

**THE CORPORATION OF THE CITY OF WINDSOR  
OFFICE OF THE CITY ENGINEER- Engineering**



**MISSION STATEMENT;**

*"Our City is built on relationships – between citizens and their government, businesses and public institutions, city and region – all interconnected, mutually supportive, and focused on the brightest future we can create together."*

<b>Author's Name: Wadah Al-Yassiri</b>	<b>Report Date: April 29, 2015</b>
<b>Author's Phone: 519-255-6100 ext. 6494</b>	<b>Date to Steering Committee: May 8, 2015</b>
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**To: New City Hall Steering Committee**

**Subject: Value Engineering and Cost Reduction Recommendations – New City Hall**

**1. RECOMMENDATION City Wide;  Ward(s); \_\_\_\_\_**

That the Steering Committee **APPROVES AND RECOMMENDS** to Council:

- I. That CITY COUNCIL **APPROVE** the Value Engineering and Cost Reduction Recommendations outlined in Schedule A1 for the New City Hall project;
- II. That CITY COUNCIL **APPROVE** the following items;
  - a. Obtain a provisional price within the construction tender for a connecting canopy between New City Hall and 400 CHS.
  - b. Proceed with a design that includes the addition of one and one-half column spans for future growth at an additional design fee of \$220,000 and an estimated additional construction cost of \$3.8 million.
  - c. Proceed with relocating existing hydro transformer & switch to the south of City Hall Sq South at a cost of \$350,000; and,
- III. That the information regarding renovation costs for the existing 350 City Hall building included in Schedule C **BE RECEIVED FOR INFORMATION**; and,
- IV. That CITY COUNCIL **ACKNOWLEDGES** additional funding will be required to construct the New City Hall and that the formal request to Council be made once the actual construction tender costs are known.

**EXECUTIVE SUMMARY**

The design and floor plans for the New City Hall have been prepared based on Council direction to move forward with the "Campus" Design Concept, along with the One-Stop customer service initiative and the approved City Hall Occupancy Program. A few changes to the programming have been made to reflect some recent organizational changes, and to meet accessibility requirements. The proposed floor plans are very efficient with little wasted space. Extensive

consultations have taken place with all affected departments to achieve this level of efficiency, while ensuring optimal functionality and operational needs are met.

Administration is continuously meeting with the Design Team to ensure the estimated cost for the New City Hall is in line with the existing project budget. The results of these meetings initiated an extensive “Value Engineering” exercise to bring the estimated cost down in line with the budget. The following list of objectives has been discussed in more detail in the Discussion part of the report:

- Meeting original construction budget
- Cost Reduction Options
- Additional Items Requiring Direction
- Cost comparison of other City Hall / Town Hall projects
- Cost of Renovating Old City Hall

An independent Cost Consultant (A.W. Hooker) has provided the first milestone construction estimate (based on the “Mean Average Cost”) of \$28.7 million. This identified a shortfall of \$5.6 million from the original estimate. As a result of the Value Engineering, the recommended reductions included in Schedule A1 are estimated to save \$1.5 million. The resulting net shortfall remains at \$4.1 million.

The New City Hall Working Team and Executive Committee has conducted extensive reviews and evaluated various alternatives to bring the cost back in line with the approved budget. It has been determined that any further reduction in programming or space allocation will result in a loss of efficiency and will not meet the goal of One Stop customer service initiative.

The Executive Committee further recommends proceeding with the following additional items totalling (\$4.6M):

1. Obtain a provisional price within the construction tender for a connecting canopy between New City Hall and 400 CHS; and,
2. Proceeding with the Future Growth (12% of the overall area) in the design by the addition of one and one-half column spans, and
3. Proceeding with relocating existing hydro transformer & switch to the south of City Hall Square South.

It is recommended that both the net shortfall within the construction budget (estimated \$4.1M) and additional items requiring direction (estimated \$4.6M) be funded through the 2016-2020 5-year capital budget, once the amounts are confirmed.

As a result, the Executive Committee recommends proceeding to the next phase of design by approving the final floor plans along with the Value Engineering and Cost Reduction recommendations outlined in Schedule A1 as well as inclusion of the additional items noted above. The Design Team will continue to monitor cost with the assistance of the Cost Consultant.

## **2. BACKGROUND**

The Design Team which includes various members of City Administration has been working with Moriyama & Teshima Architects and Architecttura Inc. to develop the floor plans consistent with the Council approved Space Needs Study completed by NORR Architects in 2013.

A Public Open House was held on September 16, 2014, for public input on two design concepts. On October 6, 2014 City Council approved the “Campus” design concept (CR249/2014).

An additional Public Open House was held on December 10, 2014, for input on the possible inclusion of “green” energy features in the design. Using the feedback received, the Design Team produced a list of recommended “green” features. These recommended features have yet to be confirmed by the Steering Committee and will be the subject of a separate report presented at the May 13, 2015 meeting.

Subsequently, the City retained A.W. Hooker as the City’s Cost Consultant to estimate the average construction cost at each milestone of the project.

As recommended in the approved Space Needs Study, the Design Team has completed the design development phase following the direction to provide a facility that is geared to a One-Stop customer service initiative. Consequently, floor plans were completed and submitted to the Steering Committee. The first and second floors were designed to provide services for direct short and longer stay customer interactions respectively. Council Chambers and other various public meeting rooms are located on the ground floor for ease of public access. The third through fifth floors provide administrative offices for the various City departments.

On March 3, 2015, the Steering Committee approved in “principle” the Final Floor Plans and Facade Rendering for the New City Hall building.

## **3. DISCUSSION**

The New City Hall project has an overall budget of \$34.75 million. Included in the overall budget is a construction budget of approximately \$23.1 million plus an additional \$1.9 million construction contingency.

The Design Team has been coordinating with Cost Consultant through the Schematic Design (SD) phase and start of the Detailed Design (DD) process. The official kick-off meeting took place in early February 2015 in order to meet the first milestone of 30% Detailed Design cost estimate by mid-March 2015.

On March 4, 2015 Administration and the Design Team received the first milestone estimate from the Cost Consultant. This estimate is intended to represent the “Mean Average Cost” expected during a public tender process. A.W. Hooker submitted the first ‘Mean Average Cost’ estimate to be at \$28.7 million.

