HVAC				
1 Cooling VRF		1 Sum	72,500.00	72,500
- Selector module		2 No.	2,000.00	4,000
- Condenser, 24 tons total		2 No.	12,500.00	25,000
- Dx pipe		1 Sum	15,000.00	15,000
- Sleeving and firestopping		1 Sum	2,500.00	2,500
- Commissioning		1 Sum	2,000.00	2,000
- Fan coil unit, 24 tons total		12 No.	2,000.00	24,000
Carried Forward :				72,500

C1 MECHANICAL		Quantity	Unit rate	Amount
C13 HVAC		(Continued)	Brought Forward :	72,500
2	Air distribution	1 Sum	827,200.00	827,200
	- Galvanized ductwork, mains	8,500 kg	17.00	144,500
	- Thermal insulation, mains	700 m2	35.00	24,500
	- Thermal insulation, repairs	1,275 m2	35.00	44,600
	- Galvanized ductwork, boxes	6,800 kg	17.00	115,600
	- Thermal insulation, boxes	1,275 m2	35.00	44,600
	- Acoustic insulation, boxes	425 m2	55.00	23,400
	- Galvanized ductwork, VRF	4,000 kg	17.00	68,000
	- Thermal insulation, VRF	800 m2	35.00	28,000
	- Dual duct box	80 No.	2,500.00	200,000
	- Lay-in diffuser	380 No.	250.00	95,000
	- Return grill	260 No.	150.00	39,000
3	Balancing and commissioning	1 Sum	16,000.00	16,000
	- Air balancing	1 Sum	16,000.00	16,000
4	Miscellaneous	1 Sum	82,000.00	82,000
	- IT room A/C	9 No.	3,500.00	31,500
	- Electrical room A/C	9 No.	4,500.00	40,500
	- Snow melt system	1 Sum	10,000.00	10,000
5	Subcontractor general work requirements	1 Sum	29,900.00	29,900
C13 HVAC		TOTAL : \$	107.34	1,027,600
C14 Controls				
1	Controls	1 Sum	254,000.00	254,000
	- Dual duct box	80 No.	1,500.00	120,000
	- IT and electrical room A/C	5 No.	2,500.00	12,500
	- VRF fan coils	12 No.	2,000.00	24,000
	- BAS/software, new system	1 Sum	35,000.00	35,000
	- New perimeter controls	30 No.	2,000.00	60,000
	- Snow melt system	1 Sum	2,500.00	2,500
2	Subcontractor general work requirements	1 Sum	7,600.00	7,600
C14 Controls		TOTAL : \$	27.33	261,600

**PROVINCIAL OFFENCES ADMIN. OFFICES
RENOVATION
HAMILTON, ON**

C2 ELECTRICAL		Quantity	Unit rate	Amount
C21 Service & Distribution				
1	Scope of work associated with the Hamilton Utility Corporation (HUC) project (Not included in this project / estimate)	1 Nil	0.00	0
	- New incoming electrical service from Horizon Utilities c/w main service switchboard	1 Nil	0.00	0
	- New standby / emergency power plant (i.e. new generator)	1 Nil	0.00	0
	- Replacement of basement normal power distribution system	1 Nil	0.00	0
	- Replacement of standby power distribution panels & ATS located in Level 6 mechanical penthouse	1 Nil	0.00	0
	- Wiring and connections for related mechanical equipment related to HUC project	1 Nil	0.00	0
2	347/600V normal power lighting panel	7 No.	5,000.00	35,000
3	120/208V normal power lighting/receptacle panel	17 No.	4,000.00	68,000
4	120/208V standby power lighting/receptacle panel	2 No.	4,000.00	8,000
5	120/208V emergency power lighting/receptacle panel	3 No.	4,000.00	12,000
6	Feeders	1 Sum	121,600.00	121,600
	- To lighting panels (allow)	260 m	160.00	41,600
	- To lighting / receptacle panels (allow)	500 m	160.00	80,000
7	Provide new electric heating and freezing protection system	1 Sum	12,500.00	12,500
8	Miscellaneous service & distribution to serve renovated areas c/w metering, feeders, disconnects, studies & commissioning	6,616 m2	5.00	33,100
9	Seismic restraint system incl. in rates	1 Nil	0.00	0
10	Subcontractor general work requirements	1 Sum	8,700.00	8,700
C21 Service & Distribution		TOTAL : \$	31.22	298,900

C2 ELECTRICAL		Quantity	Unit rate	Amount
C22 Lighting, Devices & Heating				
1	Lighting fixtures supplied, wired & installed	1 Sum	758,300.00	758,300
	- Supply & install new LED lighting to renovated area c/w branch wiring	6,616 m2	110.00	727,800
	- Supply & install new LED lighting to shelled area c/w branch wiring	1,015 m2	30.00	30,500
2	Heritage designated lighting, selection / identification of specific luminaires that will be "heritage" designated is currently under review	1 Sum	35,000.00	35,000
	- Existing Heritage designated lighting, allow for modifications to lobby lighting	7 No.	5,000.00	35,000
3	Lighting control	1 Sum	102,200.00	102,200
	- Lighting control c/w new low voltage control system, sensors, dimming, wiring & integration	6,616 m2	15.00	99,200
	- Lighting control to shelled areas	1,015 m2	3.00	3,000
4	Exit & emergency lighting c/w LED "green running man" pictogram	1 Sum	23,500.00	23,500
	- New exit sign	48 No.	450.00	21,600
	- New battery unit	2 No.	950.00	1,900
5	Power outlets, devices & connections	1 Sum	267,600.00	267,600
	- Provide power outlets, devices & direct connections to renovated areas c/w branch wiring	6,616 m2	40.00	264,600
	- Provide power outlets, devices & direct connections to shelled areas c/w branch wiring	1,015 m2	3.00	3,000
6	Mechanical motor connections	1 Sum	56,300.00	56,300
	- Provide mechanical motor & equipment power connections to renovated areas	6,616 m2	7.00	46,300
	- Provide mechanical motor & equipment power connections to shelled areas	1,015 m2	2.50	2,500
	- Provide normal and fire rated feeders to fire pump (controller supplied by others)	1 Sum	7,500.00	7,500
7	Subcontractor general work requirements	1 Sum	37,300.00	37,300
C22 Lighting, Devices & Heating		TOTAL : \$	9,573 m2	133.73
				1,280,200

