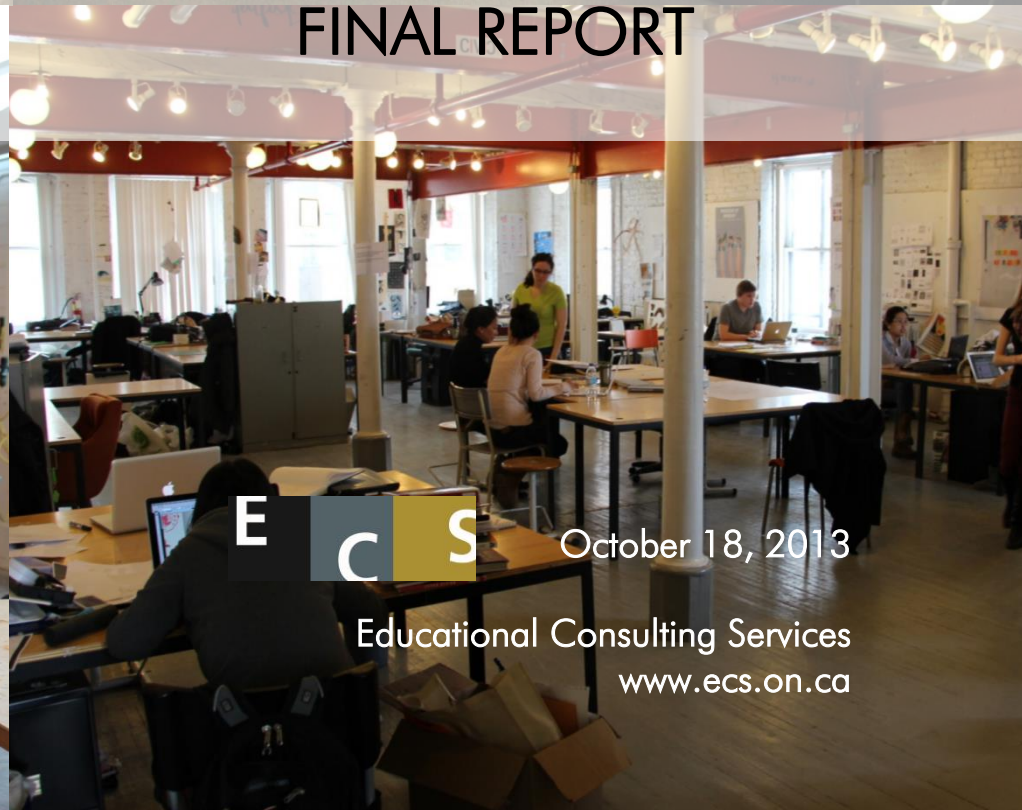
NSCAD University
Space Utilization Study

Planning Scenarios
FINAL REPORT



October 18, 2013

Educational Consulting Services
www.ecs.on.ca

Final Report Executive Summary

Study Purpose

This Space Utilization Study has been commissioned by NSCAD University to analyze existing space use across the three campuses, assess space requirements for existing academic programs and services, and develop campus planning options that will contribute to improved program and service delivery and a positive fiscal outlook for the institution.

Activity and Space Analysis

Major findings from the examination of current space utilization, capacity, condition, and suitability at the three NSCAD campuses are:

- NSCAD's space needs are driven by its studio-based education model. Any change to program delivery modes can have a significant impact on space requirements.
- NSCAD currently occupies approximately 15,000 m^2 (162,000 sf) of assignable space and leases 1,700 m^2 (18,000 sf) of space to other tenants. In total, NSCAD operates approximately 24,000 m^2 (257,000 sf) of gross space across three campuses.
- Average enrolment in NSCAD courses is approx. 79% of stated course capacities.
- Fit to function assessment characterized NSCAD's three campuses as follows:

Granville Campus	Port Campus	Academy Campus
Unfit for function: 'Heroic' effort required to upgrade building to a modern standard.	Fit for function: Building well suited for wide range of studio based activities.	Fit for Function: Building well suited for current uses.

Functional Space Program (FSP)

ECS developed a 'greenfield' Functional Space Program that describes NSCAD's accommodation needs to support academic and support activities without reference to capacity or condition of existing university space. Several planning assumptions underlie the FSP:

- All current NSCAD programs are included
- Teaching is studio-based with section sizes typically 20 or less
- Dedicated studio work space is generally provided to students in 3rd year+
- Space levels comparable to other independent art education institutions in Canada
- Program focus and equipment inventory remains constant
- Facilities not included in the Functional Space Program follow current practise (e.g. no student housing, sports & recreation, limited food services, out-sourced health service)

Presented below are summary tables of the space allocations made in the functional space program:

Unit	Assignable Area (sm)	Assignable Area (sf)
Common Instructional Space	930	10,007
Foundation Program	768	8,264
Craft	2,548	27,416
Design	658	7,080
Fine Art	1,891	20,347
Media Arts	1,462	15,731
Historical & Critical Studies	129	1,388
Graduate Studies	211	2,270
Research & Creative Practice	200	2,152
Fabrication Studios	705	7,586
Galleries	375	4,035
Learning Support	381	4,100
Multimedia Services	425	4,573
Extended Studies	105	1,130
Design Print Services	165	1,775
Admin & Other Service Units	1,400	15,064
Total	*12,353*	*132,918*

Introduction to the Planning Scenarios

Eight planning scenarios are presented that describe the future deployment of NSCAD space. The planning scenarios below do not represent the full range of available options. There are different combinations thereof as well as alternate options. The purpose of the planning scenarios is to get a sense of some of the alternatives and the associated costs.

The scenarios are based on the assumption that the current portfolio of academic programs at NSCAD will be maintained without significant change to teaching practise. Not all scenarios deliver accommodation of comparable quality or necessarily address all facility-related issues that confront NSCAD.

The intention is to present a range of possible futures for NSCAD that consider:

- Reducing the current footprint to release space for income producing uses or divestment;
- Consolidating activities on fewer campuses; and
- Addressing facility quality issues from a long-term perspective.

The scenarios are divided into four groups:

'A' Scenarios	**Continued occupancy of the Granville campus** with a focus on optimizing and intensifying use of the available space in all campuses, without construction or lease of new space
'B' and 'C' Scenarios	**Sale of the Granville campus** and new construction or lease of additional space to accommodate displaced Granville activities
'D' Scenario	**Disposal of all owned properties and termination of leased space**, replaced with construction of a new facility on a new site to accommodate all program requirements

As a baseline to compare the scenarios against, NSCAD's **current** space is presented in the table below. These gross floor areas are estimates which depend on the completeness and accuracy of floor plans. No comprehensive inventory data exists for these buildings; the figures below were generated from multiple inputs, including the available drawings, lease agreements, and building space inventories.

Current Space Inventory

Campus	Category	Building (sm)		Total Area (sm)	Total Area (sf)
Academy		Academy	Annex		
	Assignable Space	1,362.8		1,362.8	14,664
	Leased Space	73.2	464.5	537.7	5,786
	Non-Assignable Space	739.3	373.2	1,112.5	11,972
Sub-Total		*2,175.3*	*837.7*	*3,013.0*	*32,420*
Granville					
	Assignable Space			8,420.0	90,599
	Leased Space			1,150.5	12,379
	Non-Assignable Space			4,370.0	47,022
Sub-Total				*13,940.5*	*150,000*
Port		Port	IAC		
	Assignable Space	4,800.0	486.0	5,286.0	56,877
	Non-Assignable Space	1,627.0		1,627.0	17,507
Sub-Total		*6,502.8*	*486.0*	*6,913.0*	*74,384*
Total Assignable Space				15,068.8	162,140
Total Leased Space				1,688.2	18,165
Total Gross Space				23,866.5	256,804

Interpreting the Planning Scenario Tables

Each planning scenario is described in the first column of the table and is also depicted in the accompanying diagram.

Assignable Area is the space that NSCAD uses for teaching, research, services, ancillary and administrative activities. It includes academic studios, labs, classrooms, learning support and social spaces, as well as office and administrative space.

Leased Space are the spaces leased to external tenants.

Non-Assignable Area includes mechanical, line safety and electrical spaces, washrooms, corridors, custodial spaces, stairwells, elevators and hallways.

Total Gross Area includes the combination of Assignable Area, Leased Space, and Non-Assignable Area. It is measured to the exterior of the perimeter walls and includes areas occupied by structural elements, partition walls, and other fixed building elements.

For planning new academic buildings, the ratio of **Assignable Area** to **Non Assignable Area** of 60:40 is commonly used. The actual ratio achieved in completed projects depends on the building design, site configuration and constraints, number of storeys among other factors.

Capital Cost includes the cost of building, renovating and retrofitting the spaces as outlined in each respective scenario. It also includes the costs of deferred maintenance and land costs where applicable.

Net Cost represents the Capital Cost less the proceeds of the sale of a building and/or the net proceeds from exiting the prepaid lease, net of the amounts to pay down the debt on sold properties. It also incorporates the present value of rental revenues lost and the present value of savings in the facility operating costs.

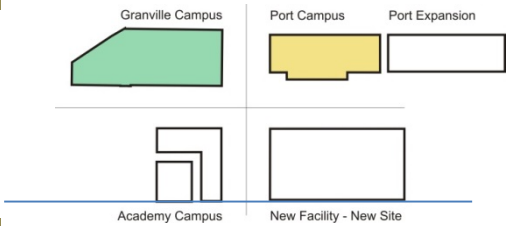
Impact on annual Operating Budget* represents the total additional cost over and above NSCAD's current operating budget associated with moving forward with the respective planning scenarios. It incorporates the present value of rental revenues lost and the present value of savings in the operating costs as well as the increased costs of debt financing over current levels. It assumes NSCAD's current revenue streams (tuitions and grants) will remain steady.

Planning Scenarios & Financial Analysis

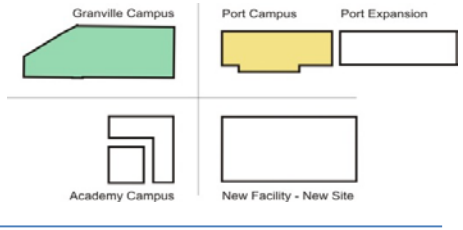
The following tables summarize the scenarios that describe possible deployments of future NSCAD space, based on the FSP and its underlying assumptions. Not all scenarios deliver accommodation of comparable quality or necessarily address all facility-related issues that confront NSCAD.

Scenarios 'A' – Keep Granville

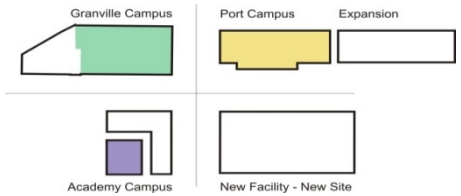
Scenario A1	Areas (sf)		Financial Analysis	
- Keep Granville - Keep Port (intensify use) - Sell Academy (relocate activities to Port & Granville)	Assignable Area	144,399	Capital Cost	$20,760,000
	Leased Space	10,222	Net Cost	$15,171,000
	Total Gross Area	219,155	Impact on Annual Operating Budget*	$1,660,000



Scenario A1 - Alternate	Areas (sf)		Financial Analysis	
- Keep Granville (full reconstruction) - Keep Port (intensify use) - Sell Academy (relocate activities to Port & Granville)	Assignable Area	144,399	Capital Cost	$42,617,000
	Leased Space	10,222	Net Cost	$37,028,000
	Total Gross Area	219,149	Impact on Annual Operating Budget*	$3,539,000



Scenario A2	Areas (sf)		Financial Analysis	
- Keep Granville (North bldg. vacated for sale/lease) - Keep Port (intensify use) - Keep Academy	Assignable Area	144,830	Capital Cost	$26,313,000
	Leased Space	30,881	Net Cost	$24,003,000
	Total Gross Area	252,221	Impact on Annual Operating Budget*	$1,928,000



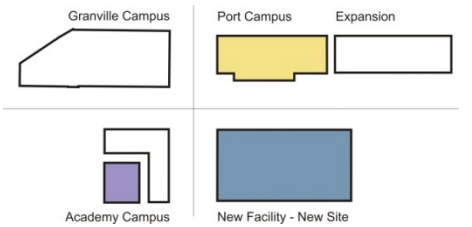
- See definition on page ES-5

Scenario A2 proposes that NSCAD move the programs currently in the North Block of Granville to a) space in Granville currently leased to tenants, and b) Port Campus space.

