Appendix B – Feasibility Study and Cost Estimates

Contains:

- **Gensler 2020. Former City Hall Feasibility Study, Alternatives and Cost Implications, Spring 2020.**
- **Cumming. 2020. CoSC Former City Hall Feasibility Study. Rough Order of Magnitude. March 31.**

Former City Hall Feasibility Study

Alternatives + Cost Implications

Spring 2020

Gensler | HKIT | Knapp | CUMMING

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Purpose

The intent of this report is to provide factual and objective cost information on the development alternatives of the County of Santa Clara (the County)'s Civic Center Campus Site D.

This feasibility study tests development locations and high-level massing strategies at a master planning level. Many options were explored, and the most optimal ones are presented that meet the County's needs. All drawings are conceptual layouts only for rough order of magnitude cost estimating purposes.

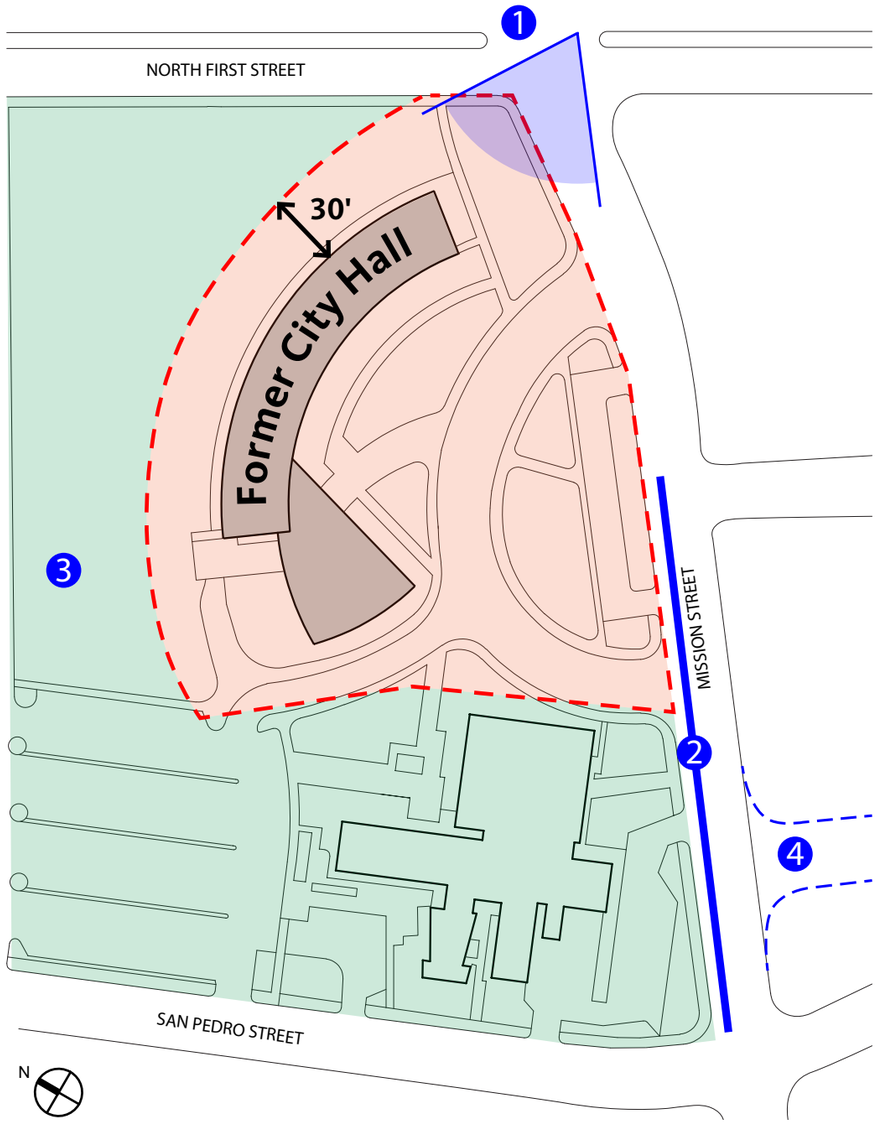
- Site D
- Former City Hall
- Other Sites in Civic Center master plan

Civic Functions:

PSJ Public Safety and Justice
FG Finance and Government
SSA Social Services Agency

N 0 200' 400'

Historic Significance and Integrity | Site



Significant Impact Zone

- Demolition, or new building within site boundaries would trigger significant impact in CEQA;
- Keep area in front of building clear and consolidate program onto rest of Site D;
- Retain original landscape scheme in front of building.

No Significant Impact Zone

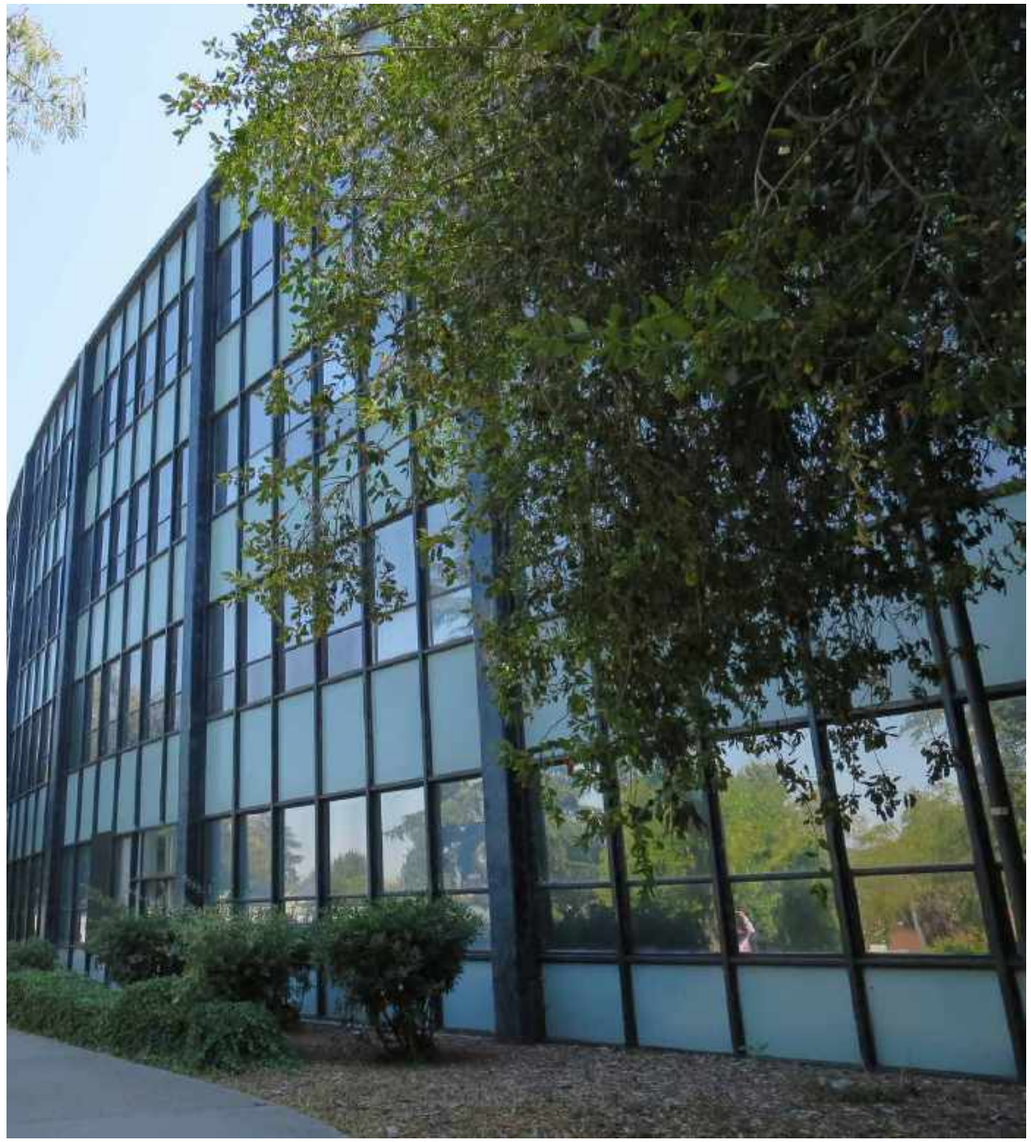
- New development can be taller than the Former City Hall building. The further away it is, the taller it can be;
- Building less than 4 floors at the boundaries shown here is acceptable as long as the design is compatible with the existing building;
- Building of 9 floors or less is acceptable when centered between 70 W. Hedding and the Former City Hall

Mitigation options if building would be demolished

- Recordation in the Historic American Building Survey (HABS)
- Interpretation (display panels or plaques on the site, videos, and/or websites)
- Retention of a small portion (not recognized by the Secretary's Standards)

1. Primary view of building
2. Reentry Center and trees block view of Former City Hall
3. Parking lot under construction
4. San Pedro Street alignment was altered significantly after Former City Hall was completed

Historic Significance and Integrity | Exterior



Design Character needs to remain intact

- Skin and fenestration could be carefully repaired to correct deterioration, improve weather tightness, and reduce energy use

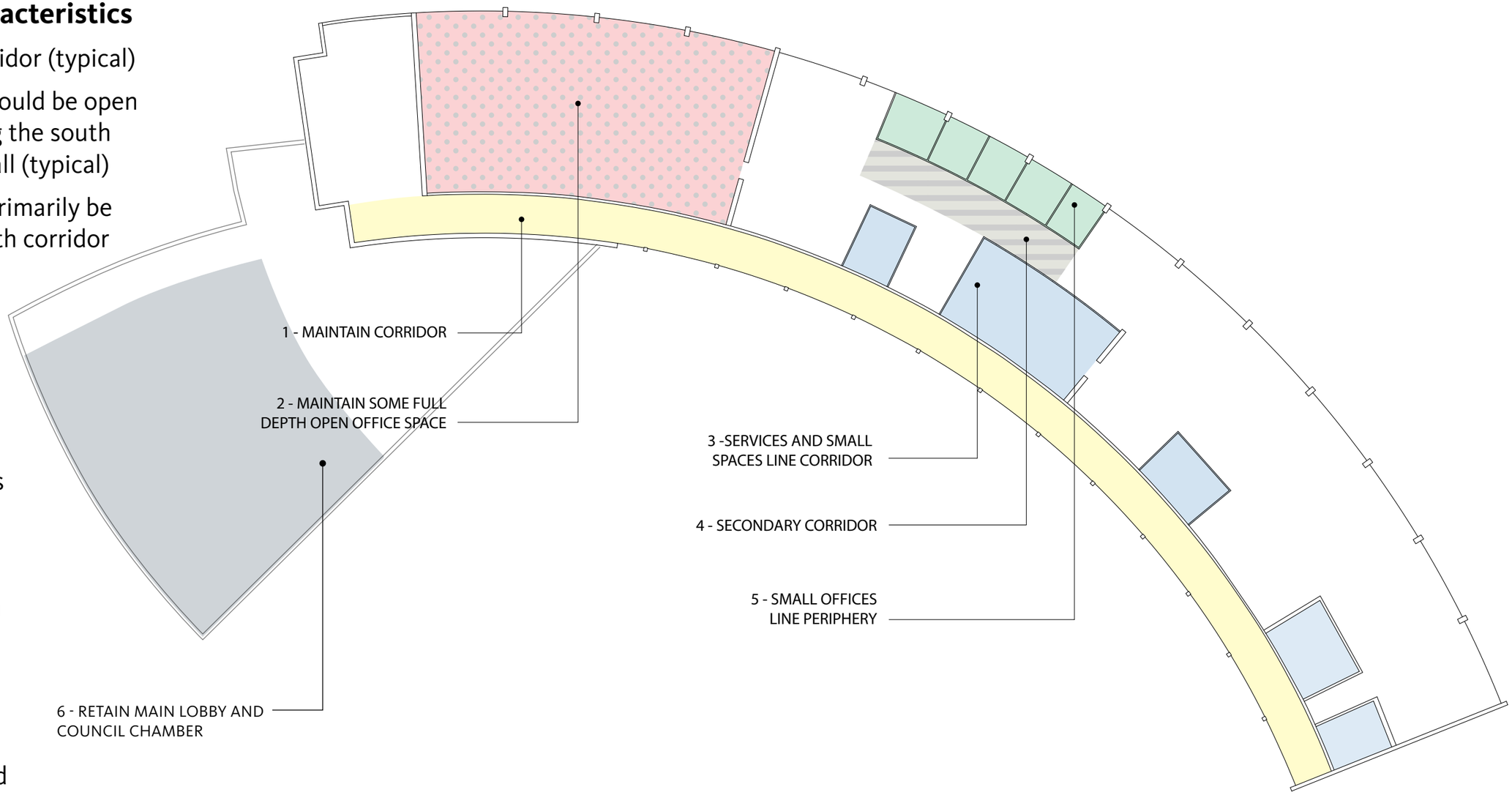
- If the curtain wall were replaced, dimensions, profiles, colors and gloss of the original need to be matched

- State Historical Building Code does not require the building envelope to be upgraded to meet current energy requirements

Historic Significance and Integrity | Interior

Important historic characteristics

1. Maintain the south corridor (typical)
2. At least some spaces should be open from the partition along the south corridor to the north wall (typical)
3. Service spaces should primarily be clustered along the south corridor (typical)
4. Secondary circulation space may be created on the radial band just inside the north wall (typical)
5. A band of private offices may be created along the north wall, opening either to open office space or to a circulation zone as described in #4 (typical)
6. The double-height main lobby and second floor Council Chamber should remain intact



Historic Significance and Integrity | Treatment Options

Short-term Stabilization
Least cost. Possible Treatment Option for adaptive reuse alternatives.

- Begin with up-to-date conditions assessment
- Securing building from unauthorized entry
- Repairing leaks
- Stabilizing to-be-shut-down systems so they do not cause damage on their own
- Scope of stabilization measures depends on length of time building will be unused.

Mothballing
To protect building from damage and deterioration while it is unused and de-activated.
Treatment for "No Project" Alternative.

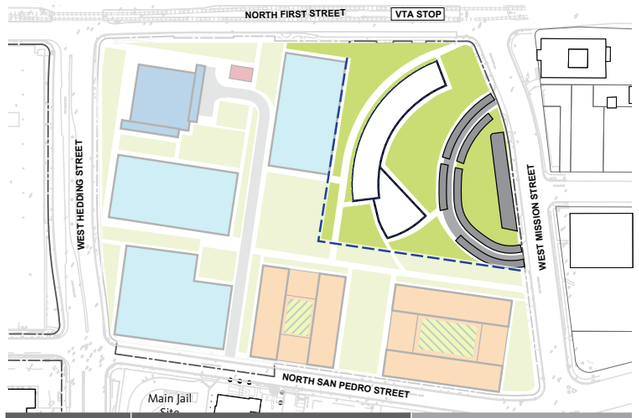
- All Short-term Stabilization requirements
- Ensure ventilation of interior
- Correct conditions which cause or permit deterioration
- If utilities and building systems can be maintained in safe and effective operation, treatment would exceed typical mothballing
- Utilities may be shut down; if so, they should be secured in a stable condition so they will not malfunction or cause damage
- Periodic observation and prompt correction of problems (monthly during dry weather)
- Inspections after heavy rains and other events (including earthquakes) which could cause damage

Active Maintenance
To reuse on demand, same as what a building receives when it is in use.
Possible Treatment Option for adaptive reuse alternatives.

- Same level of maintenance and security as County provides for buildings that are in active use
- Maintaining power, water, and gas service
- Keeping the ventilation, alarm, and HVAC systems operating
- Weekly inspections and prompt correction of problems

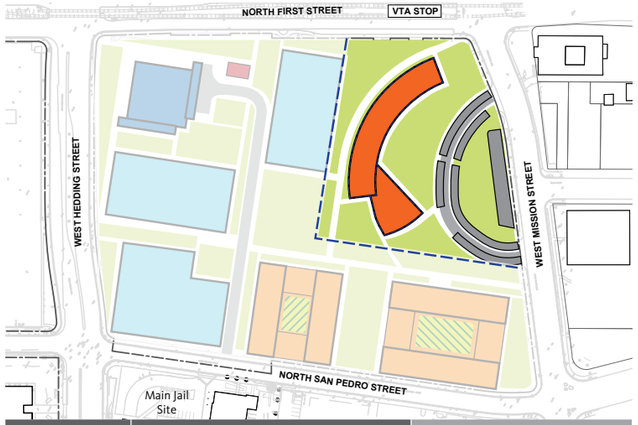
Site Alternatives Evaluated

1A. No Project with Housing + Office



	Former City Hall Area	Site D Total
HOUSING	0 du	260 du
OFFICE	0 sf	1,147,700 sf

2. Adaptive Reuse as Housing



	Former City Hall Area	Site D Total
HOUSING	57 - 108 du	317 - 368 du
OFFICE	0 sf	1,147,700 sf

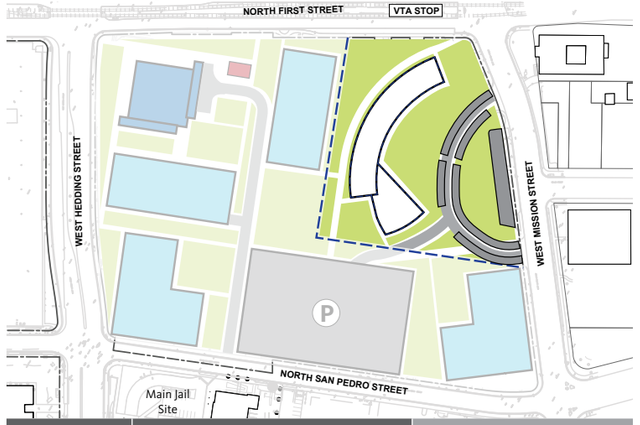
* Two schemes were considered - 57 large units and 108 small units

3. Comparison with Maximized Housing

	Former City Hall Area	Site D Total
HOUSING	410 du	670 du
OFFICE	0 sf	1,147,700 sf

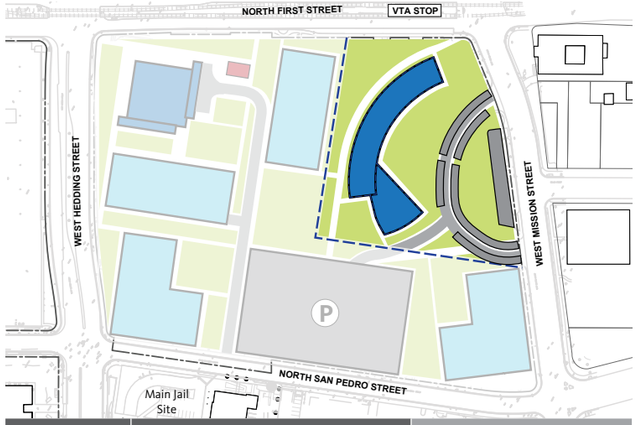
- Former City Hall Footprint
- Former City Hall Area
- Building Reuse as Housing
- New Housing
- Building Reuse as Office
- New Office
- Parking
- Open Space
- Private Open Space
- Vehicular Access

1B. No Project with Office



	Former City Hall Area	Site D Total
OFFICE	0 sf	1,226,600 sf

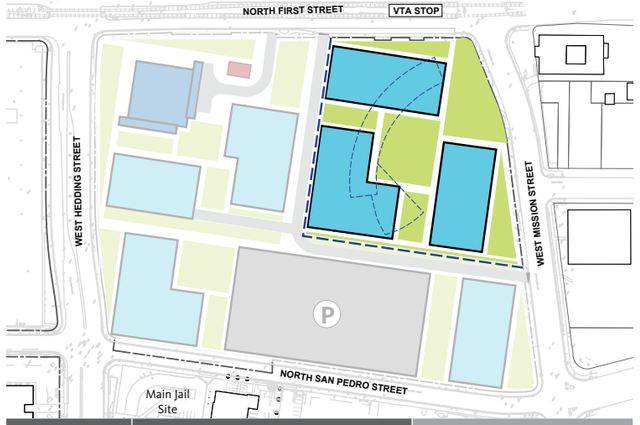
4. Adaptive Reuse as Office



	Former City Hall Area	Site D Total
OFFICE	113,430 sf	1,340,000 sf

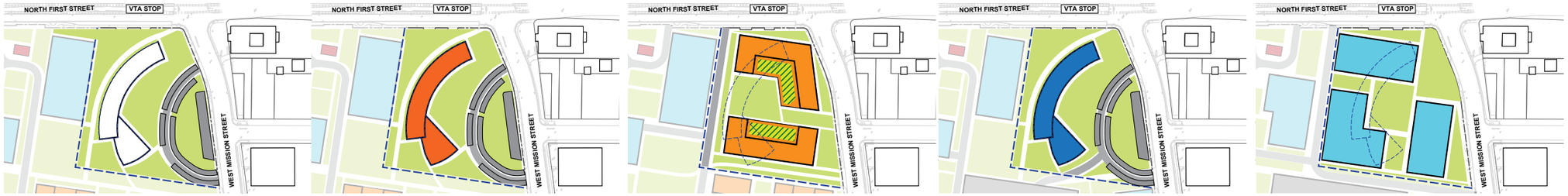
* Two scenarios were considered - Class A Office and Class B Office

5. Comparison with Maximized Office



	Former City Hall Area	Site D Total
OFFICE	762,000 sf	1,988,600 sf

Cost Summary



	1. No Project	2. Adaptive Reuse as Housing		3. Comparison with Maximized Housing	4. Adaptive Reuse as Office		5. Comparison with Maximized Office
		Large Units	*Small Units*		*Class B Office*	*Class A Office*	*Class A Office*
COST (Former City Hall Area)							
Initial Cost	$ (490,200)	$ (105,694,200)	$ (118,001,400)	$ (328,436,300)	$ (47,811,100)	$ (128,686,700)	$ (705,863,900)
Initial Cost / Unit	n/a	$ (1,854,300)	$ (1,092,600)	$ (801,100)	n/a	n/a	n/a
Initial Cost / SF	n/a	n/a	n/a	n/a	$ (421)	$ (1,134)	$ (926)
Annual Cash Flow	$ (171,300)	$ (24,300)	$ 448,800	$ 1,677,700	$ 887,300	$ 2,588,700	$ 17,390,100
30-Year Total Cost	$ (4,405,700)	$ (104,701,900)	$ (107,046,000)	$ (273,913,400)	$ (26,445,100)	$ (71,487,700)	$ (231,377,100)
30-Year Total Cost / Unit	n/a	$ (1,836,900)	$ (991,200)	$ (668,100)	n/a	n/a	n/a
30-Year Total Cost / SF	n/a	n/a	n/a	n/a	$ (233)	$ (630)	$ (304)
PROGRAM (Former City Hall Area)							
Housing (DU)	-	57	108	410	-		-
Office (GFA)	-	-		-	113,430		762,000
Parking (SP)	97 (E)	97 (E)		410	270*		1,142*

a) Numbers in parentheses are net costs;

b) Initial Cost include Construction Cost and 5-Year Stabilization Cost; The two possible stabilization treatment options have similar costs;

c) Construction Costs are based on today's value and do not include any escalation;

d) Annual Cash Flow includes Operating Cost and Potential Revenue;
Revenue Assumptions (monthly): *Housing: $ 773/du*
Class A Office: $ 5.0/sf
Class B Office: $ 2.5/sf

e) 30-Year Cost: Total Cost of Ownership (Present Value);

f) All costs are rounded to the nearest hundred, except Cost / SF.

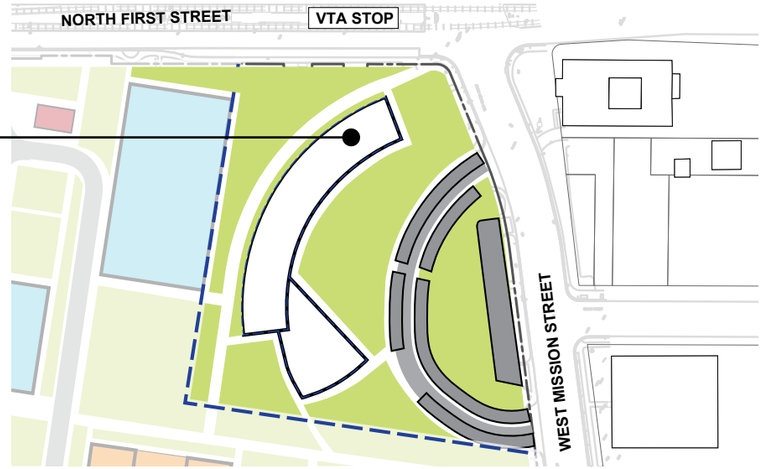
** Partial or all of the required parking is provided in the Site D Parking Structure (outside the Former City Hall Area)*

1. No Project | Summary

Former City Hall Stays Unoccupied

Stabilize Existing Building with Mothballing Treatment to protect building from damage and deterioration while it is unused and de-activated.