Administration subsequently met with the Design Team to initiate an extensive “Value Engineering” exercise for the sole purpose of bringing the estimated cost more in line with the existing project budget. The following are the results of this exercise:

### Meeting original construction budget

In order to meet the budgeted construction cost, Administration investigated some drastic cost reduction measures which included:

- 1) **Removing a whole floor from the building:** The elimination of 18,000s.f. will result in substantial cost savings. In addition, this removal will also include the deletion of exterior cladding around the perimeter as well as having a nominal impact on the structural design (less weight on the foundations) and the mechanical / electrical equipment and capacity. It is expected that this drastic reduction would reduce the overall construction budget by approximately \$4 million; however, it should be noted that this would have a serious adverse impact on staff functionality and the overall operating efficiency of the Corporation as it no longer meets the space needs requirements. Furthermore, there is no supplemental vacant space in 400 CHS or elsewhere to accommodate the displaced staff that would result. **As such, this is not recommended.**
  
- 2) **Lowering Council Chamber to one level (simple meeting room design) in lieu of the proposed two-storey ceiling height:** Lowering the floor to one level would result in adding more columns to eliminate the transfer beams. It is expected that this reduction would reduce the overall construction budget by approximately \$500k. This change would not accommodate an elevated Mayor / Council platform and would have a significant negative impact on the sight lines and functionality of the whole Council Chamber. The project Architect / Consultant is strongly opposing this measure. This would further trigger a major re-design to the floor lay-out and will involve additional design fee and extending project schedule. **As such, this is not recommended.**

Both of these measures were considered neither feasible, nor practical because of their serious negative impacts on the building functionality, operational efficiencies and impact the One-Stop customer service initiative.

### Cost Reduction Options

Since receiving the first cost estimate report, the Design Team and Cost Consultant have been working diligently to develop a detailed list of items that will result in savings. A description of these items along with estimated savings, and comments regarding impacts on functionality, maintenance, aesthetic and schedule have been developed. Further these items have been separated into two Schedules, A1 and A2 to outline the recommended and not recommended items.

Overall, Schedule A1 provides cost savings that will not substantially impact the form and function of the new facility. **Consequently, Administration recommends proceeding with the current design that was approved by the Steering Committee in “principle” along with the cost reduction items shown in Schedule A1.**

### Additional Items Requiring Direction

The following information is provided for discussion as direction is required regarding inclusion and decision on the various items outlined below and summarized in Schedule B:

- 1) Provisional Item: The following item has been identified as a possible provisional item during the schematic design process:
  - a. Connecting canopy between New City Hall and 400 CHS would complement the main canopy for the New City Hall and would protect patrons from the elements while crossing from one building to the other. The connection will promote the “campus” feel

for the two buildings (New City Hall and 400 CHS). The construction of such a structure can be built in the future; however, it would be more cost effective to build it during the New City Hall project rather than later.

- 2) Future Growth: The facility design meets current programming needs; however, it should be noted that when the facility is constructed (approximately 3 years from now), there will be limited opportunity to accommodate future growth. The current design has a larger building footprint on levels 1 & 2 with a smaller footprint on levels 3, 4 & 5. The “Architects” have identified two feasible options that could accommodate future growth. The three upper floors could be expanded to the East by:
- a. One-half column span (approximately 3.6m) for an additional 6,000s.f. (6% of overall area) over the 3 floors which translate to estimated 30 additional staff / work stations with an estimated cost of \$2.2 million,
  - OR
  - b. One and one-half column spans (approximately 13.2m) for an additional 12,000s.f. (12% of overall area) over the 3 floors which translate to estimated 60 additional staff / work stations with an estimated cost of \$4 million.

Either option would provide minimal level of unallocated space for future growth. Both would result in a change in the building design with additional design fee and construction cost. Schedule E attached illustrates Future Growth options (a & b). This decision must be made as we finalize the design concept and prior to the detail design (next phase). This item cannot be a provisional item as the design must be completed prior to tender. If any growth element is to be incorporated into the new facility, direction must be provided at this time.

- 3) Existing Hydro Transformer & Switch: This is currently located between the old City Hall and 400 CHS in a screened in area that has the illusion of being integrated into the existing City Hall building. When the New City Hall is built and old City Hall is demolished, this transformer would be more visible and noticeable within the civic square plaza. There are two options to consider:
- a. Leave transformer & switch at the same location with some landscape effects and screening. This would cost the project approximately \$100k, which is still considered a saving of \$250k compared to option (b) below. The disadvantage is mainly aesthetic / visual within the civic square plaza. Additionally, it should be noted that the current location will impact the feasibility and cost associated with a below grade parking structure being considered in place of the Old City Hall. If underground parking is desired, it must be moved.
  - b. Relocate existing hydro transformer & switch to the south of City Hall Sq South. Some screening would still be required with this option. The main benefit here is the aesthetic improvement to the Civic Plaza that would not have a large transformer sitting in the middle of it. The biggest disadvantage is the additional capital cost of \$350k to move the hydro transformer & switch.

One of the clear objectives going back to the first stages of the New City Hall project included a design outcome that would ensure that the new building is integrated and compatible with the existing 400 City Hall Square Building. The desire is to have the buildings function well together and contribute to a campus like feeling for the Civic Square district. Consequently, Council adopted CR162/2014 on June 30, 2014 that adopted the Civic Square Campus Conceptual Site Plan in principle to provide a definable direction for the ongoing development of the Civic Square Campus. The inclusion of items 1a and 3b are aligned with this direction. The proposed canopy (1a) will physically connect the two buildings, as well as provide the visual link

between the architecturally different, yet compatible, buildings. The canopy will also protect staff and residents from the elements as they circulate between the buildings. Since it is being recommended as a provisional item, Council will be able to decide to proceed or not once the tender prices are submitted.