C2 ELECTRICAL		Quantity	Unit rate	Amount
C23 Systems & Ancillaries				
1	Fire alarm system	1 Sum	180,600.00	180,600
	- Main FA control panel, existing to remain, allow for programming	1 Sum	5,000.00	5,000
	- Additions & modifications to fire alarm system c/w devices, wiring, testing & verification	6,616 m2	25.00	165,400
	- Additions & modifications to fire alarm system c/w devices, wiring, testing & verification, shelled	1,015 m2	10.00	10,200
2	Communications empty conduit system	1 Sum	60,500.00	60,500
	- Provide communications empty conduit system c/w boxes, conduit stubs, cable tray & firestopping	6,616 m2	9.00	59,500
	- Provide communications empty conduit system c/w boxes, conduit stubs, cable tray & firestopping	1,015 m2	1.00	1,000
3	Communication cabling	1 Sum	181,900.00	181,900
	- Provide communication cabling c/w horizontal Cat.6A drops, backbone cabling & wire management, reno	6,616 m2	27.50	181,900
4	Synchronized clocks	1 Sum	18,500.00	18,500
	- Relocate existing synchronized clock master control panel	1 Sum	2,000.00	2,000
	- Relocate / add synchronized clocks connect to relocated master control panel	6,616 m2	2.50	16,500
5	Emergency call system	1 Sum	6,000.00	6,000
	- Provide emergency call system to BF public washrooms annunciated to new annunciator	2 No.	3,000.00	6,000
6	Security / CCTV systems	1 Sum	316,000.00	316,000
	- Provide empty conduit infrastructure for security / CCTV systems	6,616 m2	7.00	46,300
	- Supply install of security / CCTV systems to renovated areas	6,616 m2	40.00	264,600
	- Supply install of security / CCTV systems to shelled areas	1,015 m2	5.00	5,100
Carried Forward :				763,500

C2 ELECTRICAL		Quantity	Unit rate	Amount
C23	Systems & Ancillaries (Continued)		Brought Forward :	763,500
7	Audio / Visual systems including sound reinforcement, PA/paging, simulataneous intepretation, assistive listeneing, video conferencing/information, audio recording, 'court in session' lighting & CATV	1 Sum	421,200.00	421,200
	- Provide empty conduit infrastructure for AV systems	6,616 m2	15.00	99,200
	- Supply install of AV systems (Nova Techne Ltd. budget dated 21/05/2015)	1 Sum	322,000.00	322,000
8	Subcontractor general work requirements	1 Sum	35,500.00	35,500
C23 Systems & Ancillaries		TOTAL : \$	9,573 m2	127.46
				1,220,200

D1 SITE WORK		Quantity	Unit rate	Amount	
D11 Site Development					
1	Restoration of limestone planters, repoint mortar and repair spalled and broken stone, allow 50% of wall	30 m2	600.00	18,000	
2	Restoration of retaining wall as above	30 m2	600.00	18,000	
3	Restore pavers at entrance	460 m2	240.00	110,400	
4	Repair and make good all stairs	5 No.	7,500.00	37,500	
5	Remove and replace barrier free access ramp	1 Sum	55,000.00	55,000	
6	Remove and replace all interlocking stone walkways	520 m2	160.00	83,200	
7	Allowance to patch and make good landscaping damaged by construction	1 Sum	20,000.00	20,000	
8	Restoration of existing bronze statue (NIC)	1 Nil	0.00	0	
9	Subcontractor general work requirements	1 Sum	10,300.00	10,300	
D11 Site Development		TOTAL : \$	1 Sum	352,400.00	352,400
D13 Electrical Site Services					
1	New exterior pole-mounted light fixture, allow	10 No.	6,500.00	65,000	
2	Remove and reinstall lighting to cladding	1 Sum	2,500.00	2,500	
3	Subcontractor general work requirements	1 Sum	2,000.00	2,000	
D13 Electrical Site Services		TOTAL : \$	1 Sum	69,500.00	69,500

**PROVINCIAL OFFENCES ADMIN. OFFICES
RENOVATION
HAMILTON, ON**

D2 ANCILLARY WORK		Quantity	Unit rate	Amount	
D21 Demolitions					
1	Allowance for selective interior demolition of entire building (portions of basement and parking are not included)	7,831 m2	80.00	626,500	
2	Allowance for hazardous material abatement	7,831 m2	165.00	1,292,100	
3	Allowance for protection of heritage finishes	1 Sum	120,000.00	120,000	
4	Subcontractor general work requirements	1 Sum	61,100.00	61,100	
D21 Demolitions		TOTAL : \$	9,573 m2	219.34	2,099,700
D22 Alterations					
1	Allowance to remove existing stair #6 and infill slab	1 Sum	35,000.00	35,000	
2	Allowance to infill floors 3, 4 and 5	1 Sum	45,000.00	45,000	
3	Allowance to modify fourth floor structure to support relocated high density storage	1 Sum	25,000.00	25,000	
4	Allowance to create foundations, pit and shaft for new secure elevator #4	1 Sum	108,100.00	108,100	
	- Create opening in basement slab on grade, approx. 3m x 6m	18 m2	75.00	1,400	
	- Excavate for elevator pit, 1550mm deep + foundations, remove excavated material from site	40 m3	125.00	5,000	
	- Create opening in first floor suspended slab, approx. 3m x 6m, shoring perimeter of opening	18 m2	130.00	2,300	
	- Modify existing steel structure to support new opening (remove existing W16x40 beam)	1 Sum	15,000.00	15,000	
	- Concrete footing, allow	1 Sum	6,200.00	6,200	
	- Concrete elevator pit walls, 200mm thick	28 m2	385.00	10,800	
(Continued)					
Carried Forward :				213,100	