PROGRAM



Former City Hall Area

Parking: 97 spaces (E)

Site D Total

	1A (w. Housing + Office)	1B (w. Office)
Housing	*260 du*	-
Office	*1,147,700 sf*	*1,226,600 sf*
*Parking**	*1,577 spaces*	*1,430 spaces*

COST (Former City Hall and Site Area)

One-time Stabilization	$ (490,200)
Construction	-
Initial Cost	**$ (490,200)**
Operating Cost (Utilities + O&M)	$ (171,300)
Revenue	-
Annual Cash Flow	**$ (171,300)**
30-Year Cost	**$ (4,405,700)**

Cost Notes and Assumptions:

- *Numbers in parentheses are net costs;*
- *Construction Costs are based on today's value and do not include any escalation;*
- *30-Year Cost: Total Cost of Ownership (Present Value);*
- *All costs are rounded to the nearest hundred.*

*** Parking Assumptions:**

- *Parking for the East Wing will remain off site;*
- *All new housing buildings are self-parked on podium level(s);*
- *New office self-parked with three levels of podium parking;*
- *Development with high-rise office buildings assumes lower parking ratio (less than 2.8 spaces /1,000 sf which was consistent with Civic Center Campus Master Plan Site D) or parking off site.*

1. No Project | Massing

CONCEPTUAL SITE D 3D MASSING

3D Massing - 1A No Project with Housing + Office

3D Massing - 1B No Project with Office

2. Adaptive Reuse as Affordable Housing | Summary

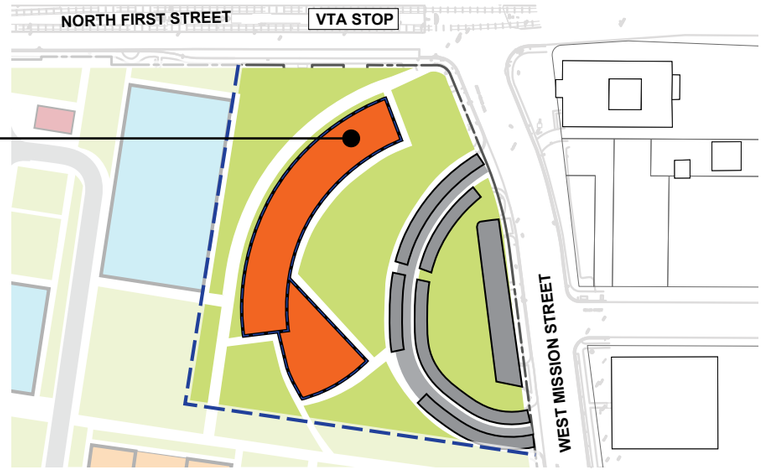
Former City Hall Reused for Affordable Housing + Community Services
* Seismic Upgrade is required

Affordable Housing
Scheme 1: 57 Large Units
Scheme 2: 108 Small Units

Community Services
23,000 square feet on the ground floor is available for community services. Potential services include:

- Childcare
- Non-profit Offices
- Supportive Housing Services
- Behavioral Health Services

PROGRAM



Former City Hall Area
Housing: 57 - 108 du
Parking: 97 spaces (E)

Site D Total

Housing	*317 - 368 du*
Office	*1,147,700 sf*
Parking	*1,577 spaces*

COST (Former City Hall and Site Area)

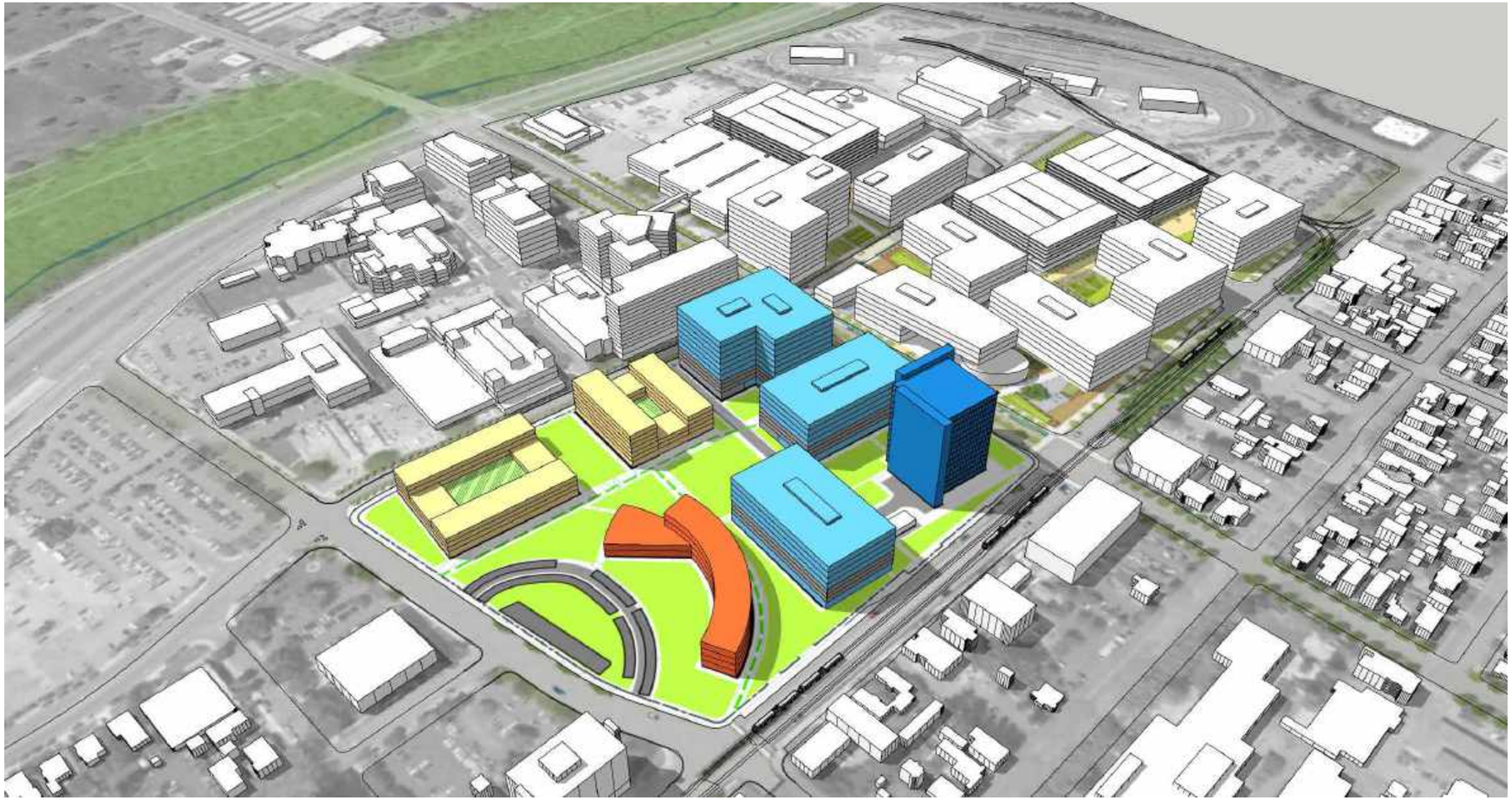
	Large Units (57 du)	*Small Units (108 du)*
One-time Stabilization	$ (541,700)	$ (541,700)
Construction	$ (105,152,500)	$ (117,459,700)
Initial Cost	**$ (105,694,200)**	**$ (118,001,400)**
Operating Cost (Utilities + O&M)	$ (553,000)	$ (553,000)
Revenue	$ 528,700	$ 1,001,800
Annual Cash Flow	**$ (24,300)**	**$ 448,800**
30-Year Cost	**$ (104,701,900)**	**$ (107,046,000)**

Cost Notes and Assumptions:
- Numbers in parentheses are net costs;
- The two possible stabilization treatment options have similar costs;
- Construction includes demolition, sitework, and soft costs;
- Construction Costs are based on today's value and do not include any escalation;
- Revenue Assumptions (monthly): $ 773 / du;
- 30-Year Cost: Total Cost of Ownership (Present Value);
- All costs are rounded to the nearest hundred.

*** Parking Assumptions:**
- Parking for the East Wing will remain off site;
- All new housing buildings are self-parked on podium level(s);
- New office self-parked with three levels of podium parking;
- Development with high-rise office buildings assumes lower parking ratio (less than 2.8 spaces /1,000 sf which was consistent with Civic Center Campus Master Plan Site D) or parking off site.

2. Adaptive Reuse as Affordable Housing | Massing

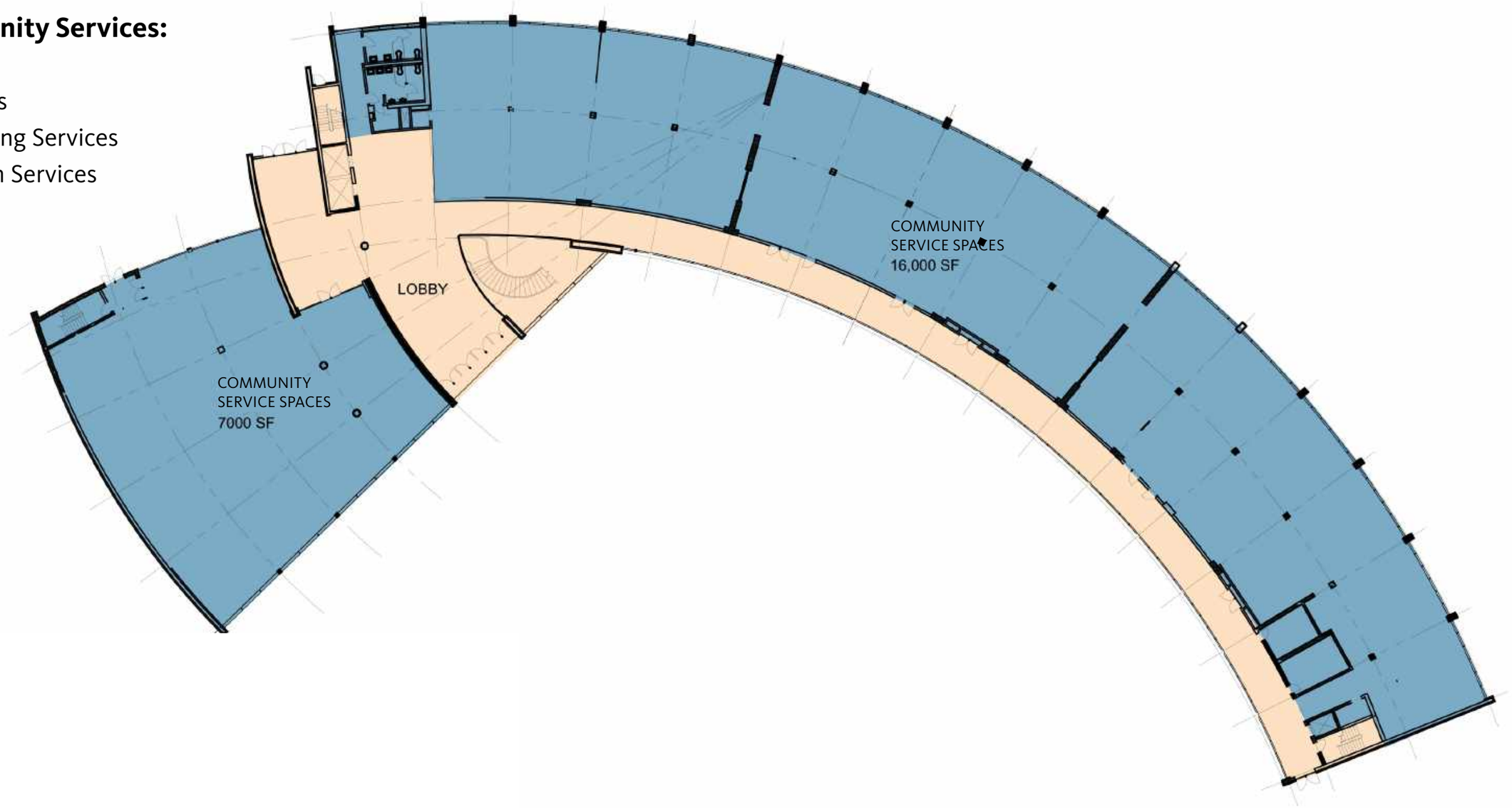
CONCEPTUAL SITE D 3D MASSING

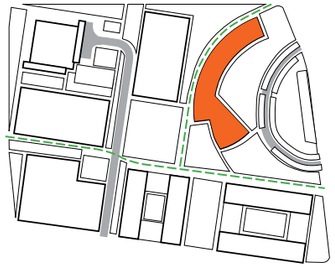


2. Adaptive Reuse as Affordable Housing | Ground Floor Plan

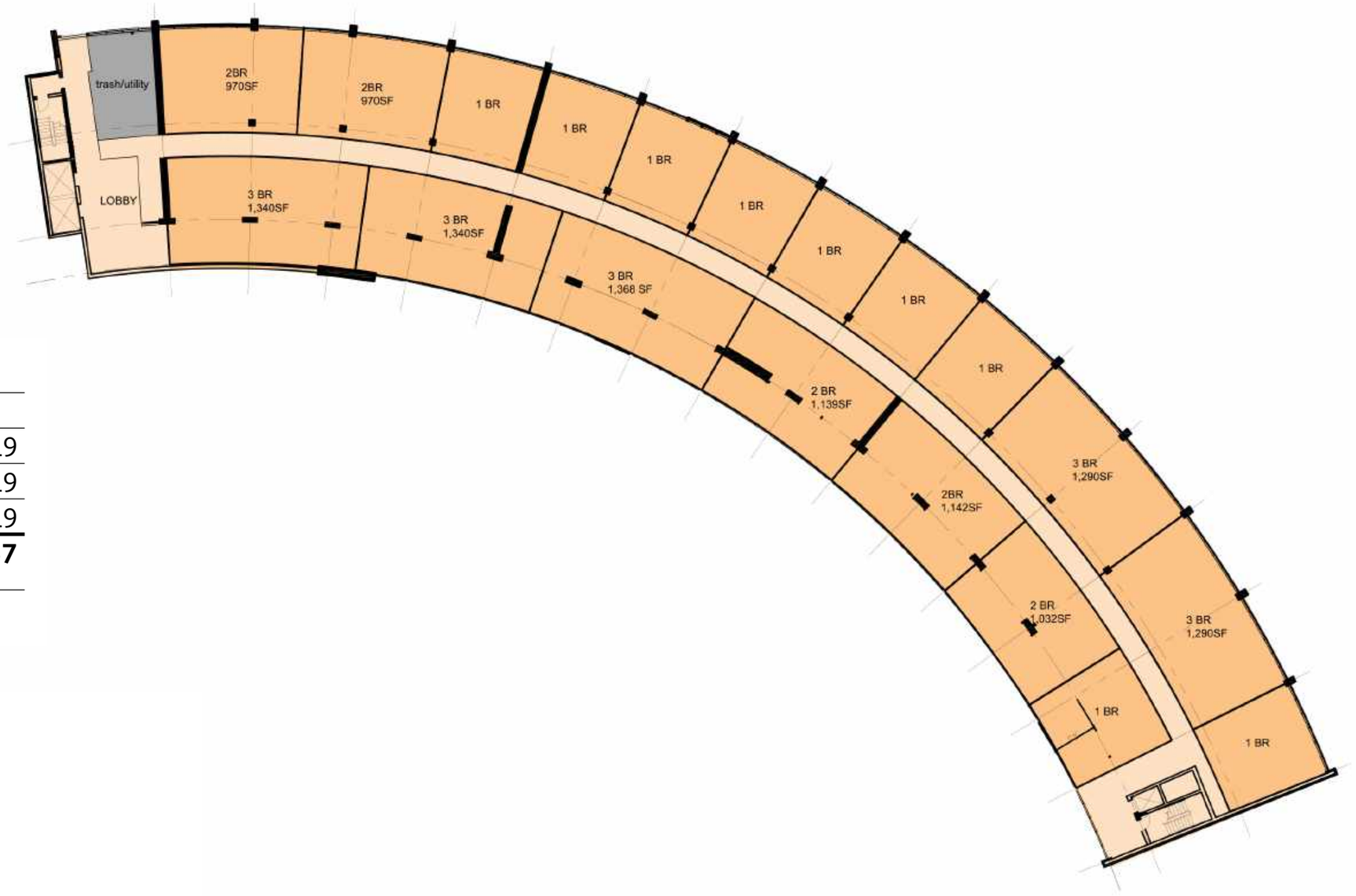
Potential Community Services:

1. Childcare
2. Non-profit Offices
3. Supportive Housing Services
4. Behavioral Health Services

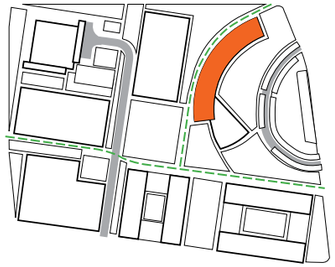




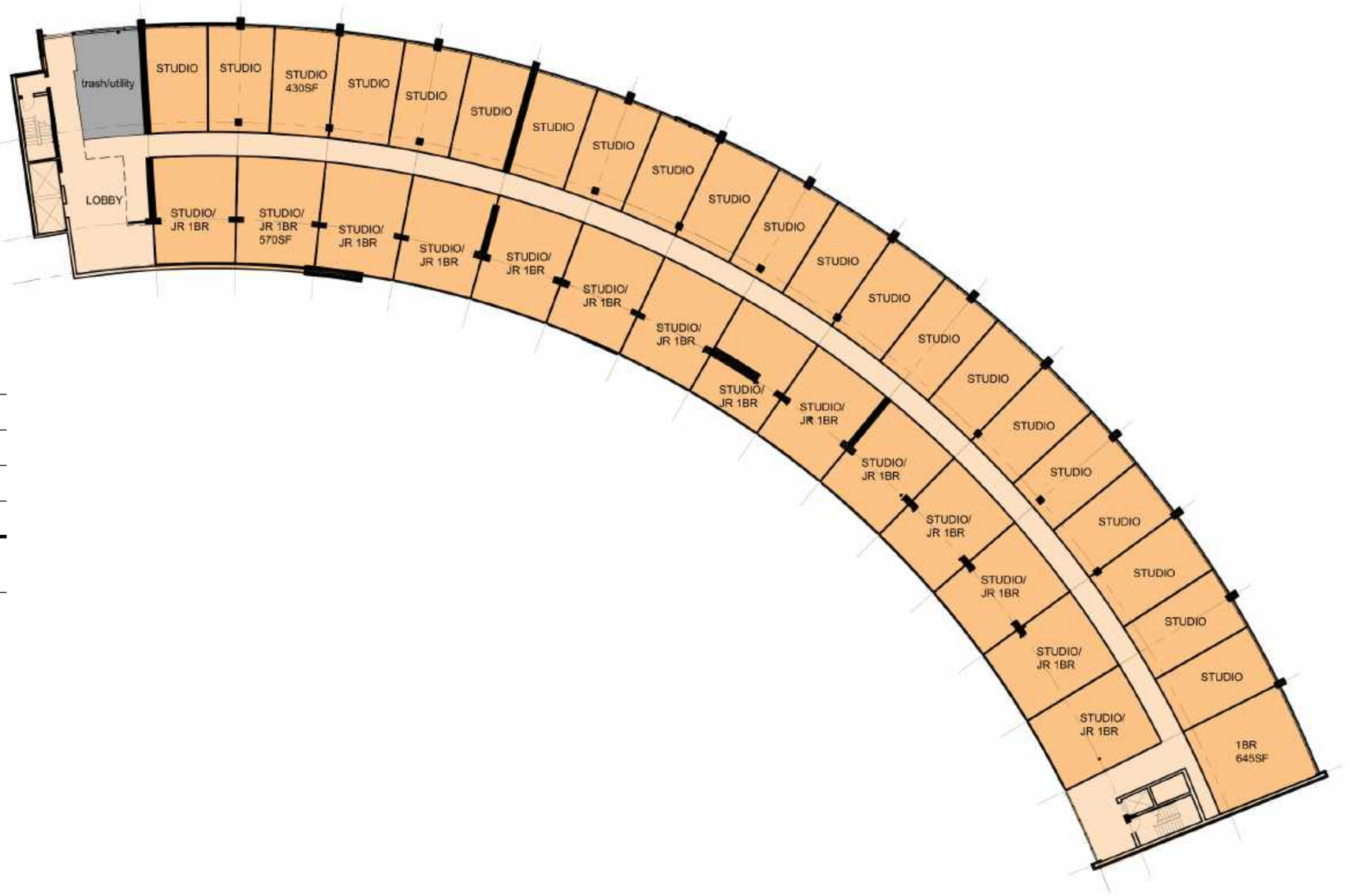
2. Adaptive Reuse as Affordable Housing | Typical Floor Plan (Large Units)



	1BR	2BR	3BR	
LEVEL 1	0	0	0	
LEVEL 2	9	5	5	19
LEVEL 3	9	5	5	19
LEVEL 4	9	5	5	19
TOTAL	**27**	**15**	**15**	**57**
	47.4%	26.3%	26.3%	



2. Adaptive Reuse as Affordable Housing | Typical Floor Plan (Small Units)


trash/utility
LOBBY
STUDIO
STUDIO
STUDIO 430SF
STUDIO
STUDIO
STUDIO

3. Comparison with Maximized Housing | Summary

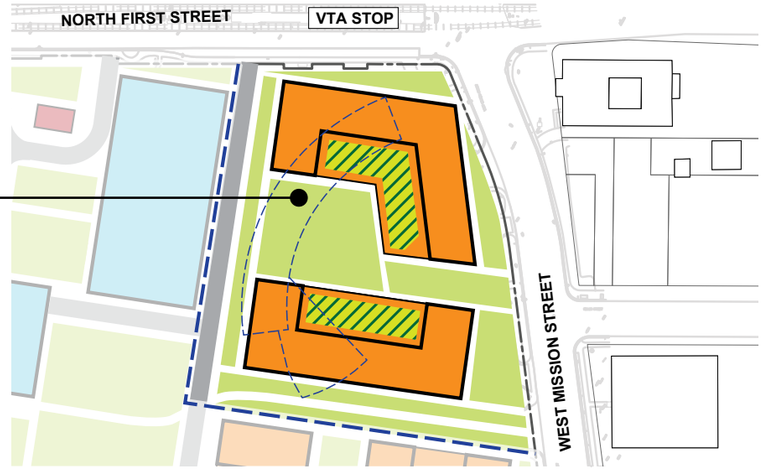
Former City Hall Demolished to Maximize Housing Potential

* Demolition is classified as a 'significant unavoidable impact' under CEQA and mitigation measures are recommended

Mitigation Measures

- Recordation in the Historic American Building Survey (HABS)
- Interpretation
- Retain of a small portion

PROGRAM



Former City Hall Area

Housing: 410 du

Parking: 410 spaces

Site D Total

Housing	*670 du*
Office	*1,147,700 sf*
Parking	*1,890 spaces*

COST (Former City Hall and Site Area)

One-time Stabilization	-
Construction	$ (328,436,300)
Initial Cost	**$ (328,436,300)**
Operating Cost (Utilities + O&M)	$ (2,125,500)
Revenue	$ 3,803,200
Annual Cash Flow	**$ 1,677,700**
30-Year Cost	**$ (273,913,400)**

Cost Notes and Assumptions:

- Numbers in parentheses are net costs;

- Construction includes demolition, sitework, and soft costs;

- Construction Costs are based on today's value and do not include any escalation;

- Revenue Assumptions (monthly): $ 773 / du;

- 30-Year Cost: Total Cost of Ownership (Present Value);

- All costs are rounded to the nearest hundred.

*** Parking Assumptions:**

- Parking for the East Wing will remain off site;

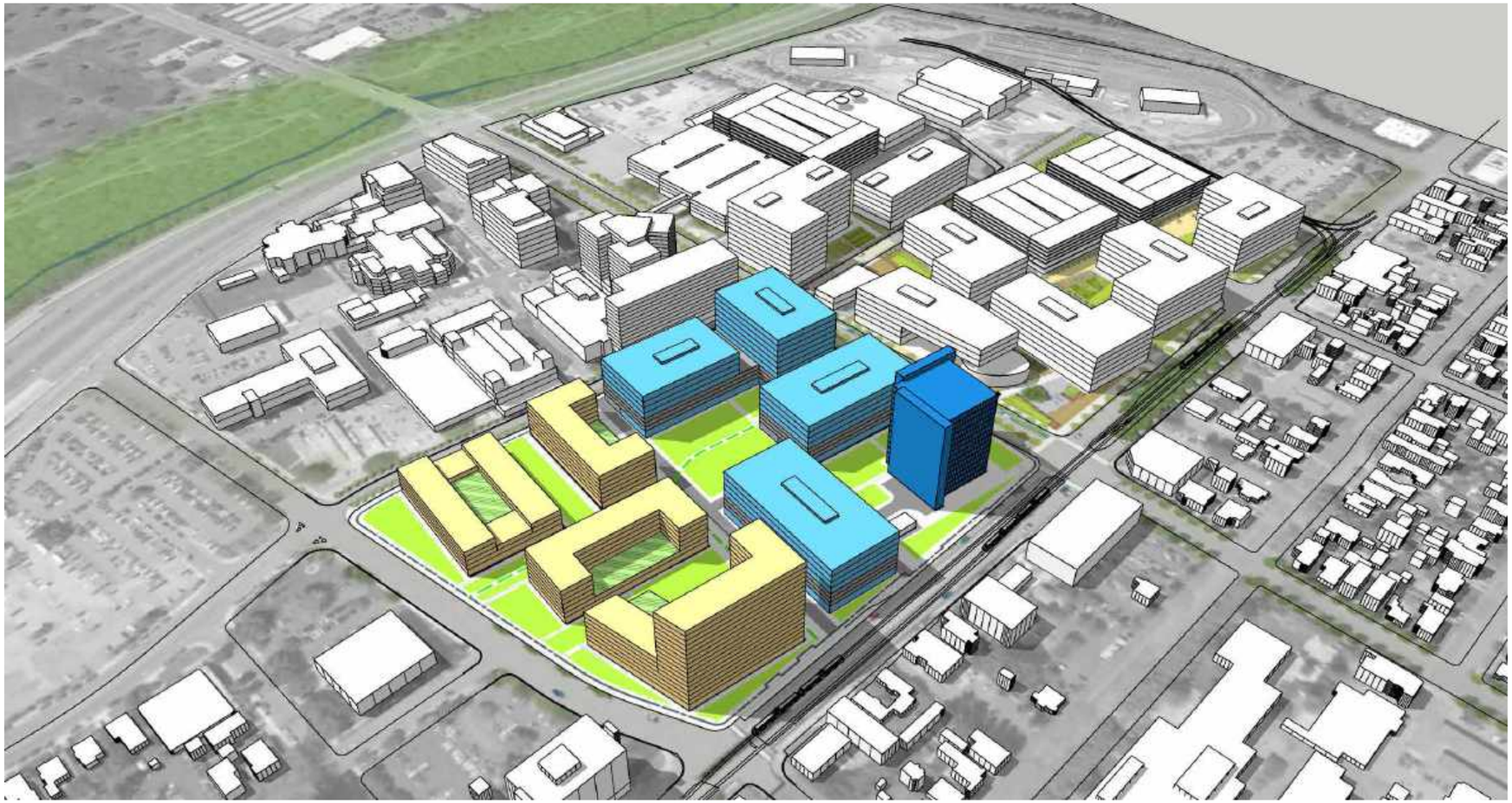
- All new housing buildings are self-parked on podium level(s);

- New office self-parked with three levels of podium parking;

- Development with high-rise office buildings assumes lower parking ratio (less than 2.8 spaces /1,000 sf which was consistent with Civic Center Campus Master Plan Site D) or parking off site.

3. Comparison with Maximized Housing | Massing

CONCEPTUAL SITE D 3D MASSING



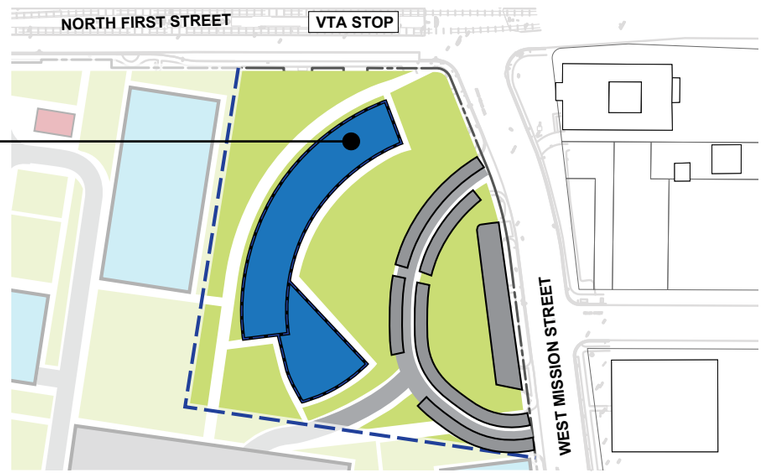
4. Adaptive Reuse as Office | Summary

Former City Hall Reused for County Offices or Private Offices (Leased by County)

The building may be upgraded to:

- Meet Codes and Regulations (Class B Office)
- Include Optional Upgrades (Class A Office)

PROGRAM



Former City Hall Area

Office: *113,430 sf*

Parking: *97 spaces (E)*
173 additional (in Site D Parking Structure)

Site D Total

Office	*1,340,000 sf*
Parking	*1,700 spaces*

COST (Former City Hall and Site Area)

	Class B Office	*Class A Office*
One-time Stabilization	$ (499,000)	$ (499,000)
Construction	$ (47,312,100)	$ (128,187,700)
Initial Cost	**$ (47,811,100)**	**$ (128,686,700)**
Operating Cost (Utilities + O&M)	$ (814,200)	$ (814,200)
Revenue	$ 1,701,500	$ 3,402,900
Annual Cash Flow	**$ 887,300**	**$ 2,588,700**
30-Year Cost	**$ (26,445,100)**	**$ (71,487,700)**

Cost Notes and Assumptions:

- Numbers in parentheses are net costs;
- The two possible stabilization treatment options have similar costs;
- Construction includes demolition, sitework, and soft costs;
- Construction Costs are based on today's value and do not include any escalation;
- Revenue Assumptions (monthly): $ 5.0 / sf for Class A office; $ 2.5 / sf for Class B office;
- 30-Year Cost: Total Cost of Ownership (Present Value);
- All costs are rounded to the nearest hundred.

*** Parking Assumptions:**

- Parking for the East Wing will remain off site;
- All new housing buildings are self-parked on podium level(s);
- Office parking in Site D Parking Structure;
- Development with high-rise office buildings assumes lower parking ratio (less than 2.8 spaces /1,000 sf which was consistent with Civic Center Campus Master Plan Site D) or parking off site.