The second item related to improving the Civic Square Campus is moving the existing hydro transformer and switch (3b) to the south side of City Hall Sq South. Not moving the transformer and switch (two separate units) may end up having the biggest negative visual impact on the Civic Square Campus. In its current location it has the illusion of being part of the existing City Hall Building. However, once the existing City Hall Building is demolished, the transformer and switch will sit in the middle of the plaza in front of both buildings. Furthermore, any enclosure (or other screening) is required to have minimum clearances from the actual transformer and switch, which makes for a fairly substantial structure in the middle of the plaza. The quote to implement this item is from EnWin and barring any unforeseen circumstances is considered to be an accurate representation of the cost (i.e. \$350,000). It will not be subject to the tendering process.

The final recommendation in this section addresses space to accommodate future growth. The floor plans/areas being proposed will allow for a minimal amount of growth in the future. In an effort to avoid any costly future expansions, the Executive Committee is recommending an increase in floor area to provide some flexibility within the building and to accommodate any future growth that may occur.

Option 2b is being recommended as the potential solution. It is the design and construction of an additional 12,000 s.f. over the top three floors. This would result in expanding the building by one and one-half column spans (approximately 13.2m). As such, additional design fees will be incurred to accommodate this increase in building size. This increase in building size translates into floor area that could accommodate approximately 60 additional employees in the future which is deemed sufficient to allow for growth, provincial policy changes and/or potential consolidation of other facilities. The estimated cost of this option, including all design fees and construction, is \$4 million. This option also extends the project timeline by about three months.

Although not being recommended, option 2a could be viewed as compromise or alternative to 2b. It comes with an estimated cost of \$2.2 million, and results in an additional 6,000s.f. over the top three floors. This increase would accommodate approximately 30 additional workstations.

In summary, the Executive Committee recommends proceeding with the following;

- 1. Obtain a provisional price within the construction tender for a Connecting canopy between New City Hall and 400 CHS.**
- 2. Proceed with a design that includes the addition of One and one-half column spans for future growth at an additional design fee of \$220,000 and an estimated additional construction cost of \$3.8 million.**
- 3. Proceed with relocating existing hydro transformer & switch to the south of City Hall Sq South at a cost of \$350,000.**

#### Cost comparison of other City Hall / Town Hall projects

Windsor is building a New City Hall. In general, city halls serve not only as a building for government functions, but also as facilities for various civic and cultural activities (e.g. civic gatherings, entertainment venues, election polling stations, etc). As such, their designs include elements like Council Chambers, customer service counters, public meeting rooms and other

public spaces that need to be well appointed with durable materials that stand the test of time, as well as designed in a way that is flexible enough that the spaces can serve multiple purposes. As symbols of local government, city halls often have distinctive architecture.

The “Campus” concept, with many of its defining features (e.g. long and short-term customer service areas, a prominent Council Chamber, a welcoming two storey exterior canopy and interior atrium space) attempts to deliver a quality city hall on a relatively modest budget. The information below provides perspective on the estimated cost of building our New City Hall compared to the costs of some recently built city halls around the region.

The New Windsor City Hall construction tender was scheduled to go out later this year. The construction budget allotted for construction is \$23.1 million excluding a contingency of \$1.9 million. With the total building area coming in at approximately 107,000s.f., the cost per square foot for the new building is estimated at \$216. This square foot cost is approximately 16% less than the next closest adjusted for inflation square foot cost to build the Leamington Town Hall. LaSalle and Guelph come in at 19% and 31% more per square foot respectively.

The following table is provided for comparison of Windsor New City Hall construction budget and others built in the region:

Tender Year	Municipality	Population	# of Staff	Building area (sq.ft)	Construction cost	\$ / sq.ft.	Today's cost with 3% inflation rate included *
2015	City of Windsor	230,000	300	107000	\$23,100,000	\$216	\$216
2012	LaSalle town Hall **	30,000	40	46000	\$11,500,000	\$250	\$265
2009	Leamington Town Hall	30,000	30	42000	\$9,300,000	\$221	\$255
2007	City of Vaughan	220,000	600	325000	\$123,000,000	\$378	\$458
2006	City of Guelph	125,000	300	128000	\$32,000,000	\$250	\$310

\* Stats Can statistics for Non Residential Construction, Institutional structures (provided by A.W. Hooker);  
 Q2 2006 Index = 121.9  
 Q2 2014 Index = 153.1  
 Delta of 31.2%  
 Total delta = 31.2% divided by 8 years = average rate of 3.9% per annum  
The table above used 3% only for the average inflation rate

\*\* Facility includes senior centre, library facility, atrium, and common spaces for the general public.  
 Assumptions were made by City staff to estimate and exclude the cost that was not related to the building construction (i.e., Outdoor parking lot, Civic Plaza and Landscape / Water Features, etc...)

The total number of employees that will be working in the new facility is approximately 300, with the facility serving a population of approximately 230,000 residents. The following table provides the cost/employee housed in the building. It also demonstrates the efficiency of the proposed floor plans by providing a comparison of the square footage per employee.

City	Population	# of Staff	Building Area	Construction Cost	\$ / employee	sq.ft / employee
Windsor	230,000	300	107,000	\$23,100,000	\$77,000	357
LaSalle *	30,000	40	46,000	\$11,500,000	\$287,500	1150
Leamington	30,000	30	42,000	\$9,300,000	\$310,000	1400
Vaughan	220,000	600	325,000	\$123,000,000	\$205,000	542
Guelph	125,000	300	128,000	\$32,000,000	\$106,667	427

\* Facility includes senior centre, library facility, atrium, and common spaces for the general public.

The new City Hall is also providing very efficient floor plans that amount to approximately 357 square feet per employee, which would actually be a lot less if all of the large common space (i.e. Council Chambers, public meeting rooms, etc) were removed from the equation.

#### Cost of Renovating Old City Hall

It is acknowledged that constructing a New City Hall is a significant investment for any municipality and one which is not entered into lightly. Since the 1980's the deteriorating conditions of 350 City Hall Square were noted in various administrative reports to City Council. While some investments in capital repairs have been made over the years, the building conditions are now such that the windows leak and the mechanical and electrical systems require major replacements. The presence of asbestos and the need to relocate staff during any remedial efforts would make such an undertaking come at a significant cost of not just the repairs, moving and temporary accommodations for staff, but also inefficiency of operations for an extended period of time.