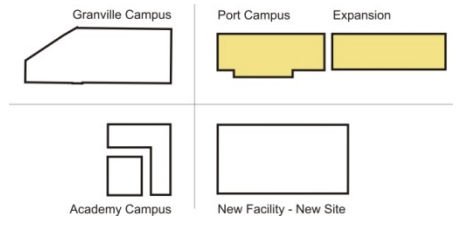
Excepting Scenario A1-Alt, these scenarios do not solve the long-term problems inherent in the Granville Campus buildings. Current liabilities will remain, and opportunities for program and space renewal are restricted. Scenario A1-Alt involves significant implementation issues regarding temporary accommodation while Granville is rebuilt – a cost not included in the financial analysis.

Scenarios 'B' – Port Focus

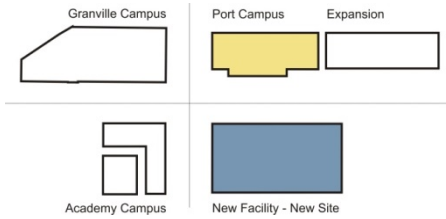
Scenario B1	Areas (sf)		Financial Analysis	
- Sell Granville - Keep Port (intensify use) - Keep Academy - Build new facility on new site (64,600 nasf)	Assignable Area	131,649	Capital Cost	$41,986,000
	Leased Space	5,649	Net Cost	$31,096,000
	Total Gross Area	211,972	Impact on Annual Operating Budget*	$1,964,000



Scenario B2	Areas (sf)		Financial Analysis	
- Sell Granville - Keep Port (intensify use) - Lease additional space at Port Campus (80,200 nasf) - Sell Academy	Assignable Area	131,810	Capital Cost	$27,963,000
	Leased Space	0	Net Cost	$10,287,000
	Total Gross Area	176,755	Impact on Annual Operating Budget*	-$837,000



Scenario B3	Areas (sf)		Financial Analysis	
- Sell Granville - Keep Port (intensify use) - Sell Academy - Build new facility at Dal/SMU (80,200 nasf)	Assignable Area	131,810	Capital Cost	$42,578,000
	Leased Space	0	Net Cost	$26,275,000
	Total Gross Area	189,398	Impact on Annual Operating Budget*	$1,532,000



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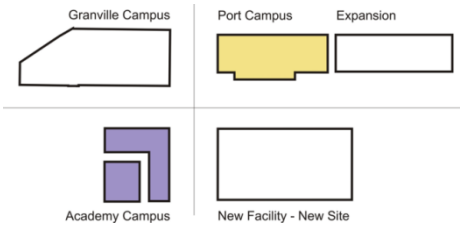
Selling the Granville campus removes NSCAD's major long-term liability. A new facility will provide opportunities for program renewal. Fewer campuses (Scenarios B2 and B3) may provide operational efficiencies and encourage interdisciplinary collaboration. There may be legal issues with selling Academy that will have to be addressed.

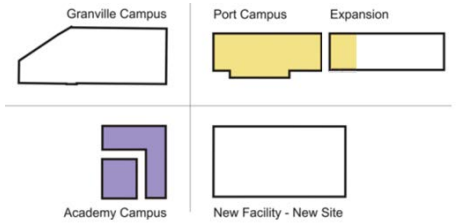
Scenario B2 rests on the unconfirmed assumption that additional space at Port Campus could be leased. From a long-term perspective, NSCAD would not own any space and would face risks relative to lease renewal or extension or the cost of acquiring and financing alternative accommodation.

Scenarios 'C' – Academy Focus

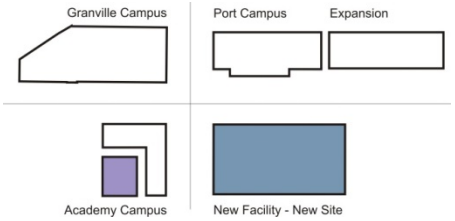
Scenario C1	Areas (sf)		Financial Analysis	
- Sell Granville - Keep Port (intensify use) - Keep Academy (demolish Annex) - Build new facility on Academy site (64,990 nasf)	Assignable Area	110,129	Capital Cost	$21,266,000
	Leased Space	0	Net Cost	$5,377,000
	Total Gross Area	157,548	Impact on Annual Operating Budget*	$354,000



Scenario C1 - Alternate	Areas (sf)		Financial Analysis	
- Sell Granville - Keep Port (lease additional space at Port – 32,440 sf) - Keep Academy (demolish Annex) - Build new facility on Academy site (64,990 nasf)	Assignable Area	131,810	Capital Cost	$28,166,300
	Leased Space	0	Net Cost	$15,801,000
	Total Gross Area	189,989	Impact on Annual Operating Budget*	$1,082,000



Scenario C2	Areas (sf)		Financial Analysis	
- Sell Granville - Sell Port - Keep Academy (w/ Annex) - Build new facility at Dal/SMU (117,400 nasf)	Assignable Area	132,886	Capital Cost	$57,857,000
	Leased Space	5,649	Net Cost	$53,795,000
	Total Gross Area	209,239	Impact on Annual Operating Budget*	$1,749,000



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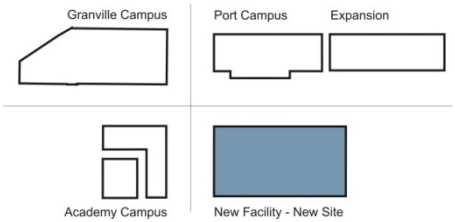
Because of building height limitations at the Academy site, Scenario C1 assumes that some existing program offerings will be eliminated. Scenario C1-Alt rest on the unconfirmed assumption that additional space at Port Campus could be leased. Vacating Port Campus (C2) involves the loss of high-quality facilities that would be expensive to replicate elsewhere.

A new facility will provide opportunities for program renewal. Selling the Granville campus removes NSCAD's major long-term liability.

Scenario 'D1' – Consolidated New Facility

Scenario D1	Areas (sf)		Financial Analysis	
- Sell Granville - Sell Port - Sell Academy - Build new facility (132,886 sf)	Assignable Area	132,886	Capital Cost	$61,151,000
	Leased Space	0	Net Cost	$53,052,000
	Total Gross Area	199,329	Impact on Annual Operating Budget*	$2,134,000



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Consolidating NSCAD activities at a single campus creates the best opportunity for program renewal and interdisciplinary collaboration, as well as maximizing the potential to achieve operational efficiencies.

Co-location & Affiliation

Possibilities for co-location and/or affiliation with other local universities were assessed with respect to achieving operational cost savings and encouraging academic collaboration. This Study concludes that:

- Co-location at another university is not a prerequisite to academic collaboration.
- Co-location at Saint Mary's University is a less feasible option for NSCAD to pursue, due to limited future development capacity at the SMU campus.
- Co-location in a new facility at Dalhousie's Sexton Campus would be negotiated on a "commercial basis" with Dalhousie or a private developer. This would involve a long-term lease of roughly 20-25 years (preferably with Dalhousie), not NSCAD ownership. Operational cost savings are not expected.

Other Locations

Other potential peninsular sites for a new NSCAD facility were considered in consultation with Cushman & Wakefield. Prior to specific properties being listed for sale, site costs used in the scenarios are high-level estimates. A market based process (RFP, etc.) is recommended to validate the costing of preferred alternatives prior to selecting the ultimate path forward for NSCAD.

Next Steps

The Study sets out scenarios for the future deployment of facilities to address the long-term infrastructure and financial challenges faced by NSCAD. Because the financial analysis is built upon very broad assumptions, it can only be relied upon to set general direction, consider broad financial implications, and prioritize options. Identifying and recommending a single most advantageous scenario is not possible at this time for a number of reasons:

- A long-range strategic vision for NSCAD is not in place
- An affiliation strategy has yet to be finalized
- The variability of assessment assumptions

To support decision-making, NSCAD management should address the following tasks:

- Identify long-range academic and institutional direction
- Assess the results of the affiliation feasibility study
- Gauge capital financing options
- Develop a planning scenario short-list

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Appendices

Section 1: Introduction

Study Purpose

This Space Utilization Study has been commissioned by NSCAD University to analyze existing space use across the three campuses, assess space requirements for existing academic programs and services, and develop campus planning options that will contribute to improved program and service delivery and a positive fiscal outlook for the institution.

Study Tasks

The Study scope falls into two main sets of tasks.

1 - Activity and Space Analysis – Functional Space Program

- Review current and future program plans and enrolments
- Assess existing space for fit-to-function, utilization, allocations and facility condition
- Assess enrolment capacity of existing facilities
- Analyze space requirements

Report #1 provides an assessment of current space utilization at the three campuses and the condition and capacity of existing space. Based on consultations with each of the academic and service units a Functional Space Program (FSP) was developed that provides an assessment of the optimum space required to accommodate existing program offerings based on a projected enrolment of 1,118 in 2017/18. The Report provides a comparison of space requirements generated to the existing inventory and identifies surpluses and shortfalls. An updated FSP is presented in this report.

2 – Campus Planning Scenarios

- Based on the existing campus configuration, develop planning scenarios to accommodate current activities and projected needs in existing space and for each, identify what space could be removed from the inventory and potential facilities / campuses that could be removed from the inventory.

- Develop alternative planning scenarios to accommodate NSCAD's space requirements in new space on a new site or university campus options including at Dalhousie University or at Saint Mary's University
- For each model, assess and rank alternatives based on cost estimates for implementation, ROI calculations, viability and alignment with NSCAD vision and requirements.
- Identify optimal scenario and develop an implementation strategy
- Consolidate scenarios, assessments of advantages and disadvantages, costs and implementation considerations in a final report setting out the optimal scenario and study recommendations
- Compare space standards to peer institutions

Consultation Process

The Study consultation process involves meetings with representatives from all functional units and SUNSCAD to gather information on current and future plans and conditions. Room-by-room tours of all academic and support spaces were led by division chairs, service unit directors and staff.

Regular meetings have been held with the Project Steering Committee to gather information, receive direction and deliver findings and reports.

The following table lists formal meetings held with NSCAD staff and students. Additional discussions were held informally with other staff and students during facility tours and on an ad-hoc basis.

NSCAD Consultations		
March 25 – 27, 2013	**Halifax**	
Project Steering Committee		
Gregor Ash	Director	Institute for Applied Creativity
Sharon Blanchard	Director	Extended Studies
Eleanor King	Director	Gallery
Staff	-	Service Centre/ Bookstore
David Clark	Division Chair	Media Arts
Rory MacDonald	Division Chair	Craft
Jan Peacock	Director	Graduate Studies, MFA
Rudi Myers	Director	Graduate Studies, MDes
Marylin McKay	Division Chair	Historical & Critical Studies
Kit Clarke	Acting University Librarian	Library
Mathew Reichertz	Associate Professor	Fine Arts
Marlene Ivey	Associate Professor	Design
Tim MacInnes	Director	Computer Services
Jeff Wry	Graphic Technician	Print Shop
Gene Daniels	Division Chair	Foundation
Sarah Trower	President	SUNSCAD
SUNSCAD staff and students		
May 15-16, 2013	**Halifax**	
Project Steering Committee		
May 17, 2013	**Toronto**	
Kenn Honeychurch	Provost and Vice President	Academic Affairs & Research
June 24-25, 2013	**Halifax**	
Ken Burt	Vice President, Finance & Administration	Dalhousie University
Gabrielle Morrison	Vice President, Administration	Saint Mary's University
August 15, 2013	**Halifax**	
Project Steering Committee		

ECS team also met with the ATN Consultants undertaking the parallel Affiliation Study to coordinate activities and avoid duplication of effort.

Section 2: Project Context

Studio-Based Education

NSCAD's academic program delivery is founded on the values of a studio-based education model that provides students with hands-on, practice-based learning experiences.

The delivery model focuses on project work and experimentation in a shared, collaborative work environment. A studio-based learning process can integrate three principal missions of universities – teaching, research and community service – and can deliver an active learning experience that encourages integrative thinking and discovery, team work, peer learning, ad hoc collaboration, and a culture of inquiry and engagement.