4. Adaptive Reuse as Office | Massing

CONCEPTUAL SITE D 3D MASSING

4. Adaptive Reuse as Office | Retrofitting Scenarios / Requirements

	Codes and regulations (Class B Office)	Optional Upgrades (Class A Office)
Pros + Cons	- Cheaper to retrofit - May not be as ideal when working in the building	- More expensive - Similar to typical office environment for employees' experiences
Architectural	<u>Building Envelope:</u> - Clean and repair all exterior finishes - Full building conditions assessment - Replace all concrete paving and walkways to primary entrances to comply with CBC chapter 11. <u>Interior:</u> - Test for hazardous materials - Replace walk off mats at all locations and clean and polish existing terrazzo floor. Replace all carpet. - Clean stone and brick veneer, replace interior gypsum walls and paint. - Remove plaster ceiling and fixtures for installation of new fire protection systems. Repair and replace fixtures. - Clean landscape area and fountain in lobby. - Clean and refurbish kitchen equipment. - Cafeteria area to be converted to self serve lounge with multiple sinks, microwaves, ovens, cooktops and hoods. - Council Chambers finishes, chairs and fixtures to be refurbished and reinstalled. - Restrooms to be cleaned and repaired to working condition.	<u>Site:</u> - Replace all concrete paving, patios and walkways to comply with CBC chapter 11. - Replace all landscaping around the building with new low-maintenance and drought-tolerant plantings and irrigation. <u>Building Envelope:</u> - Replace curtain wall with double glazed system to meet Title 24 energy requirements - Replace all roofing to comply with Title 24 energy requirements <u>Interior:</u> - Replace all ceiling finishes with like or upgraded kind and install all new light fixtures and diffusers. - Restore landscape area in lobby, repair fountain and irrigation system and replace plantings. - Cafeteria to be converted into a Cafe and Coffee Bar with high quality finishes. - Council chambers to be turned into a conferencing center with updated fixtures and like finishes. - Restrooms to comply with Title 24.
Code	- Note: if a building's use does not change, elements that previously met code do not need to be upgraded	- All interior spaces to be brought up to requirements in the CBC (stairs, restrooms, elevators, exit passageways)

* All upgrades in Low Cost Scenario need to be met in Higher Cost Scenario CONTINUE TO NEXT PAGE

4. Adaptive Reuse as Office | Retrofitting Scenarios / Requirements (Cont'd)

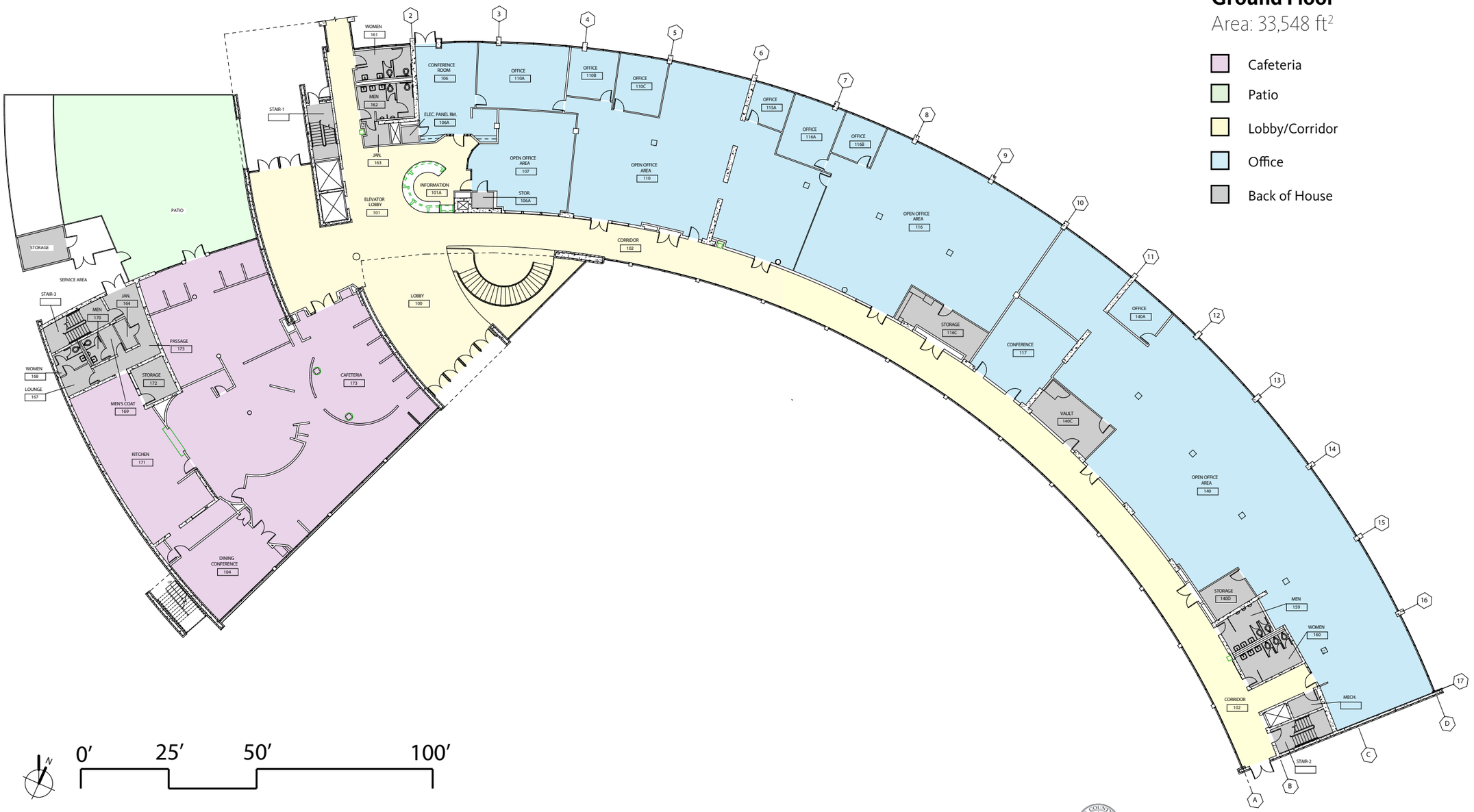
	Codes and regulations (Class B Office)	Optional Upgrades (Class A Office)
Structure		- Seismic Upgrade
Mechanical	- Repair and recommission HVAC system	- Replace existing systems with all new cooling tower, heating system and air handling units
Plumbing	- Repair and recommission plumbing system	- Replace all roof drains with secondary wood drainage downspouts with new - Replace all existing piping, sanitary waste, vents and fittings to meet CBC
Fire Protection	- Provide automatic sprinkler protection and fire alarm system throughout the building	- Replace existing standpipes with a combination sprinkler / fire hose standpipe - Upgrade the existing underground fire service
Electrical/IT	- Repair and recommission electrical and alarm systems - Recommission data infrastructure	- Install new Cat 6

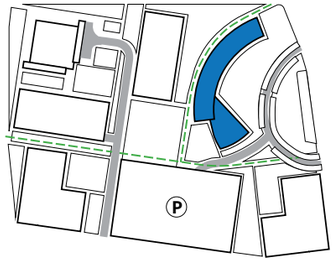
* All upgrades in Low Cost Scenario need to be met in Higher Cost Scenario

4. Adaptive Reuse as Office | Ground Floor Plan

Ground Floor
Area: 33,548 ft²

- Cafeteria
- Patio
- Lobby/Corridor
- Office
- Back of House





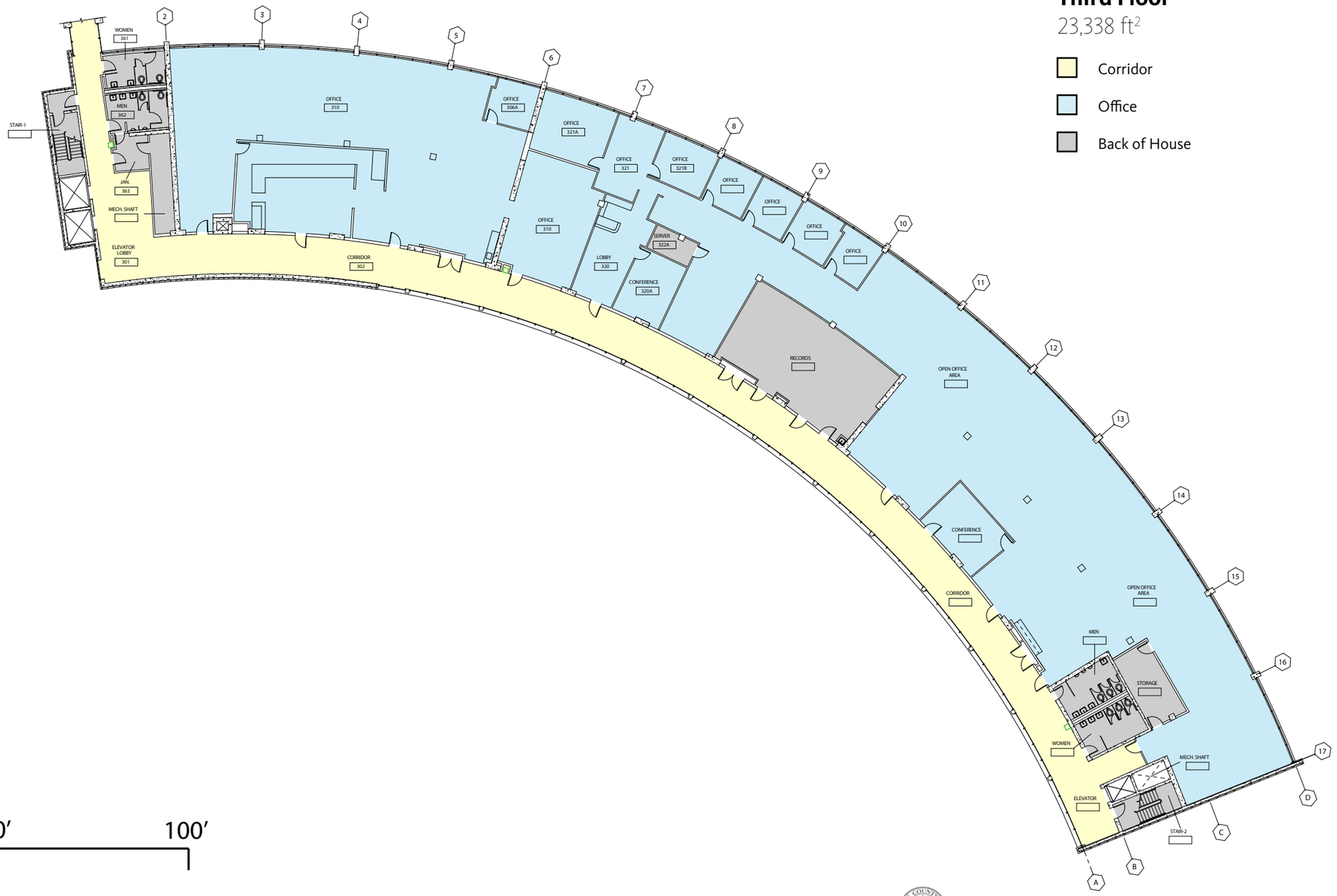
0′ 25′ 50′ 100′

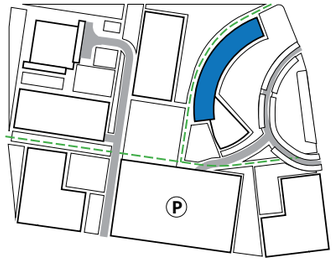
4. Adaptive Reuse as Office | Typical Floor Plan (3rd + 4th floor)

Third Floor

23,338 ft^2

- Corridor
- Office
- Back of House





N

0′ 25′ 50′ 100′

5. Comparison with Maximized Office | Summary

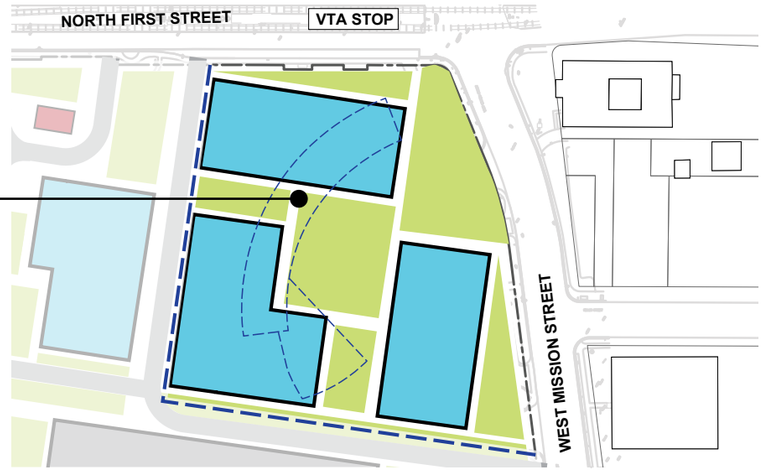
Former City Hall Demolished to Maximize Office Potential

* Demolition is classified as a 'significant unavoidable impact' under CEQA and mitigation measures are recommended

Mitigation Measures

- Recordation in the Historic American Building Survey (HABS)
- Interpretation
- Retain of a small portion

PROGRAM



Former City Hall Area

Office: *762,000 sf*

Parking: *1,142 spaces (in Site D Parking Structure)*

Site D Total

Office	*1,988,600 sf*
Parking	*2,570 spaces*

COST (Former City Hall and Site Area)

One-time Stabilization	-
Construction	$ (705,863,900)
Initial Cost	**$ (705,863,900)**
Operating Cost (Utilities + O&M)	$ (5,469,900)
Revenue	$ 22,860,000
Annual Cash Flow	**$ 17,390,100**
30-Year Cost	**$ (231,377,100)**

Cost Notes and Assumptions:

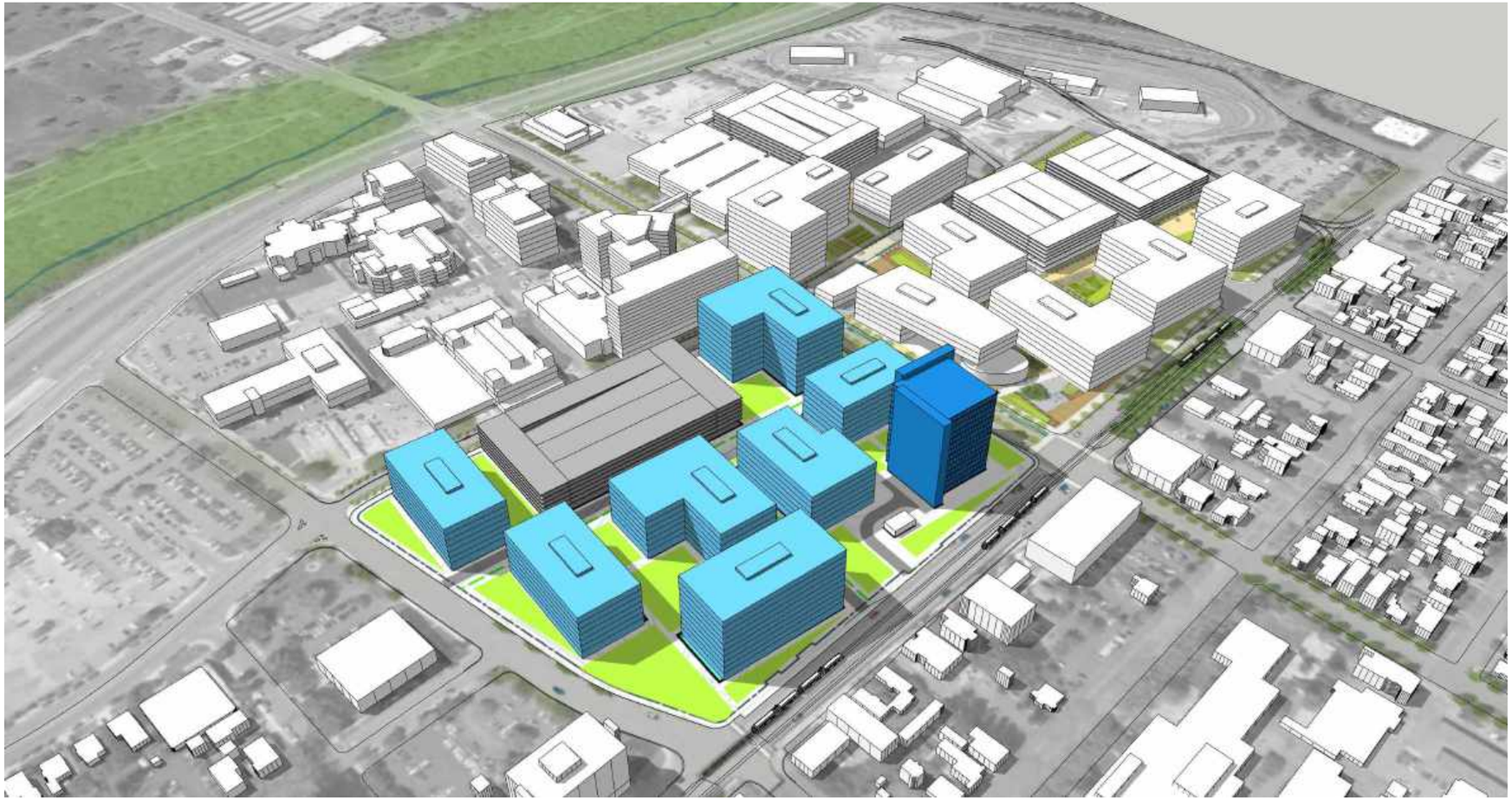
- *Numbers in parentheses are net costs;*
- *Construction includes demolition, sitework, and soft costs;*
- *Construction Costs are based on today's value and do not include any escalation;*
- *Revenue Assumptions (monthly): $ 5.0 / sf for Class A office;*
- *30-Year Cost - Total Cost of Ownership (Present Value);*
- *All costs are rounded to the nearest hundred.*

*** Parking Assumptions:**

- *Parking for the East Wing will remain off site;*
- *All new housing buildings are self-parked on podium level(s);*
- *Office parking in Site D Parking Structure;*
- *Development with high-rise office buildings assumes lower parking ratio (less than 2.8 spaces /1,000 sf which was consistent with Civic Center Campus Master Plan Site D) or parking off site.*

5. Comparison with Maximized Office | Massing

CONCEPTUAL SITE D 3D MASSING



Evaluation Summary

	1. No Project	2. Adaptive Reuse as Housing		3. Comparison with Maximized Housing	4. Adaptive Reuse as Office		5. Comparison with Maximized Office
		Large Units	*Small Units*		*Class B Office*	*Class A Office*	*Class A Office*
COST (Former City Hall Area)							
Initial Cost	$ (490,200)	$ (105,694,200)	$ (118,001,400)	$ (328,436,300)	$ (47,811,100)	$ (128,686,700)	$ (705,863,900)
Initial Cost / Unit	n/a	$ (1,854,300)	$ (1,092,600)	$ (801,100)	n/a	n/a	n/a
Initial Cost / SF	n/a	n/a	n/a	n/a	$ (421)	$ (1,134)	$ (926)
Annual Cash Flow	$ (171,300)	$ (24,300)	$ 448,800	$ 1,677,700	$ 887,300	$ 2,588,700	$ 17,390,100
30-Year Total Cost	$ (4,405,700)	$ (104,701,900)	$ (107,046,000)	$ (273,913,400)	$ (26,445,100)	$ (71,487,700)	$ (231,377,100)
30-Year Total Cost / Unit	n/a	$ (1,836,900)	$ (991,200)	$ (668,100)	n/a	n/a	n/a
30-Year Total Cost / SF	n/a	n/a	n/a	n/a	$ (233)	$ (630)	$ (304)
PROGRAM (Former City Hall Area)							
Housing (DU)	-	57	108	410	-		-
Office (GFA)	-	-		-	113,430		762,000
Parking (SP)	97 (E)	97 (E)		410	270*		1,142*

a) Numbers in parentheses are net costs;

b) Initial Cost include Construction Cost and 5-Year Stabilization Cost; The two possible stabilization treatment options have similar costs;

c) Construction Costs are based on today's value and do not include any escalation;

d) Annual Cash Flow includes Operating Cost and Potential Revenue;
Revenue Assumptions (monthly): *Housing: $ 773/du*
Class A Office: $ 5.0/sf
Class B Office: $ 2.5/sf

e) 30-Year Cost: Total Cost of Ownership (Present Value);

f) All costs are rounded to the nearest hundred, except Cost / SF.

** Partial or all of the required parking is provided in the Site D Parking Structure (outside the Former City Hall Area)*

APPENDIX

Former City Hall Building Cost Spent to Date

	Annual Cost	Garbage	Electricity	Water	Sewer	Maintenance/ Custodial
2019	**$ 50,586.67**			$ 21,656.05	$ 3,139.19	$ 25,791.43
2018	**$ 314,398.87**	$ 371.75		$ 30,783.09	$ 3,139.19	$ 280,104.84
2017	**$ 161,016.53**		$ 79,053.30	$ 24,065.39		$ 57,897.84
2016	**$ 20,142.48**			$ 13,116.10		$ 7,026.38
2015	**$ 92,819.45**	$ 382.37		$ 8,729.03		$ 83,708.05
2014	**$ 43,623.67**			$ 11,153.94		$ 32,469.73
2013	**$ 29,103.93**			$ 7,978.96		$ 21,124.97
2012	**$ 95,744.12**					$ 95,744.12

Total Cost (2012-2019): **$ 807,435.72**

Total Program | Summary

	1A. No Project with Housing + Office	2. Adaptive Reuse as Housing	3. Comparison with Maximized Housing	1B. No Project with Office	4. Adaptive Reuse as Office	5. Comparison with Maximized Office
SITE D TOTAL PROGRAM						
Housing (DU)	260	317 - 368	670	-		
Office (GFA)	1,147,700			1,226,600	1,340,000	1,988,600
Parking *	Meeting Demands					
Parking Supply (SP)	1,577	1,577	1,890	1,430	1,700	2,570
Surface (E)	97	97	-	97	97	-
Structure	-	-	-	1,333	1,603	2,570
Podium	1,480	1,480	1,890	-	-	-

*** Parking Assumptions:**

- Parking for the East Wing will remain off site;

- All new housing buildings are self-parked on podium level(s);

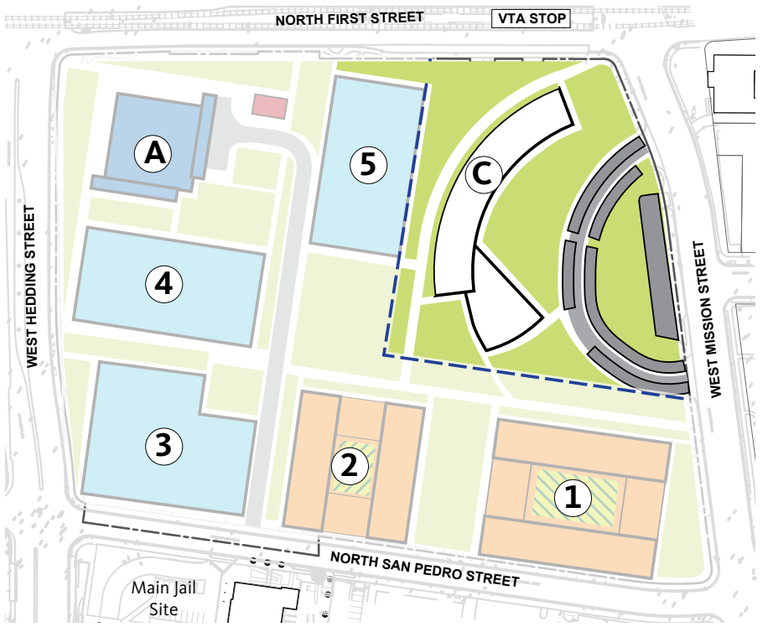
- New Office self-parked with three levels of podium parking (1A, 2, 3);

- Office parking in Site D Parking Structure (1B, 4, 5);

- Development with high-rise office buildings assumes lower parking ratio (less than 2.8 spaces/1,000 sf which was consistent with Civic Center Campus Master Plan Site D) or parking off site.

Total Program | 1A. No Project with Housing + Office

- Affordable Housing
- Future Office (self-parked)
- Building Reuse as Office
- Building Not In Use
- Open Space
- Private Open Space
- Vehicular Access
- Primary Pedestrian Connection
- New 12kv Switchgear Location



Project	Housing/Use	Units/GFA	Parking Ratio	Parking Required (spaces)	On-site Parking Provided (spaces)
A	East Wing	275,000 sf	2.8 sp / 1000 sf	655	0
			TOTAL	**655**	**to be parked off-site**
C	Unoccupied				97
1	Mixed-Income	130 du	1.0 sp / unit	130	130
2	Mixed-Income	130 du	1.0 sp / unit	130	130
3	Office	394,800 sf	2.8 sp / 1000 sf	451	451
4	Office	243,300 sf	2.8 sp / 1000 sf	391	391
5	Office	234,600 sf	2.8 sp / 1000 sf	377	377
			TOTAL	**1,480**	**1,577**

Total Housing	**260 du**
Total Office	**1,147,700 sf**
Total Parking	**1,577 spaces**

*** Parking Assumptions:**

- Parking for the East Wing will remain off site;

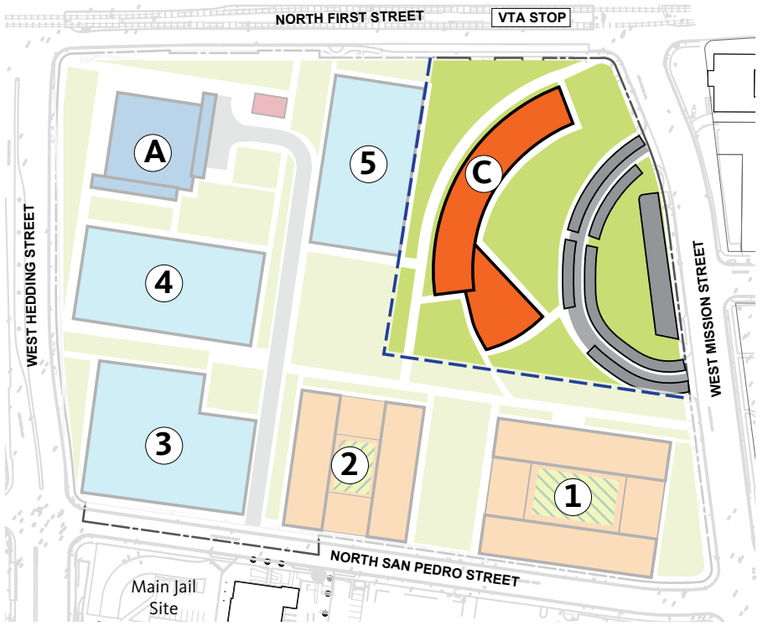
- All new housing buildings are self-parked on podium level(s);

- New office self-parked with three levels of podium parking;

- Development with high-rise office buildings assumes lower parking ratio (less than 2.8 spaces/1,000 sf which was consistent with Civic Center Campus Master Plan Site D) or parking off site.