Schedule C provides additional information related to the history and costs of renovating the Old City Hall as well as the factors that have led to a new facility in lieu of renovating the existing City Hall.

#### **4. RISK ANALYSIS:**

The risks and mitigating strategies have been outlined within Schedule D.

#### **5. FINANCIAL MATTERS:**

As noted, an independent Cost Consultant (A.W. Hooker) has provided the first milestone construction estimate (based on the "Mean Average Cost") of \$28.7 million. This identifies a shortfall of \$5.6 million from the original estimate.

As a result of the Value Engineering, the recommended reductions included in Schedule A1 total \$1,499,648. The following table summarizes the total Shortfall for the Base Building Requirements as recommended by the Executive Committee:



Item Description		Estimates
A	Approved Construction Budget (2014)	\$23,100,000
B	A.W. Hooker estimated Construction Budget	\$28,700,000
C	Recommended Reductions (Schedule A1)	\$1,500,000
D	Revised Construction Budget (B - C)	\$27,200,000
Shortfall for Base Building Requirements (D - A)		<b>\$4,100,000</b>

The above table does not include cost of items listed in Schedule B. Therefore, the following table outlines the funding required for these items as recommended by the Executive Committee:

Item Description		Estimates
A	Connecting canopy	\$210,000
B	Addition for future growth	\$4,000,000
C	Relocating existing hydro transformer & switch	\$350,000
Total Additional Items for Direction (A + B + C)		<b>\$4,560,000</b>

It is recommended that both the shortfall within the construction budget (\$4.1M) and additional items (\$4.6M) be funded through the 2016-2020 5-year capital budget. It is noted the use of the 2020 debt reduction levy may provide this funding opportunity. The request will be made when the funding amount is known following this tender.

Administration also considered decreasing the project contingency allowance of \$1.9 million to help reduce the required additional funding requirements. However, this amount represents only 7% of the revised project budget and is already on the low side of what would be ideal for a project of this scope and complexity; therefore, this option has not been recommended.

## **6. CONSULTATIONS;**

A.W. Hooker

Moriyama & Teshima Architects in Joint Venture with Architecttura Inc. "Architects"

Members of the New City Hall Working Team

Members of the New City Hall Executive Committee


## **7. CONCLUSION;**

The design and floor plans for the New City Hall have been prepared based on Council direction to move forward with the "Campus" Design Concept, along with the One-Stop customer service initiative and the approved City Hall Occupancy Program. A few changes to the programming have been made to reflect some recent organizational changes, and to meet accessibility requirements. However, at approximately 357 square feet per employee, the proposed floor plans are very efficient with little wasted space. Extensive consultations have taken place with all affected departments to achieve this level of efficiency, while ensuring optimal functionality and operational needs are met. As noted within the report, the proposed Revised Construction Budget results remain the lowest cost per; sq.ft, and employee of Windsor compared to other city halls/town halls recently built in the area. The following table demonstrates this:

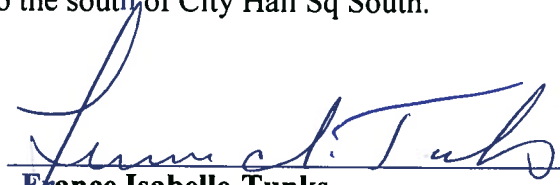
City	Population	# of Staff	Building Area	Construction Cost	\$ / employee
Windsor	230,000	300	107,000	\$27,200,352	\$90,668
LaSalle	30,000	40	46,000	\$11,500,000	\$287,500
Leamington	30,000	30	42,000	\$9,300,000	\$310,000
Vaughan	220,000	600	325,000	\$123,000,000	\$205,000
Guelph	125,000	300	128,000	\$32,000,000	\$106,667

The New City Hall Working Team and Executive Committee recommend proceeding to the next phase of design by approving the Final floor plans along with the Value Engineering and Cost Reduction recommendations outlined in Schedule A1.

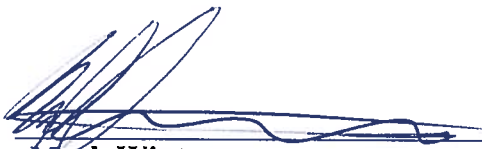
Furthermore, the Executive Committee also recommends proceeding with obtaining a provisional price within the construction tender for a Connecting canopy between New City Hall and 400 CHS; and, proceeding with a design that includes the addition of One and one-half column spans for future growth. The Executive Committee also recommends Proceeding with relocating existing hydro transformer & switch to the south of City Hall Sq South.



**Wadah Al-Yassiri**  
Project Administrator



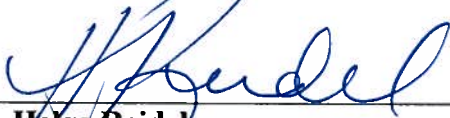
**France Isabelle-Tunks**  
Senior Manager of Development, Projects & ROW/Deputy City Engineer




**Mark Winterton**  
City Engineer and Corporate Leader  
Environmental Protection and Transportation  
Co-Project Sponsor, New City Hall Project



**Valerie Critchley**  
City Clerk/Licence Commissioner and  
Corporate Leader Public Engagement and  
Human Services  
Co-Project Sponsor, New City Hall Project



**Helga Reidel**  
Chief Administrative Officer



**Onorio Colucci**  
Chief Financial Officer/City Treasurer and  
Corporate Leader Finance and Technology

**WAY/lp**

- APPENDICES;**  
**Schedule A1 – Recommended for Reduction**  
**Schedule A2 – Not Recommended for Reduction**  
**Schedule B – Additional Items Requiring Direction**  
**Schedule C – Cost of Renovating Old City Hall**  
**Schedule D – Risk Assessment**  
**Schedule E – Illustration of Future Growth options (a & b)**

**DEPARTMENTS/OTHERS CONSULTED;****Name;****Phone #; 519            ext.****NOTIFICATION ;**

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# Schedule A1 – Recommended for Reduction