D2 ANCILLARY WORK		Quantity	Unit rate	Amount
D22 Alterations	(Continued)		Brought Forward :	213,100
4 Allowance to create foundations, pit and shaft for new secure elevator #4	(Continued)			
- Concrete elevator shaft walls, 200mm thick to u/s of second floor		162 m2	385.00	62,400
- Allowance for misc. modifications to services that may be required		1 Sum	5,000.00	5,000
5 Allowance for fire proofing to structural steel (excludes roof areas)		8,243 m2	60.00	494,600
6 Allowance for restoration of marble floor where required		1 Sum	100,000.00	100,000
7 Subcontractor general work requirements		1 Sum	24,200.00	24,200
D22 Alterations		TOTAL : \$	9,573 m2	86.90
				831,900

**Appendix
B - AHU Replacement**

Project : **PROVINCIAL OFFENCES ADMIN. OFFICES**
 : **AHU REPLACEMENT**
 Location : **HAMILTON, ON**
 Owner : **CITY OF HAMILTON**
 Consultant : **INVIZIJ ARCHITECTS & +VG ARCHITECTS**

ELEMENTAL COST SUMMARY

Bldg Type : 310
 C.T. Index : 0.0
 GFA : 9,537 m2

Element	Ratio to GFA	Elemental Cost		Elemental Amount		Rate per m2		%
		Quantity	Unit rate	Sub-Total	Total	Sub-Total	Total	
A SHELL		9,537 m2			0		0.00	0.0
A1 SUBSTRUCTURE					0		0.00	0.0
A11 Foundations				0		0.00		
A12 Basement Excavation				0		0.00		
A13 Special Conditions				0		0.00		
A2 STRUCTURE					0		0.00	0.0
A21 Lowest Floor Construction				0		0.00		
A22 Upper Floor Construction				0		0.00		
A23 Roof Construction				0		0.00		
A3 EXTERIOR ENCLOSURE					0		0.00	0.0
A31 Walls Below Grade				0		0.00		
A32 Walls Above Grade				0		0.00		
A33 Windows & Entrances				0		0.00		
A34 Roof Coverings				0		0.00		
A35 Projections				0		0.00		
B INTERIORS		9,537 m2			0		0.00	0.0
B1 PARTITIONS & DOORS					0		0.00	0.0
B11 Partitions				0		0.00		
B12 Doors				0		0.00		
B2 FINISHES					0		0.00	0.0
B21 Floor Finishes				0		0.00		
B22 Ceiling Finishes				0		0.00		
B23 Wall Finishes				0		0.00		
B3 FITTINGS & EQUIPMENT					0		0.00	0.0
B31 Fittings & Fixtures	1.000	9,537 m2	0.00	0		0.00		
B32 Equipment	1.000	9,537 m2	0.00	0		0.00		
B33 Elevators				0		0.00		
B34 Escalators				0		0.00		
C SERVICES		9,537 m2			723,300		75.84	89.1
C1 MECHANICAL					703,200		73.73	86.6
C11 Plumbing & Drainage	1.000	9,537 m2	0.00	0		0.00		
C12 Fire Protection	1.000	9,537 m2	0.00	0		0.00		
C13 HVAC	1.000	9,537 m2	68.93	657,400		68.93		
C14 Controls	1.000	9,537 m2	4.80	45,800		4.80		
C2 ELECTRICAL					20,100		2.11	2.5
C21 Service & Distribution	1.000	9,537 m2	0.81	7,700		0.81		
C22 Lighting, Devices & Heating	1.000	9,537 m2	1.30	12,400		1.30		
C23 Systems & Ancillaries	1.000	9,537 m2	0.00	0		0.00		
NET BUILDING COST - EXCLUDING SITE					\$ 723,300		75.84	89.1
D SITE & ANCILLARY WORK		9,537 m2			28,200		2.96	3.5
D1 SITE WORK					0		0.00	0.0
D11 Site Development				0		0.00		
D12 Mechanical Site Services				0		0.00		
D13 Electrical Site Services				0		0.00		
D2 ANCILLARY WORK					28,200		2.96	3.5
D21 Demolitions				0		0.00		
D22 Alterations	0.000	1 Sum	28,200.00	28,200		2.96		
NET BUILDING COST - INCLUDING SITE					\$ 751,500		78.80	92.6
Z1 GENERAL REQUIREMENTS & FEE					60,100	60,100	6.30	7.4
Z11 General Requirements		8.0 %		60,100		6.30		
Z12 Fee		0.0 %		0		0.00		
TOTAL CONSTRUCTION ESTIMATE - EXCLUDING ALLOWANCES					\$ 811,600		85.10	100.0
Z2 ALLOWANCES					103,500		10.85	
Z21 Design & Pricing Allowance		10.0 %		81,200		8.51		
Z22 Escalation Allowance (12 mos.)		2.5 %		22,300		2.34		
Z23 Construction Allowance		0.0 %		0		0.00		
TOTAL CONSTRUCTION ESTIMATE - INCLUDING ALLOWANCES					\$ 915,100		95.95	
VALUE ADDED TAX (GST/HST)					0	0	0.00	
Value Added Tax (GST/HST)		0.0 %		0		0.00		
TOTAL CONSTRUCTION ESTIMATE					\$ 915,100		\$ 95.95	