Total Program | 2. Adaptive Reuse as Housing

- Affordable Housing
- Future Office (self-parked)
- Building Reuse as Housing
- Building Reuse as Office
- Open Space
- Private Open Space
- Vehicular Access
- Primary Pedestrian Connection
- New 12kv Switchgear Location



Project	Housing/Use	Units/GFA	Parking Ratio	Parking Required (spaces)	On-site Parking Provided (spaces)
A	East Wing	275,000 sf	2.8 sp / 1000 sf	655	0
			TOTAL	**655**	**to be parked off-site**
C	Mixed-Income	57 - 108 du	mixed requirements	97	97
1	Mixed-Income	130 du	1.0 sp / unit	130	130
2	Mixed-Income	130 du	1.0 sp / unit	130	130
3	Office	394,800 sf	2.8 sp / 1000 sf	451	451
4	Office	243,300 sf	2.8 sp / 1000 sf	391	391
5	Office	234,600 sf	2.8 sp / 1000 sf	377	377
			TOTAL	**1,577**	**1,577**

Total Housing	**317 - 368 du**
Total Office	**1,147,700 sf**
Total Parking	**1,577 spaces**

*** Parking Assumptions:**

- Parking for the East Wing will remain off site;

- All new housing buildings are self-parked on podium level(s);

- New office self-parked with three levels of podium parking;

- Development with high-rise office buildings assumes lower parking ratio (less than 2.8 spaces/1,000 sf which was consistent with Civic Center Campus Master Plan Site D) or parking off site.

Total Program | 3. Comparison Baseline (Maximized for Housing)

- Affordable Housing
- Future Office (self-parked)
- Building Reuse / Existing
- Open Space
- Private Open Space
- Vehicular Access
- Primary Pedestrian Connection
- Demolition
- New 12kv Switchgear Location

Project	Housing/Use	Units/GFA	Parking Ratio	Parking Required (spaces)	On-site Parking Provided (spaces)
A	East Wing	275,000 sf	2.8 sp / 1000 sf	655	0
			TOTAL	**655**	**to be parked off-site**
1	Mixed-Income	280 du	1.0 sp / unit	280	280
2	Mixed-Income	130 du	1.0 sp / unit	130	130
3	Mixed-Income	130 du	1.0 sp / unit	130	130
4	Supportive Housing	130 du	1.0 sp / unit	130	130
5	Office	202,800 sf	2.8 sp / 1000 sf	377	377
6	Office	126,000 sf	2.8 sp / 1000 sf	180	180
7	Office	327,600 sf	2.8 sp / 1000 sf	320	320
8	Office	216,200 sf	2.8 sp / 1000 sf	343	343
			TOTAL	**1,890**	**1,890**

Total Housing	**670 du**
Total Office	**1,147,700 sf**
Total Parking	**1,890 spaces**

*** Parking Assumptions:**

- Parking for the East Wing will remain off site;

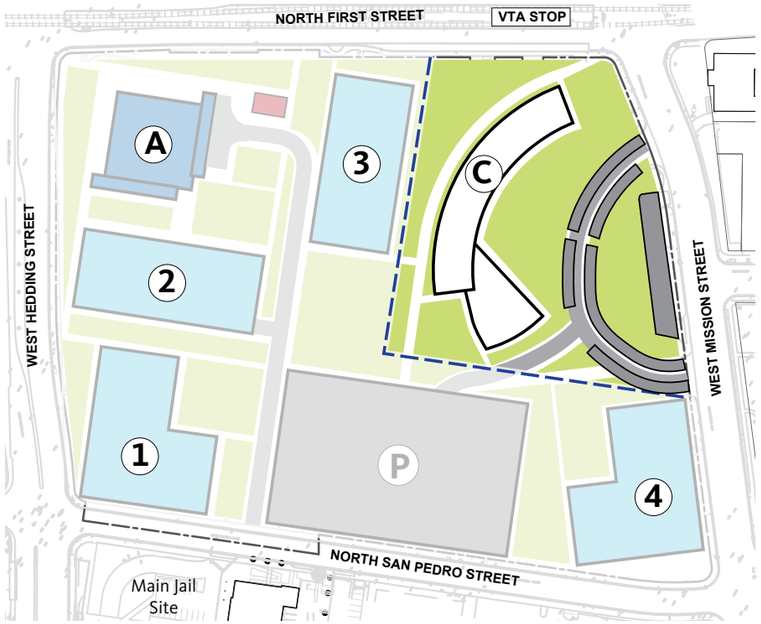
- All new housing buildings are self-parked on podium level(s);

- New office self-parked with three levels of podium parking;

- Development with high-rise office buildings assumes lower parking ratio (less than 2.8 spaces/1,000 sf which was consistent with Civic Center Campus Master Plan Site D) or parking off site.

Total Program | 1B. No Project with Office

- Future Office
- Building Reuse as Office
- Building Not In Use
- Parking Structure
- Open Space
- Vehicular Access
- Primary Pedestrian Connection
- New 12kv Switchgear Location



Building	Use	Units/GFA	Parking Ratio	Parking Required (spaces)	On-site Parking Provided (spaces)
A	East Wing	275,000 sf	2.8 sp / 1000 sf	655	0
			TOTAL	**655**	**to be parked off-site**
C	Unoccupied				97
1	Office	363,300 sf	2.8 sp / 1000 sf	403	0
2	Office	221,500 sf	2.8 sp / 1000 sf	351	0
3	Office	221,500 sf	2.8 sp / 1000 sf	351	0
4	Office	145,300 sf	2.8 sp / 1000 sf	323	0
P	Parking Structure	n/a	n/a	n/a	1,333
			TOTAL	**1,430**	**1,430**

Total Housing	**0 du**
Total Office	**1,226,600 sf**
Total Parking	**1,430 spaces**

*** Parking Assumptions:**

- Parking for the East Wing will remain off site;

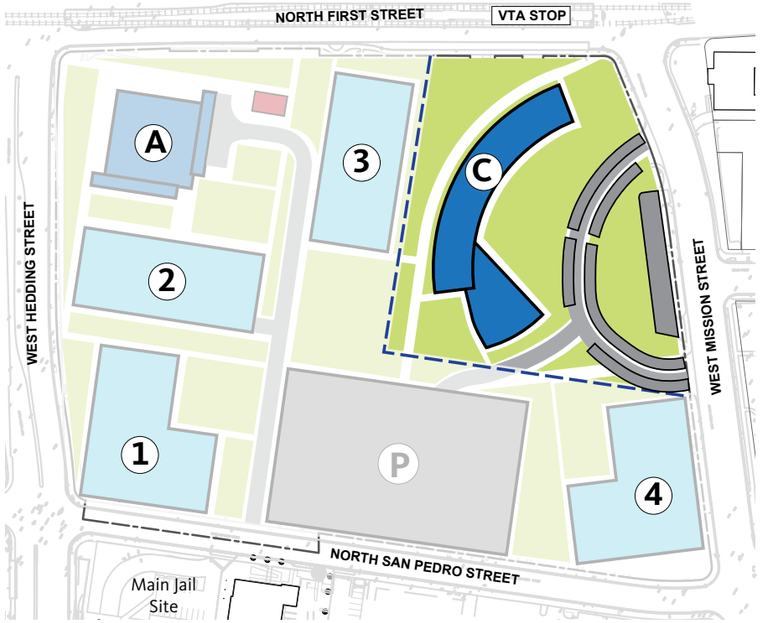
- All new housing buildings are self-parked on podium level(s);

- Office parking in Site D Parking Structure;

- Development with high-rise office buildings assumes lower parking ratio (less than 2.8 spaces/1,000 sf which was consistent with Civic Center Campus Master Plan Site D) or parking off site.

Total Program | 4. Adaptive Reuse as Office

- Future Office
- Building Reuse / Existing
- Parking Structure
- Open Space
- Vehicular Access
- Primary Pedestrian Connection
- New 12kv Switchgear Location



Building	Use	Units/GFA	Parking Ratio	Parking Required (spaces)	On-site Parking Provided (spaces)
A	East Wing	275,000 sf	2.8 sp / 1000 sf	655	0
			TOTAL	**655**	**to be parked off-site**
C	Former City Hall	113,400 sf	2.8 sp / 1000 sf	270	97
1	Office	363,300 sf	2.8 sp / 1000 sf	403	0
2	Office	221,500 sf	2.8 sp / 1000 sf	351	0
3	Office	221,500 sf	2.8 sp / 1000 sf	351	0
4	Office	145,300 sf	2.8 sp / 1000 sf	323	0
P	Parking Structure	n/a	n/a	n/a	1,603
			TOTAL	**1,700**	**1,700**

Total Housing	**0 du**
Total Office	**1,340,000 sf**
Total Parking	**1,700 spaces**

*** Parking Assumptions:**

- Parking for the East Wing will remain off site;

- All new housing buildings are self-parked on podium level(s);

- Office parking in Site D Parking Structure;

- Development with high-rise office buildings assumes lower parking ratio (less than 2.8 spaces/1,000 sf which was consistent with Civic Center Campus Master Plan Site D) or parking off site.

Total Program | 5. Comparison Baseline (Maximized for Offices)

- Future Office
- Building Reuse / Existing
- Parking Structure
- Open Space
- Vehicular Access
- Primary Pedestrian Connection
- New 12kv Switchgear Location

Building	Use	Units/GFA	Parking Ratio	Parking Required (spaces)	On-site Parking Provided (spaces)
A	East Wing	275,000 sf	2.8 sp / 1000 sf	655	0
			TOTAL	**655**	**to be parked off-site**
1	Office	372,000 sf	2.8 sp / 1000 sf	443	0
2	Office	168,000 sf	2.8 sp / 1000 sf	286	0
3	Office	210,000 sf	2.8 sp / 1000 sf	357	0
4	Office	210,000 sf	2.8 sp / 1000 sf	357	0
5	Office	260,400 sf	2.8 sp / 1000 sf	443	0
6	Office	201,600 sf	2.8 sp / 1000 sf	343	0
7	Office	201,600 sf	2.8 sp / 1000 sf	343	0
P	Parking Structure	n/a	n/a	n/a	2,570
			TOTAL	**2,570**	**2,570**

Total Housing	**0 du**
Total Office	**1,988,600 sf**
Total Parking	**2,570 spaces**

*** Parking Assumptions:**

- Parking for the East Wing will remain off site;

- All new housing buildings are self-parked on podium level(s);

- Office parking in Site D Parking Structure;

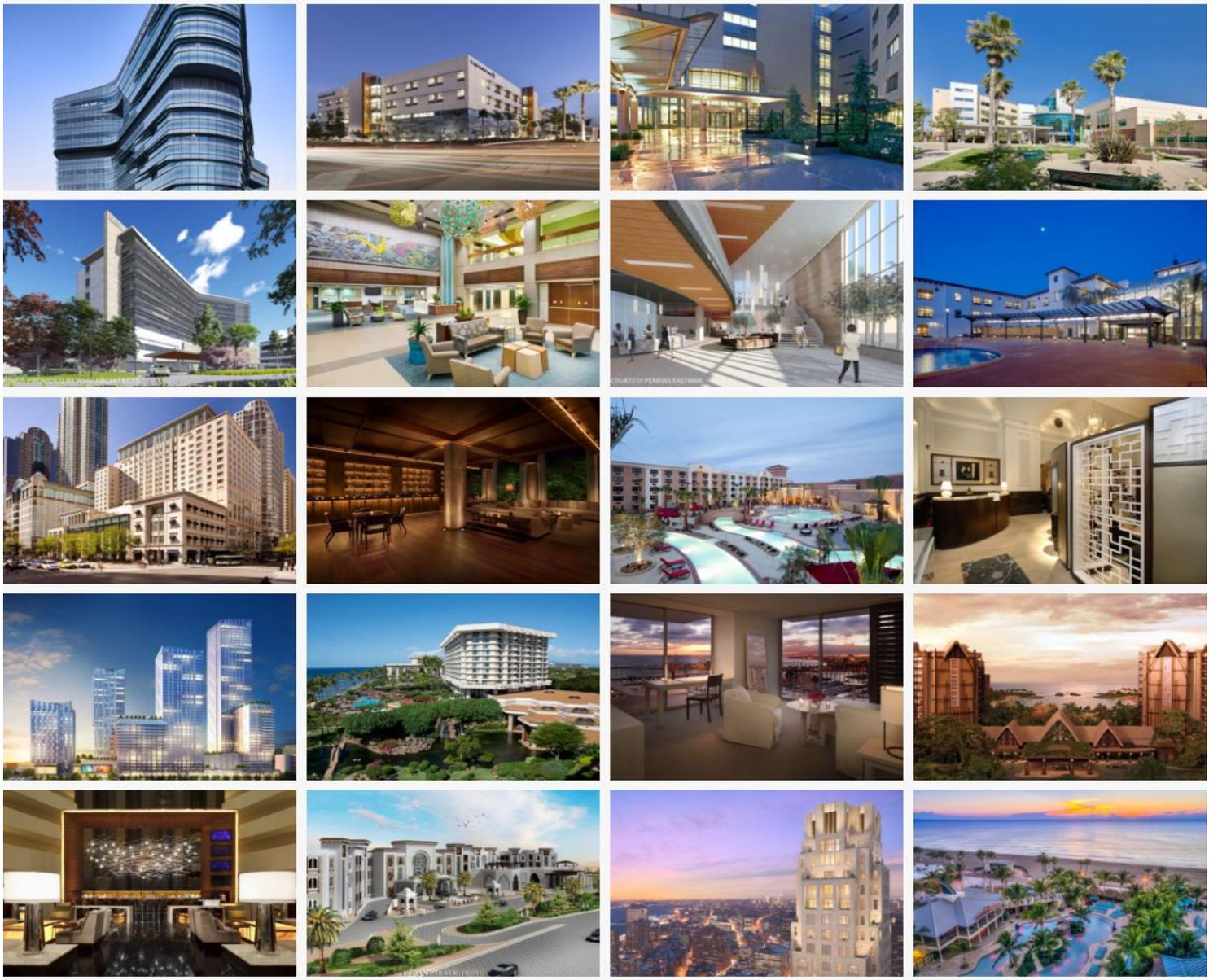
- Development with high-rise office buildings assumes lower parking ratio (less than 2.8 spaces/1,000 sf which was consistent with Civic Center Campus Master Plan Site D) or parking off site.

CoSC Former City Hall Feasibility Study

Rough Order of Magnitude

March 31, 2020

20-00156.00



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PROJECT SUMMARY

	Scheme 1 113,430 SF		Scheme 2 113,430 SF		Scheme 3 220,000 SF		Scheme 4 113,430 SF		Scheme 5 480,000 SF	
					Potentially to 376,000/SF				Potentially 762,000/SF	
Element	**Construction**	**Project**	**Construction**	**Project**	**Construction**	**Project**	**Construction**	**Project**	**Construction**	**Project**
Former City Hall	**$350,145**	**$490,203**	**$68,408,145**	**$105,152,548**			**$25,758,465**	**$36,706,534**		
Former City Hall	$350,145	$490,203	$68,408,145	$105,152,548			$25,758,465	$36,706,534		
New Development (Base Scheme)					**$109,133,410**	**$147,617,274**	**$7,439,000**	**$10,605,559**	**$306,849,410**	**$414,533,874**
1 Building Demolition	N/A	N/A	N/A	N/A	$5,743,410	$8,040,774	N/A	N/A	$5,743,410	$8,040,774
2 Housing, T3/5, 1,200sf/unit	N/A	N/A	N/A	N/A	$93,500,000	$126,225,000	N/A	N/A	N/A	N/A
3 Office	N/A	N/A	N/A	N/A			N/A	N/A	$252,000,000	$340,200,000
4 Parking, 325sf/sp	N/A	N/A	N/A	N/A	$9,890,000	$13,351,500	$7,439,000	$10,605,559	$49,106,000	$66,293,100
Sitework					**$14,310,000**	**$14,310,000**			**$14,310,000**	**$14,310,000**
5 Sitework	N/A	N/A	N/A	N/A	$14,310,000	Included	N/A	N/A	$14,310,000	Included
Total Low Cost	**$350,145**	**$490,203**	**$68,408,145**	**$105,152,548**	**$123,443,410**	**$161,927,274**	**$33,197,465**	**$47,312,093**	**$321,159,410**	**$428,843,874**
Cost per Unit			**57 Units**	**$1,845,000**	**200 Units**	**$810,000**				
Additive Alternates										
Option 2 - 108 units in lieu of 57 units	N/A	N/A	$7,940,100	$12,307,155						
Option 3 - High Rise 410 du in lieu of 200	N/A	N/A	N/A	N/A	$115,600,000	$156,060,000				
Option 3 - Additional Parking - 180 spaces	N/A	N/A	N/A	N/A	$7,740,000	$10,449,000				
Option 4 - Convert Class B to Class A Office	N/A	N/A	N/A	N/A	N/A	N/A	$52,177,800	$80,875,590		
Option 5 - Increase office from 480,000/SF to 762,000	N/A	N/A	N/A	N/A	N/A	N/A			$205,200,000	$277,020,000
Subtotal Additional Costs			**$7,940,100**	**$12,307,155**	**$123,340,000**	**$166,509,000**	**$52,177,800**	**$80,875,590**	**$205,200,000**	**$277,020,000**
Total High Cost	**$350,145**	**$490,203**	**$76,348,245**	**$117,459,703**	**$246,783,410**	**$328,436,274**	**$85,375,265**	**$128,187,683**	**$526,359,410**	**$705,863,874**
Cost per Unit			**108 Units**	**$1,088,000**	**410 Units**	**$801,100**				
Soft Cost (Mark Up)		**40%**		**54%**		**33%**		**50%**		**34%**

Note:

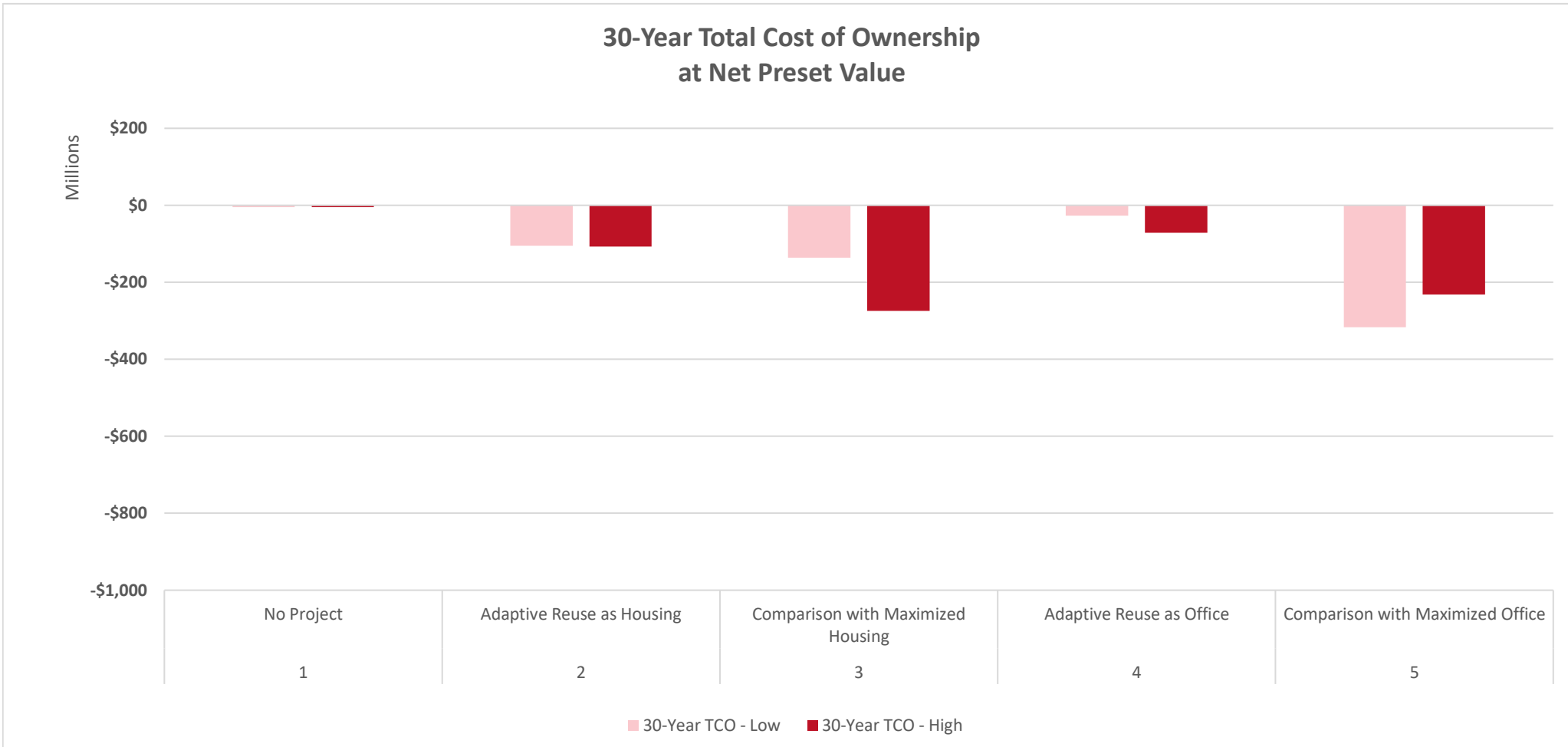
Costs Above are based on Todays $$$ and do NOT Include any Escalation

SUMMARY MATRIX

	Scheme 1 113,430 SF			Scheme 2 113,430 SF			Scheme 3 220,000 SF			Scheme 4 113,430 SF			Scheme 5 480,000 SF		
Element	**Quantity**	**Total**	**Cost (Unit or SF)**	**Quantity**	**Total**	**Cost/Unit**	**Quantity**	**Total**	**Cost/Unit**	**Quantity**	**Total**	**Cost/Unit**	**Quantity**	**Total**	**Cost/Unit**
Former City Hall		**$350,145**			**$68,408,145**						**$25,758,465**				
1 Mothballing Improvements	113,430 gsf	$350,145	$3.09												
2 Short Term Stabilization (5 years)				113,430 gsf	$350,145	$3.09				113,430 gsf	$350,145	$3.09			
3 Convert to Affordable Housing (57 du)				113,430 gsf	$68,058,000	$600.00									
4 Upgrade eixsting City Hall into Class B office										113,430 gsf	$25,408,320	$224.00			
New Development								**$109,133,410**		**56,225 gsf**	**$7,439,000**	**$132.31**	**851,150 gsf**	**$306,849,410**	**$360.51**
1 Demo of City Hall							113,430 du	$5,743,410	$50.63				113,430 du	$5,743,410	$50.63
2 Housing, Type III, 200du							220,000 du	$93,500,000	$425.00						
3 Office													480,000 gsf	$252,000,000	$525.00
4 Parking, 325sf/sp							230 sp	$9,890,000	$43,000	173 sp	$7,439,000	$43,000	1,142 sp	$49,106,000	$43,000
Sitework							**206,200 sf**	**$14,310,000**					**206,200 sf**	**$14,310,000**	**$69.40**
1 Sitework, Balance							206,200 sf	$10,310,000	$50.00				206,200 sf	$10,310,000	$50.00
2 Parcel Utilities								$2,000,000						$2,000,000	
3 Switchgear								$2,000,000						$2,000,000	
Subtotal Cost		**$350,145**	**$3.09**		**$68,408,145**	**$603.09**		**$123,443,410**	**$561.11**		**$33,197,465**	**$292.67**		**$321,159,410**	**$669.08**
Project Soft Costs		$140,058	$1.23		$37,431,900	$330.00		$38,483,864	$186.63		$14,114,634	$124.43		$107,684,464	$224.34
Total Low Cost	**113,430 SF**	**$490,203**	**$4.32**	**113,430 SF**	**$105,152,548**	**$927.03**	**220,000 SF**	**$161,927,274**	**$736.03**	**113,430 SF**	**$47,312,099**	**$417.10**	**480,000 SF**	**$428,843,874**	**$893.42**
Additive Alternates															
High Cost Upgrades - (Class A)										113,430 gsf	$52,177,800	$460.00			
Smaller Units 108ea in lieu of 57ea (Premium)				113,430 du	$7,940,100	$70.00									
High Rise Housing 410 units, Type I							216,000 du	$115,600,000	$535.19						
Addiitonal Parking from 230ea to 410ea							180 du	$7,740,000	$43,000.00						
High Rise Office 762,000, Type I														$205,200,000	
Subtotal Additional Costs				**113,430 gsf**	**$7,940,100**	**$70.00**	**216,000 gsf**	**$123,340,000**	**$571.02**	**113,430 gsf**	**$52,177,800**	**$460.00**	**282,000 gsf**	**$205,200,000**	**$727.66**
Project Soft Costs					$4,367,055	$38.50		$43,169,000			$28,697,790	$253.00		$71,820,000	$254.68
Total High Cost	**113,430 gsf**	**$490,203**	**$4.32**	**113,430 gsf**	**$117,459,703**	**$1,035.53**	**436,000 gsf**	**$328,436,274**	**$753.29**	**113,430 gsf**	**$128,187,689**	**$1,130.10**	**762,000 gsf**	**$705,863,874**	**$926.33**

Scenario	Description	Low Scenario				
		Mothball Cost	Square Feet	Construction Cost	O&M Cost	30-Year TCO
1	No Project	$0	113,430	-$490,203	-$75,483	-$4,405,668
2	Adaptive Reuse as Housing	-$541,739	113,430	-$105,152,548	-$88,475	-$104,701,908
3	Comparison with Maximized Housing	$0	220,000	-$161,927,274	-$171,600	-$136,069,962
4	Adaptive Reuse as Office	-$499,017	113,430	-$47,312,093	-$243,875	-$26,445,119
5	Comparison with Maximized Office	$0	480,000	-$428,843,874	-$1,032,000	-$316,563,148

Scenario	Description	High Scenario				
		Mothball Cost	Square Feet	Construction Cost	O&M Cost	30-Year TCO
1	No Project	$0	113,430	-$490,203	-$75,483	-$4,405,668
2	Adaptive Reuse as Housing	-$541,739	113,430	-$117,459,703	-$88,475	-$107,045,964
3	Comparison with Maximized Housing	$0	436,000	-$328,436,274	-$340,080	-$273,913,410
4	Adaptive Reuse as Office	-$499,017	113,430	-$128,187,683	-$243,875	-$71,487,745
5	Comparison with Maximized Office	$0	762,000	-$705,863,874	-$1,638,300	-$231,377,129



CoSC Former City Hall
Aggregate LCCA and TCO

Scenario	1	No Project
Cost Option	Low Cost	

Square Footage 113,430

Cost

Low Cost		
Former City Hall	$	490,203
New Development		-
Sitework		-
Total Low Cost	**$**	**490,203**

High Cost		
	$	-
		-
		-
		-
Total High Cost	**$**	**490,203**

O&M (5 Years before Retrofitting or Mothballing)	$	75,483.42	
O&M (After Retrofit - Office)		2.15	per square foot
O&M (After Retrofit - Housing)		0.78	per square foot
	$	-	
Compounding Escalation Rate		3%	
Discount Rate		4%	

Housing Revenue		
Lease/Rental Revenues per Unit per Year		
No. du		
Annual Revenues	**$**	**-**

Additional Notes

† O&M: National Council of School Facilities "State of our Schools, 2016"
† Assumed uniform long-term escalation rate
† Assumed standard Federal Discount rate to account for time value of money

30-YEAR TOTAL COST OF OWNERSHIP (PRESENT VALUE) $ (4,405,668)