Studio-based education is space intensive. Studios provide shared or dedicated workspace equipped with resources particular to each discipline. All art and design institutions, including NSCAD's peer institutions OCAD University, Emily Carr University of Art and Design and Alberta College of Art and Design provide or aspire to provide dedicated workstations to senior students in most disciplines. NSCAD historically has provided dedicated workstations to upper level undergraduate students and all graduate students. NSCAD provides dedicated studio workspace for most senior students. While in overall terms, the allocations for dedicated studio space at NSCAD falls within the ranges seen at the other schools, the area provided is highly variable, depending on the configuration of the space available, its quality, and location.

Programs and Disciplines

Undergraduate Degrees	Bachelor of Fine Arts
	Bachelor of Design
Post Baccalaureate	Visual Arts Certificate in Studio
	Visual Arts Certificate for Teachers
	Certificate in Design
	Master of Fine Art
	Master of Design
Disciplines	**Craft -** Ceramics, Textiles, Jewellery Design & Metalsmithing **Fine Art -** Painting & Drawing, Printmaking, Sculpture **Media Arts -** Film, Photography, Intermedia

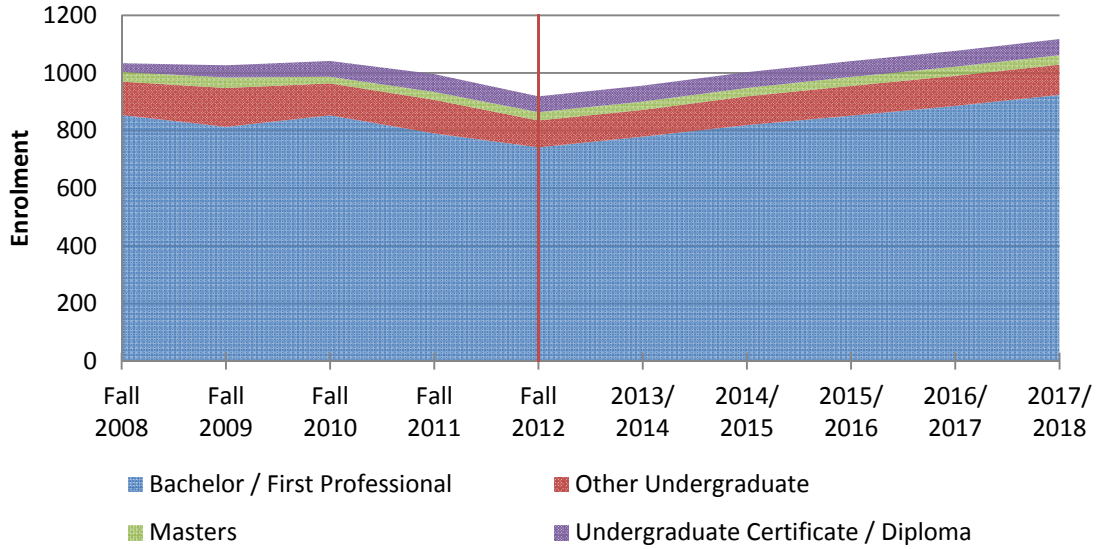
Enrolments

Recent enrolment history and future projections at NSCAD are shown in the table below:

Degree/Certificate Program Enrolments	Fall 2008	Fall 2009	Fall 2010	Fall 2011	Fall 2012	2013/ 2014	2014/ 2015	2015/ 2016	2016/ 2017	2017/ 2018
Bachelor / First Professional	854	813	853	790	742	779	819	852	886	924
Other Undergraduate	116	135	111	117	93	93	100	103	104	105
Masters	34	36	23	27	29	29	29	31	32	33
Undergraduate Certificate / Diploma	30	43	55	62	55	55	55	55	55	56
Totals	1,034	1,027	1,042	996	919	956	1,003	1,041	1,077	1,118

Source: Enrolment History & Future Projections document provided by NSCAD.

Declining enrolments present a significant challenge to NSCAD's future academic success and financial health. The scenarios presented in this report assume that the modest increase in enrolment projected over the near term will be achieved. The space allocations developed in the Functional Space Program include capacity for enrolment growth beyond the targets presented here.



Current Space Inventory

The following table and chart present a summary tally of NSCAD space. Assignable space includes academic studios, labs, and classrooms, as well as office and administrative space. Non-assignable space includes mechanical spaces, washrooms, stairwells and hallways etc. Gross space includes both assignable and non-assignable space.

It is important to note that the following gross floor areas are estimates, and depend on the methods of measurement used. No comprehensive inventory data exists for these buildings; the figures below were generated from multiple inputs, including the available drawings, lease agreements, and building space inventories.

Campus	Category	Building (sm)		Total Area (sm)	Total Area (sf)
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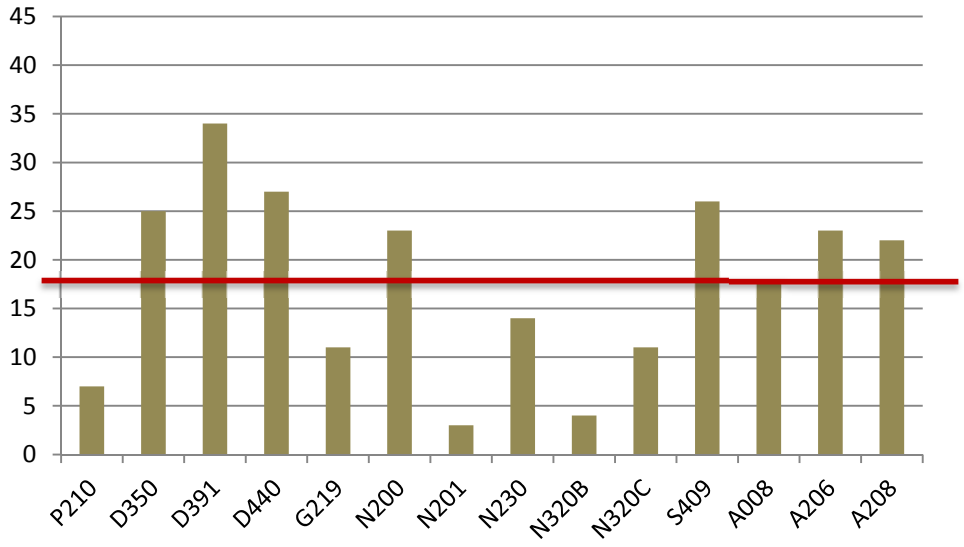
Instructional Space Utilization

An analysis presented in Report #1 indicates that in some space categories there is significant capacity to accommodate increased activity. Classrooms are scheduled for an average of 17.7 per week based on Fall 2012 scheduling data, a 40% room utilization rate based on a 45 hour week. Scheduling data does not capture use for events such as meetings and non-formalized instruction that may occur in these rooms.

The assessment of regularly scheduled activity provides the basis for establishing classroom space requirements set out in the Functional Space Program. A target of 75% of the available hours (34 hours per week) is a commonly used benchmark for shared classroom space. Separate space allocations are included in the Space Program for meetings and similar events.

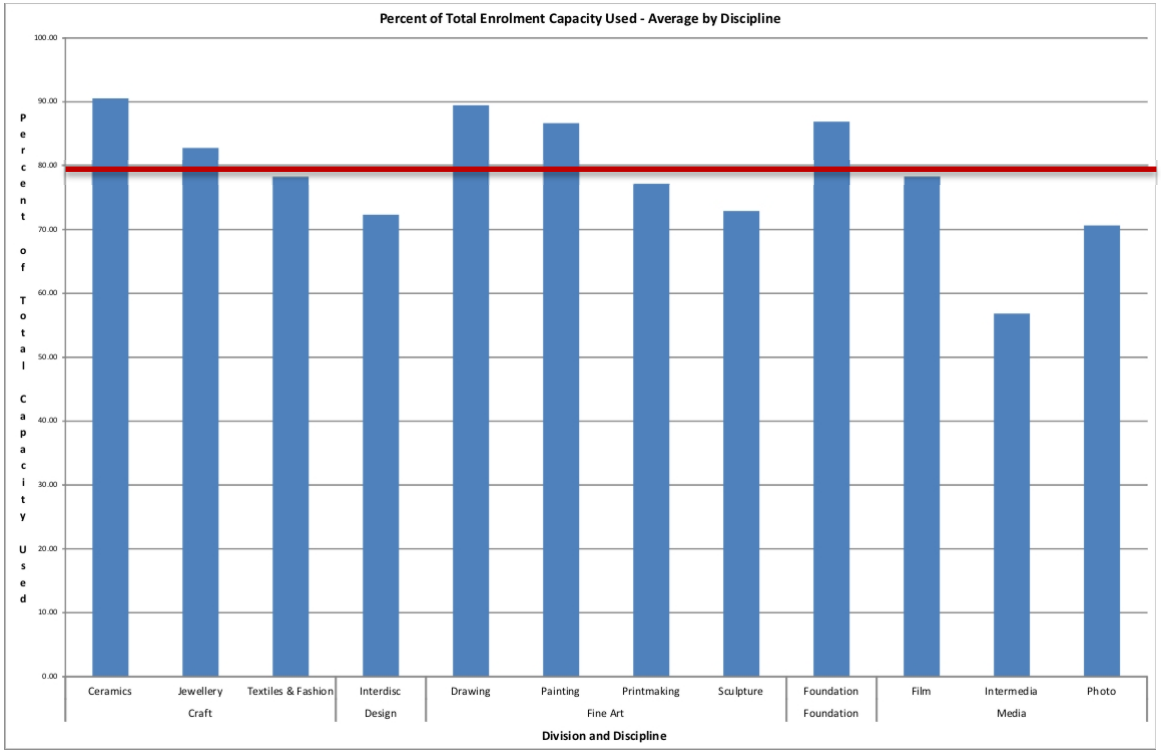
Fall 2012 Scheduled Classroom Activity



Studios which are used for both scheduled instruction and individual project work are generally more intensively used than classrooms but there is space to increase enrolments, in part, by matching section sizes to room capacities.

Percent of Total Enrolment Course Capacity Used – Average by Discipline

The following chart shows enrolment in NSCAD **studio courses**, grouped by program, as a percentage of the stated course capacities listed in Fall2012/Winter 2013 scheduling data. On average, actual student enrolment is approximately 79% of the stated course capacity. Independent study and similar courses are not included in the data.



Average:
79% of capacity

Note: The analysis excludes lecture-based courses which are accommodated in classrooms.

Campus Condition

NSCAD's accommodation presents a distinct set of challenges that include multiple campus locations, substantial deferred maintenance, historically significant structures, buildings repurposed from their original use, overlaid with complex operational requirements.

Assessment Standard

In assessing the suitability and viability of campus accommodation, taking a long-term perspective is key to making planning decisions that will assure the success of the institution on an ongoing basis. The standard adopted for this review of NSCAD's facilities is consistent with that objective:

> Existing space should, over time, be improved and maintained to a standard that is consistent with new space.

This high-level assessment characterizes space in 3 categories:

Fit for function
Plan configuration and building fabric is suitable for current uses: required upgrades are limited to cyclical renewal or mandated code upgrades.

Deficient
Configuration and systems are adaptable for current uses without major interventions: investment in upgrades is driven by changes to programs, work practices or code requirements.