**PROVINCIAL OFFENCES ADMIN. OFFICES
AHU REPLACEMENT
HAMILTON, ON**

C1 MECHANICAL		Quantity	Unit rate	Amount
C13 HVAC				
1	Air handling unit, SF-1	1 Sum	176,000.00	176,000
	- Air handling unit SF-1, 44000 cfm cold deck supply, includes items below:	1 Sum	176,000.00	176,000
	- 100% outside air inlet		incl.	
	- Pre-filter		incl.	
	- Motor with VFD		incl.	
	- Final filter		incl.	
	- Outlet silencer		incl.	
	- Service fan, bearings, shaft, wheel, etc.		incl.	
2	Air handling unit, SF-2	1 Sum	68,000.00	68,000
	- Air handling unit SF-2, 17000 cfm cold deck supply, includes items below:	1 Sum	68,000.00	68,000
	- 100% outside air inlet		incl.	
	- Pre-filter		incl.	
	- Motor with VFD		incl.	
	- Final filter		incl.	
	- Outlet silencer		incl.	
	- Service fan, bearings, shaft, wheel, etc.		incl.	
3	Humidifier to hot deck	1 Sum	45,000.00	45,000
	- Humidifier to hot deck c/w natural gas, water and drains	1 Sum	25,000.00	25,000
	- Extend gas service to penthouse	1 Sum	20,000.00	20,000
4	Return air fan, RF-1	1 Sum	66,000.00	66,000
	- General return fan, 44000 cfm, refurbish with the following:	1 Sum	66,000.00	66,000
	- Motor with VFD		incl.	
	- Service fan, bearings, shaft, wheel, etc.		incl.	
5	Return air fan, EF-1	1 Sum	14,300.00	14,300
	- Sanitary exhaust fan, 9500 cfm, refurbish with the following:	1 Sum	14,300.00	14,300
	- Motor with VFD		incl.	
	- Service fan, bearings, shaft, wheel, etc.		incl.	
6	Return air fan, EF-2	1 Sum	12,000.00	12,000
	- Garage exhaust fan, 8000 cfm, refurbish with the following:	1 Sum	12,000.00	12,000
	- Motor with VFD		incl.	
(Continued)				
Carried Forward :				381,300

**PROVINCIAL OFFENCES ADMIN. OFFICES
AHU REPLACEMENT
HAMILTON, ON**

C1 MECHANICAL		Quantity	Unit rate	Amount
C13 HVAC	(Continued)		Brought Forward :	381,300
6	Return air fan, EF-2 - Service fan, bearings, shaft, wheel, etc.	(Continued)	incl.	
7	Air distribution	9,537 m2	12.70	121,000
	- Galvanized ductwork	3,000 kg	17.00	51,000
	- Thermal insulation	500 m2	35.00	17,500
	- New louvre	5 No.	7,500.00	37,500
	- Demolition	1 Sum	15,000.00	15,000
8	Balancing and commissioning	9,537 m2	1.00	10,000
	- Air balancing units	1 Sum	10,000.00	10,000
	- Air balancing to individual floors carried in Appendix H, I and J	1 Nil	0.00	0
9	Miscellaneous	9,537 m2	13.20	126,000
	- Mechanical room exhaust, 2000 cfm	1 No.	5,000.00	5,000
	- Electrical room exhaust, 2000 cfm	1 No.	5,000.00	5,000
	- Penthouse mech. room exhaust, 2000 cfm	1 No.	5,000.00	5,000
	- Elevator room A/C, 1 ton VFR	1 No.	6,000.00	6,000
	- Garage NOx detection	1 Sum	25,000.00	25,000
	- Garage intake louvre and damper	1 Sum	10,000.00	10,000
	- VFD's	5 No.	5,000.00	25,000
	- Mechanical wiring	1 Sum	10,000.00	10,000
	- Vibration control equipment, allow	1 Sum	15,000.00	15,000
	- Seismic restraint system	1 Sum	20,000.00	20,000
10	Subcontractor general work requirements	1 Sum	19,100.00	19,100
C13 HVAC	TOTAL : \$	9,537 m2	68.93	657,400
C14 Controls				
1	Controls	1 Sum	44,500.00	44,500
	- Controls to new AHU's	2 No.	7,500.00	15,000
	- Return fans	1 No.	2,500.00	2,500
	- Exhaust fans	2 No.	2,500.00	5,000
	- Humidifier	1 No.	2,000.00	2,000
	- BAS/software and programming	1 Sum	20,000.00	20,000
Carried Forward :				44,500

**PROVINCIAL OFFENCES ADMIN. OFFICES
AHU REPLACEMENT
HAMILTON, ON**

C1 MECHANICAL		Quantity	Unit rate	Amount
C14 Controls	(Continued)		Brought Forward :	44,500
2	Subcontractor general work requirements	1 Sum	1,300.00	1,300

C14 Controls	TOTAL : \$	9,537 m2	4.80	45,800
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**PROVINCIAL OFFENCES ADMIN. OFFICES
AHU REPLACEMENT
HAMILTON, ON**

C2 ELECTRICAL		Quantity	Unit rate	Amount	
C21 Service & Distribution					
1	Provide new overcurrent protective devices to new motors	1 Sum	7,500.00	7,500	
2	Subcontractor general work requirements	1 Sum	200.00	200	
C21 Service & Distribution		TOTAL : \$	9,537 m2	0.81	7,700
C22 Lighting, Devices & Heating					
1	Mechanical motor connections	1 Sum	12,000.00	12,000	
	- Provide feeders to new AHU	2 No.	3,000.00	6,000	
	- Provide feeders to new EF	2 No.	1,500.00	3,000	
	- Provide feeders to new RF	1 No.	3,000.00	3,000	
	- Seismic restraint system incl. in rates above	1 Nil	0.00	0	
2	Subcontractor general work requirements	1 Sum	400.00	400	
C22 Lighting, Devices & Heating		TOTAL : \$	9,537 m2	1.30	12,400