Item #	Description	Recommended	Impact on Function	Impact on Maintenance	Impact on Aesthetics	Comments	Impact on Schedule
1	Reducing allowance for water retention and storm detention scheme	(\$100,000)	No	No	No	Original scope was over-estimated	-
2	Reducing the two main entrances / vestibules from 3 doors to 2 doors	(\$5,000)	No	No	No	Cost saving measure	-
3	Deleting the motorized shades in Council Chamber	(\$26,000)	No	No	No	Cost saving measure	-
4	Lowering main building canopy to 2nd floor sill height instead of 3rd floor	(\$21,320)	No	No	No	Cost saving measure and looks better architecturally	-
5	Removing fire retardant pressure treated plywood from certain locations (Canopy)	(\$1,900)	No	No	No	Cost saving measure	-
6	Reducing the parapet height on the 2nd floor partial roof	(\$21,600)	No	No	No	Cost saving measure	-
7	Reducing the height of south brick wall parapet above shipping & receiving area	(\$6,987)	No	No	No	Cost saving measure	-
8	Changing fiber cement finish to prefinished metal on the canopy fascia	(\$17,150)	No	No	Yes	Cost saving measure but impact on architectural look	-
9	Replacing the wood soffit to metal under the main building canopy	(\$106,080)	No	No	Yes	Cost saving measure but impact on architectural look	-
10	Changing the red cedar wood louvers to composite wood planks outside the meeting room on 2nd floor	(\$13,740)	No	No	Yes	Cost saving measure but impact on architectural look	-
11	Changing the soffit finish from wood to metal outside Council Chamber on the west side	(\$30,500)	No	No	Yes	Cost saving measure but impact on architectural look	-
12	Deleting the horizontal louvers on the east, west and north sides of the building but leave on the south side	(\$165,000)	No	No	Yes	Minimum impact on aesthetics and there is less sun exposure on these sides of the building comparing to the south side	-
13	Removing the two storey connecting space between 4th & 5th floors	(\$20,140)	No	No	Yes	Cost saving measure but impact on architectural look	-
14	Reducing every floor height from 4.200m to 4.025m. The overall reduction in the building height will be 0.875m. This will reduce the window sizes and outside cladding	(\$81,972)	No	No	Yes	Cost saving measure but impact on architectural look	-
15	Reducing the window sizes on upper three floors. This window reduction in size is an addition to the one listed in item 22 above	(\$3,780)	No	No	Yes	Cost saving measure but impact on architectural look	-
16	Deleting the skylight above the south entrance vestibule	(\$5,500)	No	No	Yes	Cost saving measure but impact on architectural look	-
17	Deleting the skylight and the fire rated drywall in the mechanical penthouse	(\$4,500)	No	No	Yes	Cost saving measure but impact on architectural look	-
18	Reducing the width of feature stair in the atrium from 2m to 1.6m	(\$2,925)	No	No	Yes	Cost saving measure but impact on architectural look	-
19	Switching the VAV - HVAC mechanical system to Fan-Coil system and reducing mechanical penthouse size accordingly	(\$587,500)	No	Yes	No	Big cost saving measure but will have more maintenance involved on the long run	+2 weeks
20	Replacing the wall tiles in the janitor rooms with epoxy paint up to 1.2m above the floor and leave the rest as plain drywall	(\$10,950)	No	Yes	No	Cost saving measure but impact on maintenance	-
21	Removing the interior signage cost from construction budget	(\$8,120)	N/A	N/A	N/A	This is for staff doors only and will be done in-house	-
22	Removing allowance for display cases from construction budget	(\$5,000)	N/A	N/A	N/A	Funded under the furniture budget	-
23	Removing the high density filing storage system from construction budget	(\$100,450)	N/A	N/A	N/A	Funded under the furniture budget	-
24	Replacing GPS wireless clock system with regular clocks	(\$20,000)	N/A	N/A	N/A	Funded under the furniture budget	-
25	Removing soft landscape planting from construction budget	(\$45,534)	N/A	N/A	N/A	Funded under phase 2 work (Civic Sq Plaza scope)	-
26	Removing landscape lighting work from construction budget but leave the one for security and lighting under the canopy / soffits of the building	(\$88,000)	N/A	N/A	N/A	Funded under phase 2 work (Civic Sq Plaza scope)	-
<b>Total Recommended for Reduction =</b>		<b>(\$1,459,648)</b>					