Unfit for function
Structure cannot be upgraded or reconfigured to a modern standard for existing use without 'heroic' effort at a cost that approaches that of new space

Granville Campus

22 buildings	Constructed circa 1860's	5 levels+ basement
Gross Floor Area	12,500 GSM excluding basements	

Granville Streetscape

Notes

- Major shortcomings – deferred maintenance; accessibility deficiencies; user complaints regarding ventilation, heating/cooling, soundproofing; difficult and costly to install 21st century technology infrastructure (Wi-Fi, power for mobile devices, etc.); security issues; challenging wayfinding through labyrinthine passageways and irregular levels.
  The cost of bringing the current building up to code standards could range from $15-$20M. Estimate of deferred maintenance costs is $11M.
- Leased space on Granville and Hollis street frontages comprise 1,150 SM (12,000 SF). Current plans include vacating additional space for leasing (1 tenant space is currently vacant).
- Effective space use is limited by the floor plan configuration characterized by small spaces, lack of accessibility and the overall condition of finishes and furnishings. For the most part, programs manage to deliver effective teaching in very difficult conditions
- Campus beloved by many and has taken on iconic status
- Normal campus amenities are not available: limited gathering/social places for students, no recreational facilities, limited food services
- No appropriate main entrance

Fit to Function Assessment

Structural:

Conglomeration of approximately 19 individual commercial structures erected in the years following the great Halifax fire of 1859
Six to ten metre wide structures with unmatched floor levels in contiguous blocks
Load bearing masonry exterior walls with wood floor structures between masonry party walls

Circulation

Separate circulation stairs in each block, generally of wood construction
Horizontal circulation makes use of both interior corridors and exterior routes on roofscape
Circulation routes through the complex are not continuous

Building Fabric

Substantial amount of original building fabric is extant
Original building finishes in most studio teaching and support areas
Substantial deferred maintenance to exterior building elements: roofs have been replaced
Windows and other architectural elements in poor condition
Improvements made to selected studios and office areas

Mechanical and Electrical Systems

Phased implementation of upgrades to existing systems
Recent investments in heating plant equipment renewal and replacement

Cultural, Historical or Architectural Value

High: Designated a national historic site in 2012

Prospects for Change

The key issues of accessibility, the overall quality of the building fabric, the mismatch between the configuration of existing studio spaces and the optimum environment required for effective and efficient teaching as well as the extensive deferred maintenance costs place the long-term viability of Granville as NSCAD's principal campus in question.

Over the years a number of design studies commissioned by NSCAD have identified possible improvements to the complex that would integrate disparate building elements, improve accessibility and clarity of circulation, and provide a new main entrance on Granville Street. No comprehensive plan has been developed or costed to redevelop the buildings on the site

into a state-of-the-art education facility. The litany of building shortcomings strongly suggests that rebuilding the site to meet NSCAD's needs would not be cost effective. Such a reconstruction project is discussed in more depth (as Scenario A1-Alternate) in Section 5-Financial Analysis. The overall viability of such a project is further cast in doubt by the complexity of maintaining current teaching activity during an upgrading project, either by implementing the plan in multiple stages or acquiring temporary alternative accommodation.

Overall Assessment

- Usability of space compromised by building condition and configuration
- Actual space inventory overstates capacity when compared to equivalent new space
- 'Heroic' effort will be required to upgrade to a modern standard rendering it 'unfit' for its current use
- Limiting factors: site constraints, building condition, building configuration, implementation challenges, costs

Port Campus

Port Campus Renovation	2007	3 levels	6,700 GSM

Port Campus Entrance Facade

Notes:

- Leased from Halifax Port Authority to Year 2045
- Space allocations are more generous than provided for in the original design brief with underutilization of the available capacity exacerbated by low enrolment in some course sections
- Particular areas where space use can be intensified include:
  Foundation open workspace/gallery/lounge space
  Ceramics studios and support spaces
  Ground floor Loggia
  Fabrication shops
- Complaints are common from users about acoustics, and heating and ventilating systems
- Building design does not present a welcoming face to the public or showcase the creative activity taking place despite a location with the potential to attract and engage the general public

Port Campus Fit to Function Assessment

Structural
Wide span construction, high clear internal height
Flexible floor plate adaptable to multiple uses
Ideal configuration in most respects

Circulation and Building Organization
Rational plan meeting code requirements for egress and accessibility
Conflict with some activity adjacencies – dirt and noise

Building Fabric
Abundant natural light
Robust finishes

Mechanical and Electrical Systems
Deficiencies with systems acoustic standards

Cultural, Historical or Architectural Value

High: Pier 21museum portion of the complex designated a national historic site in 1997

Overall Assessment

- Plan configuration and building fabric well suited for a wide range of studio type environments with clear span areas and natural lighting
- Design issues can be addressed with further investment in sound control, redesign of elements of the mechanical systems and partition construction, etc.
- Other required upgrades limited to normal cyclical renewal or new mandated code upgrades
- Fit for function

Academy Campus

Academy Building	1878	3 levels + basement	2,200 GSM
Annex (Acadian) Building	1914	2 levels + basement	800 GSM

Academy Building

Notes:

- Suitable and well-equipped space for teaching, research and art-making in Media Arts
- Consolidation of programs and technical resources at Academy campus supports sharing of resources and spaces, and interdisciplinary collaboration - goal is to create a Media Hub
- Media Arts programs require access to specialized studio and production space, and technical resources. Creating multi-purpose facilities is key to maximizing space utilization.
- Capacity to accommodate Photography program is limited because of overall area available and wet service requirements for photo processes
- Opportunity to fund future renovations through research grants although some restrictions on space use apply
- Lacks common gathering/social/event space
- Small size and distance from other two campuses isolates activities from rest of institution
- Acadian Block provides limited useful space and is not the highest and best use of the available site. Demolition would provide a site for expansion of the Academy block

Academy Campus Fit to Function Assessment

Structural

19th century institutional structure - constructed 1878 - 1649 Brunswick St.
Load bearing masonry exterior walls, interior masonry partitions

Building Organization and Fabric

Straightforward plan provides adaptable high ceilinged space in 4 quadrants
Large open space on top floor, usable space on basement level
Recent investment has produced high quality instructional and research space
Building's exterior historic fabric has been restored with the exception of the attic storey

Mechanical and Electrical Systems

All systems effectively replaced in recent renovation

Cultural, Historical or Architectural Value

High: Building has historical/architectural significance in the Halifax urban environment.
Listed on Provincial and Municipal Heritage registries

Overall Assessment

- Upgrade project provides a plan configuration that makes good use of building features and qualities; well suited for current uses
- Further upgrades required include passenger elevator and completion of exterior restoration on the top floor
- Major deficiency is the relatively small size of the facility:
  Multiple sites generate duplication of spaces required to support activities
  Adjacent vacant site provides opportunity to expand the facility
- Fit for function

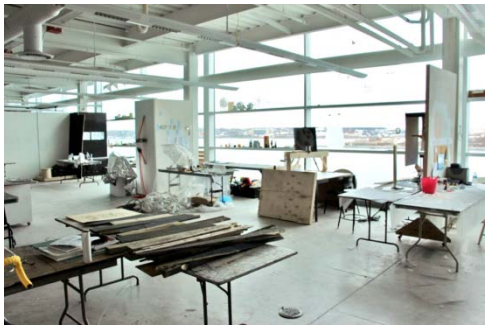
Section 3: Functional Space Program

Introduction

To establish a baseline for assessing NSCAD's accommodation needs, the Study scope includes the development of a 'greenfield' Functional Space Program (FSP) that describes space required to support academic and support activities and projected enrolments without reference to the capacity or condition of existing university space.

Several planning assumptions underlie the Functional Space Program:

1. Space is included for all current NSCAD programs
   The working assumption is that the University will continue to support all existing program streams. The breadth of NSCAD's program offerings and the relatively low enrolment numbers in some programs generate a high overall space requirement calculated on a full-time equivalent basis.
   The accommodation scoped in the FSP can support higher enrolments: by maximizing the number of students enrolled; increasing the utilization of the facilities with longer hours or more intense scheduling; and increasing use of periods with traditionally low rates of activity such as the summer semester.
2. Studio based teaching practice; enrolments and section size policies:
   The core premise of delivery is studio-based teaching that provides practice-based learning experiences.
   For studio-based delivery, section sizes are typically low, often 20 or less. Academic topics such as history or design theory can be delivered to larger groups in classroom settings.
3. Dedicated studio work space:
   Most studio-based education programs provide dedicated studio workspace for students in their choice of specialty from the 3rd year level onward. Space standards generated as broad averages of typical university programs generally do not account for dedicated studio or laboratory spaces. Art education institutions that do not provide dedicated studio space generally have a stated goal to provide that space; if dedicated space is not available, some program-specific shared work space is provided. More detail on studio allocation practices at comparable institutions can be found in the Appendix E.



4. Space Standards and Benchmarks

Accommodation allocations are generally comparable to NSCAD's peer institutions, the other independent art education institutions.

For common categories of space such as classrooms, offices and office support space, there are widely used standards for space allocations used within the Canadian post-secondary sector. For facilities dedicated to a particular discipline or practice, the systems of standards are less useful as there are limited numbers of comparators to generate guidelines.

Typically the space allocated to a particular program activity is generated from several interconnected inputs: foremost is curriculum content as well as the number of program students, student to teacher ratios and section size policies, space allowances to accommodate equipment and technical support, etc. These can vary widely from institution to institution, reflecting the particular focus of a program and other institutional characteristics.

The accommodation proposed in the FSP is based on providing facilities that can compete with the other independent art education institutions in Canada and the United States as well as the comprehensive faculties of fine art embedded in larger North American universities. An analysis of institutional benchmarks is provided in Appendix E.

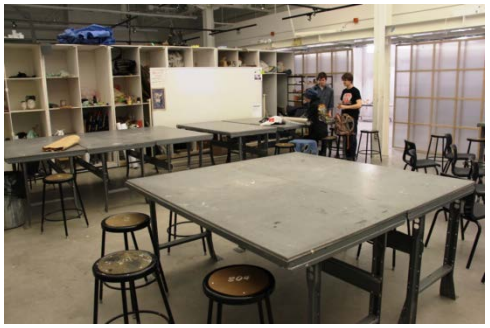
5. Program focus and equipment inventory:

The scope of activities and processes supported by a particular program stream can vary substantially among institutions and have a significant impact on the infrastructure including space that is required. For example, NSCAD's ceramics program is supported by a kiln installation of very high quality. The installation generates a greater demand for space than a program with a more modest kiln installation. In craft and art programs, a large range of processes can be involved; with support for a greater number of processes comes greater demands for space.

6. Facilities not included in the Functional Space Program

NSCAD and other independent art education institutions generally do not provide the range of services that are available to students in universities which offer a broader range of programs and those with higher overall enrolment.

For example, facilities that cater to the social aspects of university life are mostly not provided by the institution: food service facilities are limited; little or no space is allocated to active recreation or sports activities; student housing is not available; and health and wellness support is either more limited or, in the case of NSCAD, provided by other institutions. These institutions tend to rely on their urban locations to provide these services. This significantly reduces the overall space requirements for NSCAD and its peers. The implication is that a campus removed from an urban setting would generate requirements for facilities not included in this FSP.



Functional Space Program (FSP) Summary

Academic Program Space

Unit	FSP Assignable Area (nasm)	Current Space Inventory (nasm)	Assignable Area (nasf)	Current Space Inventory (nasf)
Common Instructional Space	930	1,131.9	10,007	12,179
Foundation Program	768	1,040.6	8,264	11,197
Craft	2,548	2,727.0	27,416	29,343
Design	658	566.1	7,080	6,091
Fine Art	1,891	2,670.4	20,347	28,734
Media Arts	1,462	1,350.9	15,731	14,536
Historical & Critical Studies	129	101.5	1,388	1,092
Graduate Studies	211	223.9	2,270	2,409
Research & Creative Practice	200	185.9	2,152	2,000
Academic Office Space	Note #1	389.0	Note #1	4,186
Total	*8,797*	*10,387.2*	*94,656*	*111,766*

Note #1: FSP space allocations include academic office space with academic unit areas.

Academic Support Activities and Services Space

Unit	FSP Assignable Area (nasm)	Current Space Inventory (nasm)	Assignable Area (nasf)	Current Space Inventory (nasf)
Fabrication Studios	705	772.1	7,586	8,308
Galleries	375	633.8	4,035	6,820
Learning Support	381	585.4	4,100	6,299
Multimedia Services	425	215.0	4,573	2,313
Extended Studies	105	118.1	1,130	1,271
Design Print Services	165	205.9	1,775	2,215
Total	*2,156*	*2,521.3*	*23,199*	*27,129*

Functional Space Program Notes

Assignable Area:
The floor area required to deliver programs and services including all instructional space, office and office service space, learning support and social spaces.

Excluded are building service spaces such as washrooms, stairs, elevators, corridors, mechanical and electrical spaces, etc.

nasm:
net assignable area in square metres

nasf:
net assignable area in square feet

'Greenfield' Space Needs:
As noted above, these space allocations represent a 'greenfield' assessment of space needs for NSCAD, without reference to the capacity or condition of existing NSCAD space. The difference between the FSP values and Current inventory values presented in the final table represents inefficiencies in the configuration of many areas in NSCAD's current buildings.