**PROVINCIAL OFFENCES ADMIN. OFFICES
AHU REPLACEMENT
HAMILTON, ON**

D2 ANCILLARY WORK		Quantity	Unit rate	Amount	
D22 Alterations					
1	Modifications to existing penthouse roof	1 Sum	27,400.00	27,400	
	- Removal and replacement of penthouse roof covering carried in Appendix A	1 Nil	0.00	0	
	- Remove existing metal roof deck to allow for replacement of AHU's, 2 openings	750 SF	5.00	3,800	
	- Remove existing structural joist, W16x36	2 No.	2,000.00	4,000	
	- Make good/modify equipment pads	1 Sum	4,500.00	4,500	
	- Reinstall structural steel joist c/w connections	1,872 lbs	2.50	4,700	
	- Replace metal roof deck, allow 20% overlap c/w ancillary connections required	900 SF	6.00	5,400	
	- Temporary weather protection, safety measures and hoarding	1 Sum	5,000.00	5,000	
2	Subcontractor general work requirements	1 Sum	800.00	800	
D22 Alterations		TOTAL : \$	1 Sum	28,200.00	28,200

**Appendix
C - Floors 4 and 5 Office Fit-out**

Project	: PROVINCIAL OFFENCES ADMIN. OFFICES	ELEMENTAL COST SUMMARY	
Location	: FIT-OUT OF FOURTH & FIFTH FLOOR OFFICES		
Location	: HAMILTON, ON		
Owner	: CITY OF HAMILTON		
Consultant	: INVIZIJ ARCHITECTS & +VG ARCHITECTS		

Element	Ratio to GFA	Elemental Cost		Elemental Amount		Rate per m2		%
		Quantity	Unit rate	Sub-Total	Total	Sub-Total	Total	
A SHELL		1,164 m2			0		0.00	0.0
A1 SUBSTRUCTURE					0		0.00	0.0
A11 Foundations				0		0.00		
A12 Basement Excavation				0		0.00		
A13 Special Conditions				0		0.00		
A2 STRUCTURE					0		0.00	0.0
A21 Lowest Floor Construction				0		0.00		
A22 Upper Floor Construction				0		0.00		
A23 Roof Construction				0		0.00		
A3 EXTERIOR ENCLOSURE					0		0.00	0.0
A31 Walls Below Grade				0		0.00		
A32 Walls Above Grade				0		0.00		
A33 Windows & Entrances				0		0.00		
A34 Roof Coverings				0		0.00		
A35 Projections				0		0.00		
B INTERIORS		1,164 m2			470,200		403.95	38.1
B1 PARTITIONS & DOORS					245,200		210.65	19.8
B11 Partitions	1.009	1,175 m2	121.11	142,300		122.25		
B12 Doors	0.034	39 Lvs	2,638.46	102,900		88.40		
B2 FINISHES					161,700		138.92	13.1
B21 Floor Finishes	1.000	1,164 m2	65.46	76,200		65.46		
B22 Ceiling Finishes	1.000	1,164 m2	51.46	59,900		51.46		
B23 Wall Finishes	2.139	2,490 m2	10.28	25,600		21.99		
B3 FITTINGS & EQUIPMENT					63,300		54.38	5.1
B31 Fittings & Fixtures	1.000	1,164 m2	27.66	32,200		27.66		
B32 Equipment	1.000	1,164 m2	26.72	31,100		26.72		
B33 Elevators				0		0.00		
B34 Escalators				0		0.00		
C SERVICES		1,164 m2			674,100		579.12	54.6
C1 MECHANICAL					256,600		220.45	20.8
C11 Plumbing & Drainage	1.000	1,164 m2	5.41	6,300		5.41		
C12 Fire Protection	1.000	1,164 m2	0.00	0		0.00		
C13 HVAC	1.000	1,164 m2	132.30	154,000		132.30		
C14 Controls	1.000	1,164 m2	82.73	96,300		82.73		
C2 ELECTRICAL					417,500		358.68	33.8
C21 Service & Distribution	1.000	1,164 m2	5.15	6,000		5.15		
C22 Lighting, Devices & Heating	1.000	1,164 m2	201.12	234,100		201.12		
C23 Systems & Ancillaries	1.000	1,164 m2	152.41	177,400		152.41		
NET BUILDING COST - EXCLUDING SITE					\$ 1,144,300		983.08	92.6
D SITE & ANCILLARY WORK		1,164 m2			0		0.00	0.0
D1 SITE WORK					0		0.00	0.0
D11 Site Development				0		0.00		
D12 Mechanical Site Services				0		0.00		
D13 Electrical Site Services				0		0.00		
D2 ANCILLARY WORK					0		0.00	0.0
D21 Demolitions	1.000	1,164 m2	0.00	0		0.00		
D22 Alterations	1.000	1,164 m2	0.00	0		0.00		
NET BUILDING COST - INCLUDING SITE					\$ 1,144,300		983.08	92.6
Z1 GENERAL REQUIREMENTS & FEE					91,500	91,500	78.61	7.4
Z11 General Requirements		8.0 %		91,500		78.61		
Z12 Fee		0.0 %		0		0.00		
TOTAL CONSTRUCTION ESTIMATE - EXCLUDING ALLOWANCES					\$ 1,235,800		1,061.68	100.0
Z2 ALLOWANCES					157,600		135.40	
Z21 Design & Pricing Allowance		10.0 %		123,600		106.19		
Z22 Escalation Allowance (12 mos.)		2.5 %		34,000		29.21		
Z23 Construction Allowance		0.0 %		0		0.00		
TOTAL CONSTRUCTION ESTIMATE - INCLUDING ALLOWANCES					\$ 1,393,400		1,197.08	
VALUE ADDED TAX (GST/HST)					0	0	0.00	
Value Added Tax (GST/HST)		0.0 %		0		0.00		
TOTAL CONSTRUCTION ESTIMATE					\$ 1,393,400		\$ 1,197.08	