# Schedule A2 – Not Recommended for Reduction

Item #	Description	Not Recommended	Impact on Function	Impact on Maintenance	Impact on Aesthetics	Comments	Impact on Schedule
1	Reducing the ceiling finish in the Council Chamber to plain acoustic ceiling	(\$217,000)	Yes	Yes	Yes	Lower sound attenuation if this is accepted and more maintenance cost as this is a high foot traffic / public space and impact on architectural look	-
2	Reducing all ceiling finishes in the main floor atrium to plain acoustic ceiling	(\$162,500)	Yes	Yes	Yes	Lower sound attenuation if accepted and more maintenance cost as this is a high foot traffic / public space and impact on architectural look	+3 months
3	Replacing the interior operable glass partition in the Council Chamber to plain drywall	(\$48,888)	Yes	Yes	Yes	Will impact function and operation because it limits floor space and require more maintenance and big impact on architectural look	-
4	Removing the horizontal sun-shades (Louver) on the South Elevation	(\$126,000)	Yes	Yes	Yes	Will impact function and operation (no sun shading) and impact on architectural look	-
5	Removing the main front Canopy including columns and columns cladding	(\$276,710)	Yes	Yes	Yes	Will impact function and operation (no shelter from the elements) and huge impact on architectural look	-
6	Overall building floor plans / area reductions by 7,100 sq.ft	(\$1,306,350)	Yes	Yes	Yes	Will impact function and operation of various departments as staff will be separated due to limited floor spaces as well as limits future growth, as such, this is not recommended	-
7	Changing all the glass balustrade in the atrium to drywall knee wall and millwork cap (feature stair)	(\$50,600)	No	Yes	Yes	More maintenance will be required as this is an interior / public area and big impact on architectural look	-
8	Removing all the interior glass screens and replace with plain drywall	(\$97,125)	No	Yes	Yes	More maintenance will be required as this is an interior / public area and big impact on architectural look	-
9	Changing the curtain wall to windows in selected locations (Public cafe and meeting rooms)	(\$25,480)	No	Yes	Yes	More maintenance will be required as this is an interior / exterior public area and big impact on architectural look	-
10	Changing atrium curtain wall to windows under the canopy (North & West elevations)	(\$36,080)	No	Yes	Yes	More maintenance will be required as this is an interior / exterior public area and big impact on architectural look	-
11	Changing the curtain wall at the south entrance to windows and aluminum panels	(\$6,600)	No	Yes	Yes	More maintenance will be required as this is an interior / exterior public area and big impact on architectural look	-
12	Changing all fiber cement board finish to metal siding for upper 3 floors cladding	(\$190,925)	No	Yes	Yes	More maintenance will be required and big impact on architectural look	-
13	Changing interior architectural block walls in the elevator lobby / corridor to plain drywall	(\$116,636)	No	Yes	Yes	More maintenance will be required as this is an interior / public area and impact on architectural look	-
14	Replacing the recycled stone wall between the main entrance vestibule and atrium to plain drywall	(\$13,968)	No	Yes	Yes	More maintenance will be required as this is an interior / public area and impact on architectural look	-
15	Replacing the feature stone wall in the Council Chamber to plain drywall	(\$9,963)	No	Yes	Yes	More maintenance will be required as this is an interior / public area and big impact on architectural look	-
16	Replacing all porcelain tiles to carpet tiles in the public areas from the second floor up including elevator lobby and public corridors	(\$36,920)	No	Yes	Yes	More maintenance required as this is a high foot traffic area and impact on architectural look	-
17	Removing all the ceramic wall tiles in staff washrooms and kitchenettes to plain drywall	(\$72,468)	No	Yes	Yes	High impact on maintenance as this is a common area and big impact on architectural look	-
18	Replacing all LED lighting in the office and meeting rooms to fluorescent	(\$165,000)	No	Yes	Yes	More maintenance will be required and will increase energy costs. Removing LED lighting does not follow the City's "green energy" recommendations	-
19	Deleting the raised floor in the Council Chamber	(\$44,000)	Yes	No	Yes	Will impact function / sight lines and impact on architectural look	-
20	Removing all wood louvers and support system outside the meeting room on 2 floor (N-E corner). Exterior windows to remain	(\$132,900)	Yes	No	Yes	Will impact function and operation (no sun shading) and big impact on architectural look	-
21	Removing the projection under the meeting room on the 2 floor (N-E corner)	(\$53,383)	Yes	No	Yes	Will impact function and operation (no sun shading) and big impact on architectural look	-
<b>Total Not Recommended for Reduction =</b>		<b>(\$3,189,496)</b>					

## Schedule B – Additional Items Requiring Direction

Item #	Description	Estimated Cost	Impact on Function	Impact on Maintenance	Impact on Aesthetics	Comments	Impact on Schedule
1	<u>Provisional item:</u>						
a)	Connecting canopy between New City Hall and 400 City Hall Sq	\$210,000	No	Yes	Yes	Easier / less expensive to implement as part of the New City Hall project / Promotes the Campus feel as it protects public from the elements	-
2	<u>Future Growth:</u>						
a)	Increase the tower by half bay span which equals approx. 6,000 sq.ft (6% of total area) which is estimated to accommodate approx. 30 stations	\$2,200,000	Yes	Yes	No	Provides for some growth (3%) which will in turn assist in maintaining the One-stop customer service initiative for the longer term.	+1 month
b) *	Increase the tower by a full bay span which equals approx. 12,000 sq.ft (12% of total area) which is estimated to accommodate approx. 60 stations	\$4,000,000	Yes	Yes	No	Provides for more growth (6%) which will assist in maintaining the One-stop customer service initiative for the longer term than 3 above.	+3 months
3	<u>Existing transformer / hydro switch:</u>						
a) **	Leave in it's current location at the south/east corner of the current 350 City Hall building, OR	\$100,000	No	No	Yes	Visible & noticeable in the civic plaza. This can be screened to blend into the vision of the Civic plaza.	-
b)	Relocate away from the Civic Sq plaza and to south east of New City Hall closer to City lot 11	\$350,000	No	No	No	Further away from the Civic Sq plaza and to south east of New City Hall closer to City lot 11. Some screening would still be required.	+1 month

\* Future Growth - Option 2-b) has bigger impacts on the architectural and structural, mechanical systems of the building. The structural system requires re-design and has a potential of triggering a re-design of the whole building layout/adjacencies.

\*\* Leave existing transformer - Option 3-a) will impact the feasibility and cost associated with a below grade parking structure being considered in place of the Old City Hall

# Schedule C – Cost of Renovating Old City Hall

In 2008, IRC Building Sciences Group Inc. was retained to complete a building condition assessment report. Preliminary estimates at the time, suggested the cost for renovations to be a minimum of \$20 million. This high level estimate included; the temporary relocation of 266 staff (currently located in City Hall), the removal and remediation of asbestos within the facility, updating the mechanical/electrical as well as interior renovations/finishes for the 67,000 square foot building. It should be noted that this estimate is in 2008 dollars and an inflation factor should be applied for today's value.

It should be noted that this estimate did not include or anticipate the following factors:

1. One-stop customer service initiative – This initiative has been endorsed by City Council and is commonly used in other municipalities. This provides efficient and effective customer service by incorporating various departments into service areas. It requires consolidation of various staff currently dispersed within various City sites (350 CHS, 400 CHS, 1266 McDougall, etc.). The City has confirmed this direction through the recent organizational change that combined the Building and Planning under one service area. The NORR Space Needs Study incorporated this initiative and resulted in a need for a 105,000s.f. facility. The current City Hall is 67,000s.f.
2. Need for large council chamber – The growing municipality and increased public awareness of municipal affairs has lead to increased attendance to Council meetings. The current size and layout has a maximum capacity of 100. It is becoming more common that the current capacity does not meet the demand. The open and transparent process becomes limited to first come first served and result in denying residents access to their municipal process.
3. Accessibility for Ontarians with Disabilities Act (AODA) and City of Windsor Facility Accessibility Design Standards (FADS) – These standards have substantial impacts to various design elements and as such have impacted the budget and space needs accordingly.