Administrative and Other Service Units

Unit	FSP Assignable Area (nasm)	Current Space Inventory (nasm)	FSP Assignable Area (nasf)	Current Space Inventory (nasf)
Central Administration	709	695.4	7,629	7,483
Computer Services	72	18.2	775	196
Facilities Management	273	759.9	2,937	8,177
Food Services & Retail	175	282.2	1,883	3,036
SUNSCAD/ Student Lounge Space	124	197.4	1,334	2,124
FUNSCAD	47	89.4	506	962
Total	*1,400*	*2,056.5*	*15,064*	*22,128*

Space Inventory Notes:
Food & Retail Space includes the Art Supply Store.
Student lounge space is included with SUNSCAD dedicated space.
Facilities Management space inventory includes department offices, workshops and related storage space, currently unallocated space at Granville Campus and unimproved space at Academy Campus.

Functional Space Program and Inventory Summary

	FSP Assignable Area (nasm)	Current Space Inventory (nasm)	FSP Assignable Area (nasf)	Current Space Inventory (nasf)
Total Assignable Space	12,353.0	15,068.8	132,918	162,140
Total Leased Space		1,688.2		18,165

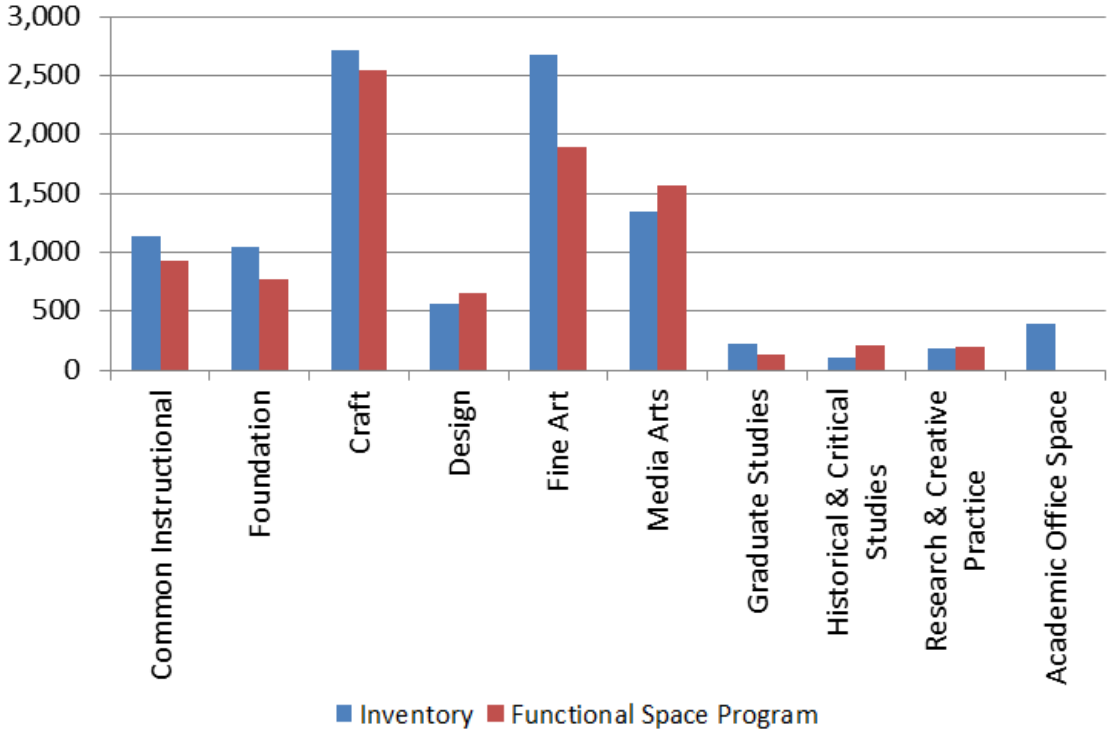
The detailed Functional Space Program is provided in Report #1.

Space Requirements vs. Inventory

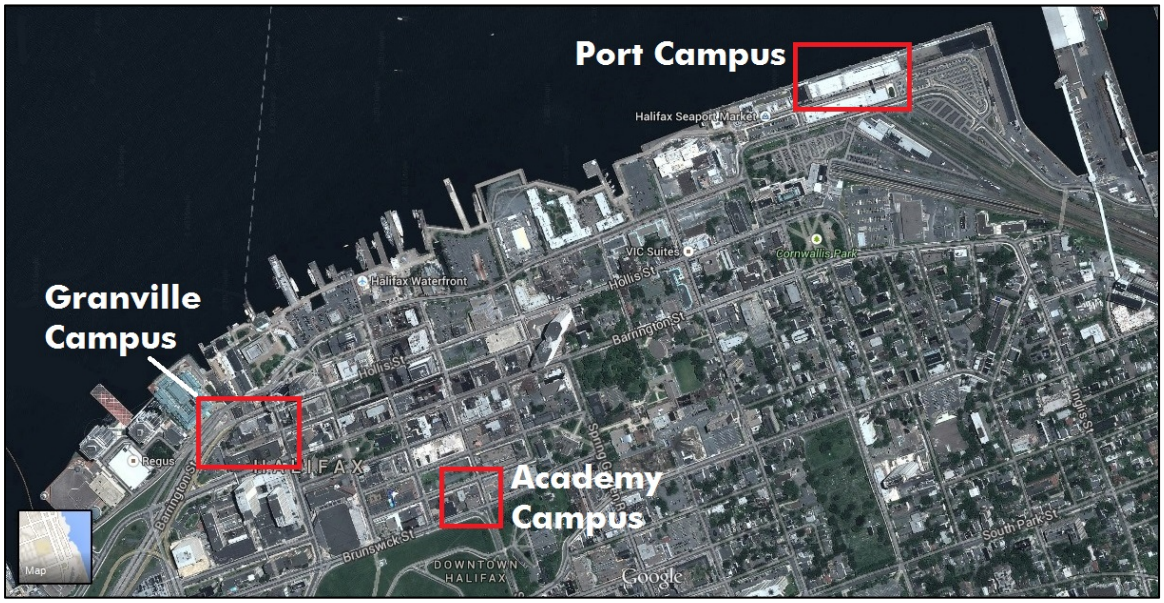
Unit	Functional Space Program (sm)	Space Inventory(sm)	Delta(sm)	Delta(sf)
Common Instructional	930	1,132	+ 202	+ 2,174
Foundation	768	1,041	+ 273	+ 2,937
Craft	2,548	2,717	+ 169	+ 1,818
Design	658	566	- 92	-990
Fine Art	1,891	2,671	+ 780	+ 8,393
Media Arts	1,462	1,351	- 111	-1,194
Historical & Critical Studies	211	108	- 103	-1,108
Graduate Studies	129	224	+ 95	+ 1,022
Research & Creative Practice	200	299	+ 99	+ 1,065
Academic Office Space	Note #1	389	+ 389	+ 4,186
Sub-total	*8,797*	*10,498*	*+ 1,701*	*+ 18,303*
Fabrication Studios	705	772	+ 67	+ 721
Galleries	375	634	+ 259	+ 2,787
Learning Support	381	585	+ 204	+ 2,195
Multimedia Services	425	215	- 210	-2,260
School of Extended Studies	105	118	- 13	-140
Design Print Services	165	206	+ 41	+ 441
Sub-total	*2,156*	*2,530*	*+ 285*	*+ 3,067*
Central Administrative Units	709	695	- 14	-151
Computer Services	72	18	- 54	-581
Facilities Management	273	760	+ 487	+ 5,240
Food & Retail	75	282	+ 107	+ 1,151
SUNSCAD	124	197	+ 73	+ 785
FUNSCAD	47	89	+ 42	+ 452
Sub-total	*1,400*	*2,041*	*+ 756*	*+ 8,135*
Totals	12,353	15,069	+ 2,716	+ 29,224

Note: Space inventory records include academic office space with academic unit areas.

Space Inventory vs. Requirements



Section 4 – Planning Scenarios



Existing NSCAD campuses

Introduction

Eight planning scenarios are presented here that describe possible future deployment of NSCAD space. The scenarios are based on the assumption that the current portfolio of academic programs at NSCAD will be maintained without significant change to teaching practice. Not all scenarios deliver accommodation of comparable quality or necessarily address all facility-related issues that confront NSCAD.

The intention is to present a range of possible futures for NSCAD that consider:

- Reducing the current footprint to release space for income producing uses or divestment. Improvements to retained space are limited to the investment required to relocate activities
- Consolidating activities on fewer campuses
- Addressing facility quality issues from a long-term perspective

Assignable and non-assignable floor areas

In educational facilities, **assignable area** is generally understood to be all spaces that support institutional activity. Space categories include instructional, research, office, library, social and recreational, building operations, etc.

Non-assignable area includes washrooms, circulation areas including stairs and elevators, custodial spaces and rooms that accommodate mechanical, electrical and life safety systems.

Gross building area is measured to the exterior of the perimeter walls and includes areas occupied by structural elements, partition walls, and other fixed building elements.

For planning new academic buildings, a 60:40 ratio of assignable to non-assignable space is commonly used. The actual ratio achieved in completed projects depends on building design, site configuration and constraints, number of storeys among other factors.

The scenarios are divided into four groups:

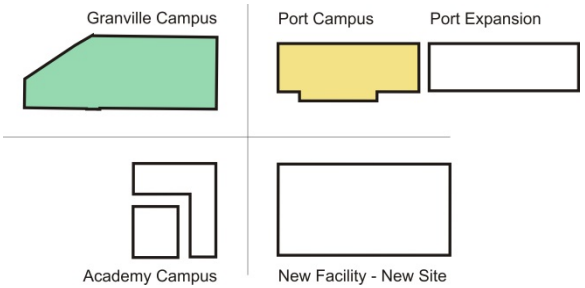
'A' Scenarios	**Continued occupancy of the Granville campus** with a focus on optimizing and intensifying use of the available space in all campuses, without construction or lease of new space
'B' and 'C' Scenarios	**Sale of the Granville campus** and new construction or lease of additional space to accommodate displaced Granville activities
'D' Scenario	**Disposal of all owned properties and termination of leased space**, replaced with construction of a new facility on a new site to accommodate all program requirements

As a baseline to compare the scenarios against **current** NSCAD space, the summary of estimated gross floor areas from page 2-3 is repeated below. These gross floor areas are estimates which depend on the completeness and accuracy of floor plans. No comprehensive inventory data exists for these buildings; the figures below were generated from multiple inputs, including the available drawings, lease agreements, and building space inventories.

Campus	Category	Building (sm)		Total Area (sm)	Total Area (sf)
Academy		Academy	Annex		
	Assignable Space	1,362.8		1,362.8	14,664
	Leased Space	73.2	464.5	537.7	5,786
	Non-Assignable Space	739.3	373.2	1,112.5	11,972
Sub-Total		*2,175.3*	*837.7*	*3,013.0*	*32,420*
Granville					
	Assignable Space			8,420.0	90,599
	Leased Space			1,150.5	12,379
	Non-Assignable Space			4,370.0	47,022
Sub-Total				*13,940.5*	*150,000*
Port		Port	IAC		
	Assignable Space	4,800.0	486.0	5,286.0	56,877
	Non-Assignable Space	1,627.0		1,627.0	17,507
Sub-Total		*6,502.8*	*486.0*	*6,913.0*	*74,384*
Total Assignable Space				15,068.8	162,140
Total Leased Space				1,688.2	18,165
Total Gross Space				23,866.5	256,804

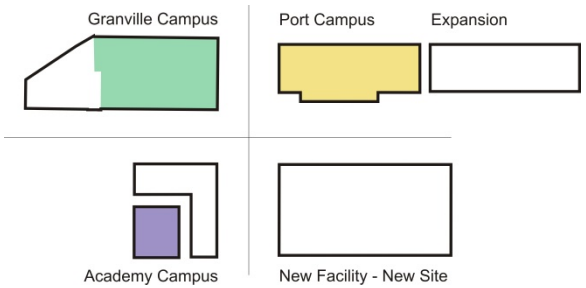
Scenario A1

Port Campus	▪ **Port Campus retained**, space reallocated to accommodate Media Arts activities from Academy campus ▪ Space allocations reduced for Foundation, Fabrication Studios, and Ceramics ▪ Media Arts activities accommodated on Level 200 ▪ 50% of Level 100 Loggia and Level 200 Presentation/ Lounge/Study area repurposed as program studio space ▪ 1,500 sm (16,140 sf) of assignable area renovated to accommodate new uses
Granville Campus	▪ **Granville Campus retained** ▪ Current space allocations reconfigured to accommodate balance of programs and services ▪ Repurpose ~200 sm (2,152 sf) of currently leased space ▪ Renovate ~3,100 sm (33,356 sf) of assignable area
Academy Campus	▪ **Academy Campus decommissioned and sold** Activities relocate to Port and Granville campuses



Campus	NSCAD Assignable Area (sm)	Leased Area	Non-assignable Area (sm)	Total Area (sm)	Total Area (sf)
Port	4,800	-	1,627	6,427	69,155
Granville	8,620	950	4,370	13,940	150,000
Academy	-	-	-	-	-
New Build/New Site	-	-	-	-	-
Totals	13,420	950	5,997	20,367	219,155
Existing Inventory	15,069	1,688	7,110	23,867	256,804
Change in Area	-1,649	-738	-1,113	-3,500	-37,649

A full renovation of the Granville Campus was also considered as Scenario A1-Alt. The space allocations would be essentially the same as the above Scenario A1. A financial model of Scenario A1-Alt is presented in Section 5 – Financial Analysis (page 5-3) and Appendix A – Scenario Models (page A1).