Aggregate Life-Cycle Cost Analysis and Total Cost of Ownership

	Uniform Value					Discounted to Present Value				
N	Construction	Utilities	O&M	Lease/Rental Revenue	Total	Construction	Utilities	O&M	Lease/Rental Revenue	Total
0	$ (490,203)	$ -	$ -	$ -	$ (490,203)	$ (490,203)	$ -	$ -	$ -	$ (490,203)
1		$ (95,837)	$ (75,483)	$ -	$ (171,320)		$ (91,093)	$ (74,758)	$ -	$ (165,851)
2		$ (95,837)	$ (75,483)	$ -	$ (171,320)		$ (88,613)	$ (74,039)	$ -	$ (162,652)
3		$ (95,837)	$ (75,483)	$ -	$ (171,320)		$ (86,122)	$ (73,327)	$ -	$ (159,449)
4		$ (95,837)	$ (75,483)	$ -	$ (171,320)		$ (84,016)	$ (72,622)	$ -	$ (156,637)
5		$ (95,837)	$ (75,483)	$ -	$ (171,320)		$ (81,855)	$ (71,924)	$ -	$ (153,779)
6		$ (95,837)	$ (75,483)	$ -	$ (171,320)		$ (79,802)	$ (71,232)	$ -	$ (151,034)
7		$ (95,837)	$ (75,483)	$ -	$ (171,320)		$ (77,839)	$ (70,547)	$ -	$ (148,386)
8		$ (95,837)	$ (75,483)	$ -	$ (171,320)		$ (75,808)	$ (69,869)	$ -	$ (145,677)
9		$ (95,837)	$ (75,483)	$ -	$ (171,320)		$ (74,017)	$ (69,197)	$ -	$ (143,214)
10		$ (95,837)	$ (75,483)	$ -	$ (171,320)		$ (72,236)	$ (68,532)	$ -	$ (140,767)
11		$ (95,837)	$ (75,483)	$ -	$ (171,320)		$ (70,444)	$ (67,873)	$ -	$ (138,317)
12		$ (95,837)	$ (75,483)	$ -	$ (171,320)		$ (68,792)	$ (67,220)	$ -	$ (136,012)
13		$ (95,837)	$ (75,483)	$ -	$ (171,320)		$ (67,186)	$ (66,574)	$ -	$ (133,759)
14		$ (95,837)	$ (75,483)	$ -	$ (171,320)		$ (65,616)	$ (65,933)	$ -	$ (131,550)
15		$ (95,837)	$ (75,483)	$ -	$ (171,320)		$ (64,141)	$ (65,299)	$ -	$ (129,440)
16		$ (95,837)	$ (75,483)	$ -	$ (171,320)		$ (62,669)	$ (64,672)	$ -	$ (127,341)
17		$ (95,837)	$ (75,483)	$ -	$ (171,320)		$ (61,258)	$ (64,050)	$ -	$ (125,308)
18		$ (95,837)	$ (75,483)	$ -	$ (171,320)		$ (59,907)	$ (63,434)	$ -	$ (123,341)
19		$ (95,837)	$ (75,483)	$ -	$ (171,320)		$ (58,588)	$ (62,824)	$ -	$ (121,412)
20		$ (95,837)	$ (75,483)	$ -	$ (171,320)		$ (57,314)	$ (62,220)	$ -	$ (119,534)
21		$ (95,837)	$ (75,483)	$ -	$ (171,320)		$ (56,079)	$ (61,622)	$ -	$ (117,701)
22		$ (95,837)	$ (75,483)	$ -	$ (171,320)		$ (54,905)	$ (61,029)	$ -	$ (115,934)
23		$ (95,837)	$ (75,483)	$ -	$ (171,320)		$ (53,749)	$ (60,442)	$ -	$ (114,191)
24		$ (95,837)	$ (75,483)	$ -	$ (171,320)		$ (52,643)	$ (59,861)	$ -	$ (112,504)
25		$ (95,837)	$ (75,483)	$ -	$ (171,320)		$ (51,563)	$ (59,286)	$ -	$ (110,848)
26		$ (95,837)	$ (75,483)	$ -	$ (171,320)		$ (50,515)	$ (58,715)	$ -	$ (109,231)
27		$ (95,837)	$ (75,483)	$ -	$ (171,320)		$ (49,517)	$ (58,151)	$ -	$ (107,667)
28		$ (95,837)	$ (75,483)	$ -	$ (171,320)		$ (48,549)	$ (57,592)	$ -	$ (106,141)
29		$ (95,837)	$ (75,483)	$ -	$ (171,320)		$ (47,582)	$ (57,038)	$ -	$ (104,620)
30		$ (95,837)	$ (75,483)	$ -	$ (171,320)		$ (46,680)	$ (56,490)	$ -	$ (103,169)

CoSC Former City Hall
Exhibit A
Disaggregate Utilities Analysis

Scenario	1	No Project
Cost Option	Low Cost	

PURCHASED UTILITIES

Square Footage	113,430
Current Electrical Usage	$79,053
Current Water Usage	$16,783

ASHRAE 90.1 Baseline	Consumption		Uniform Rates		Annual Utility Cost	
Electric	95,837	kWh	0.23	kWh	$	21,946.56
Natural Gas	0	Therm	1.45	Therm	$	-
Potable Water	1,417,875	Gal	5.69	HCF*	$	10,784.96
Non-Potable Water	0	Gal	N/A	HCF*	$	-
Total						

*1 kbtu =	0.2931	kWh
* 1 Therm =	29.3001	kWh
* 1 HCF =	748.0520	Gal

Additional Notes

† Utility End-use intensity (Office) from US Energy Information Administration (EIA) Commercial Buildings Energy Consumption Survey (CBECS)
† Utility End-use intensity (Housing) from Energystar U.S. Energy Use Intensity by Property Type
† Electric rate assuming average rate for San Francisco area (taken from Bureau of Labor Statistics)
† Natural Gas Rate assuming average rate for San Francisco area (taken from Bureau of Labor Statistics)
† Potable water rate assuming Santa Clara County average
† Assuming standard utility rate escalations

Scenario	1	No Project
Cost Option	Low Cost	

CoSC Former City Hall
Exhibit A
Disaggregate Utilities Analysis

Scenario: ASHRAE 90.1 Baseline

	Uniform Value					Present Value				
N	Electric	Nat. Gas	Potable Water	Non-Potable Water	Total	Electric	Nat. Gas	Potable Water	Non-Potable Water	Total
0	$ (79,053)	$ -	$ (16,783)	$ -	$ (95,837)	$ (79,053)	$ -	$ (16,783)	$ -	$ (95,837)
1	$ (79,053)	$ -	$ (16,783)	$ -	$ (95,837)	$ (74,310)	$ -	$ (16,783)	$ -	$ (91,093)
2	$ (79,053)	$ -	$ (16,783)	$ -	$ (95,837)	$ (72,334)	$ -	$ (16,280)	$ -	$ (88,613)
3	$ (79,053)	$ -	$ (16,783)	$ -	$ (95,837)	$ (70,094)	$ -	$ (16,028)	$ -	$ (86,122)
4	$ (79,053)	$ -	$ (16,783)	$ -	$ (95,837)	$ (68,183)	$ -	$ (15,832)	$ -	$ (84,016)
5	$ (79,053)	$ -	$ (16,783)	$ -	$ (95,837)	$ (66,247)	$ -	$ (15,608)	$ -	$ (81,855)
6	$ (79,053)	$ -	$ (16,783)	$ -	$ (95,837)	$ (64,428)	$ -	$ (15,373)	$ -	$ (79,802)
7	$ (79,053)	$ -	$ (16,783)	$ -	$ (95,837)	$ (62,678)	$ -	$ (15,161)	$ -	$ (77,839)
8	$ (79,053)	$ -	$ (16,783)	$ -	$ (95,837)	$ (60,871)	$ -	$ (14,937)	$ -	$ (75,808)
9	$ (79,053)	$ -	$ (16,783)	$ -	$ (95,837)	$ (59,290)	$ -	$ (14,727)	$ -	$ (74,017)
10	$ (79,053)	$ -	$ (16,783)	$ -	$ (95,837)	$ (57,709)	$ -	$ (14,527)	$ -	$ (72,236)
11	$ (79,053)	$ -	$ (16,783)	$ -	$ (95,837)	$ (56,128)	$ -	$ (14,316)	$ -	$ (70,444)
12	$ (79,053)	$ -	$ (16,783)	$ -	$ (95,837)	$ (54,679)	$ -	$ (14,113)	$ -	$ (68,792)
13	$ (79,053)	$ -	$ (16,783)	$ -	$ (95,837)	$ (53,270)	$ -	$ (13,916)	$ -	$ (67,186)
14	$ (79,053)	$ -	$ (16,783)	$ -	$ (95,837)	$ (51,893)	$ -	$ (13,724)	$ -	$ (65,616)
15	$ (79,053)	$ -	$ (16,783)	$ -	$ (95,837)	$ (50,594)	$ -	$ (13,546)	$ -	$ (64,141)
16	$ (79,053)	$ -	$ (16,783)	$ -	$ (95,837)	$ (49,309)	$ -	$ (13,359)	$ -	$ (62,669)
17	$ (79,053)	$ -	$ (16,783)	$ -	$ (95,837)	$ (48,083)	$ -	$ (13,175)	$ -	$ (61,258)
18	$ (79,053)	$ -	$ (16,783)	$ -	$ (95,837)	$ (46,905)	$ -	$ (13,002)	$ -	$ (59,907)
19	$ (79,053)	$ -	$ (16,783)	$ -	$ (95,837)	$ (45,768)	$ -	$ (12,821)	$ -	$ (58,588)
20	$ (79,053)	$ -	$ (16,783)	$ -	$ (95,837)	$ (44,665)	$ -	$ (12,649)	$ -	$ (57,314)
21	$ (79,053)	$ -	$ (16,783)	$ -	$ (95,837)	$ (43,592)	$ -	$ (12,487)	$ -	$ (56,079)
22	$ (79,053)	$ -	$ (16,783)	$ -	$ (95,837)	$ (42,581)	$ -	$ (12,324)	$ -	$ (54,905)
23	$ (79,053)	$ -	$ (16,783)	$ -	$ (95,837)	$ (41,589)	$ -	$ (12,160)	$ -	$ (53,749)
24	$ (79,053)	$ -	$ (16,783)	$ -	$ (95,837)	$ (40,647)	$ -	$ (11,996)	$ -	$ (52,643)
25	$ (79,053)	$ -	$ (16,783)	$ -	$ (95,837)	$ (39,716)	$ -	$ (11,846)	$ -	$ (51,563)
26	$ (79,053)	$ -	$ (16,783)	$ -	$ (95,837)	$ (38,827)	$ -	$ (11,688)	$ -	$ (50,515)
27	$ (79,053)	$ -	$ (16,783)	$ -	$ (95,837)	$ (37,975)	$ -	$ (11,542)	$ -	$ (49,517)
28	$ (79,053)	$ -	$ (16,783)	$ -	$ (95,837)	$ (37,155)	$ -	$ (11,394)	$ -	$ (48,549)
29	$ (79,053)	$ -	$ (16,783)	$ -	$ (95,837)	$ (36,337)	$ -	$ (11,245)	$ -	$ (47,582)
30	$ (79,053)	$ -	$ (16,783)	$ -	$ (95,837)	$ (35,574)	$ -	$ (11,106)	$ -	$ (46,680)

CoSC Former City Hall
Aggregate LCCA and TCO

Scenario	2	Adaptive Reuse as Housing
Cost Option	Low Cost	

Square Footage		113,430

Cost

Low Cost		
Former City Hall	$	105,152,548
New Development		-
Sitework		-
Total Low Cost	**$**	**105,152,548**

High Cost		
Option 2 - 108 units in lieu of 57 units		$12,307,155
		-
		-
		-
Total High Cost	**$**	**117,459,703**

O&M (5 Years before Retrofitting)	$	75,483.42	
O&M (After Retrofit - Office)		2.15	per square foot
O&M (After Retrofit - Housing)		0.78	per square foot
	$	-	
Compounding Escalation Rate		3%	
Discount Rate		4%	

Housing Revenue		
Lease/Rental Revenues per Unit per Year	$	9,276
No. du		57
Annual Revenues	**$**	**528,732**

Additional Notes

† O&M: National Council of School Facilities "State of our Schools, 2016"

† Assumed uniform long-term escalation rate

† Assumed standard Federal Discount rate to account for time value of money

30-YEAR TOTAL COST OF OWNERSHIP (PRESENT VALUE) $ (104,701,908)

Aggregate Life-Cycle Cost Analysis and Total Cost of Ownership

	Uniform Value					Discounted to Present Value				
N	Construction	Utilities	O&M	Lease/Rental Revenue	Total	Construction	Utilities	O&M	Lease/Rental Revenue	Total
0	$ (541,739)	$ -	$ -	$ -	$ (541,739)	$ (541,739)	$ -	$ -	$ -	$ (541,739)
1		$ (95,837)	$ (75,483)	$ -	$ (171,320)		$ (91,093)	$ (74,758)	$ -	$ (165,851)
2		$ (95,837)	$ (75,483)	$ -	$ (171,320)		$ (88,613)	$ (74,039)	$ -	$ (162,652)
3		$ (95,837)	$ (75,483)	$ -	$ (171,320)		$ (86,122)	$ (73,327)	$ -	$ (159,449)
4		$ (95,837)	$ (75,483)	$ -	$ (171,320)		$ (84,016)	$ (72,622)	$ -	$ (156,637)
5	$ (105,298,306)	$ -	$ -	$ -	$ (105,298,306)	$ (105,298,306)	$ (390,243)	$ -	$ -	$ (105,688,549)
6		$ (464,499)	$ (88,475)	$ 528,732	$ (24,243)		$ (379,656)	$ (83,492)	$ 498,952	$ 35,804
7		$ (464,499)	$ (88,475)	$ 528,732	$ (24,243)		$ (369,473)	$ (82,689)	$ 494,155	$ 41,992
8		$ (464,499)	$ (88,475)	$ 528,732	$ (24,243)		$ (358,959)	$ (81,894)	$ 489,403	$ 48,550
9		$ (464,499)	$ (88,475)	$ 528,732	$ (24,243)		$ (349,750)	$ (81,107)	$ 484,697	$ 53,841
10		$ (464,499)	$ (88,475)	$ 528,732	$ (24,243)		$ (340,546)	$ (80,327)	$ 480,037	$ 59,163
11		$ (464,499)	$ (88,475)	$ 528,732	$ (24,243)		$ (331,337)	$ (79,555)	$ 475,421	$ 64,530
12		$ (464,499)	$ (88,475)	$ 528,732	$ (24,243)		$ (322,888)	$ (78,790)	$ 470,850	$ 69,172
13		$ (464,499)	$ (88,475)	$ 528,732	$ (24,243)		$ (314,676)	$ (78,032)	$ 466,322	$ 73,614
14		$ (464,499)	$ (88,475)	$ 528,732	$ (24,243)		$ (306,650)	$ (77,282)	$ 461,838	$ 77,907
15		$ (464,499)	$ (88,475)	$ 528,732	$ (24,243)		$ (299,082)	$ (76,539)	$ 457,398	$ 81,777
16		$ (464,499)	$ (88,475)	$ 528,732	$ (24,243)		$ (291,589)	$ (75,803)	$ 453,000	$ 85,608
17		$ (464,499)	$ (88,475)	$ 528,732	$ (24,243)		$ (284,431)	$ (75,074)	$ 448,644	$ 89,139
18		$ (464,499)	$ (88,475)	$ 528,732	$ (24,243)		$ (277,559)	$ (74,352)	$ 444,330	$ 92,419
19		$ (464,499)	$ (88,475)	$ 528,732	$ (24,243)		$ (270,915)	$ (73,637)	$ 440,057	$ 95,505
20		$ (464,499)	$ (88,475)	$ 528,732	$ (24,243)		$ (264,477)	$ (72,929)	$ 435,826	$ 98,420
21		$ (464,499)	$ (88,475)	$ 528,732	$ (24,243)		$ (258,215)	$ (72,228)	$ 431,636	$ 101,193
22		$ (464,499)	$ (88,475)	$ 528,732	$ (24,243)		$ (252,306)	$ (71,533)	$ 427,485	$ 103,646
23		$ (464,499)	$ (88,475)	$ 528,732	$ (24,243)		$ (246,507)	$ (70,845)	$ 423,375	$ 106,022
24		$ (464,499)	$ (88,475)	$ 528,732	$ (24,243)		$ (240,994)	$ (70,164)	$ 419,304	$ 108,146
25		$ (464,499)	$ (88,475)	$ 528,732	$ (24,243)		$ (235,558)	$ (69,490)	$ 415,272	$ 110,224
26		$ (464,499)	$ (88,475)	$ 528,732	$ (24,243)		$ (230,354)	$ (68,821)	$ 411,279	$ 112,103
27		$ (464,499)	$ (88,475)	$ 528,732	$ (24,243)		$ (225,368)	$ (68,160)	$ 407,324	$ 113,797
28		$ (464,499)	$ (88,475)	$ 528,732	$ (24,243)		$ (220,568)	$ (67,504)	$ 403,408	$ 115,336
29		$ (464,499)	$ (88,475)	$ 528,732	$ (24,243)		$ (215,778)	$ (66,855)	$ 399,529	$ 116,896
30		$ (464,499)	$ (88,475)	$ 528,732	$ (24,243)		$ (211,308)	$ (66,212)	$ 395,687	$ 118,167

CoSC Former City Hall
Exhibit A
Disaggregate Utilities Analysis

Scenario	2	Adaptive Reuse as Housing
Cost Option	Low Cost	

PURCHASED UTILITIES

Square Footage	113,430
Current Electrical Usage	$79,053
Current Water Usage	$16,783

ASHRAE 90.1 Baseline	Consumption		Uniform Rates		Annual Utility Cost	
Electric	1,981,285	kWh	0.23	kWh	$	453,714.36
Natural Gas	0	Therm	1.45	Therm	$	-
Potable Water	1,417,875	Gal	5.69	HCF*	$	10,784.96
Non-Potable Water	0	Gal	N/A	HCF*	$	-
Total						

*1 kbtu =	0.2931	kWh
* 1 Therm =	29.3001	kWh
* 1 HCF =	748.0520	Gal

Additional Notes

† Utility End-use intensity (Office) from US Energy Information Administration (EIA) Commercial Buildings Energy Consumption Survey (CBECS)
† Utility End-use intensity (Housing) from Energystar U.S. Energy Use Intensity by Property Type
† Electric rate assuming average rate for San Francisco area (taken from Bureau of Labor Statistics)
† Natural Gas Rate assuming average rate for San Francisco area (taken from Bureau of Labor Statistics)
† Potable water rate assuming Santa Clara County average
† Assuming standard utility rate escalations

Scenario	2	Adaptive Reuse as Housing
Cost Option	Low Cost	

CoSC Former City Hall
Exhibit A
Disaggregate Utilities Analysis

Scenario: ASHRAE 90.1 Baseline

	Uniform Value					Present Value				
N	Electric	Nat. Gas	Potable Water	Non-Potable Water	Total	Electric	Nat. Gas	Potable Water	Non-Potable Water	Total
0	$ (79,053)	$ -	$ (16,783)	$ -	$ (95,837)	$ (79,053)	$ -	$ (16,783)	$ -	$ (95,837)
1	$ (79,053)	$ -	$ (16,783)	$ -	$ (95,837)	$ (74,310)	$ -	$ (16,783)	$ -	$ (91,093)
2	$ (79,053)	$ -	$ (16,783)	$ -	$ (95,837)	$ (72,334)	$ -	$ (16,280)	$ -	$ (88,613)
3	$ (79,053)	$ -	$ (16,783)	$ -	$ (95,837)	$ (70,094)	$ -	$ (16,028)	$ -	$ (86,122)
4	$ (79,053)	$ -	$ (16,783)	$ -	$ (95,837)	$ (68,183)	$ -	$ (15,832)	$ -	$ (84,016)
5	$ (453,714)	$ -	$ (10,785)	$ -	$ (464,499)	$ (380,213)	$ -	$ (10,030)	$ -	$ (390,243)
6	$ (453,714)	$ -	$ (10,785)	$ -	$ (464,499)	$ (369,777)	$ -	$ (9,879)	$ -	$ (379,656)
7	$ (453,714)	$ -	$ (10,785)	$ -	$ (464,499)	$ (359,731)	$ -	$ (9,742)	$ -	$ (369,473)
8	$ (453,714)	$ -	$ (10,785)	$ -	$ (464,499)	$ (349,360)	$ -	$ (9,599)	$ -	$ (358,959)
9	$ (453,714)	$ -	$ (10,785)	$ -	$ (464,499)	$ (340,286)	$ -	$ (9,464)	$ -	$ (349,750)
10	$ (453,714)	$ -	$ (10,785)	$ -	$ (464,499)	$ (331,211)	$ -	$ (9,335)	$ -	$ (340,546)
11	$ (453,714)	$ -	$ (10,785)	$ -	$ (464,499)	$ (322,137)	$ -	$ (9,200)	$ -	$ (331,337)
12	$ (453,714)	$ -	$ (10,785)	$ -	$ (464,499)	$ (313,819)	$ -	$ (9,069)	$ -	$ (322,888)
13	$ (453,714)	$ -	$ (10,785)	$ -	$ (464,499)	$ (305,734)	$ -	$ (8,943)	$ -	$ (314,676)
14	$ (453,714)	$ -	$ (10,785)	$ -	$ (464,499)	$ (297,831)	$ -	$ (8,819)	$ -	$ (306,650)
15	$ (453,714)	$ -	$ (10,785)	$ -	$ (464,499)	$ (290,377)	$ -	$ (8,705)	$ -	$ (299,082)
16	$ (453,714)	$ -	$ (10,785)	$ -	$ (464,499)	$ (283,004)	$ -	$ (8,585)	$ -	$ (291,589)
17	$ (453,714)	$ -	$ (10,785)	$ -	$ (464,499)	$ (275,965)	$ -	$ (8,466)	$ -	$ (284,431)
18	$ (453,714)	$ -	$ (10,785)	$ -	$ (464,499)	$ (269,204)	$ -	$ (8,355)	$ -	$ (277,559)
19	$ (453,714)	$ -	$ (10,785)	$ -	$ (464,499)	$ (262,677)	$ -	$ (8,239)	$ -	$ (270,915)
20	$ (453,714)	$ -	$ (10,785)	$ -	$ (464,499)	$ (256,349)	$ -	$ (8,128)	$ -	$ (264,477)
21	$ (453,714)	$ -	$ (10,785)	$ -	$ (464,499)	$ (250,191)	$ -	$ (8,024)	$ -	$ (258,215)
22	$ (453,714)	$ -	$ (10,785)	$ -	$ (464,499)	$ (244,387)	$ -	$ (7,919)	$ -	$ (252,306)
23	$ (453,714)	$ -	$ (10,785)	$ -	$ (464,499)	$ (238,693)	$ -	$ (7,814)	$ -	$ (246,507)
24	$ (453,714)	$ -	$ (10,785)	$ -	$ (464,499)	$ (233,285)	$ -	$ (7,709)	$ -	$ (240,994)
25	$ (453,714)	$ -	$ (10,785)	$ -	$ (464,499)	$ (227,946)	$ -	$ (7,612)	$ -	$ (235,558)
26	$ (453,714)	$ -	$ (10,785)	$ -	$ (464,499)	$ (222,844)	$ -	$ (7,511)	$ -	$ (230,354)
27	$ (453,714)	$ -	$ (10,785)	$ -	$ (464,499)	$ (217,951)	$ -	$ (7,417)	$ -	$ (225,368)
28	$ (453,714)	$ -	$ (10,785)	$ -	$ (464,499)	$ (213,246)	$ -	$ (7,322)	$ -	$ (220,568)
29	$ (453,714)	$ -	$ (10,785)	$ -	$ (464,499)	$ (208,552)	$ -	$ (7,226)	$ -	$ (215,778)
30	$ (453,714)	$ -	$ (10,785)	$ -	$ (464,499)	$ (204,171)	$ -	$ (7,137)	$ -	$ (211,308)

CoSC Former City Hall
Aggregate LCCA and TCO

Scenario	2	Adaptive Reuse as Housing
Cost Option	High Cost	

Square Footage		113,430

Cost

Low Cost		
Former City Hall	$	105,152,548
New Development		-
Sitework		-
Total Low Cost	**$**	**105,152,548**

High Cost		
Option 2 - 108 units in lieu of 57 units		$12,307,155
		-
		-
		-
Total High Cost	**$**	**117,459,703**

O&M (5 Years before Retrofitting)	$	75,483.42	
O&M (After Retrofit - Office)		2.15	per square foot
O&M (After Retrofit - Housing)		0.78	per square foot
	$	-	
Compounding Escalation Rate		3%	
Discount Rate		4%	

Housing Revenue		
Lease/Rental Revenues per Unit per Year	$	9,276
No. du		108
Annual Revenues	**$**	**1,001,808**

Additional Notes

† O&M: National Council of School Facilities "State of our Schools, 2016"
† Assumed uniform long-term escalation rate
† Assumed standard Federal Discount rate to account for time value of money

30-YEAR TOTAL COST OF OWNERSHIP (PRESENT VALUE) $ (107,045,964)

Aggregate Life-Cycle Cost Analysis and Total Cost of Ownership

	Uniform Value					Discounted to Present Value				
N	Construction	Utilities	O&M	Lease/Rental Revenue	Total	Construction	Utilities	O&M	Lease/Rental Revenue	Total
0	$ (541,739)	$ -	$ -	$ -	$ (541,739)	$ (541,739)	$ -	$ -	$ -	$ (541,739)
1		$ (95,837)	$ (75,483)	$ -	$ (171,320)		$ (91,093)	$ (74,758)	$ -	$ (165,851)
2		$ (95,837)	$ (75,483)	$ -	$ (171,320)		$ (88,613)	$ (74,039)	$ -	$ (162,652)
3		$ (95,837)	$ (75,483)	$ -	$ (171,320)		$ (86,122)	$ (73,327)	$ -	$ (159,449)
4		$ (95,837)	$ (75,483)	$ -	$ (171,320)		$ (84,016)	$ (72,622)	$ -	$ (156,637)
5	$ (117,605,461)	$ -	$ -	$ -	$ (117,605,461)	$ (117,605,461)	$ (390,243)	$ -	$ -	$ (117,995,704)
6		$ (464,499)	$ (88,475)	$ 1,001,808	$ 448,833		$ (379,656)	$ (83,492)	$ 945,383	$ 482,235
7		$ (464,499)	$ (88,475)	$ 1,001,808	$ 448,833		$ (369,473)	$ (82,689)	$ 936,293	$ 484,130
8		$ (464,499)	$ (88,475)	$ 1,001,808	$ 448,833		$ (358,959)	$ (81,894)	$ 927,290	$ 486,437
9		$ (464,499)	$ (88,475)	$ 1,001,808	$ 448,833		$ (349,750)	$ (81,107)	$ 918,374	$ 487,517
10		$ (464,499)	$ (88,475)	$ 1,001,808	$ 448,833		$ (340,546)	$ (80,327)	$ 909,543	$ 488,670
11		$ (464,499)	$ (88,475)	$ 1,001,808	$ 448,833		$ (331,337)	$ (79,555)	$ 900,798	$ 489,906
12		$ (464,499)	$ (88,475)	$ 1,001,808	$ 448,833		$ (322,888)	$ (78,790)	$ 892,136	$ 490,458
13		$ (464,499)	$ (88,475)	$ 1,001,808	$ 448,833		$ (314,676)	$ (78,032)	$ 883,558	$ 490,850
14		$ (464,499)	$ (88,475)	$ 1,001,808	$ 448,833		$ (306,650)	$ (77,282)	$ 875,062	$ 491,131
15		$ (464,499)	$ (88,475)	$ 1,001,808	$ 448,833		$ (299,082)	$ (76,539)	$ 866,648	$ 491,027
16		$ (464,499)	$ (88,475)	$ 1,001,808	$ 448,833		$ (291,589)	$ (75,803)	$ 858,315	$ 490,923
17		$ (464,499)	$ (88,475)	$ 1,001,808	$ 448,833		$ (284,431)	$ (75,074)	$ 850,062	$ 490,557
18		$ (464,499)	$ (88,475)	$ 1,001,808	$ 448,833		$ (277,559)	$ (74,352)	$ 841,888	$ 489,977
19		$ (464,499)	$ (88,475)	$ 1,001,808	$ 448,833		$ (270,915)	$ (73,637)	$ 833,793	$ 489,241
20		$ (464,499)	$ (88,475)	$ 1,001,808	$ 448,833		$ (264,477)	$ (72,929)	$ 825,776	$ 488,370
21		$ (464,499)	$ (88,475)	$ 1,001,808	$ 448,833		$ (258,215)	$ (72,228)	$ 817,836	$ 487,393
22		$ (464,499)	$ (88,475)	$ 1,001,808	$ 448,833		$ (252,306)	$ (71,533)	$ 809,972	$ 486,132
23		$ (464,499)	$ (88,475)	$ 1,001,808	$ 448,833		$ (246,507)	$ (70,845)	$ 802,184	$ 484,831
24		$ (464,499)	$ (88,475)	$ 1,001,808	$ 448,833		$ (240,994)	$ (70,164)	$ 794,470	$ 483,313
25		$ (464,499)	$ (88,475)	$ 1,001,808	$ 448,833		$ (235,558)	$ (69,490)	$ 786,831	$ 481,783
26		$ (464,499)	$ (88,475)	$ 1,001,808	$ 448,833		$ (230,354)	$ (68,821)	$ 779,266	$ 480,090
27		$ (464,499)	$ (88,475)	$ 1,001,808	$ 448,833		$ (225,368)	$ (68,160)	$ 771,773	$ 478,245
28		$ (464,499)	$ (88,475)	$ 1,001,808	$ 448,833		$ (220,568)	$ (67,504)	$ 764,352	$ 476,280
29		$ (464,499)	$ (88,475)	$ 1,001,808	$ 448,833		$ (215,778)	$ (66,855)	$ 757,002	$ 474,369
30		$ (464,499)	$ (88,475)	$ 1,001,808	$ 448,833		$ (211,308)	$ (66,212)	$ 749,723	$ 472,203