As previously reported, if the renovation of the Old City Hall is to be considered, a building addition would be required to accommodate at least #2 and #3 above. We have also included #1 for comparison purposes. The building addition could be built on the south side of the existing building. The total addition required to accommodate above is estimated at 48,000s.f. (38,000s.f. for consolidation of staff and 10,000s.f. for a larger council chamber). As identified in the space needs study, this would provide for a total of 105,000 s.f. which now can be compared to the new facility.

The following table is a high level estimate in today's dollars to complete renovations to the Old City Hall and construct a 48,000s.f. addition on the south side.

DESCRIPTION	ESTIMATE
<b>Renovations (67,000s.f.)</b>	
A . Base Building Renovations:	\$ 12,060,000
B. Design/Permit/Adm:	\$ 1,545,000
C. Furniture & Fit up *	\$ 3,675,000
D. Miscellaneous (Financing, moving, contingency, etc.) **	\$ 3,050,000
E. Environmental Work ***	\$ 2,800,000
SUBTOTAL RENOVATIONS	\$ 23,130,000
<b>Addition (48,000s.f.)</b>	
A . New Construction:	\$ 11,550,000
B. Design/Permit/Adm:	\$ 1,035,000
C. Furniture & Fit up	\$ 2,100,000
D. Miscellaneous (Financing, moving, contingency, etc)	\$ 1,220,000
SUBTOTAL ADDITION	\$ 15,905,000
<b>TOTAL ESTIMATE</b>	<b>\$ 39,035,000</b>

\* New furniture for all staff has been included for consistency in cost comparison.

\*\* Miscellaneous cost includes an estimated cost of temporary accommodations required to relocate 266 staff currently located in the Old City Hall. It should be further noted that it will be difficult to find one location to accommodate 67,000 s.f. in the downtown and service units will most likely have to be separated.

\*\*\* This cost is based on estimates provide in 2011 related to the Asbestos Building Material Survey completed by Golder Associates.

It should be noted that there remains limitations related to the current structure and associated ceiling height (12 feet) that are not in line with current standards (14 feet). This may result in additional retrofit costs. Further, it is important to note that in addition to the current ceiling heights, the floor plates will limit the functionality as opposed to a new layout. The design will be limited to the confines of the current floor plates which will not produce an optimal layout.

Consequently, the above provides a high level estimate of renovating the current City Hall while taking into account the current needs and direction. For information, the cost to renovate and expand the old City Hall is now estimated in the range of \$40 million.



# Schedule D – Risk Assessment

Risk Description	Impacted Objective(s)	Risk Level	Mitigating Strategy / Status	Responsibility
<b>Risks associated with Schedule A</b>				
Current project budget will be exceeded	Delivery of New City Hall Project within approved \$34.75 Million budget	Critical	<ul style="list-style-type: none"> <li>-Approval of \$1,499,648 in Value Engineering and Cost Reduction recommendations outlined in Schedule A1</li> <li>-Recommended additional funding allocation of \$4.1 million to address project shortfall.</li> </ul>	City Engineer
Making a pre-commitment to the 2016 – 2020 capital budget to fund the \$4.1M shortfall	Projects previously approved in principle from 2016 – 2019 will need to be postponed or cancelled to achieve the \$4.1M required. The funding source will need to be Pay as you go. As such the exercise to locate projects to fund this will impact many departments.	Significant	Finance will work with the various areas to identify projects which can be postponed to future years. The 2020 debt reduction levy is a possible source to fund those projects postponed without further cancellation or postpone of other projects currently being considered for 2020.	City Treasurer
<b>Risks associated with Schedule B</b>				
If any items listed in Schedule B are approved, current budget will be exceeded	Delivery of New City Hall Project within approved \$34.75 Million budget	Critical	-Consider allocating additional funding or reprioritizing funds for each additional item, if approved	City Engineer
Making a pre-commitment to the 2016 – 2020 capital budget to fund the \$4.6M shortfall	Projects previously approved in principle from 2016 – 2019 will need to be postponed or cancelled to achieve the \$4.6M required. The funding source will need to be Pay as you go. As such the exercise to locate projects to fund this will impact many departments.	Significant	Finance will work with the various areas to identify projects which can be postponed to future years. The 2020 debt reduction levy is a possible source to fund those projects postponed without further cancellation or postpone of other projects currently being considered for 2020.	City Treasurer

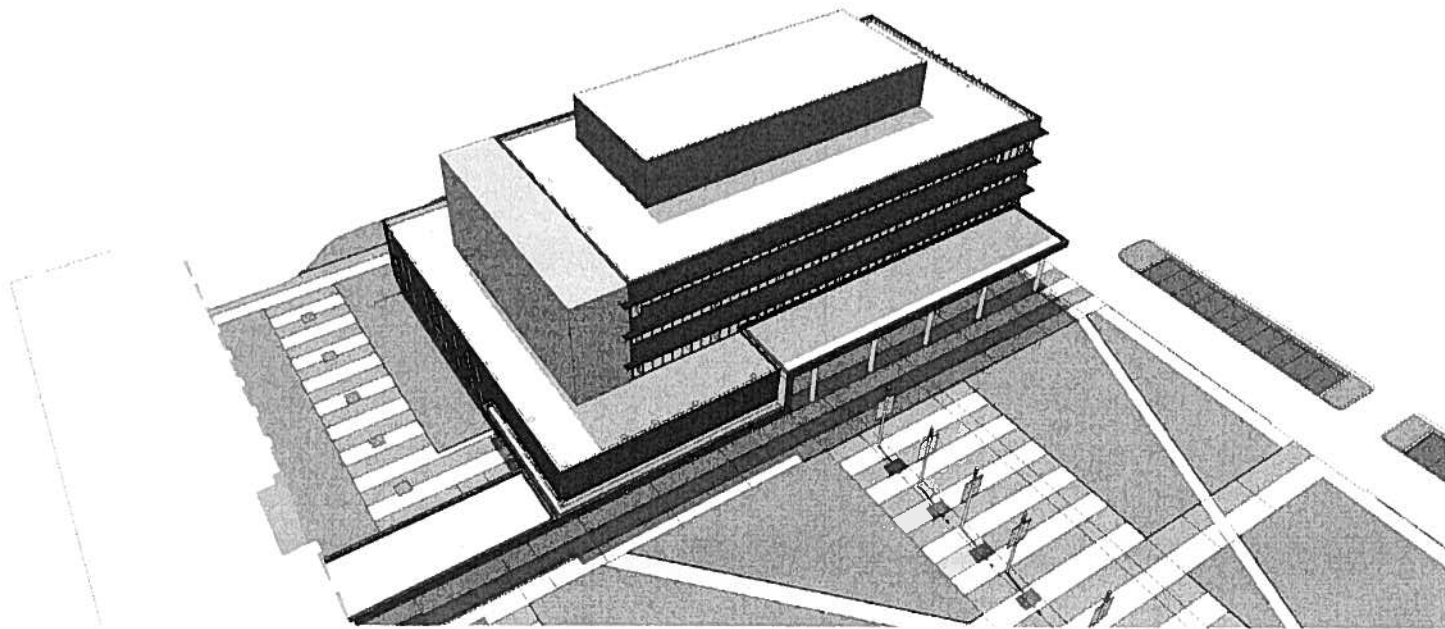
Proposed New City Hall design will not accommodate future growth needs	Construction of a modern, efficient and functional facility that will accommodate current and future needs of the Corporation to be able to provide the various public services	Significant	City Engineer
If Growth Option (Item #2b) in Schedule B is pursued, a redesign of the building layout/adjacencies would be required	Construction of a modern, efficient and functional facility that will accommodate current and future needs of the Corporation to be able to provide the various public services	Significant	City Engineer
		-Pursue one of two growth options outlined in Schedule B - Item 2a and 2b (Risks associated with Item 2b are discussed below)	
			-Consider allocation additional funding to project or reprioritization of funds -Adjust project schedule to accommodate changes