Scenario A2

Port Campus	▪ **Port Campus retained**, space reallocated to accommodate Design program activities from Granville Campus ▪ Renovate ~1,500 sm (16,140 sf) of assignable area ▪ Space allocations reduced for Foundation, Fabrication Studios, and Ceramics ▪ 50% of Level 100 Loggia and Level 200 Presentation/ Lounge/Study area repurposed as program studio space
Granville Campus	▪ **Granville Campus retained** ▪ North building (2,345 sm or 25,232 sf) vacated for sale or lease ▪ Current space allocations reconfigured to accommodate balance of programs and services (see note in scenario assessment below) ▪ Renovate ~3,100 sm (33,356 sf) of assignable area. This includes 1,150 sm (12,374 sf) of space currently leased to outside tenants, which is repurposed to house NSCAD activities
Academy Campus	▪ **Academy Campus retained** to accommodate all Media Arts and related support activities ▪ Renovate ~200 sm (2,152) of unimproved and leased space to accommodate Media Arts

Campus	NSCAD Assignable Area (sm)	Leased Area	Non-assignable Area (sm)	Total Area (sm)	Total Area (sf)
Port	4,800	-	1,627	6,427	69,155
Granville	7,225	2,345*	4,370	13,940	150,000
Academy	1,435	525	1,113	3,073	33,065
New Build/New Site	-	-	-	-	-
Totals	13,460	2,870	7110	23,440	252,221
Existing Inventory	15,069	1,688	7,110	23,867	256,804
Change in Area	-1,609	1,182	0	-427	-4,595

*North building is assumed here to be leased (not sold) and thus remains under NSCAD ownership and operation.

Group 'A' Scenario Assessment

Operation and Quality Issues

- In addition to the benefits of a smaller footprint, consolidating activities at two campuses will provide some operational efficiencies and can provide better opportunities for interdisciplinary collaboration
- Neither scenario adequately addresses the long-term future of Granville Campus. Current liabilities will remain, chiefly deferred maintenance, lack of accessibility, inefficient space configurations, etc. Opportunities for program renewal and modernization are restricted, compromising NSCAD's ability to respond to new opportunities, accommodate new technologies, or configure programs in response to student expectations and evolving pedagogy
- Association of iconic Granville property with NSCAD retained

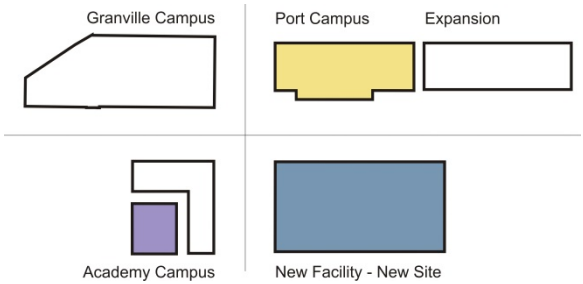
Implementation Issues

- Port Campus changes can be implemented within a short time frame without major interruptions to ongoing activity
- Because the renovations to Granville Campus included in the Scenario scope are limited to areas impacted by program relocations, it would be possible to implement the work in phases to avoid major disruption to program delivery
- Scenario A1-Alt involves significant implementation issues regarding temporary accommodation while Granville Campus is fully renovated

Impact of Scenario A2 on Granville Occupancy

Scenario A2 proposes that NSCAD vacate the North Block of Granville Campus (approximately 2,350 m^2 or 25,286 sf) for sale or lease. The programs currently housed in this space would be relocated in two ways:

- The assignable space in Granville Campus that is currently leased or available for lease to other tenants (approximately 1,150 m^2 or 12,374 sf) would be renovated to accommodate some of the NSCAD programs displaced from the North Block
- The remainder of NSCAD programs displaced from the North Block would relocate to the Port Campus



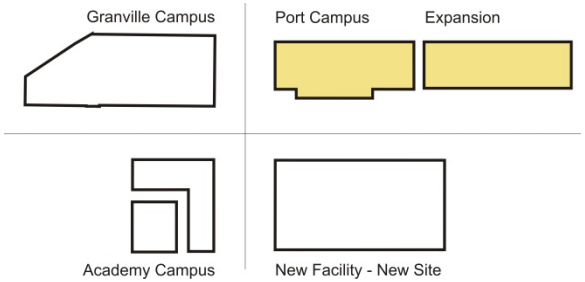
Scenario B1

Port Campus	▪ **Port Campus retained**; space reallocated to Design programs relocated from Granville Campus area ▪ Space allocations reduced for Foundation, Fabrication Studios, and Ceramics ▪ 1,500 sm (16,140 sf) of assignable area renovated to accommodate new uses
Granville Campus	▪ **Granville Campus decommissioned and sold** ▪ All activities relocated to Academy and Port campus and new facility
Academy Campus	▪ **Academy Campus retained** to accommodate all Media Arts and related support activities ▪ ~200 sm (2,152 sg) of unimproved and leased space renovated
New Facility	▪ **New NSCAD site acquired; new facility constructed** to accommodate balance of NSCAD requirements ▪ 6,000 sm (64,560 sf) of assignable area

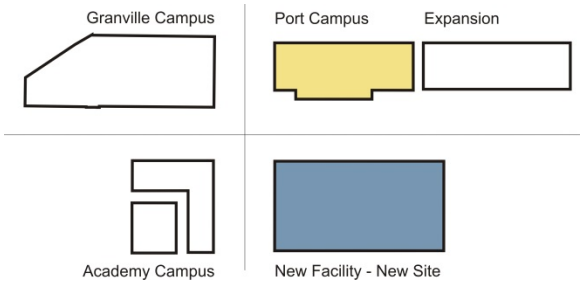
Campus	NSCAD Assignable Area (sm)	Leased Area	Non-assignable Area (sm)	Total Area (sm)	Total Area (sf)
Port	4,800	-	1,627	6,427	69,155
Granville	-	-	-	-	-
Academy	1,435	525	1,113	3,073	33,065
New Build/New Site	6,000	-	4,200	10,200	109,752
Totals	12,235	525	6,940	19,700	211,972
Existing Inventory	15,069	1,688	7,110	23,867	256,804
Change in Area	-2,819	-1,163	-170	-4,167	-44,832

Scenario B2

Port Campus Existing Space	▪ **Port Campus retained**, space reallocated to accommodate uses from Granville and Academy ▪ Space allocations reduced for Foundation, Fabrication Studios, and Ceramics ▪ 1,500 sm (16,140 sf) of assignable area renovated to accommodate new uses
New Facility	▪ **New space provided in expanded Port Campus facility** - Additional leased space: 7,450 sm (80,162 sf) of assignable area
Granville Campus	▪ **Granville Campus decommissioned and sold** ▪ All activities relocated to Port Campus and new facility on Port site
Academy Campus	▪ **Academy Campus decommissioned and sold** All activities relocated to Port Campus and new facility on Port site



Campus	NSCAD Assignable Area (sm)	Leased Area	Non-assignable Area (sm)	Total Area (sm)	Total Area (sf)
Port	4,800	-	1,627	6,427	69,155
Port Expansion	7,450	-	2,550	10,000	107,600
Granville	-	-	-	-	-
Academy	-	-	-	-	-
Totals	12,250	-	4,177	16,427	176,755
Existing Inventory	15,069	1,688	7,110	23,867	256,804
Change in Area	-2,819	-1,688	-2,933	-7,440	-80,049



Scenario B3

Port Campus	▪ **Port Campus retained**, space reallocated to accommodate Media Arts activities from Academy campus ▪ 1,500 sm (16,140 sf) of assignable area renovated to accommodate new uses
Granville Campus	▪ **Granville Campus decommissioned and sold** ▪ All activities relocated to new facility and existing Port building
Academy Campus	▪ **Academy Campus decommissioned and sold** All activities relocated to new facility and existing Port building
Dal/SMU Site New Facility	▪ **New facility constructed on Dalhousie or SMU campus** ▪ 7,450 sm (80,162 sf) of assignable area

Campus	NSCAD Assignable Area (sm)	Leased Area	Non-assignable Area (sm)	Total Area (sm)	Total Area (sf)
Port	4,800	-	1,627	6,427	69,155
Granville	-	-	-	-	-
Academy	-	-	-	-	-
New Facility – Dal/SMU	7,450	-	3,725	11,175	120,243
Totals	12,250	-	5,352	17,602	189,398
Existing Inventory	15,069	1,688	7,110	23,867	256,804
Change in Area	-2,819	-1,688	-1,758	-6,265	-67,406

ECS was asked to look at an alternate version of Scenario B3 with a new facility located at the current VIA Rail site in peninsular Halifax. Assuming a space allocation plan consistent with Scenario B3, this alternate scenario would not produce substantially different costs for building a new facility. See Section 5 – Financial Analysis (Page 5-4) for more detailed information on this alternate scenario.

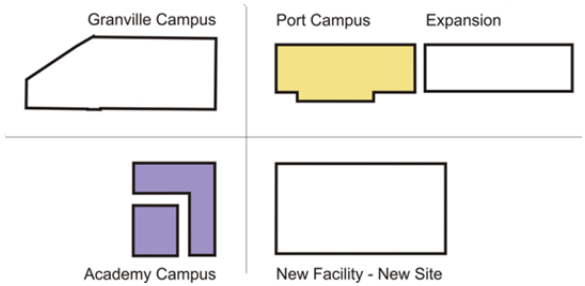
Group 'B' Scenario Assessment

Operation and Quality Issues

- Divesting the Granville campus removes a major long-term liability faced by NSCAD
- New purpose-built facility will provide a high quality, technology-enabled, efficient learning environment, open up opportunities for program renewal, and provides the capacity to respond to new opportunities and evolving pedagogy, technologies and student expectations
- Fewer campuses provide operational efficiencies and can encourage interdisciplinary collaboration: Scenario B2 which envisions a single NSCAD campus on the Port site provides the most efficient footprint
- In Scenario B2, NSCAD would not own any space and would face long-term risks relative to lease renewal or extension or the cost of acquiring and financing alternative accommodation. Long term leases are not generally of interest or advantageous to established institutions like universities and colleges. See page 5-4 and 5-7 for more commentary on this issue.