CoSC Former City Hall
Exhibit A
Disaggregate Utilities Analysis

Scenario	2	Adaptive Reuse as Housing
Cost Option	High Cost	

PURCHASED UTILITIES

Square Footage	113,430
Current Electrical Usage	$79,053
Current Water Usage	$16,783

ASHRAE 90.1 Baseline	Consumption		Uniform Rates		Annual Utility Cost	
Electric	1,981,285	kWh	0.23	kWh	$	453,714.36
Natural Gas	0	Therm	1.45	Therm	$	-
Potable Water	1,417,875	Gal	5.69	HCF*	$	10,784.96
Non-Potable Water	0	Gal	N/A	HCF*	$	-
Total						

*1 kbtu =	0.2931	kWh
* 1 Therm =	29.3001	kWh
* 1 HCF =	748.0520	Gal

Additional Notes

† Utility End-use intensity (Office) from US Energy Information Administration (EIA) Commercial Buildings Energy Consumption Survey (CBECS)
† Utility End-use intensity (Housing) from Energystar U.S. Energy Use Intensity by Property Type
† Electric rate assuming average rate for San Francisco area (taken from Bureau of Labor Statistics)
† Natural Gas Rate assuming average rate for San Francisco area (taken from Bureau of Labor Statistics)
† Potable water rate assuming Santa Clara County average
† Assuming standard utility rate escalations

Scenario	2	Adaptive Reuse as Housing
Cost Option	High Cost	

CoSC Former City Hall
Exhibit A
Disaggregate Utilities Analysis

Scenario: ASHRAE 90.1 Baseline

	Uniform Value					Present Value				
N	Electric	Nat. Gas	Potable Water	Non-Potable Water	Total	Electric	Nat. Gas	Potable Water	Non-Potable Water	Total
0	$ (79,053)	$ -	$ (16,783)	$ -	$ (95,837)	$ (79,053)	$ -	$ (16,783)	$ -	$ (95,837)
1	$ (79,053)	$ -	$ (16,783)	$ -	$ (95,837)	$ (74,310)	$ -	$ (16,783)	$ -	$ (91,093)
2	$ (79,053)	$ -	$ (16,783)	$ -	$ (95,837)	$ (72,334)	$ -	$ (16,280)	$ -	$ (88,613)
3	$ (79,053)	$ -	$ (16,783)	$ -	$ (95,837)	$ (70,094)	$ -	$ (16,028)	$ -	$ (86,122)
4	$ (79,053)	$ -	$ (16,783)	$ -	$ (95,837)	$ (68,183)	$ -	$ (15,832)	$ -	$ (84,016)
5	$ (453,714)	$ -	$ (10,785)	$ -	$ (464,499)	$ (380,213)	$ -	$ (10,030)	$ -	$ (390,243)
6	$ (453,714)	$ -	$ (10,785)	$ -	$ (464,499)	$ (369,777)	$ -	$ (9,879)	$ -	$ (379,656)
7	$ (453,714)	$ -	$ (10,785)	$ -	$ (464,499)	$ (359,731)	$ -	$ (9,742)	$ -	$ (369,473)
8	$ (453,714)	$ -	$ (10,785)	$ -	$ (464,499)	$ (349,360)	$ -	$ (9,599)	$ -	$ (358,959)
9	$ (453,714)	$ -	$ (10,785)	$ -	$ (464,499)	$ (340,286)	$ -	$ (9,464)	$ -	$ (349,750)
10	$ (453,714)	$ -	$ (10,785)	$ -	$ (464,499)	$ (331,211)	$ -	$ (9,335)	$ -	$ (340,546)
11	$ (453,714)	$ -	$ (10,785)	$ -	$ (464,499)	$ (322,137)	$ -	$ (9,200)	$ -	$ (331,337)
12	$ (453,714)	$ -	$ (10,785)	$ -	$ (464,499)	$ (313,819)	$ -	$ (9,069)	$ -	$ (322,888)
13	$ (453,714)	$ -	$ (10,785)	$ -	$ (464,499)	$ (305,734)	$ -	$ (8,943)	$ -	$ (314,676)
14	$ (453,714)	$ -	$ (10,785)	$ -	$ (464,499)	$ (297,831)	$ -	$ (8,819)	$ -	$ (306,650)
15	$ (453,714)	$ -	$ (10,785)	$ -	$ (464,499)	$ (290,377)	$ -	$ (8,705)	$ -	$ (299,082)
16	$ (453,714)	$ -	$ (10,785)	$ -	$ (464,499)	$ (283,004)	$ -	$ (8,585)	$ -	$ (291,589)
17	$ (453,714)	$ -	$ (10,785)	$ -	$ (464,499)	$ (275,965)	$ -	$ (8,466)	$ -	$ (284,431)
18	$ (453,714)	$ -	$ (10,785)	$ -	$ (464,499)	$ (269,204)	$ -	$ (8,355)	$ -	$ (277,559)
19	$ (453,714)	$ -	$ (10,785)	$ -	$ (464,499)	$ (262,677)	$ -	$ (8,239)	$ -	$ (270,915)
20	$ (453,714)	$ -	$ (10,785)	$ -	$ (464,499)	$ (256,349)	$ -	$ (8,128)	$ -	$ (264,477)
21	$ (453,714)	$ -	$ (10,785)	$ -	$ (464,499)	$ (250,191)	$ -	$ (8,024)	$ -	$ (258,215)
22	$ (453,714)	$ -	$ (10,785)	$ -	$ (464,499)	$ (244,387)	$ -	$ (7,919)	$ -	$ (252,306)
23	$ (453,714)	$ -	$ (10,785)	$ -	$ (464,499)	$ (238,693)	$ -	$ (7,814)	$ -	$ (246,507)
24	$ (453,714)	$ -	$ (10,785)	$ -	$ (464,499)	$ (233,285)	$ -	$ (7,709)	$ -	$ (240,994)
25	$ (453,714)	$ -	$ (10,785)	$ -	$ (464,499)	$ (227,946)	$ -	$ (7,612)	$ -	$ (235,558)
26	$ (453,714)	$ -	$ (10,785)	$ -	$ (464,499)	$ (222,844)	$ -	$ (7,511)	$ -	$ (230,354)
27	$ (453,714)	$ -	$ (10,785)	$ -	$ (464,499)	$ (217,951)	$ -	$ (7,417)	$ -	$ (225,368)
28	$ (453,714)	$ -	$ (10,785)	$ -	$ (464,499)	$ (213,246)	$ -	$ (7,322)	$ -	$ (220,568)
29	$ (453,714)	$ -	$ (10,785)	$ -	$ (464,499)	$ (208,552)	$ -	$ (7,226)	$ -	$ (215,778)
30	$ (453,714)	$ -	$ (10,785)	$ -	$ (464,499)	$ (204,171)	$ -	$ (7,137)	$ -	$ (211,308)

CoSC Former City Hall
Aggregate LCCA and TCO

Scenario	3	Comparison with Maximized Housing
Cost Option	Low Cost	

Square Footage 220,000

Cost

Low Cost		
Former City Hall	$	-
New Development		$147,617,274
Sitework		14,310,000
Total Low Cost	**$**	**161,927,274**

High Cost		
Option 3 - High Rise 410 du in lieu of 200		$156,060,000
Option 3 - Additional Parking - 180 spaces		$10,449,000
		-
		-
Total High Cost	**$**	**328,436,274**

O&M (5 Years before Retrofitting)	$	75,483.42	
O&M (After Retrofit - Office)		2.15	per square foot
O&M (After Retrofit - Housing)		0.78	per square foot
	$	-	
Compounding Escalation Rate		3%	
Discount Rate		4%	

Housing Revenue		
Lease/Rental Revenues per Unit per Year	$	9,276
No. du		200
Annual Revenues	**$**	**1,855,200**

Additional Notes

† O&M: National Council of School Facilities "State of our Schools, 2016"
† Assumed uniform long-term escalation rate
† Assumed standard Federal Discount rate to account for time value of money

30-YEAR TOTAL COST OF OWNERSHIP (PRESENT VALUE) $ (136,069,962)

Aggregate Life-Cycle Cost Analysis and Total Cost of Ownership

	Uniform Value					Discounted to Present Value				
N	Construction	Utilities	O&M	Lease/Rental Revenue	Total	Construction	Utilities	O&M	Lease/Rental Revenue	Total
0	$ (161,927,274)	$ -	$ -	$ -	$ (161,927,274)	$ (161,927,274)	$ -	$ -	$ -	$ (161,927,274)
1		$ (900,907)	$ (171,600)	$ 1,855,200	$ 782,693		$ (848,107)	$ (169,950)	$ 1,837,362	$ 819,304
2		$ (900,907)	$ (171,600)	$ 1,855,200	$ 782,693		$ (825,480)	$ (168,316)	$ 1,819,695	$ 825,899
3		$ (900,907)	$ (171,600)	$ 1,855,200	$ 782,693		$ (800,233)	$ (166,697)	$ 1,802,198	$ 835,267
4		$ (900,907)	$ (171,600)	$ 1,855,200	$ 782,693		$ (778,723)	$ (165,095)	$ 1,784,869	$ 841,051
5		$ (900,907)	$ (171,600)	$ 1,855,200	$ 782,693		$ (756,884)	$ (163,507)	$ 1,767,707	$ 847,315
6		$ (900,907)	$ (171,600)	$ 1,855,200	$ 782,693		$ (736,352)	$ (161,935)	$ 1,750,709	$ 852,423
7		$ (900,907)	$ (171,600)	$ 1,855,200	$ 782,693		$ (716,601)	$ (160,378)	$ 1,733,876	$ 856,896
8		$ (900,907)	$ (171,600)	$ 1,855,200	$ 782,693		$ (696,208)	$ (158,836)	$ 1,717,204	$ 862,160
9		$ (900,907)	$ (171,600)	$ 1,855,200	$ 782,693		$ (678,347)	$ (157,309)	$ 1,700,692	$ 865,037
10		$ (900,907)	$ (171,600)	$ 1,855,200	$ 782,693		$ (660,497)	$ (155,796)	$ 1,684,339	$ 868,046
11		$ (900,907)	$ (171,600)	$ 1,855,200	$ 782,693		$ (642,635)	$ (154,298)	$ 1,668,144	$ 871,211
12		$ (900,907)	$ (171,600)	$ 1,855,200	$ 782,693		$ (626,249)	$ (152,814)	$ 1,652,104	$ 873,041
13		$ (900,907)	$ (171,600)	$ 1,855,200	$ 782,693		$ (610,321)	$ (151,345)	$ 1,636,218	$ 874,552
14		$ (900,907)	$ (171,600)	$ 1,855,200	$ 782,693		$ (594,754)	$ (149,890)	$ 1,620,485	$ 875,842
15		$ (900,907)	$ (171,600)	$ 1,855,200	$ 782,693		$ (580,077)	$ (148,448)	$ 1,604,904	$ 876,379
16		$ (900,907)	$ (171,600)	$ 1,855,200	$ 782,693		$ (565,544)	$ (147,021)	$ 1,589,472	$ 876,907
17		$ (900,907)	$ (171,600)	$ 1,855,200	$ 782,693		$ (551,661)	$ (145,607)	$ 1,574,189	$ 876,921
18		$ (900,907)	$ (171,600)	$ 1,855,200	$ 782,693		$ (538,332)	$ (144,207)	$ 1,559,052	$ 876,513
19		$ (900,907)	$ (171,600)	$ 1,855,200	$ 782,693		$ (525,446)	$ (142,821)	$ 1,544,061	$ 875,795
20		$ (900,907)	$ (171,600)	$ 1,855,200	$ 782,693		$ (512,959)	$ (141,447)	$ 1,529,215	$ 874,808
21		$ (900,907)	$ (171,600)	$ 1,855,200	$ 782,693		$ (500,814)	$ (140,087)	$ 1,514,511	$ 873,609
22		$ (900,907)	$ (171,600)	$ 1,855,200	$ 782,693		$ (489,354)	$ (138,740)	$ 1,499,948	$ 871,854
23		$ (900,907)	$ (171,600)	$ 1,855,200	$ 782,693		$ (478,107)	$ (137,406)	$ 1,485,525	$ 870,013
24		$ (900,907)	$ (171,600)	$ 1,855,200	$ 782,693		$ (467,413)	$ (136,085)	$ 1,471,242	$ 867,744
25		$ (900,907)	$ (171,600)	$ 1,855,200	$ 782,693		$ (456,871)	$ (134,777)	$ 1,457,095	$ 865,448
26		$ (900,907)	$ (171,600)	$ 1,855,200	$ 782,693		$ (446,777)	$ (133,481)	$ 1,443,084	$ 862,827
27		$ (900,907)	$ (171,600)	$ 1,855,200	$ 782,693		$ (437,106)	$ (132,197)	$ 1,429,209	$ 859,906
28		$ (900,907)	$ (171,600)	$ 1,855,200	$ 782,693		$ (427,796)	$ (130,926)	$ 1,415,466	$ 856,745
29		$ (900,907)	$ (171,600)	$ 1,855,200	$ 782,693		$ (418,506)	$ (129,667)	$ 1,401,856	$ 853,683
30		$ (900,907)	$ (171,600)	$ 1,855,200	$ 782,693		$ (409,837)	$ (128,420)	$ 1,388,377	$ 850,119

Scenario	3	Comparison with Maximized Housing
Cost Option	Low Cost	

CoSC Former City Hall
Exhibit A
Disaggregate Utilities Analysis

PURCHASED UTILITIES

Square Footage	220,000
Current Electrical Usage	$79,053
Current Water Usage	$16,783

ASHRAE 90.1 Baseline	Consumption		Uniform Rates		Annual Utility Cost	
Electric	3,842,747	kWh	0.23	kWh	$	879,989.05
Natural Gas	0	Therm	1.45	Therm	$	-
Potable Water	2,750,000	Gal	5.69	HCF*	$	20,917.66
Non-Potable Water	0	Gal	N/A	HCF*	$	-
Total						

*1 kbtu =	0.2931	kWh
* 1 Therm =	29.3001	kWh
* 1 HCF =	748.0520	Gal

Additional Notes

† Utility End-use intensity (Office) from US Energy Information Administration (EIA) Commercial Buildings Energy Consumption Survey (CBECS)
† Utility End-use intensity (Housing) from Energystar U.S. Energy Use Intensity by Property Type
† Electric rate assuming average rate for San Francisco area (taken from Bureau of Labor Statistics)
† Natural Gas Rate assuming average rate for San Francisco area (taken from Bureau of Labor Statistics)
† Potable water rate assuming Santa Clara County average
† Assuming standard utility rate escalations

Scenario	3	Comparison with Maximized Housing
Cost Option	Low Cost	

CoSC Former City Hall
Exhibit A
Disaggregate Utilities Analysis

Scenario: ASHRAE 90.1 Baseline

	Uniform Value					Present Value				
N	Electric	Nat. Gas	Potable Water	Non-Potable Water	Total	Electric	Nat. Gas	Potable Water	Non-Potable Water	Total
0	$ (879,989)	$ -	$ (20,918)	$ -	$ (900,907)	$ (879,989)	$ -	$ (20,918)	$ -	$ (900,907)
1	$ (879,989)	$ -	$ (20,918)	$ -	$ (900,907)	$ (827,190)	$ -	$ (20,918)	$ -	$ (848,107)
2	$ (879,989)	$ -	$ (20,918)	$ -	$ (900,907)	$ (805,190)	$ -	$ (20,290)	$ -	$ (825,480)
3	$ (879,989)	$ -	$ (20,918)	$ -	$ (900,907)	$ (780,257)	$ -	$ (19,976)	$ -	$ (800,233)
4	$ (879,989)	$ -	$ (20,918)	$ -	$ (900,907)	$ (758,991)	$ -	$ (19,732)	$ -	$ (778,723)
5	$ (879,989)	$ -	$ (20,918)	$ -	$ (900,907)	$ (737,431)	$ -	$ (19,453)	$ -	$ (756,884)
6	$ (879,989)	$ -	$ (20,918)	$ -	$ (900,907)	$ (717,191)	$ -	$ (19,161)	$ -	$ (736,352)
7	$ (879,989)	$ -	$ (20,918)	$ -	$ (900,907)	$ (697,706)	$ -	$ (18,896)	$ -	$ (716,601)
8	$ (879,989)	$ -	$ (20,918)	$ -	$ (900,907)	$ (677,592)	$ -	$ (18,617)	$ -	$ (696,208)
9	$ (879,989)	$ -	$ (20,918)	$ -	$ (900,907)	$ (659,992)	$ -	$ (18,355)	$ -	$ (678,347)
10	$ (879,989)	$ -	$ (20,918)	$ -	$ (900,907)	$ (642,392)	$ -	$ (18,105)	$ -	$ (660,497)
11	$ (879,989)	$ -	$ (20,918)	$ -	$ (900,907)	$ (624,792)	$ -	$ (17,843)	$ -	$ (642,635)
12	$ (879,989)	$ -	$ (20,918)	$ -	$ (900,907)	$ (608,659)	$ -	$ (17,590)	$ -	$ (626,249)
13	$ (879,989)	$ -	$ (20,918)	$ -	$ (900,907)	$ (592,977)	$ -	$ (17,344)	$ -	$ (610,321)
14	$ (879,989)	$ -	$ (20,918)	$ -	$ (900,907)	$ (577,650)	$ -	$ (17,104)	$ -	$ (594,754)
15	$ (879,989)	$ -	$ (20,918)	$ -	$ (900,907)	$ (563,193)	$ -	$ (16,884)	$ -	$ (580,077)
16	$ (879,989)	$ -	$ (20,918)	$ -	$ (900,907)	$ (548,893)	$ -	$ (16,650)	$ -	$ (565,544)
17	$ (879,989)	$ -	$ (20,918)	$ -	$ (900,907)	$ (535,240)	$ -	$ (16,420)	$ -	$ (551,661)
18	$ (879,989)	$ -	$ (20,918)	$ -	$ (900,907)	$ (522,127)	$ -	$ (16,205)	$ -	$ (538,332)
19	$ (879,989)	$ -	$ (20,918)	$ -	$ (900,907)	$ (509,467)	$ -	$ (15,979)	$ -	$ (525,446)
20	$ (879,989)	$ -	$ (20,918)	$ -	$ (900,907)	$ (497,194)	$ -	$ (15,765)	$ -	$ (512,959)
21	$ (879,989)	$ -	$ (20,918)	$ -	$ (900,907)	$ (485,251)	$ -	$ (15,563)	$ -	$ (500,814)
22	$ (879,989)	$ -	$ (20,918)	$ -	$ (900,907)	$ (473,994)	$ -	$ (15,360)	$ -	$ (489,354)
23	$ (879,989)	$ -	$ (20,918)	$ -	$ (900,907)	$ (462,951)	$ -	$ (15,156)	$ -	$ (478,107)
24	$ (879,989)	$ -	$ (20,918)	$ -	$ (900,907)	$ (452,461)	$ -	$ (14,952)	$ -	$ (467,413)
25	$ (879,989)	$ -	$ (20,918)	$ -	$ (900,907)	$ (442,106)	$ -	$ (14,764)	$ -	$ (456,871)
26	$ (879,989)	$ -	$ (20,918)	$ -	$ (900,907)	$ (432,210)	$ -	$ (14,567)	$ -	$ (446,777)
27	$ (879,989)	$ -	$ (20,918)	$ -	$ (900,907)	$ (422,721)	$ -	$ (14,385)	$ -	$ (437,106)
28	$ (879,989)	$ -	$ (20,918)	$ -	$ (900,907)	$ (413,595)	$ -	$ (14,201)	$ -	$ (427,796)
29	$ (879,989)	$ -	$ (20,918)	$ -	$ (900,907)	$ (404,492)	$ -	$ (14,015)	$ -	$ (418,506)
30	$ (879,989)	$ -	$ (20,918)	$ -	$ (900,907)	$ (395,995)	$ -	$ (13,842)	$ -	$ (409,837)

CoSC Former City Hall
Aggregate LCCA and TCO

Scenario	3	Comparison with Maximized Housing
Cost Option	High Cost	

Square Footage 436,000

Cost

Low Cost		
Former City Hall	$	-
New Development		$147,617,274
Sitework		14,310,000
Total Low Cost	**$**	**161,927,274**

High Cost		
Option 3 - High Rise 410 du in lieu of 200		$156,060,000
Option 3 - Additional Parking - 180 spaces		$10,449,000
		-
		-
Total High Cost	**$**	**328,436,274**

O&M (5 Years before Retrofitting)	$	75,483.42	
O&M (After Retrofit - Office)		2.15	per square foot
O&M (After Retrofit - Housing)		0.78	per square foot
	$	-	
Compounding Escalation Rate		3%	
Discount Rate		4%	

Housing Revenue		
Lease/Rental Revenues per Unit per Year	$	9,276
No. du		410
Annual Revenues	**$**	**3,803,160**

Additional Notes

† O&M: National Council of School Facilities "State of our Schools, 2016"
† Assumed uniform long-term escalation rate
† Assumed standard Federal Discount rate to account for time value of money

30-YEAR TOTAL COST OF OWNERSHIP (PRESENT VALUE) $ (273,913,410)

Aggregate Life-Cycle Cost Analysis and Total Cost of Ownership

	Uniform Value					Discounted to Present Value				
N	Construction	Utilities	O&M	Lease/Rental Revenue	Total	Construction	Utilities	O&M	Lease/Rental Revenue	Total
0	$ (328,436,274)	$ -	$ -	$ -	$ (328,436,274)	$ (328,436,274)	$ -	$ -	$ -	$ (328,436,274)
1		$ (1,785,433)	$ (340,080)	$ 3,803,160	$ 1,677,647		$ (1,680,795)	$ (336,810)	$ 3,766,591	$ 1,748,987
2		$ (1,785,433)	$ (340,080)	$ 3,803,160	$ 1,677,647		$ (1,635,952)	$ (333,571)	$ 3,730,374	$ 1,760,851
3		$ (1,785,433)	$ (340,080)	$ 3,803,160	$ 1,677,647		$ (1,585,917)	$ (330,364)	$ 3,694,505	$ 1,778,224
4		$ (1,785,433)	$ (340,080)	$ 3,803,160	$ 1,677,647		$ (1,543,287)	$ (327,187)	$ 3,658,981	$ 1,788,506
5		$ (1,785,433)	$ (340,080)	$ 3,803,160	$ 1,677,647		$ (1,500,007)	$ (324,041)	$ 3,623,798	$ 1,799,750
6		$ (1,785,433)	$ (340,080)	$ 3,803,160	$ 1,677,647		$ (1,459,315)	$ (320,926)	$ 3,588,954	$ 1,808,713
7		$ (1,785,433)	$ (340,080)	$ 3,803,160	$ 1,677,647		$ (1,420,173)	$ (317,840)	$ 3,554,445	$ 1,816,432
8		$ (1,785,433)	$ (340,080)	$ 3,803,160	$ 1,677,647		$ (1,379,758)	$ (314,784)	$ 3,520,268	$ 1,825,726
9		$ (1,785,433)	$ (340,080)	$ 3,803,160	$ 1,677,647		$ (1,344,360)	$ (311,757)	$ 3,486,419	$ 1,830,301
10		$ (1,785,433)	$ (340,080)	$ 3,803,160	$ 1,677,647		$ (1,308,986)	$ (308,759)	$ 3,452,896	$ 1,835,151
11		$ (1,785,433)	$ (340,080)	$ 3,803,160	$ 1,677,647		$ (1,273,586)	$ (305,790)	$ 3,419,695	$ 1,840,319
12		$ (1,785,433)	$ (340,080)	$ 3,803,160	$ 1,677,647		$ (1,241,112)	$ (302,850)	$ 3,386,813	$ 1,842,851
13		$ (1,785,433)	$ (340,080)	$ 3,803,160	$ 1,677,647		$ (1,209,546)	$ (299,938)	$ 3,354,248	$ 1,844,763
14		$ (1,785,433)	$ (340,080)	$ 3,803,160	$ 1,677,647		$ (1,178,695)	$ (297,054)	$ 3,321,995	$ 1,846,246
15		$ (1,785,433)	$ (340,080)	$ 3,803,160	$ 1,677,647		$ (1,149,606)	$ (294,198)	$ 3,290,053	$ 1,846,249
16		$ (1,785,433)	$ (340,080)	$ 3,803,160	$ 1,677,647		$ (1,120,805)	$ (291,369)	$ 3,258,418	$ 1,846,244
17		$ (1,785,433)	$ (340,080)	$ 3,803,160	$ 1,677,647		$ (1,093,291)	$ (288,567)	$ 3,227,087	$ 1,845,228
18		$ (1,785,433)	$ (340,080)	$ 3,803,160	$ 1,677,647		$ (1,066,876)	$ (285,793)	$ 3,196,057	$ 1,843,389
19		$ (1,785,433)	$ (340,080)	$ 3,803,160	$ 1,677,647		$ (1,041,339)	$ (283,045)	$ 3,165,326	$ 1,840,943
20		$ (1,785,433)	$ (340,080)	$ 3,803,160	$ 1,677,647		$ (1,016,592)	$ (280,323)	$ 3,134,890	$ 1,837,975
21		$ (1,785,433)	$ (340,080)	$ 3,803,160	$ 1,677,647		$ (992,522)	$ (277,628)	$ 3,104,747	$ 1,834,597
22		$ (1,785,433)	$ (340,080)	$ 3,803,160	$ 1,677,647		$ (969,810)	$ (274,958)	$ 3,074,893	$ 1,830,125
23		$ (1,785,433)	$ (340,080)	$ 3,803,160	$ 1,677,647		$ (947,520)	$ (272,314)	$ 3,045,327	$ 1,825,493
24		$ (1,785,433)	$ (340,080)	$ 3,803,160	$ 1,677,647		$ (926,327)	$ (269,696)	$ 3,016,045	$ 1,820,022
25		$ (1,785,433)	$ (340,080)	$ 3,803,160	$ 1,677,647		$ (905,435)	$ (267,103)	$ 2,987,045	$ 1,814,507
26		$ (1,785,433)	$ (340,080)	$ 3,803,160	$ 1,677,647		$ (885,431)	$ (264,534)	$ 2,958,323	$ 1,808,358
27		$ (1,785,433)	$ (340,080)	$ 3,803,160	$ 1,677,647		$ (866,264)	$ (261,991)	$ 2,929,878	$ 1,801,623
28		$ (1,785,433)	$ (340,080)	$ 3,803,160	$ 1,677,647		$ (847,813)	$ (259,472)	$ 2,901,706	$ 1,794,421
29		$ (1,785,433)	$ (340,080)	$ 3,803,160	$ 1,677,647		$ (829,404)	$ (256,977)	$ 2,873,805	$ 1,787,425
30		$ (1,785,433)	$ (340,080)	$ 3,803,160	$ 1,677,647		$ (812,222)	$ (254,506)	$ 2,846,172	$ 1,779,444