Details of the critical and significant risks associated with this report are outlined in the chart above. The first budget breach risk is based on the current approved project budget of \$34.75 million. As part of Schedule A1 & 2, an assessment of the impact on function, maintenance and aesthetics was completed for each of the value engineering and cost reduction items and formed the basis for the recommended / Not Recommended reductions. The value engineering and cost reduction recommendations in Schedule A1 and a proposed funding increase of \$4.1 million are provided for the Steering Committee's consideration, in order to address the projected shortfall and the critical risk of a budget breach.

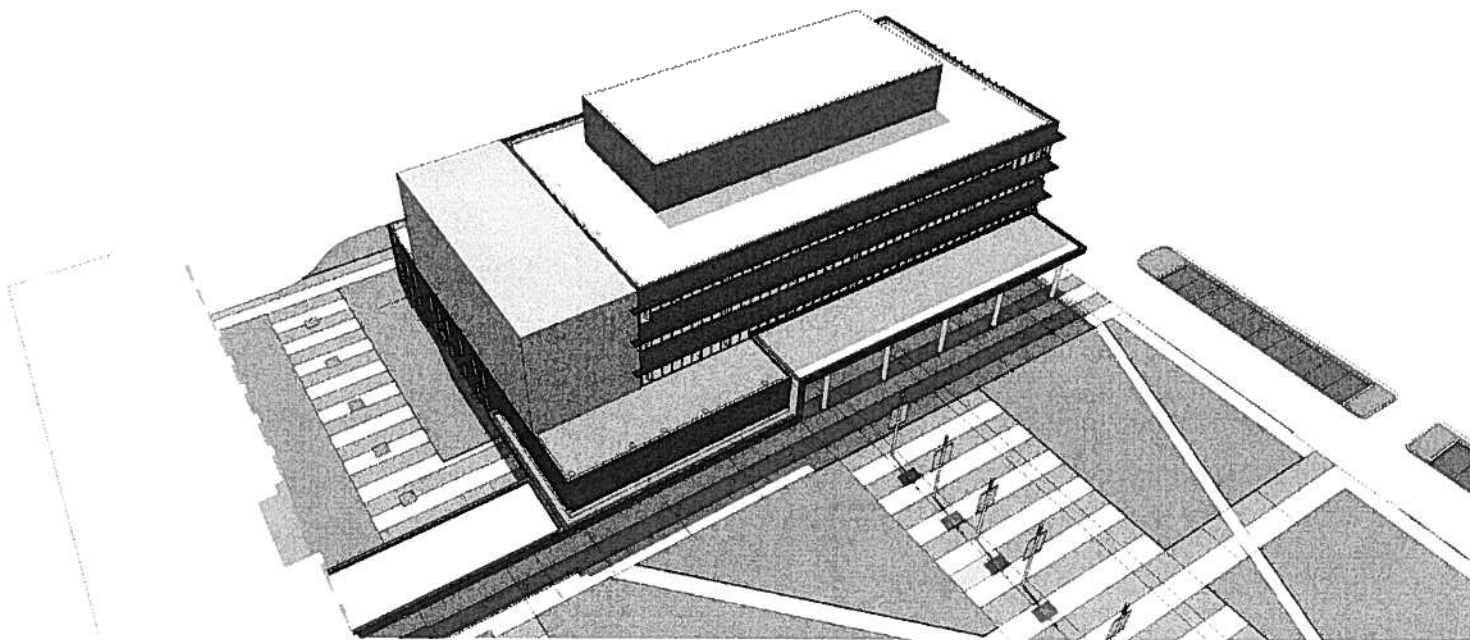
Enhancements to the New City Hall project, as set out in Schedule B, can be made at the Steering Committee's discretion. The associated costs of these enhancements would fall outside of the approved budget and are not covered by the recommended funding increase in this report. The addition of these items without allocating additional funds would increase the risk of a budget breach.

For further clarification, two options are provided in Schedule B to address the risk associated with the accommodation of future growth. Both scenarios (Item 2a & 2b) would require changes to the design plan and would result in associated costs and timing impacts. Item 2b requires more substantial changes to be made to the design plan as it more severely impacts the architectural, structural and mechanical systems of the building. As a result, a redesign of the structural system and potentially the whole building layout would be required, presenting a significant level of risk to the timing and budget of the project (as discussed above).

# Schedule E - Illustration of Future Growth options (a & b)



**Option (a)**



**Option (b)**