Implementation Issues

- No specific space has been identified in the Port complex to meet NSCAD's requirements. The Halifax Port Authority has a large availability at Shed 22, and part of the Halifax Seaport Farmers Market space could be available. See Appendix C: Real Estate Assessment - Supplemental Notes.
- Developing a new facility avoids disruption of ongoing activity during transition. The Port campus changes can be implemented without significant disruption of ongoing activity
- Questions remain about possible impediments to selling the Academy campus



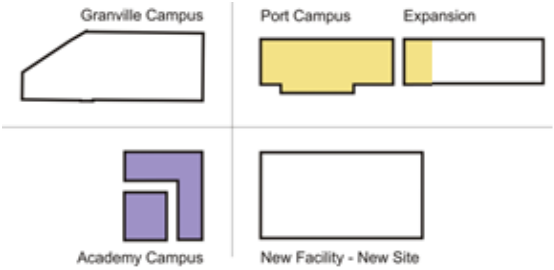
Scenario C1

Port Campus	▪ **Port Campus retained**, space reallocated to accommodate Design program activities from Granville Campus ▪ 1,500 sm (16,140 sf) of assignable area renovated to accommodate new uses
Granville Campus	▪ **Granville Campus decommissioned and sold** ▪ All activities relocated to Port site and new facility on Academy site
Academy Campus - Existing Space	▪ **Academy Campus retained** to accommodate all Media Arts and related support activities ▪ 185 sm (1,991 sf) of unimproved and leased space renovated
	▪ **New facility constructed on the Academy site** – Acadian block (Annex) demolished ▪ ~4,000 sm (43,040 sf) of assignable area (available area constrained by site limitation). This is less than required for current program activities, implying a reduction in program offerings

Campus	NSCAD Assignable Area (sm)	Leased Area	Non-assignable Area (sm)	Total Area (sm)	Total Area (sf)
Port	4,800	-	1,627	6,427	69,155
Granville	-	-	-	-	-
Academy	1,435	-	740	2,175	23,403
New Facility – Academy Site	4,000	-	2,040	6,040	64,990
Totals	10,235	-	4,407	14,642	157,548
Existing Inventory	15,069	1,688	7,110	23,867	256,804
Change in Area	-4,834	-1,688	-2,703	-9,225	-99,256

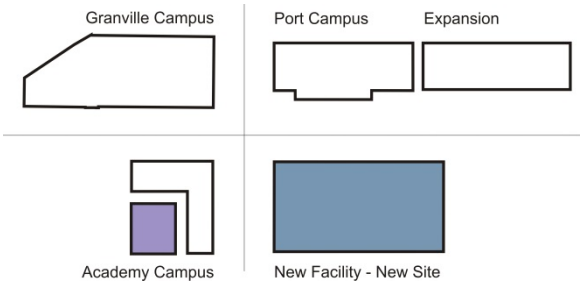
Scenario C1 - Alternate

Port Campus	▪ **Port Campus retained**, space reallocated to accommodate Design program activities from Granville Campus ▪ 1,500 sm (16,140 sf) of assignable area renovated to accommodate new uses
	▪ **Additional space leased** at Port Campus (~2,015 m^2 or 21,681 sf) to accommodate full program space requirements
Granville Campus	▪ **Granville Campus decommissioned and sold** ▪ All activities relocated to Port site and new facility on Academy site
Academy Campus - Existing Space	▪ **Academy Campus retained** to accommodate all Media Arts and related support activities ▪ 185 sm (1,991 sf) of unimproved and leased space renovated
	▪ **New facility constructed on the Academy site** – Acadian block (Annex) demolished ▪ ~4,000 sm (43,040 sf) of assignable area (available area constrained by site limitation). This is less than required for current program activities, implying a reduction in program offerings



Campus	NSCAD Assignable Area (sm)	Leased Area	Non-assignable Area (sm)	Total Area (sm)	Total Area (sf)
Port	6,815	-	2,627	9,442	101,596
Granville	-	-	-	-	-
Academy	1,435	-	740	2,175	23,403
New Facility – Academy Site	4,000	-	2,040	6,040	64,990
Totals	12,250	-	5,407	17,657	189,989
Existing Inventory	15,069	1,688	7,110	23,867	256,804
Change in Area	-2,819	-1,688	-1,703	-4,677	-66,815

A financial model of Scenario C1-Alt is presented in Section 5 – Financial Analysis (page 5-5) and Appendix A – Scenario Models (page A1). Like C1, C1-Alt rests on tenuous assumptions regarding the lease of additional space at the Port site.



Scenario C2

Port Campus	▪ **Port Campus lease terminated** ▪ All activities relocated to new facility
Granville Campus	▪ **Granville Campus decommissioned and sold** ▪ All activities relocated to new facility
Academy Campus	▪ **Academy Campus retained** to accommodate all Media Arts and related support activities ▪ ~200 sm (2,152 sf) of unimproved space renovated
Dal/SMU Site New Facility	▪ **New facility constructed on Dalhousie or SMU site** ▪ ~11,000 sm (118,360 sf) of assignable area

Campus	NSCAD Assignable Area (sm)	Leased Area	Non-assignable Area (sm)	Total Area (sm)	Total Area (sf)
Port	-	-	-	-	
Granville	-	-	-	-	
Academy	1,435	525	1,113	3,073	33,065
New Facility – Dal/SMU	10,915	-	5,458	16,373	176,173
Totals	12,350	525	6,571	19,446	209,239
Existing Inventory	15,069	1,688	7,110	23,867	256,804
Change in Area	-2,719	-1,163	-539	-4,421	-47,565

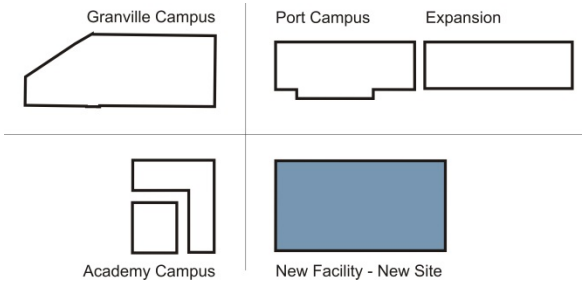
Group 'C' Scenario Assessment

Operation and Quality Issues

- Divesting the Granville Campus removes a major long-term liability faced by NSCAD
- New purpose-built facility will provide a high quality, technology-enabled, efficient learning environment, open up opportunities for program renewal, and provides the capacity to respond to new opportunities and evolving pedagogy, technologies and student expectations
- New facility at Academy Campus (Scenario C1) will require contraction of program offerings because of the limited area possible to site size and no provision for future expansion
- Divestment of the high-quality space in the Port Campus (Scenario C2) involves loss of facilities expensive to replicate elsewhere, and NSCAD would be unlikely to recover the full value of the pre-paid lease and leasehold improvements
- Conversations with Dalhousie representatives indicate that a purpose-built NSCAD facility on a Dalhousie site would be on the basis of a long-term lease arrangement. NSCAD would not own any space and would face long-term risks relative to lease renewal or extension or the cost of acquiring and financing alternative accommodation. Long term leases are not generally of interest or advantageous to established institutions like universities and colleges. See page 5-4 and 5-7 for more commentary on this issue.

Implementation Issues

- Developing a new facility avoids disruption of ongoing activity during transition



Scenario D1

Port Campus	▪ Port Campus lease terminated ▪ All activities relocated to new facility
Granville Campus	▪ Granville Campus decommissioned and sold ▪ All activities relocated to new facility
Academy Campus	▪ Academy Campus decommissioned and sold All activities relocated to new facility
New Site / New Facility	▪ New facility constructed ~12,350 sm (132,886 sf) of assignable area ▪ Either on Dalhousie/SMU site; or ▪ Acquired as part of a public-private partnership; or ▪ An independent NSCAD project

Campus	NSCAD Assignable Area (sm)	Leased Area	Non-assignable Area (sm)	Total Area (sm)	Total Area (sf)
Port	-	-	-	-	-
Granville	-	-	-	-	-
Academy	-	-	-	-	-
New Facility – Dal/SMU	12,350	-	6,175	18,525	199,329
Totals	12,350	-	6,175	18,525	199,329
Existing Inventory	15,069	1,688	7,110	23,867	256,804
Change in Area	-2,719	-1,688	-935	-5,342	-57,475

ECS was asked to look at an alternate version of Scenario D1 with a new facility located at another site in peninsular Halifax. Based on conversations with Cushman & Wakefield, the sites itemized by NSCAD are possibilities, but none are fully available as of today. Pricing new construction is therefore a very rough estimate at this time. However, many of the possible sites are not large, and creating 200,000 sf would require a significant multi-storey building, which could generate zoning challenges. See Section 5 – Financial Analysis (page 5-6) for more financial estimates based on information received from Cushman & Wakefield.

Scenario D Assessment

Operation and Quality Issues

- Divesting the Granville campus removes a major long-term liability faced by NSCAD
- New purpose-built facility will provide a high quality, technology-enabled, efficient learning environment, the opportunity for program renewal, and capacity to respond to new opportunities and evolving pedagogy, technologies and student expectations
- Single campus maximizes operational efficiency and opens opportunities for capitalizing on program synergies and interdisciplinary collaborations
- Divestment of the high-quality space in the Port campus involves loss of facilities expensive to replicate elsewhere, and NSCAD would be unlikely to recover the full value of the pre-paid lease and leasehold improvements
- Conversations with Dalhousie representatives indicate that a purpose-built NSCAD facility on a Dalhousie site would be on the basis of a long-term lease arrangement. NSCAD would not own any space and would face long-term risks relative to lease renewal or extension or the cost of acquiring and financing alternative accommodation. Long term leases are not generally of interest or advantageous to established institutions like universities and colleges. See page 5-4 and 5-7 for more commentary on this issue.

Implementation Issues

- Developing a new facility minimizes disruption of ongoing activity during transition
- Complicated lease arrangement makes divesting Port campus difficult and uncertain
- Questions remain about possible impediments to selling the Academy campus

Co-Location at Dalhousie or Saint Mary's University

Merits of Co-location

Affiliation with other universities and partners can involve joint offering of new interdisciplinary programs, collaborative recruitment and appointment of strategic academic members, interdisciplinary programs and research. It can also facilitate student access to courses offered by the other institution (currently by letters of permission). Collaboration can improve the institutional response to student needs and regional priorities. A concurrent, separate study is investigating affiliation opportunities for NSCAD with Dalhousie University and Saint Mary's University.

It is important to note that co-location at another university campus is not a prerequisite to academic collaboration nor is greater proximity necessarily a driver of greater collaboration. Successful collaborations among universities and colleges exist across regions, provinces and the country. The success of joint programs usually depends more on a shared vision among academics rather than co-location. This point is raised because co-location on a university campus for the purpose of academic collaboration may be costly, may not deliver the expected collaborations, and might detract from other partnership opportunities that are more dependent on location.

Co-location at Saint Mary's University Campus

During consultations, representatives of Saint Mary's expressed reservations over the amount of space that NSCAD would require in a building on the Saint Mary's Campus. A potential site at the corner of Inglis Street and Tower Road is considered too small to accommodate a structure beyond 9,000 GSM (100,000 gross square feet). An alternative site at the end of Robie Street, adjacent to the Sobey School of Business complex, could likely accommodate up to 14,000 GSM (150,000 gross square feet) but a large structure would leave little opportunity to preserve the parkland nature of this site. A building suitable for NSCAD's studios would not be a good fit for the site and would likely cause considerable tension with the adjoining neighbourhood which includes some significant heritage properties. A further option discussed was the site of the hockey arena that is slated for removal in the future if an alternative venue for ice sports can be found. However, the timing of any such move is unpredictable.

The North East Campus

Option with restoration of existing 980 Tower Road building and addition to the south.

After touring the campus, it was generally felt that NSCAD would not likely be a good fit for the Saint Mary's campus because it would use up much of Saint Mary's future growth capacity and the mass of the NSCAD building would be inconsistent with the look and feel of the existing campus.

The type of academic collaboration that Saint Mary's identified could take place regardless of co-location.

Given the campus configuration and the University's master plan, it is concluded that co-location at Saint Mary's University is not a feasible option for NSCAD to pursue.

Co-location at Dalhousie University Campus

Representatives of Dalhousie University indicate that the location that they would consider for NSCAD is a site on the Sexton campus. Dalhousie does not own the entire site at the moment but has the right of first offer on the lands and plans to exercise that right.

The South Campus and the Oaks

For a more in-depth discussion of the opportunity presented by a Dalhousie campus site and the financial and operational implications of such a move, please refer to Section 5 – Financial Analysis.

Section 5: Scenario Financial Assessments

This section presents a summary of the results of the financial modelling carried out for the eight planning scenarios and provides a high level review of the implications for decision-making and capital planning going forward.

Detailed worksheets describing the financial analysis are presented in Appendix A.

The financial analysis provides "order of magnitude" estimates with the sole purpose of providing a comparative assessment across options of their relative cost and impact. Significant assumptions were appropriate for this purpose and were applied consistently across scenarios; actual numbers could vary substantially from the assumptions and must be reassessed in greater detail before any final decisions are made.