Scenario	3	Comparison with Maximized Housing
Cost Option	High Cost	

CoSC Former City Hall
Exhibit A
Disaggregate Utilities Analysis

PURCHASED UTILITIES

Square Footage	436,000
Current Electrical Usage	$79,053
Current Water Usage	$16,783

ASHRAE 90.1 Baseline	Consumption		Uniform Rates		Annual Utility Cost	
Electric	7,615,626	kWh	0.23	kWh	$	1,743,978.30
Natural Gas	0	Therm	1.45	Therm	$	-
Potable Water	5,450,000	Gal	5.69	HCF*	$	41,455.01
Non-Potable Water	0	Gal	N/A	HCF*	$	-
Total						

*1 kbtu =	0.2931	kWh
* 1 Therm =	29.3001	kWh
* 1 HCF =	748.0520	Gal

Additional Notes

† Utility End-use intensity (Office) from US Energy Information Administration (EIA) Commercial Buildings Energy Consumption Survey (CBECS)
† Utility End-use intensity (Housing) from Energystar U.S. Energy Use Intensity by Property Type
† Electric rate assuming average rate for San Francisco area (taken from Bureau of Labor Statistics)
† Natural Gas Rate assuming average rate for San Francisco area (taken from Bureau of Labor Statistics)
† Potable water rate assuming Santa Clara County average
† Assuming standard utility rate escalations

Scenario	3	Comparison with Maximized Housing
Cost Option	High Cost	

CoSC Former City Hall
Exhibit A
Disaggregate Utilities Analysis

Scenario: ASHRAE 90.1 Baseline

	Uniform Value					Present Value				
N	Electric	Nat. Gas	Potable Water	Non-Potable Water	Total	Electric	Nat. Gas	Potable Water	Non-Potable Water	Total
0	$ (1,743,978)	$ -	$ (41,455)	$ -	$ (1,785,433)	$ (1,743,978)	$ -	$ (41,455)	$ -	$ (1,785,433)
1	$ (1,743,978)	$ -	$ (41,455)	$ -	$ (1,785,433)	$ (1,639,340)	$ -	$ (41,455)	$ -	$ (1,680,795)
2	$ (1,743,978)	$ -	$ (41,455)	$ -	$ (1,785,433)	$ (1,595,740)	$ -	$ (40,211)	$ -	$ (1,635,952)
3	$ (1,743,978)	$ -	$ (41,455)	$ -	$ (1,785,433)	$ (1,546,327)	$ -	$ (39,590)	$ -	$ (1,585,917)
4	$ (1,743,978)	$ -	$ (41,455)	$ -	$ (1,785,433)	$ (1,504,181)	$ -	$ (39,106)	$ -	$ (1,543,287)
5	$ (1,743,978)	$ -	$ (41,455)	$ -	$ (1,785,433)	$ (1,461,454)	$ -	$ (38,553)	$ -	$ (1,500,007)
6	$ (1,743,978)	$ -	$ (41,455)	$ -	$ (1,785,433)	$ (1,421,342)	$ -	$ (37,973)	$ -	$ (1,459,315)
7	$ (1,743,978)	$ -	$ (41,455)	$ -	$ (1,785,433)	$ (1,382,726)	$ -	$ (37,448)	$ -	$ (1,420,173)
8	$ (1,743,978)	$ -	$ (41,455)	$ -	$ (1,785,433)	$ (1,342,863)	$ -	$ (36,895)	$ -	$ (1,379,758)
9	$ (1,743,978)	$ -	$ (41,455)	$ -	$ (1,785,433)	$ (1,307,984)	$ -	$ (36,377)	$ -	$ (1,344,360)
10	$ (1,743,978)	$ -	$ (41,455)	$ -	$ (1,785,433)	$ (1,273,104)	$ -	$ (35,882)	$ -	$ (1,308,986)
11	$ (1,743,978)	$ -	$ (41,455)	$ -	$ (1,785,433)	$ (1,238,225)	$ -	$ (35,361)	$ -	$ (1,273,586)
12	$ (1,743,978)	$ -	$ (41,455)	$ -	$ (1,785,433)	$ (1,206,252)	$ -	$ (34,860)	$ -	$ (1,241,112)
13	$ (1,743,978)	$ -	$ (41,455)	$ -	$ (1,785,433)	$ (1,175,173)	$ -	$ (34,373)	$ -	$ (1,209,546)
14	$ (1,743,978)	$ -	$ (41,455)	$ -	$ (1,785,433)	$ (1,144,797)	$ -	$ (33,897)	$ -	$ (1,178,695)
15	$ (1,743,978)	$ -	$ (41,455)	$ -	$ (1,785,433)	$ (1,116,146)	$ -	$ (33,460)	$ -	$ (1,149,606)
16	$ (1,743,978)	$ -	$ (41,455)	$ -	$ (1,785,433)	$ (1,087,806)	$ -	$ (32,998)	$ -	$ (1,120,805)
17	$ (1,743,978)	$ -	$ (41,455)	$ -	$ (1,785,433)	$ (1,060,749)	$ -	$ (32,542)	$ -	$ (1,093,291)
18	$ (1,743,978)	$ -	$ (41,455)	$ -	$ (1,785,433)	$ (1,034,760)	$ -	$ (32,115)	$ -	$ (1,066,876)
19	$ (1,743,978)	$ -	$ (41,455)	$ -	$ (1,785,433)	$ (1,009,672)	$ -	$ (31,667)	$ -	$ (1,041,339)
20	$ (1,743,978)	$ -	$ (41,455)	$ -	$ (1,785,433)	$ (985,348)	$ -	$ (31,244)	$ -	$ (1,016,592)
21	$ (1,743,978)	$ -	$ (41,455)	$ -	$ (1,785,433)	$ (961,679)	$ -	$ (30,843)	$ -	$ (992,522)
22	$ (1,743,978)	$ -	$ (41,455)	$ -	$ (1,785,433)	$ (939,370)	$ -	$ (30,440)	$ -	$ (969,810)
23	$ (1,743,978)	$ -	$ (41,455)	$ -	$ (1,785,433)	$ (917,484)	$ -	$ (30,036)	$ -	$ (947,520)
24	$ (1,743,978)	$ -	$ (41,455)	$ -	$ (1,785,433)	$ (896,696)	$ -	$ (29,631)	$ -	$ (926,327)
25	$ (1,743,978)	$ -	$ (41,455)	$ -	$ (1,785,433)	$ (876,175)	$ -	$ (29,260)	$ -	$ (905,435)
26	$ (1,743,978)	$ -	$ (41,455)	$ -	$ (1,785,433)	$ (856,562)	$ -	$ (28,869)	$ -	$ (885,431)
27	$ (1,743,978)	$ -	$ (41,455)	$ -	$ (1,785,433)	$ (837,756)	$ -	$ (28,508)	$ -	$ (866,264)
28	$ (1,743,978)	$ -	$ (41,455)	$ -	$ (1,785,433)	$ (819,670)	$ -	$ (28,143)	$ -	$ (847,813)
29	$ (1,743,978)	$ -	$ (41,455)	$ -	$ (1,785,433)	$ (801,629)	$ -	$ (27,775)	$ -	$ (829,404)
30	$ (1,743,978)	$ -	$ (41,455)	$ -	$ (1,785,433)	$ (784,790)	$ -	$ (27,432)	$ -	$ (812,222)

CoSC Former City Hall
Aggregate LCCA and TCO

Scenario	4	Adaptive Reuse as Office
Cost Option	Low Cost	

Square Footage		113,430

Cost

Low Cost		
Former City Hall	$	36,706,534
New Development		$10,605,559
Sitework		$0
Total Low Cost	**$**	**47,312,093**

High Cost		
Option 4 - Convert Class B to Class A Office		$80,875,590
		$0
		-
		-
Total High Cost	**$**	**128,187,683**

O&M (5 Years before Retrofitting)	$	75,483.42	
O&M (After Retrofit - Office)		2.15	per square foot
O&M (After Retrofit - Housing)		0.78	per square foot
	$	-	
Compounding Escalation Rate		3%	
Discount Rate		4%	

Class B Office Space Revenue ($2.5/SF per year @ 50% space lease)		
Lease/Rental Revenues per SF per Year	$	15
Square Feet		113,430
Annual Revenues	**$**	**1,701,450**

Additional Notes

† O&M: National Council of School Facilities "State of our Schools, 2016"

† Assumed uniform long-term escalation rate

† Assumed standard Federal Discount rate to account for time value of money

30-YEAR TOTAL COST OF OWNERSHIP (PRESENT VALUE) $ (26,445,119)

Aggregate Life-Cycle Cost Analysis and Total Cost of Ownership

	Uniform Value					Discounted to Present Value				
N	Construction	Utilities	O&M	Lease/Rental Revenue	Total	Construction	Utilities	O&M	Lease/Rental Revenue	Total
0	$ (499,017)	$ -	$ -	$ -	$ (499,017)	$ (499,017)	$ -	$ -	$ -	$ (499,017)
1		$ (95,837)	$ (75,483)	$ -	$ (171,320)		$ (91,093)	$ (74,758)	$ -	$ (165,851)
2		$ (95,837)	$ (75,483)	$ -	$ (171,320)		$ (88,613)	$ (74,039)	$ -	$ (162,652)
3		$ (95,837)	$ (75,483)	$ -	$ (171,320)		$ (86,122)	$ (73,327)	$ -	$ (159,449)
4		$ (95,837)	$ (75,483)	$ -	$ (171,320)		$ (84,016)	$ (72,622)	$ -	$ (156,637)
5	$ (46,813,082)	$ -	$ -	$ -	$ (46,813,082)	$ (46,813,082)	$ (478,962)	$ -	$ -	$ (47,292,044)
6		$ (570,370)	$ (243,875)	$ 1,701,450	$ 887,206		$ (465,941)	$ (230,139)	$ 1,605,619	$ 909,540
7		$ (570,370)	$ (243,875)	$ 1,701,450	$ 887,206		$ (453,413)	$ (227,926)	$ 1,590,180	$ 908,841
8		$ (570,370)	$ (243,875)	$ 1,701,450	$ 887,206		$ (440,479)	$ (225,734)	$ 1,574,890	$ 908,677
9		$ (570,370)	$ (243,875)	$ 1,701,450	$ 887,206		$ (429,152)	$ (223,564)	$ 1,559,747	$ 907,031
10		$ (570,370)	$ (243,875)	$ 1,701,450	$ 887,206		$ (417,832)	$ (221,414)	$ 1,544,749	$ 905,503
11		$ (570,370)	$ (243,875)	$ 1,701,450	$ 887,206		$ (406,505)	$ (219,285)	$ 1,529,896	$ 904,106
12		$ (570,370)	$ (243,875)	$ 1,701,450	$ 887,206		$ (396,115)	$ (217,177)	$ 1,515,186	$ 901,894
13		$ (570,370)	$ (243,875)	$ 1,701,450	$ 887,206		$ (386,017)	$ (215,088)	$ 1,500,616	$ 899,511
14		$ (570,370)	$ (243,875)	$ 1,701,450	$ 887,206		$ (376,146)	$ (213,020)	$ 1,486,187	$ 897,021
15		$ (570,370)	$ (243,875)	$ 1,701,450	$ 887,206		$ (366,839)	$ (210,972)	$ 1,471,897	$ 894,086
16		$ (570,370)	$ (243,875)	$ 1,701,450	$ 887,206		$ (357,626)	$ (208,943)	$ 1,457,744	$ 891,175
17		$ (570,370)	$ (243,875)	$ 1,701,450	$ 887,206		$ (348,825)	$ (206,934)	$ 1,443,728	$ 887,968
18		$ (570,370)	$ (243,875)	$ 1,701,450	$ 887,206		$ (340,376)	$ (204,945)	$ 1,429,846	$ 884,525
19		$ (570,370)	$ (243,875)	$ 1,701,450	$ 887,206		$ (332,209)	$ (202,974)	$ 1,416,097	$ 880,914
20		$ (570,370)	$ (243,875)	$ 1,701,450	$ 887,206		$ (324,294)	$ (201,022)	$ 1,402,481	$ 877,165
21		$ (570,370)	$ (243,875)	$ 1,701,450	$ 887,206		$ (316,595)	$ (199,089)	$ 1,388,995	$ 873,311
22		$ (570,370)	$ (243,875)	$ 1,701,450	$ 887,206		$ (309,332)	$ (197,175)	$ 1,375,640	$ 869,133
23		$ (570,370)	$ (243,875)	$ 1,701,450	$ 887,206		$ (302,204)	$ (195,279)	$ 1,362,412	$ 864,929
24		$ (570,370)	$ (243,875)	$ 1,701,450	$ 887,206		$ (295,429)	$ (193,401)	$ 1,349,312	$ 860,482
25		$ (570,370)	$ (243,875)	$ 1,701,450	$ 887,206		$ (288,748)	$ (191,542)	$ 1,336,338	$ 856,048
26		$ (570,370)	$ (243,875)	$ 1,701,450	$ 887,206		$ (282,353)	$ (189,700)	$ 1,323,489	$ 851,436
27		$ (570,370)	$ (243,875)	$ 1,701,450	$ 887,206		$ (276,225)	$ (187,876)	$ 1,310,763	$ 846,662
28		$ (570,370)	$ (243,875)	$ 1,701,450	$ 887,206		$ (270,327)	$ (186,069)	$ 1,298,159	$ 841,763
29		$ (570,370)	$ (243,875)	$ 1,701,450	$ 887,206		$ (264,442)	$ (184,280)	$ 1,285,677	$ 836,955
30		$ (570,370)	$ (243,875)	$ 1,701,450	$ 887,206		$ (258,950)	$ (182,508)	$ 1,273,315	$ 831,856

Scenario	4	Adaptive Reuse as Office
Cost Option	Low Cost	

CoSC Former City Hall
Exhibit A
Disaggregate Utilities Analysis

PURCHASED UTILITIES

Square Footage	113,430
Current Electrical Usage	$79,053
Current Water Usage	$16,783

ASHRAE 90.1 Baseline	Consumption		Uniform Rates		Annual Utility Cost	
Electric	2,443,602	kWh	0.23	kWh	$	559,584.86
Natural Gas	0	Therm	1.45	Therm	$	-
Potable Water	1,417,875	Gal	5.69	HCF*	$	10,784.96
Non-Potable Water	0	Gal	N/A	HCF*	$	-
Total						

*1 kbtu =	0.2931	kWh
* 1 Therm =	29.3001	kWh
* 1 HCF =	748.0520	Gal

Additional Notes

† Utility End-use intensity (Office) from US Energy Information Administration (EIA) Commercial Buildings Energy Consumption Survey (CBECS)
† Utility End-use intensity (Housing) from Energystar U.S. Energy Use Intensity by Property Type
† Electric rate assuming average rate for San Francisco area (taken from Bureau of Labor Statistics)
† Natural Gas Rate assuming average rate for San Francisco area (taken from Bureau of Labor Statistics)
† Potable water rate assuming Santa Clara County average
† Assuming standard utility rate escalations

Scenario: ASHRAE 90.1 Baseline

	Uniform Value					Present Value				
N	Electric	Nat. Gas	Potable Water	Non-Potable Water	Total	Electric	Nat. Gas	Potable Water	Non-Potable Water	Total
0	$ (79,053)	$ -	$ (16,783)	$ -	$ (95,837)	$ (79,053)	$ -	$ (16,783)	$ -	$ (95,837)
1	$ (79,053)	$ -	$ (16,783)	$ -	$ (95,837)	$ (74,310)	$ -	$ (16,783)	$ -	$ (91,093)
2	$ (79,053)	$ -	$ (16,783)	$ -	$ (95,837)	$ (72,334)	$ -	$ (16,280)	$ -	$ (88,613)
3	$ (79,053)	$ -	$ (16,783)	$ -	$ (95,837)	$ (70,094)	$ -	$ (16,028)	$ -	$ (86,122)
4	$ (79,053)	$ -	$ (16,783)	$ -	$ (95,837)	$ (68,183)	$ -	$ (15,832)	$ -	$ (84,016)
5	$ (559,585)	$ -	$ (10,785)	$ -	$ (570,370)	$ (468,932)	$ -	$ (10,030)	$ -	$ (478,962)
6	$ (559,585)	$ -	$ (10,785)	$ -	$ (570,370)	$ (456,062)	$ -	$ (9,879)	$ -	$ (465,941)
7	$ (559,585)	$ -	$ (10,785)	$ -	$ (570,370)	$ (443,671)	$ -	$ (9,742)	$ -	$ (453,413)
8	$ (559,585)	$ -	$ (10,785)	$ -	$ (570,370)	$ (430,880)	$ -	$ (9,599)	$ -	$ (440,479)
9	$ (559,585)	$ -	$ (10,785)	$ -	$ (570,370)	$ (419,689)	$ -	$ (9,464)	$ -	$ (429,152)
10	$ (559,585)	$ -	$ (10,785)	$ -	$ (570,370)	$ (408,497)	$ -	$ (9,335)	$ -	$ (417,832)
11	$ (559,585)	$ -	$ (10,785)	$ -	$ (570,370)	$ (397,305)	$ -	$ (9,200)	$ -	$ (406,505)
12	$ (559,585)	$ -	$ (10,785)	$ -	$ (570,370)	$ (387,046)	$ -	$ (9,069)	$ -	$ (396,115)
13	$ (559,585)	$ -	$ (10,785)	$ -	$ (570,370)	$ (377,074)	$ -	$ (8,943)	$ -	$ (386,017)
14	$ (559,585)	$ -	$ (10,785)	$ -	$ (570,370)	$ (367,327)	$ -	$ (8,819)	$ -	$ (376,146)
15	$ (559,585)	$ -	$ (10,785)	$ -	$ (570,370)	$ (358,134)	$ -	$ (8,705)	$ -	$ (366,839)
16	$ (559,585)	$ -	$ (10,785)	$ -	$ (570,370)	$ (349,041)	$ -	$ (8,585)	$ -	$ (357,626)
17	$ (559,585)	$ -	$ (10,785)	$ -	$ (570,370)	$ (340,359)	$ -	$ (8,466)	$ -	$ (348,825)
18	$ (559,585)	$ -	$ (10,785)	$ -	$ (570,370)	$ (332,020)	$ -	$ (8,355)	$ -	$ (340,376)
19	$ (559,585)	$ -	$ (10,785)	$ -	$ (570,370)	$ (323,970)	$ -	$ (8,239)	$ -	$ (332,209)
20	$ (559,585)	$ -	$ (10,785)	$ -	$ (570,370)	$ (316,165)	$ -	$ (8,128)	$ -	$ (324,294)
21	$ (559,585)	$ -	$ (10,785)	$ -	$ (570,370)	$ (308,571)	$ -	$ (8,024)	$ -	$ (316,595)
22	$ (559,585)	$ -	$ (10,785)	$ -	$ (570,370)	$ (301,413)	$ -	$ (7,919)	$ -	$ (309,332)
23	$ (559,585)	$ -	$ (10,785)	$ -	$ (570,370)	$ (294,390)	$ -	$ (7,814)	$ -	$ (302,204)
24	$ (559,585)	$ -	$ (10,785)	$ -	$ (570,370)	$ (287,720)	$ -	$ (7,709)	$ -	$ (295,429)
25	$ (559,585)	$ -	$ (10,785)	$ -	$ (570,370)	$ (281,135)	$ -	$ (7,612)	$ -	$ (288,748)
26	$ (559,585)	$ -	$ (10,785)	$ -	$ (570,370)	$ (274,842)	$ -	$ (7,511)	$ -	$ (282,353)
27	$ (559,585)	$ -	$ (10,785)	$ -	$ (570,370)	$ (268,808)	$ -	$ (7,417)	$ -	$ (276,225)
28	$ (559,585)	$ -	$ (10,785)	$ -	$ (570,370)	$ (263,005)	$ -	$ (7,322)	$ -	$ (270,327)
29	$ (559,585)	$ -	$ (10,785)	$ -	$ (570,370)	$ (257,216)	$ -	$ (7,226)	$ -	$ (264,442)
30	$ (559,585)	$ -	$ (10,785)	$ -	$ (570,370)	$ (251,813)	$ -	$ (7,137)	$ -	$ (258,950)

CoSC Former City Hall
Aggregate LCCA and TCO

Scenario	4	Adaptive Reuse as Office
Cost Option	High Cost	

Square Footage		113,430

Cost

Low Cost		
Former City Hall	$	36,706,534
New Development		$10,605,559
Sitework		$0
Total Low Cost	**$**	**47,312,093**

High Cost		
Option 4 - Convert Class B to Class A Office		$80,875,590
		$0
		-
		-
Total High Cost	**$**	**128,187,683**

O&M (5 Years before Retrofitting)	$	75,483.42	
O&M (After Retrofit - Office)		2.15	per square foot
O&M (After Retrofit - Housing)		0.78	per square foot
	$	-	
Compounding Escalation Rate		3%	
Discount Rate		4%	

Class A Office Space Revenue ($5/SF per year @ 50% space lease)		
Lease/Rental Revenues per SF per Year	$	30
Square Feet		113,430
Annual Revenues	**$**	**3,402,900**

Additional Notes

† O&M: National Council of School Facilities "State of our Schools, 2016"

† Assumed uniform long-term escalation rate

† Assumed standard Federal Discount rate to account for time value of money

30-YEAR TOTAL COST OF OWNERSHIP (PRESENT VALUE) $ (71,487,745)

Aggregate Life-Cycle Cost Analysis and Total Cost of Ownership

	Uniform Value					Discounted to Present Value				
N	Construction	Utilities	O&M	Lease/Rental Revenue	Total	Construction	Utilities	O&M	Lease/Rental Revenue	Total
0	$ (499,017)	$ -	$ -	$ -	$ (499,017)	$ (499,017)	$ -	$ -	$ -	$ (499,017)
1		$ (95,837)	$ (75,483)	$ -	$ (171,320)		$ (91,093)	$ (74,758)	$ -	$ (165,851)
2		$ (95,837)	$ (75,483)	$ -	$ (171,320)		$ (88,613)	$ (74,039)	$ -	$ (162,652)
3		$ (95,837)	$ (75,483)	$ -	$ (171,320)		$ (86,122)	$ (73,327)	$ -	$ (159,449)
4		$ (95,837)	$ (75,483)	$ -	$ (171,320)		$ (84,016)	$ (72,622)	$ -	$ (156,637)
5	$ (127,688,672)	$ -	$ -	$ -	$ (127,688,672)	$ (127,688,672)	$ (478,962)	$ -	$ -	$ (128,167,634)
6		$ (570,370)	$ (243,875)	$ 3,402,900	$ 2,588,656		$ (465,941)	$ (230,139)	$ 3,211,238	$ 2,515,159
7		$ (570,370)	$ (243,875)	$ 3,402,900	$ 2,588,656		$ (453,413)	$ (227,926)	$ 3,180,361	$ 2,499,022
8		$ (570,370)	$ (243,875)	$ 3,402,900	$ 2,588,656		$ (440,479)	$ (225,734)	$ 3,149,780	$ 2,483,567
9		$ (570,370)	$ (243,875)	$ 3,402,900	$ 2,588,656		$ (429,152)	$ (223,564)	$ 3,119,494	$ 2,466,778
10		$ (570,370)	$ (243,875)	$ 3,402,900	$ 2,588,656		$ (417,832)	$ (221,414)	$ 3,089,499	$ 2,450,253
11		$ (570,370)	$ (243,875)	$ 3,402,900	$ 2,588,656		$ (406,505)	$ (219,285)	$ 3,059,792	$ 2,434,002
12		$ (570,370)	$ (243,875)	$ 3,402,900	$ 2,588,656		$ (396,115)	$ (217,177)	$ 3,030,371	$ 2,417,079
13		$ (570,370)	$ (243,875)	$ 3,402,900	$ 2,588,656		$ (386,017)	$ (215,088)	$ 3,001,233	$ 2,400,128
14		$ (570,370)	$ (243,875)	$ 3,402,900	$ 2,588,656		$ (376,146)	$ (213,020)	$ 2,972,375	$ 2,383,208
15		$ (570,370)	$ (243,875)	$ 3,402,900	$ 2,588,656		$ (366,839)	$ (210,972)	$ 2,943,794	$ 2,365,983
16		$ (570,370)	$ (243,875)	$ 3,402,900	$ 2,588,656		$ (357,626)	$ (208,943)	$ 2,915,489	$ 2,348,919
17		$ (570,370)	$ (243,875)	$ 3,402,900	$ 2,588,656		$ (348,825)	$ (206,934)	$ 2,887,455	$ 2,331,695
18		$ (570,370)	$ (243,875)	$ 3,402,900	$ 2,588,656		$ (340,376)	$ (204,945)	$ 2,859,691	$ 2,314,371
19		$ (570,370)	$ (243,875)	$ 3,402,900	$ 2,588,656		$ (332,209)	$ (202,974)	$ 2,832,194	$ 2,297,011
20		$ (570,370)	$ (243,875)	$ 3,402,900	$ 2,588,656		$ (324,294)	$ (201,022)	$ 2,804,961	$ 2,279,645
21		$ (570,370)	$ (243,875)	$ 3,402,900	$ 2,588,656		$ (316,595)	$ (199,089)	$ 2,777,991	$ 2,262,306
22		$ (570,370)	$ (243,875)	$ 3,402,900	$ 2,588,656		$ (309,332)	$ (197,175)	$ 2,751,279	$ 2,244,772
23		$ (570,370)	$ (243,875)	$ 3,402,900	$ 2,588,656		$ (302,204)	$ (195,279)	$ 2,724,825	$ 2,227,341
24		$ (570,370)	$ (243,875)	$ 3,402,900	$ 2,588,656		$ (295,429)	$ (193,401)	$ 2,698,624	$ 2,209,794
25		$ (570,370)	$ (243,875)	$ 3,402,900	$ 2,588,656		$ (288,748)	$ (191,542)	$ 2,672,676	$ 2,192,386
26		$ (570,370)	$ (243,875)	$ 3,402,900	$ 2,588,656		$ (282,353)	$ (189,700)	$ 2,646,977	$ 2,174,924
27		$ (570,370)	$ (243,875)	$ 3,402,900	$ 2,588,656		$ (276,225)	$ (187,876)	$ 2,621,526	$ 2,157,425
28		$ (570,370)	$ (243,875)	$ 3,402,900	$ 2,588,656		$ (270,327)	$ (186,069)	$ 2,596,319	$ 2,139,922
29		$ (570,370)	$ (243,875)	$ 3,402,900	$ 2,588,656		$ (264,442)	$ (184,280)	$ 2,571,354	$ 2,122,632
30		$ (570,370)	$ (243,875)	$ 3,402,900	$ 2,588,656		$ (258,950)	$ (182,508)	$ 2,546,629	$ 2,105,171

Scenario	4	Adaptive Reuse as Office
Cost Option	High Cost	

CoSC Former City Hall
Exhibit A
Disaggregate Utilities Analysis

PURCHASED UTILITIES

Square Footage	113,430
Current Electrical Usage	$79,053
Current Water Usage	$16,783