**PROVINCIAL OFFENCES ADMIN. OFFICES
FIT-OUT OF FOURTH & FIFTH FLOOR OFFICES
HAMILTON, ON**

B1 PARTITIONS & DOORS		Quantity	Unit rate	Amount
B11 Partitions				
1	Gypsum board partitions to u/s of structure above c/w sound attenuation insulation	1,175 m2	100.00	117,500
2	Allowance to make good gypsum board where required	588 m2	30.00	17,600
3	Extra over for glazed transom above offices	66 m2	45.00	3,000
4	Subcontractor general work requirements	1 Sum	4,200.00	4,200
B11 Partitions		TOTAL : \$	121.11	142,300
B12 Doors				
1	Interior wood door c/w frame and hardware	31 Lvs	2,287.10	70,900
	- Single door	31 Lvs	1,800.00	55,800
	- Extra over for glazed sidelight	26 No.	500.00	13,000
	- Extra over for glazed vision panel	7 No.	300.00	2,100
2	Hollow metal door c/w frame and hardware	8 Lvs	1,750.00	14,000
	- Double door	4 Pair	3,500.00	14,000
3	Hardware upgrades	1 Sum	15,000.00	15,000
	- Card readers, allow to corridor doors	16 No.	750.00	12,000
	- Modifications to existing doors, allow	15 No.	200.00	3,000
4	Subcontractor general work requirements	1 Sum	3,000.00	3,000
B12 Doors		TOTAL : \$	2,638.46	102,900

**PROVINCIAL OFFENCES ADMIN. OFFICES
FIT-OUT OF FOURTH & FIFTH FLOOR OFFICES
HAMILTON, ON**

B2 FINISHES		Quantity	Unit rate	Amount
B21 Floor Finishes				
1	Carpet tile flooring	1,164 m2	60.00	69,800
2	Base trim (measured linear)	968 m	4.30	4,200
	- Rubber base trim	910 m	4.00	3,600
	- Marble base trim, replace with existing	58 m	10.00	600
3	Subcontractor general work requirements	1 Sum	2,200.00	2,200
B21 Floor Finishes		TOTAL : \$	65.46	76,200
B22 Ceiling Finishes				
1	Acoustic ceiling tile, 610mm x 1200mm c/w standard T-bar suspension system	1,164 m2	50.00	58,200
2	Subcontractor general work requirements	1 Sum	1,700.00	1,700
B22 Ceiling Finishes		TOTAL : \$	51.46	59,900
B23 Wall Finishes				
1	Paint to walls	2,490 m2	10.00	24,900
2	Subcontractor general work requirements	1 Sum	700.00	700
B23 Wall Finishes		TOTAL : \$	10.28	25,600

**PROVINCIAL OFFENCES ADMIN. OFFICES
FIT-OUT OF FOURTH & FIFTH FLOOR OFFICES
HAMILTON, ON**

B3 FITTINGS & EQUIPMENT		Quantity	Unit rate	Amount
B31 Fittings & Fixtures				
1	Millwork	1 Sum	6,400.00	6,400
	- Lunchroom kitchenette, allow	1 No.	3,500.00	3,500
	- Misc. millwork, allow	1,164 m2	2.50	2,900
2	Rough carpentry	1 Sum	9,300.00	9,300
	- Misc. rough carpentry, blocking, etc.	1,164 m2	5.50	6,400
	- Caulking and sealing, allow	1,164 m2	2.50	2,900
3	Miscellaneous metals	1 Sum	2,900.00	2,900
	- Misc. metal supports, brackets, etc.	1,164 m2	2.50	2,900
4	Specialties	1 Sum	7,000.00	7,000
	- Allowance for misc. visual display specialties	1 Sum	7,000.00	7,000
5	Interior signage	1 Sum	5,800.00	5,800
	- Allowance for interior signage and wayfinding	1,164 m2	5.00	5,800
6	Subcontractor general work requirements	1 Sum	800.00	800
B31 Fittings & Fixtures		TOTAL : \$	27.66	32,200
B32 Equipment				
1	Systems furniture	1 Sum	0.00	0
	- Loose furniture, workstations, desks, tables, seating, etc. (NIC)	1 Nil	0.00	0
2	Window coverings	1 Sum	30,200.00	30,200
	- Manual roller binds, allow	336 m2	90.00	30,200
3	Kitchen equipment	1 Sum	0.00	0
	- Kitchen equipment (NIC)	1 Nil	0.00	0
4	Subcontractor general work requirements	1 Sum	900.00	900
B32 Equipment		TOTAL : \$	26.72	31,100

**PROVINCIAL OFFENCES ADMIN. OFFICES
FIT-OUT OF FOURTH & FIFTH FLOOR OFFICES
HAMILTON, ON**

C1 MECHANICAL		Quantity	Unit rate	Amount
C11 Plumbing & Drainage				
1	Fixtures and rough-in	1 Sum	600.00	600
	- Kitchen sink	1 No.	600.00	600
2	Domestic water	1 Sum	3,000.00	3,000
	- Domestic water pipe	1 Sum	2,000.00	2,000
	- Thermal pipe insulation	1 Sum	500.00	500
	- Fixture rough-in	1 No.	300.00	300
	- Core drill and patch	1 No.	200.00	200
3	Sanitary waste and vents	1 Sum	2,500.00	2,500
	- sanitary drain and vents, above grade	1 Sum	2,000.00	2,000
	- Fixture rough-in	1 No.	300.00	300
	- Core drill and patch	1 No.	200.00	200
4	Subcontractor general work requirements	1 Sum	200.00	200
C11 Plumbing & Drainage		TOTAL : \$	1,164 m2	5.41
C12 Fire Protection				
1	Fire protection carried in Appendix A	1 Nil	0.00	0
C12 Fire Protection		TOTAL : \$	1,164 m2	0.00
C13 HVAC				
1	Air distribution	1 Sum	144,000.00	144,000
	- Galvanized ductwork, mains	1,500 kg	17.00	25,500
	- Thermal insulation, mains	90 m2	35.00	3,200
	- Thermal insulation, repairs	225 m2	35.00	7,900
	- Galvanized ductwork, boxes	1,200 kg	17.00	20,400
	- Thermal insulation, boxes	225 m2	35.00	7,900
	- Acoustic insulation, boxes	75 m2	55.00	4,100
	- Dual duct box	20 No.	2,500.00	50,000
	- Lay-in diffuser	100 No.	160.00	16,000
	- Return grill	60 No.	150.00	9,000
Carried Forward :				144,000