ASHRAE 90.1 Baseline	Consumption		Uniform Rates		Annual Utility Cost	
Electric	2,443,602	kWh	0.23	kWh	$	559,584.86
Natural Gas	0	Therm	1.45	Therm	$	-
Potable Water	1,417,875	Gal	5.69	HCF*	$	10,784.96
Non-Potable Water	0	Gal	N/A	HCF*	$	-
Total						

*1 kbtu =	0.2931	kWh
* 1 Therm =	29.3001	kWh
* 1 HCF =	748.0520	Gal

Additional Notes

† Utility End-use intensity (Office) from US Energy Information Administration (EIA) Commercial Buildings Energy Consumption Survey (CBECS)
† Utility End-use intensity (Housing) from Energystar U.S. Energy Use Intensity by Property Type
† Electric rate assuming average rate for San Francisco area (taken from Bureau of Labor Statistics)
† Natural Gas Rate assuming average rate for San Francisco area (taken from Bureau of Labor Statistics)
† Potable water rate assuming Santa Clara County average
† Assuming standard utility rate escalations

Scenario: ASHRAE 90.1 Baseline

	Uniform Value					Present Value				
N	Electric	Nat. Gas	Potable Water	Non-Potable Water	Total	Electric	Nat. Gas	Potable Water	Non-Potable Water	Total
0	$ (79,053)	$ -	$ (16,783)	$ -	$ (95,837)	$ (79,053)	$ -	$ (16,783)	$ -	$ (95,837)
1	$ (79,053)	$ -	$ (16,783)	$ -	$ (95,837)	$ (74,310)	$ -	$ (16,783)	$ -	$ (91,093)
2	$ (79,053)	$ -	$ (16,783)	$ -	$ (95,837)	$ (72,334)	$ -	$ (16,280)	$ -	$ (88,613)
3	$ (79,053)	$ -	$ (16,783)	$ -	$ (95,837)	$ (70,094)	$ -	$ (16,028)	$ -	$ (86,122)
4	$ (79,053)	$ -	$ (16,783)	$ -	$ (95,837)	$ (68,183)	$ -	$ (15,832)	$ -	$ (84,016)
5	$ (559,585)	$ -	$ (10,785)	$ -	$ (570,370)	$ (468,932)	$ -	$ (10,030)	$ -	$ (478,962)
6	$ (559,585)	$ -	$ (10,785)	$ -	$ (570,370)	$ (456,062)	$ -	$ (9,879)	$ -	$ (465,941)
7	$ (559,585)	$ -	$ (10,785)	$ -	$ (570,370)	$ (443,671)	$ -	$ (9,742)	$ -	$ (453,413)
8	$ (559,585)	$ -	$ (10,785)	$ -	$ (570,370)	$ (430,880)	$ -	$ (9,599)	$ -	$ (440,479)
9	$ (559,585)	$ -	$ (10,785)	$ -	$ (570,370)	$ (419,689)	$ -	$ (9,464)	$ -	$ (429,152)
10	$ (559,585)	$ -	$ (10,785)	$ -	$ (570,370)	$ (408,497)	$ -	$ (9,335)	$ -	$ (417,832)
11	$ (559,585)	$ -	$ (10,785)	$ -	$ (570,370)	$ (397,305)	$ -	$ (9,200)	$ -	$ (406,505)
12	$ (559,585)	$ -	$ (10,785)	$ -	$ (570,370)	$ (387,046)	$ -	$ (9,069)	$ -	$ (396,115)
13	$ (559,585)	$ -	$ (10,785)	$ -	$ (570,370)	$ (377,074)	$ -	$ (8,943)	$ -	$ (386,017)
14	$ (559,585)	$ -	$ (10,785)	$ -	$ (570,370)	$ (367,327)	$ -	$ (8,819)	$ -	$ (376,146)
15	$ (559,585)	$ -	$ (10,785)	$ -	$ (570,370)	$ (358,134)	$ -	$ (8,705)	$ -	$ (366,839)
16	$ (559,585)	$ -	$ (10,785)	$ -	$ (570,370)	$ (349,041)	$ -	$ (8,585)	$ -	$ (357,626)
17	$ (559,585)	$ -	$ (10,785)	$ -	$ (570,370)	$ (340,359)	$ -	$ (8,466)	$ -	$ (348,825)
18	$ (559,585)	$ -	$ (10,785)	$ -	$ (570,370)	$ (332,020)	$ -	$ (8,355)	$ -	$ (340,376)
19	$ (559,585)	$ -	$ (10,785)	$ -	$ (570,370)	$ (323,970)	$ -	$ (8,239)	$ -	$ (332,209)
20	$ (559,585)	$ -	$ (10,785)	$ -	$ (570,370)	$ (316,165)	$ -	$ (8,128)	$ -	$ (324,294)
21	$ (559,585)	$ -	$ (10,785)	$ -	$ (570,370)	$ (308,571)	$ -	$ (8,024)	$ -	$ (316,595)
22	$ (559,585)	$ -	$ (10,785)	$ -	$ (570,370)	$ (301,413)	$ -	$ (7,919)	$ -	$ (309,332)
23	$ (559,585)	$ -	$ (10,785)	$ -	$ (570,370)	$ (294,390)	$ -	$ (7,814)	$ -	$ (302,204)
24	$ (559,585)	$ -	$ (10,785)	$ -	$ (570,370)	$ (287,720)	$ -	$ (7,709)	$ -	$ (295,429)
25	$ (559,585)	$ -	$ (10,785)	$ -	$ (570,370)	$ (281,135)	$ -	$ (7,612)	$ -	$ (288,748)
26	$ (559,585)	$ -	$ (10,785)	$ -	$ (570,370)	$ (274,842)	$ -	$ (7,511)	$ -	$ (282,353)
27	$ (559,585)	$ -	$ (10,785)	$ -	$ (570,370)	$ (268,808)	$ -	$ (7,417)	$ -	$ (276,225)
28	$ (559,585)	$ -	$ (10,785)	$ -	$ (570,370)	$ (263,005)	$ -	$ (7,322)	$ -	$ (270,327)
29	$ (559,585)	$ -	$ (10,785)	$ -	$ (570,370)	$ (257,216)	$ -	$ (7,226)	$ -	$ (264,442)
30	$ (559,585)	$ -	$ (10,785)	$ -	$ (570,370)	$ (251,813)	$ -	$ (7,137)	$ -	$ (258,950)

CoSC Former City Hall
Aggregate LCCA and TCO

Scenario	5	Comparison with Maximized Office
Cost Option	Low Cost	

Square Footage		480,000

Cost

Low Cost		
Former City Hall	$	-
New Development		$414,533,874
Sitework		$14,310,000
Total Low Cost	**$**	**428,843,874**

High Cost		
Option 5 - Increase office from 480,000/SF to 762,000		$277,020,000
		$0
		-
		-
Total High Cost	**$**	**705,863,874**

O&M (5 Years before Retrofitting)	$	75,483.42	
O&M (After Retrofit - Office)		2.15	per square foot
O&M (After Retrofit - Housing)		0.78	per square foot
	$	-	
Compounding Escalation Rate		3%	
Discount Rate		4%	

Class B Office Space Revenue ($2.5/SF per year @ 50% space lease)		
Lease/Rental Revenues per SF per Year	$	15
Square Feet		480,000
Annual Revenues	**$**	**7,200,000**

Additional Notes

† O&M: National Council of School Facilities "State of our Schools, 2016"
† Assumed uniform long-term escalation rate
† Assumed standard Federal Discount rate to account for time value of money

30-YEAR TOTAL COST OF OWNERSHIP (PRESENT VALUE) $ (316,563,148)

Aggregate Life-Cycle Cost Analysis and Total Cost of Ownership

	Uniform Value					Discounted to Present Value				
N	Construction	Utilities	O&M	Lease/Rental Revenue	Total	Construction	Utilities	O&M	Lease/Rental Revenue	Total
0	$ (428,843,874)	$ -	$ -	$ -	$ (428,843,874)	$ (428,843,874)	$ -	$ -	$ -	$ (428,843,874)
1		$ (2,413,625)	$ (1,032,000)	$ 7,200,000	$ 3,754,375		$ (2,271,546)	$ (1,022,077)	$ 7,130,769	$ 3,837,146
2		$ (2,413,625)	$ (1,032,000)	$ 7,200,000	$ 3,754,375		$ (2,210,977)	$ (1,012,249)	$ 7,062,204	$ 3,838,978
3		$ (2,413,625)	$ (1,032,000)	$ 7,200,000	$ 3,754,375		$ (2,143,200)	$ (1,002,516)	$ 6,994,298	$ 3,848,583
4		$ (2,413,625)	$ (1,032,000)	$ 7,200,000	$ 3,754,375		$ (2,085,441)	$ (992,877)	$ 6,927,045	$ 3,848,728
5		$ (2,413,625)	$ (1,032,000)	$ 7,200,000	$ 3,754,375		$ (2,026,817)	$ (983,330)	$ 6,860,439	$ 3,850,293
6		$ (2,413,625)	$ (1,032,000)	$ 7,200,000	$ 3,754,375		$ (1,971,714)	$ (973,875)	$ 6,794,473	$ 3,848,885
7		$ (2,413,625)	$ (1,032,000)	$ 7,200,000	$ 3,754,375		$ (1,918,702)	$ (964,510)	$ 6,729,142	$ 3,845,930
8		$ (2,413,625)	$ (1,032,000)	$ 7,200,000	$ 3,754,375		$ (1,863,968)	$ (955,236)	$ 6,664,439	$ 3,845,234
9		$ (2,413,625)	$ (1,032,000)	$ 7,200,000	$ 3,754,375		$ (1,816,038)	$ (946,051)	$ 6,600,358	$ 3,838,268
10		$ (2,413,625)	$ (1,032,000)	$ 7,200,000	$ 3,754,375		$ (1,768,133)	$ (936,955)	$ 6,536,893	$ 3,831,805
11		$ (2,413,625)	$ (1,032,000)	$ 7,200,000	$ 3,754,375		$ (1,720,200)	$ (927,945)	$ 6,474,038	$ 3,825,892
12		$ (2,413,625)	$ (1,032,000)	$ 7,200,000	$ 3,754,375		$ (1,676,235)	$ (919,023)	$ 6,411,788	$ 3,816,529
13		$ (2,413,625)	$ (1,032,000)	$ 7,200,000	$ 3,754,375		$ (1,633,501)	$ (910,186)	$ 6,350,136	$ 3,806,449
14		$ (2,413,625)	$ (1,032,000)	$ 7,200,000	$ 3,754,375		$ (1,591,732)	$ (901,434)	$ 6,289,077	$ 3,795,910
15		$ (2,413,625)	$ (1,032,000)	$ 7,200,000	$ 3,754,375		$ (1,552,348)	$ (892,767)	$ 6,228,605	$ 3,783,490
16		$ (2,413,625)	$ (1,032,000)	$ 7,200,000	$ 3,754,375		$ (1,513,360)	$ (884,182)	$ 6,168,714	$ 3,771,172
17		$ (2,413,625)	$ (1,032,000)	$ 7,200,000	$ 3,754,375		$ (1,476,119)	$ (875,681)	$ 6,109,400	$ 3,757,600
18		$ (2,413,625)	$ (1,032,000)	$ 7,200,000	$ 3,754,375		$ (1,440,362)	$ (867,261)	$ 6,050,656	$ 3,743,033
19		$ (2,413,625)	$ (1,032,000)	$ 7,200,000	$ 3,754,375		$ (1,405,802)	$ (858,922)	$ 5,992,476	$ 3,727,752
20		$ (2,413,625)	$ (1,032,000)	$ 7,200,000	$ 3,754,375		$ (1,372,310)	$ (850,663)	$ 5,934,856	$ 3,711,884
21		$ (2,413,625)	$ (1,032,000)	$ 7,200,000	$ 3,754,375		$ (1,339,731)	$ (842,483)	$ 5,877,790	$ 3,695,576
22		$ (2,413,625)	$ (1,032,000)	$ 7,200,000	$ 3,754,375		$ (1,308,995)	$ (834,382)	$ 5,821,273	$ 3,677,895
23		$ (2,413,625)	$ (1,032,000)	$ 7,200,000	$ 3,754,375		$ (1,278,834)	$ (826,360)	$ 5,765,299	$ 3,660,106
24		$ (2,413,625)	$ (1,032,000)	$ 7,200,000	$ 3,754,375		$ (1,250,161)	$ (818,414)	$ 5,709,864	$ 3,641,288
25		$ (2,413,625)	$ (1,032,000)	$ 7,200,000	$ 3,754,375		$ (1,221,890)	$ (810,544)	$ 5,654,961	$ 3,622,527
26		$ (2,413,625)	$ (1,032,000)	$ 7,200,000	$ 3,754,375		$ (1,194,828)	$ (802,751)	$ 5,600,587	$ 3,603,007
27		$ (2,413,625)	$ (1,032,000)	$ 7,200,000	$ 3,754,375		$ (1,168,896)	$ (795,032)	$ 5,546,735	$ 3,582,807
28		$ (2,413,625)	$ (1,032,000)	$ 7,200,000	$ 3,754,375		$ (1,143,937)	$ (787,387)	$ 5,493,401	$ 3,562,076
29		$ (2,413,625)	$ (1,032,000)	$ 7,200,000	$ 3,754,375		$ (1,119,035)	$ (779,816)	$ 5,440,580	$ 3,541,728
30		$ (2,413,625)	$ (1,032,000)	$ 7,200,000	$ 3,754,375		$ (1,095,794)	$ (772,318)	$ 5,388,266	$ 3,520,154

Scenario	5	Comparison with Maximized Office
Cost Option	Low Cost	

CoSC Former City Hall
Exhibit A
Disaggregate Utilities Analysis

PURCHASED UTILITIES

Square Footage	480,000
Current Electrical Usage	$79,053
Current Water Usage	$16,783

ASHRAE 90.1 Baseline	Consumption		Uniform Rates		Annual Utility Cost
Electric	10,340,553	kWh	0.23	kWh	$ 2,367,986.73
Natural Gas	0	Therm	1.45	Therm	$ -
Potable Water	6,000,000	Gal	5.69	HCF*	$ 45,638.54
Non-Potable Water	0	Gal	N/A	HCF*	$ -
Total					

*1 kbtu =	0.2931	kWh
* 1 Therm =	29.3001	kWh
* 1 HCF =	748.0520	Gal

Additional Notes

† Utility End-use intensity (Office) from US Energy Information Administration (EIA) Commercial Buildings Energy Consumption Survey (CBECS)
† Utility End-use intensity (Housing) from Energystar U.S. Energy Use Intensity by Property Type
† Electric rate assuming average rate for San Francisco area (taken from Bureau of Labor Statistics)
† Natural Gas Rate assuming average rate for San Francisco area (taken from Bureau of Labor Statistics)
† Potable water rate assuming Santa Clara County average
† Assuming standard utility rate escalations

Scenario: ASHRAE 90.1 Baseline

	Uniform Value					Present Value				
N	Electric	Nat. Gas	Potable Water	Non-Potable Water	Total	Electric	Nat. Gas	Potable Water	Non-Potable Water	Total
0	$ (2,367,987)	$ -	$ (45,639)	$ -	$ (2,413,625)	$ (2,367,987)	$ -	$ (45,639)	$ -	$ (2,413,625)
1	$ (2,367,987)	$ -	$ (45,639)	$ -	$ (2,413,625)	$ (2,225,908)	$ -	$ (45,639)	$ -	$ (2,271,546)
2	$ (2,367,987)	$ -	$ (45,639)	$ -	$ (2,413,625)	$ (2,166,708)	$ -	$ (44,269)	$ -	$ (2,210,977)
3	$ (2,367,987)	$ -	$ (45,639)	$ -	$ (2,413,625)	$ (2,099,615)	$ -	$ (43,585)	$ -	$ (2,143,200)
4	$ (2,367,987)	$ -	$ (45,639)	$ -	$ (2,413,625)	$ (2,042,389)	$ -	$ (43,052)	$ -	$ (2,085,441)
5	$ (2,367,987)	$ -	$ (45,639)	$ -	$ (2,413,625)	$ (1,984,373)	$ -	$ (42,444)	$ -	$ (2,026,817)
6	$ (2,367,987)	$ -	$ (45,639)	$ -	$ (2,413,625)	$ (1,929,909)	$ -	$ (41,805)	$ -	$ (1,971,714)
7	$ (2,367,987)	$ -	$ (45,639)	$ -	$ (2,413,625)	$ (1,877,475)	$ -	$ (41,227)	$ -	$ (1,918,702)
8	$ (2,367,987)	$ -	$ (45,639)	$ -	$ (2,413,625)	$ (1,823,350)	$ -	$ (40,618)	$ -	$ (1,863,968)
9	$ (2,367,987)	$ -	$ (45,639)	$ -	$ (2,413,625)	$ (1,775,990)	$ -	$ (40,048)	$ -	$ (1,816,038)
10	$ (2,367,987)	$ -	$ (45,639)	$ -	$ (2,413,625)	$ (1,728,630)	$ -	$ (39,503)	$ -	$ (1,768,133)
11	$ (2,367,987)	$ -	$ (45,639)	$ -	$ (2,413,625)	$ (1,681,271)	$ -	$ (38,930)	$ -	$ (1,720,200)
12	$ (2,367,987)	$ -	$ (45,639)	$ -	$ (2,413,625)	$ (1,637,857)	$ -	$ (38,378)	$ -	$ (1,676,235)
13	$ (2,367,987)	$ -	$ (45,639)	$ -	$ (2,413,625)	$ (1,595,659)	$ -	$ (37,842)	$ -	$ (1,633,501)
14	$ (2,367,987)	$ -	$ (45,639)	$ -	$ (2,413,625)	$ (1,554,414)	$ -	$ (37,318)	$ -	$ (1,591,732)
15	$ (2,367,987)	$ -	$ (45,639)	$ -	$ (2,413,625)	$ (1,515,512)	$ -	$ (36,837)	$ -	$ (1,552,348)
16	$ (2,367,987)	$ -	$ (45,639)	$ -	$ (2,413,625)	$ (1,477,032)	$ -	$ (36,328)	$ -	$ (1,513,360)
17	$ (2,367,987)	$ -	$ (45,639)	$ -	$ (2,413,625)	$ (1,440,293)	$ -	$ (35,826)	$ -	$ (1,476,119)
18	$ (2,367,987)	$ -	$ (45,639)	$ -	$ (2,413,625)	$ (1,405,005)	$ -	$ (35,356)	$ -	$ (1,440,362)
19	$ (2,367,987)	$ -	$ (45,639)	$ -	$ (2,413,625)	$ (1,370,940)	$ -	$ (34,863)	$ -	$ (1,405,802)
20	$ (2,367,987)	$ -	$ (45,639)	$ -	$ (2,413,625)	$ (1,337,913)	$ -	$ (34,397)	$ -	$ (1,372,310)
21	$ (2,367,987)	$ -	$ (45,639)	$ -	$ (2,413,625)	$ (1,305,776)	$ -	$ (33,955)	$ -	$ (1,339,731)
22	$ (2,367,987)	$ -	$ (45,639)	$ -	$ (2,413,625)	$ (1,275,484)	$ -	$ (33,512)	$ -	$ (1,308,995)
23	$ (2,367,987)	$ -	$ (45,639)	$ -	$ (2,413,625)	$ (1,245,767)	$ -	$ (33,067)	$ -	$ (1,278,834)
24	$ (2,367,987)	$ -	$ (45,639)	$ -	$ (2,413,625)	$ (1,217,540)	$ -	$ (32,622)	$ -	$ (1,250,161)
25	$ (2,367,987)	$ -	$ (45,639)	$ -	$ (2,413,625)	$ (1,189,677)	$ -	$ (32,213)	$ -	$ (1,221,890)
26	$ (2,367,987)	$ -	$ (45,639)	$ -	$ (2,413,625)	$ (1,163,046)	$ -	$ (31,783)	$ -	$ (1,194,828)
27	$ (2,367,987)	$ -	$ (45,639)	$ -	$ (2,413,625)	$ (1,137,511)	$ -	$ (31,385)	$ -	$ (1,168,896)
28	$ (2,367,987)	$ -	$ (45,639)	$ -	$ (2,413,625)	$ (1,112,954)	$ -	$ (30,983)	$ -	$ (1,143,937)
29	$ (2,367,987)	$ -	$ (45,639)	$ -	$ (2,413,625)	$ (1,088,457)	$ -	$ (30,578)	$ -	$ (1,119,035)
30	$ (2,367,987)	$ -	$ (45,639)	$ -	$ (2,413,625)	$ (1,065,594)	$ -	$ (30,200)	$ -	$ (1,095,794)

CoSC Former City Hall
Aggregate LCCA and TCO

Scenario	5	Comparison with Maximized Office
Cost Option	High Cost	

Square Footage	762,000

Cost

Low Cost		
Former City Hall	$	-
New Development		$414,533,874
Sitework		$14,310,000
Total Low Cost	**$**	**428,843,874**

High Cost		
Option 5 - Increase office from 480,000/SF to 762,000		$277,020,000
		$0
		-
		-
Total High Cost	**$**	**705,863,874**

O&M (5 Years before Retrofitting)	$	75,483.42	
O&M (After Retrofit - Office)		2.15	per square foot
O&M (After Retrofit - Housing)		0.78	per square foot
	$	-	
Compounding Escalation Rate		3%	
Discount Rate		4%	

Class A Office Space Revenue ($5/SF per year @ 50% space lease)		
Lease/Rental Revenues per SF per Year	$	30
Square Feet		762,000
Annual Revenues	**$**	**22,860,000**

Additional Notes

† O&M: National Council of School Facilities "State of our Schools, 2016"

† Assumed uniform long-term escalation rate

† Assumed standard Federal Discount rate to account for time value of money

30-YEAR TOTAL COST OF OWNERSHIP (PRESENT VALUE) $ (231,377,129)

Aggregate Life-Cycle Cost Analysis and Total Cost of Ownership

	Uniform Value					Discounted to Present Value				
N	Construction	Utilities	O&M	Lease/Rental Revenue	Total	Construction	Utilities	O&M	Lease/Rental Revenue	Total
0	$ (705,863,874)	$ -	$ -	$ -	$ (705,863,874)	$ (705,863,874)	$ -	$ -	$ -	$ (705,863,874)
1		$ (3,831,630)	$ (1,638,300)	$ 22,860,000	$ 17,390,070		$ (3,606,079)	$ (1,622,547)	$ 22,640,192	$ 17,411,566
2		$ (3,831,630)	$ (1,638,300)	$ 22,860,000	$ 17,390,070		$ (3,509,926)	$ (1,606,946)	$ 22,422,498	$ 17,305,626
3		$ (3,831,630)	$ (1,638,300)	$ 22,860,000	$ 17,390,070		$ (3,402,330)	$ (1,591,494)	$ 22,206,897	$ 17,213,073
4		$ (3,831,630)	$ (1,638,300)	$ 22,860,000	$ 17,390,070		$ (3,310,637)	$ (1,576,191)	$ 21,993,369	$ 17,106,540
5		$ (3,831,630)	$ (1,638,300)	$ 22,860,000	$ 17,390,070		$ (3,217,572)	$ (1,561,036)	$ 21,781,895	$ 17,003,287
6		$ (3,831,630)	$ (1,638,300)	$ 22,860,000	$ 17,390,070		$ (3,130,096)	$ (1,546,026)	$ 21,572,453	$ 16,896,331
7		$ (3,831,630)	$ (1,638,300)	$ 22,860,000	$ 17,390,070		$ (3,045,939)	$ (1,531,160)	$ 21,365,026	$ 16,787,926
8		$ (3,831,630)	$ (1,638,300)	$ 22,860,000	$ 17,390,070		$ (2,959,049)	$ (1,516,437)	$ 21,159,593	$ 16,684,106
9		$ (3,831,630)	$ (1,638,300)	$ 22,860,000	$ 17,390,070		$ (2,882,960)	$ (1,501,856)	$ 20,956,135	$ 16,571,319
10		$ (3,831,630)	$ (1,638,300)	$ 22,860,000	$ 17,390,070		$ (2,806,911)	$ (1,487,415)	$ 20,754,634	$ 16,460,307
11		$ (3,831,630)	$ (1,638,300)	$ 22,860,000	$ 17,390,070		$ (2,730,818)	$ (1,473,113)	$ 20,555,070	$ 16,351,139
12		$ (3,831,630)	$ (1,638,300)	$ 22,860,000	$ 17,390,070		$ (2,661,024)	$ (1,458,949)	$ 20,357,425	$ 16,237,453
13		$ (3,831,630)	$ (1,638,300)	$ 22,860,000	$ 17,390,070		$ (2,593,182)	$ (1,444,920)	$ 20,161,681	$ 16,123,578
14		$ (3,831,630)	$ (1,638,300)	$ 22,860,000	$ 17,390,070		$ (2,526,875)	$ (1,431,027)	$ 19,967,819	$ 16,009,916
15		$ (3,831,630)	$ (1,638,300)	$ 22,860,000	$ 17,390,070		$ (2,464,353)	$ (1,417,267)	$ 19,775,820	$ 15,894,200
16		$ (3,831,630)	$ (1,638,300)	$ 22,860,000	$ 17,390,070		$ (2,402,459)	$ (1,403,640)	$ 19,585,668	$ 15,779,570
17		$ (3,831,630)	$ (1,638,300)	$ 22,860,000	$ 17,390,070		$ (2,343,339)	$ (1,390,143)	$ 19,397,344	$ 15,663,862
18		$ (3,831,630)	$ (1,638,300)	$ 22,860,000	$ 17,390,070		$ (2,286,575)	$ (1,376,776)	$ 19,210,832	$ 15,547,481
19		$ (3,831,630)	$ (1,638,300)	$ 22,860,000	$ 17,390,070		$ (2,231,711)	$ (1,363,538)	$ 19,026,112	$ 15,430,863
20		$ (3,831,630)	$ (1,638,300)	$ 22,860,000	$ 17,390,070		$ (2,178,541)	$ (1,350,427)	$ 18,843,169	$ 15,314,200
21		$ (3,831,630)	$ (1,638,300)	$ 22,860,000	$ 17,390,070		$ (2,126,822)	$ (1,337,442)	$ 18,661,984	$ 15,197,720
22		$ (3,831,630)	$ (1,638,300)	$ 22,860,000	$ 17,390,070		$ (2,078,030)	$ (1,324,582)	$ 18,482,542	$ 15,079,930
23		$ (3,831,630)	$ (1,638,300)	$ 22,860,000	$ 17,390,070		$ (2,030,149)	$ (1,311,846)	$ 18,304,825	$ 14,962,830
24		$ (3,831,630)	$ (1,638,300)	$ 22,860,000	$ 17,390,070		$ (1,984,631)	$ (1,299,232)	$ 18,128,817	$ 14,844,954
25		$ (3,831,630)	$ (1,638,300)	$ 22,860,000	$ 17,390,070		$ (1,939,750)	$ (1,286,739)	$ 17,954,502	$ 14,728,013
26		$ (3,831,630)	$ (1,638,300)	$ 22,860,000	$ 17,390,070		$ (1,896,790)	$ (1,274,367)	$ 17,781,862	$ 14,610,705
27		$ (3,831,630)	$ (1,638,300)	$ 22,860,000	$ 17,390,070		$ (1,855,622)	$ (1,262,113)	$ 17,610,883	$ 14,493,147
28		$ (3,831,630)	$ (1,638,300)	$ 22,860,000	$ 17,390,070		$ (1,816,000)	$ (1,249,978)	$ 17,441,548	$ 14,375,570
29		$ (3,831,630)	$ (1,638,300)	$ 22,860,000	$ 17,390,070		$ (1,776,468)	$ (1,237,959)	$ 17,273,840	$ 14,259,414
30		$ (3,831,630)	$ (1,638,300)	$ 22,860,000	$ 17,390,070		$ (1,739,573)	$ (1,226,055)	$ 17,107,746	$ 14,142,117