**PROVINCIAL OFFENCES ADMIN. OFFICES
FIT-OUT OF FOURTH & FIFTH FLOOR OFFICES
HAMILTON, ON**

C1 MECHANICAL		Quantity	Unit rate	Amount
C13 HVAC	(Continued)		Brought Forward :	144,000
2	Balancing and commissioning	1 Sum	4,000.00	4,000
	- Air balancing	1 Sum	4,000.00	4,000
3	Miscellaneous	1 Sum	1,500.00	1,500
	- Seismic restraint system	1 Sum	1,500.00	1,500
4	Subcontractor general work requirements	1 Sum	4,500.00	4,500
C13 HVAC		TOTAL : \$	1,164 m2	132.30
C14 Controls				
1	Controls	1 Sum	93,500.00	93,500
	- Dual duct box	20 No.	1,500.00	30,000
	- Relocate perimeter thermostats	20 No.	1,000.00	20,000
	- New perimeter controls	20 No.	2,000.00	40,000
	- BAS/software, connect to existing	1 Sum	3,500.00	3,500
2	Subcontractor general work requirements	1 Sum	2,800.00	2,800
C14 Controls		TOTAL : \$	1,164 m2	82.73

**PROVINCIAL OFFENCES ADMIN. OFFICES
FIT-OUT OF FOURTH & FIFTH FLOOR OFFICES
HAMILTON, ON**

C2 ELECTRICAL		Quantity	Unit rate	Amount
C21 Service & Distribution				
1	Scope of work associated with the Hamilton Utility Corporation (HUC) project (Not included in this project / estimate)	1 Nil	0.00	0
	- New incoming electrical service from Horizon Utilities c/w main service switchboard	1 Nil	0.00	0
	- New standby / emergency power plant (i.e. new generator)	1 Nil	0.00	0
	- Replacement of basement normal power distribution system	1 Nil	0.00	0
	- Replacement of standby power distribution panels & ATS located in Level 6 mechanical penthouse	1 Nil	0.00	0
	- Wiring and connections for related mechanical equipment related to HUC project	1 Nil	0.00	0
2	347/600V normal power lighting panel	0 No.	0.00	0
3	120/208V normal power lighting/receptacle panel	0 No.	0.00	0
4	120/208V standby power lighting/receptacle panel	0 No.	0.00	0
5	120/208V emergency power lighting/receptacle panel	0 No.	0.00	0
6	Feeders	1 Sum	0.00	0
	- To lighting panels (allow)	0 m	160.00	0
	- To lighting / receptacle panels (allow)	0 m	160.00	0
7	Miscellaneous service & distribution to serve renovated areas c/w metering, feeders, disconnects, studies & commissioning	1,164 m2	5.00	5,800
8	Seismic restraint system incl. in rates	1 Nil	0.00	0
9	Subcontractor general work requirements	1 Sum	200.00	200
C21 Service & Distribution		TOTAL : \$	5.15	6,000

**PROVINCIAL OFFENCES ADMIN. OFFICES
FIT-OUT OF FOURTH & FIFTH FLOOR OFFICES
HAMILTON, ON**

C2 ELECTRICAL		Quantity	Unit rate	Amount
C22 Lighting, Devices & Heating				
1	Lighting fixtures supplied, wired & installed	1 Sum	133,900.00	133,900
	- Supply & install new LED lighting to renovated area	1,164 m2	100.00	116,400
	- Branch wiring main runs	1,164 m2	15.00	17,500
2	Heritage designated lighting, selection / identification of specific luminaires that will be "heritage" designated is currently under review - not required in this area	1 Nil	0.00	0
3	Lighting control	1 Sum	26,200.00	26,200
	- Lighting control c/w new low voltage control system, sensors, dimming, wiring & integration	1,164 m2	22.50	26,200
4	Exit & emergency lighting c/w LED "green running man" pictogram type	1 Sum	3,200.00	3,200
	- New exit light	7 No.	450.00	3,200
	- New battery unit	0 No.	900.00	0
5	Power outlets, devices & connections	1 Sum	52,300.00	52,300
	- Provide power outlets, devices & direct connections to renovated areas	1,164 m2	35.00	40,700
	- Branch wiring	1,164 m2	10.00	11,600
6	Mechanical motor connections	1 Sum	11,600.00	11,600
	- Provide mechanical motor & equipment power connections	1,164 m2	10.00	11,600
7	Subcontractor general work requirements	1 Sum	6,900.00	6,900
C22 Lighting, Devices & Heating		TOTAL : \$	201.12	234,100
C23 Systems & Ancillaries				
1	Fire alarm system	1 Sum	23,300.00	23,300
	- Additions & modifications to fire alarm system c/w devices, wiring, testing & verification	1,164 m2	20.00	23,300
Carried Forward :				23,300

**PROVINCIAL OFFENCES ADMIN. OFFICES
FIT-OUT OF FOURTH & FIFTH FLOOR OFFICES
HAMILTON, ON**

C2 ELECTRICAL		Quantity	Unit rate	Amount
C23	Systems & Ancillaries (Continued)		Brought Forward :	23,300
2	Communications empty conduit system - Provide communications empty conduit system c/w boxes, conduit stubs, cable tray & firestopping	1 Sum 1,164 m2	14,000.00 12.00	14,000 14,000
3	Communication cabling - Provide communication cabling c/w horizontal Cat.6A drops, backbone cabling & wire management	1 Sum 1,164 m2	34,900.00 30.00	34,900 34,900
4	Synchronized clocks - Relocate / add synchronized clocks connect to relocated master control panel	1 Sum 1,164 m2	2,900.00 2.50	2,900 2,900
5	Emergency call system - Not required on upper floors	1 Sum 1 Nil	0.00 0.00	0 0
6	Security / CCTV systems - Provide empty conduit infrastructure for security / CCTV systems - Supply install of security systems	1 Sum 1,164 m2 1,164 m2	54,700.00 7.00 40.00	54,700 8,100 46,600
7	Audio / Visual systems including sound reinforcement, PA/paging, simulataneous intepretation, assistive listeneing, video conferencing/information, audio recording, 'court in session' lighting & CATV - Provide empty conduit infrastructure for AV systems - Supply install of AV systems	1 Sum 1,164 m2 1 Sum	42,400.00 20.00 19,100.00	42,400 23,300 19,100
8	Subcontractor general work requirements	1 Sum	5,200.00	5,200
C23 Systems & Ancillaries		TOTAL : \$	1,164 m2	152.41
				177,400

**PROVINCIAL OFFENCES ADMIN. OFFICES
FIT-OUT OF FOURTH & FIFTH FLOOR OFFICES
HAMILTON, ON**

D2 ANCILLARY WORK	Quantity	Unit rate	Amount
D21 Demolitions			
1 Demolition and abatement carried in Appendix A	1 Nil	0.00	0
D21 Demolitions	TOTAL : \$	1,164 m2	0.00
			0

**Appendix
D - Documentation**

**CITY OF HAMILTON
PROVINCIAL OFFENSES ADMINISTRATION OFFICE RELOCATION
HAMILTON, ONTARIO**

APPENDIX D - DOCUMENTATION

ARCHITECTURAL

Number	Title	Dated	Received
EX.A2.0	Existing Basement Floor Plan	Apr. 2, 2015	May 22, 2015
EX.A2.1	Existing First Floor Plan	Apr. 2, 2015	May 22, 2015
EX.A2.2	Existing Second Floor Plan	Apr. 2, 2015	May 22, 2015
EX.A2.3	Existing Third Floor Plan	Apr. 2, 2015	May 22, 2015
EX.A2.4	Existing Fourth Floor Plan	Apr. 2, 2015	May 22, 2015
EX.A2.5	Existing Fifth Floor Plan	Apr. 2, 2015	May 22, 2015
EX.A2.6	Existing Penthouse Plan	Apr. 2, 2015	May 22, 2015
EX.A2.7	Existing Roof Plan	Apr. 2, 2015	May 22, 2015
EX.A3.3	Existing Third Floor RCP	Apr. 2, 2015	May 22, 2015
EX.A3.4	Existing Fourth Floor RCP	Apr. 2, 2015	May 22, 2015
EX.A3.5	Existing Fifth Floor RCP	Apr. 2, 2015	May 22, 2015
EX.A4.1	Existing South Elevation	Apr. 2, 2015	May 22, 2015
EX.A4.2	Existing North Elevation	Apr. 2, 2015	May 22, 2015
EX.A4.3	Existing East Elevation	Apr. 2, 2015	May 22, 2015
EX.A4.4	Existing West Elevation	Apr. 2, 2015	May 22, 2015
EX.A4.5	Existing East & West Entrance Elevation	Apr. 2, 2015	May 22, 2015
A2.7	Proposed Roof Plan	Apr. 2, 2015	May 22, 2015
A2.7A	Roof Details & Notes	Apr. 2, 2015	May 22, 2015
	Basement Floor Plan	Apr. 2, 2015	May 22, 2015
	First Floor Plan	Apr. 2, 2015	May 22, 2015
	Second Floor Plan	Apr. 2, 2015	May 22, 2015
	Third Floor Plan – Option 4	Apr. 2, 2015	May 22, 2015
	Fourth Floor Plan – Option 4	Apr. 2, 2015	May 22, 2015
	Fifth Floor Plan – Option 4	Apr. 2, 2015	May 22, 2015

DOCUMENTS

Number	Title	Dated	Received
	Acoustical Briefs	Apr. 2, 2015	May 22, 2015
	Architectural Brief	May 22, 2015	May 22, 2015
	Asbestos Survey	Jul. 15, 2008	May 22, 2015
	A/V Design Brief	May 22, 2015	May 22, 2015
	Electrical Brief	May 22, 2015	May 22, 2015
	Existing Roof Summary	Mar. 31, 2015	May 22, 2015
	Existing Room Finish Schedule (3-5)	Apr. 2, 2015	May 22, 2015
	Exterior Wall Insulation Detail (EXA0)	Apr. 2015	May 22, 2015
	Exterior Wall Insulation Locations – Plans (Floors 1-4, Penthouse)	Apr. 2, 2015	May 22, 2015
	Heritage Background Report	Nov. 27, 2014	May 22, 2015
	HVAC Retrofit		May 22, 2015
	HVAC Retrofit – Key Plan	Jun. 19, 2014	May 22, 2015

APPENDIX D - DOCUMENTATION

DOCUMENTS

Number	Title	Dated	Received
	Mechanical Brief	May 22, 2015	May 22, 2015
	Overall Design Brief	May 22, 2015	May 22, 2015
	POA Program Document	May 21, 2015	May 22, 2015
	Record Drawings		May 22, 2015
	Schematic Design Brief	Apr. 2, 2015	May 22, 2015
	Security Design Brief	May 22, 2015	May 22, 2015
	Structural Briefs	May 22, 2015	May 22, 2015
	Survey		May 22, 2015