Financial Planning Assumptions

Major assumptions used to develop the scenario financial models include:

- No swing space provisions
- No penalties on termination of current financing
- No costly barrier to the sale of the Academy
- Mortgage financing of renovations at 6% over 20 years
- Mortgage financing of new construction at 6% over 35 years
- Present value calculations discounted at 4% over 20 years
- Operating costs based on $7.9 per GSF or $85 per GSM
- Deferred maintenance per NSCAD schedule for 2011-2012

Land Values and Construction Costs

- Simple renovations at $54 per GSF or $580 per GSM
- Complex renovations at $121 to $149 per GSF or $1,300 to $1,600 per GSM
- New construction at $270 to $297 per GSF or $2,900 to $3,200 per GSM
- Sale of Granville and Academy at $116 to $150 per GSF or $1,250 to $1,614 per GSM (see Appendix C)
- Partial recovery of pre-paid Port lease at $500,000
- Rental revenues based on current contracts
- Land acquisitions based on $1.5 Million per acre
- Port lease extended to additional Port spaces on prorata of current lease terms

Summary Table (figures in millions of dollars) (Note: nPV – Net present value)

	A1	A1-Alt	A2	B1	B2	B3	C1	C1-Alt	C2	D1
Building Area – gross square metres	20,367	20,367	23,440	19,700	16,427	17,602	14,642	17,657	19,446	18,525
Building Area – gross square feet	219,149	219,149	252,214	211,972	176,755	189,398	157,548	189,989	209,239	199,329
Capital Cost	$20.8	$42.6	$26.3	$42.0	$28.0	$42.6	$21.3	$28.2	$57.9	$61.1
nPV of lost (gained) rental and operating cost (savings)	(1.7)	(1.7)	(2.3)	1.3	(1.6)	(0.3)	(3.7)	(0.2)	1.0	0.8
Net proceeds of sales and the paydown of related debt	(3.9)	(3.9)	NA	(12.2)	(16.0)	(16.0)	(12.2)	(12.2)	(5.0)	(8.9)
Net Cost	$15.2	$37.0	$24.0	$31.1	$10.3	$26.3	$5.4	$15.8	$53.8	$53.1
Debt level to be financed										
Over 20 years	20.8	42.6	26.3	6.2	2.2	2.2	4.2	4.2	4.0	0
Over 35 years				32.8	25.8	35.9	17.0	23.9	49.4	55.2
Impact on annual operating budget	$1.7	$3.5	$1.9	$2.0	$(0.8)	$1.5	$ 0.4	$1.1	$1.7	$2.1

Overview of the Main Financial Drivers

The following provides an overview of the main financial drivers for the four sets of scenarios.

Scenarios A1, A1-Alt, and A2

These scenarios propose continued use of the Granville property and therefore bear significant renovation costs for relocating programs from the Academy campus or vacating space in Granville for sale or lease. As well, Granville and the Academy both have relatively large accumulated deferred maintenance issues that will have to be addressed in the near future and are factored into the analysis (i.e. $10.9 million for Granville and $3.9 million for Academy). It is expected and modeled that financing for renovations and deferred maintenance would likely be over 20 years rather than the 35 years applicable to new construction in the other scenarios.

A1 and A2 are the lowest net cost options, excluding C1 (an outlier relative to the amount of space generated) and B2 (which makes unsupported assumptions about expanding at the Port at terms that are similar to those applicable to the current Port facilities). While A1 and A2 generate some savings in operating costs or additional rental revenues, these savings are easily offset by significantly greater debt financing costs.

As a baseline against which to consider maintaining a NSCAD presence at the Granville Campus, a full reconstruction of the Granville building was considered (Scenario A1-Alt). The resulting gross floor area of the complex would be approximately 14,000 GSM (8,400 assignable sm) or 150,640 GSF (90,384 asf). Based on a high-level assessment of the scope of such a project, construction and related soft costs would start at a base cost on the order of $40 million, with no upper limit to the project cost depending on complexity of the reconstruction. This model does not include costs for temporary accommodation while Granville is renovated. It is important to note that, compared to a purpose-built new facility, even this extensive renovation will not deliver an equivalent building in functionality nor the same life cycle and life cycle costs. This estimated cost of a reconstruction at Granville also has significantly more risks attached to it than to a greenfield construction and greenfield site. Reconstruction of Granville is not considered cost-effective when compared to a new, purpose-built institutional building's relatively higher quality, longer life cycle, lower risk and operational costs, etc.

	A1	A1-Alt	A2
Building Area - gross square metres	20,367	20,367	23,440
Building Area - gross square feet	219,149	219,149	252,214
Capital Cost	$20.8	$42.6	$26.3
nPV of lost (gained) rental and operating cost (savings)	(1.7)	(1.7)	(2.3)
Net proceeds of sales and paydown of related debt	(3.9)	(3.9)	NA
Net Cost	$15.2	$37.0	$24.0
Debt level to be financed			
Over 20 years	20.8	42.6	26.3
Over 35 years			
Impact on annual operating budget	$1.7	$3.5	$1.9

Scenarios B1, B2, and B3

These three scenarios assume that the Port campus is retained, thereby contributing to generally more positive results than other scenarios. This is explained by the fact that the Port campus accounts for a considerable share of the total space requirements (i.e. 30% of current GSM), has facilities that are substantially newer and purpose-built to accommodate some of NSCAD's most demanding facilities requirements, and benefits from advantageous financing terms. Conversely, any scenario that disposes of the Port campus is negatively impacted since NSCAD would have to rebuild these facilities elsewhere, would not fully recover its prepaid lease, and would not likely recover much, if any, of its leasehold improvements.

In retaining only the Port, NSCAD retains high quality facilities that would be expensive to rebuild elsewhere, generates net proceeds from the sale of both Granville and the Academy, and benefits from 35 year financing for new construction.

Scenario B2 is based on the highly tenuous assumption that more space can be acquired from the Port Authority on terms that are similar to those currently in place. This option could offer significant financial advantages but would require exploration and intergovernmental collaboration if NSCAD were to pursue this avenue. From a long-term perspective, NSCAD would not own any space and would face risks relative to lease renewal or extension or the cost of acquiring and financing alternative accommodation.

ECS was asked to look at an alternate version of Scenario B3 with a new facility located at the current VIA Rail site in peninsular Halifax. VIA has appointed a preferred lead developer for the site, eliminating the potential for NSCAD ownership of a new facility on this location. Based on information provided by Cushman & Wakefield, a very high-level estimate of gross land acquisition and construction costs is $300/gsf, generating a construction cost for this option that is (within the bounds of highly variable real estate rates) identical to Scenario B3. If

such a scenario is selected as desirable, more in-depth analysis would be required to generate more accurate cost estimates for new construction (see Appendix C – Real Estate Notes).

Scenarios B1, B2, and B3 Financial Summary

	B1	B2	B3
Building Area - gross square metres	19,700	16,427	17,602
Building Area - gross square feet	211,972	176,755	189,398
Capital Cost	$42.0	$28.0	$42.6
nPV of lost (gained) rental and operating cost (savings)	1.3	(1.6)	(0.3)
Net proceeds of sales and the paydown of related debt	(12.2)	(16.0)	(16.0)
Net Cost	$31.1	$10.3	$26.3
Debt level to be financed			
Over 20 years	6.2	2.2	2.2
Over 35 years	32.8	25.8	35.9
Impact on annual operating budget	$2.0	$(0.8)	$1.5

Scenarios C1, C1-Alt, and C2

These two scenarios assume that the Academy building is retained. Like the Port facility, the Academy campus represents good quality space which has been recently updated, although some deferred maintenance remains to be addressed. The Academy also benefits from excess land development capacity, thereby avoiding additional land acquisition costs. However, because the Academy accommodates only a small proportion (i.e. 11.5% of current gross floor area) of the total space needs of NSCAD, the amount of new space to be constructed (C2) is greater than in the Port scenarios, thereby making these scenarios costlier than the Port scenarios. Retention of the Port and further development of the Academy site (C1) provides an economical solution but it does not yield the space required to meet all of NSCAD's identified needs. While not viable under current defined space needs, C1 does offer a glimpse into the impact on capital and operating costs of a substantial reduction (approximately 10%) in overall net assignable space. Except for reductions that could arise as a result of different modes of instruction or shared facilities, the impact that space reductions might have on program offerings and by implication, enrolment targets, would be a significant factor in the viability of the scenario. Note that the choice of site for a new facility (Scenario C2) does not affect the financial outcomes of this study, as a standard land acquisition cost per acre was used to model all scenarios (see Appendix 3 – Real Estate Notes).

Scenario C1-Alt proposes the lease of a small amount of additional assignable space at the Port site to make up for the space shortfall in Scenario C1. Like C1, C1-Alt rests on tenuous assumptions regarding the lease of additional space at the Port site.

Scenarios C1, C1-Alt, and C2 Financial Summary

	C1	C1-Alt	C2
Building Area - gross square metres	14,642	17,657	19,446
Building Area - gross square feet	157,548	189,989	209,239
Capital cost	$21.3	$28.2	$57.9
nPV of lost (gained) rental and operating cost (savings)	(3.7)	(0.2)	1.0
Net proceeds of sales and the paydown of related debt	(12.2)	(12.2)	(5.0)
Net cost	$5.4	$15.8	$53.8
Debt level to be financed			
Over 20 years	4.2	4.2	4.0
Over 35 years	17.0	23.9	49.4
Impact on annual operating budget	$ 0.4	$1.1	$1.7

Scenario D1

This option is the costliest of all options given that none of the current space is retained. It implies the maximum amount of new construction and the maximum amount of new land to be acquired. If built on a Dalhousie-owned site, a long-term lease arrangement is expected, which risks potential additional costs (see pages 5-8 to 5-10 below for more detail).

ECS was asked to look at an alternate version of Scenario D1 with a new facility located at another site in peninsular Halifax. Based on information received from Cushman & Wakefield, site acquisition costs could vary from $2 million to $10 million: corresponding low and high cases are therefore presented below. However, these are extremely rough estimates only.

	D1	D1-Alt (low)	D1-Alt (high)
Building Area - gross square metres	18,525	18,525	18,525
Building Area - gross square feet	199,329	199,329	199,329
Capital cost	$61.1	$57.2	$65.2
nPV of lost (gained) rental and operating cost (savings)	0.8	0.8	0.8
Net proceeds of sales and the paydown of related debt	(8.9)	(8.9)	(8.9)
Net cost	$53.1	$49.1	$57.1
Debt level to be financed			
Over 20 years			
Over 35 years	55.2	55.2	55.2
Impact on annual operating budget	$2.1	$2.1	$2.1

Financing New Construction

This analysis assumes that NSCAD has the expertise to oversee a large new construction project and the ability to finance by mortgage over a 35 year period. There are other options that NSCAD might consider for new construction which can respond to concerns relative to management or financial capacity while offering certain risk mitigation strategies. Such options can offer different fee and cost structures, and different ownership models, all of which impact risks and risk levels for the institution. The following provides a very brief description of those options as an introduction to the discussion of the Dalhousie option.

Long term Lease

Developers normally aim to recover their construction and financing costs over 20-year leases; their cost of capital (i.e. financing) is generally higher than that of a large government-funded institution. To this amount is added any cost of operations, a 2% building maintenance reserve and a profit margin for the lessor. This can result in costs for the lessee that are substantially greater than those arising under traditional financing models. This may not always be obvious because certain cost recoveries may be deferred to later years through escalation clauses, or through cut backs in certain services or commitments. For these reasons, long term leases are not generally of interest or advantageous to established institutions like universities and colleges. As well the institution has no title to the asset at the end of the term; long term commercial leases do not include commitments to renew at the rates thereof.

P3 Development – Public-Private Partnerships

Although there are few examples of institutions having pursued P3s for primary institutional buildings in Canada, P3 developments can offer institutions certain advantages in terms of the management of risks and financial flexibility. P3 developments can vary from "design and build" partnerships, to "design, build, and finance", and finally to "design, build, finance, and operate". In each case, the degree of risk that is shared between the partners will vary but ownership of the building is ultimately retained by the institution. Choosing a partner that has integrity and financial stability, and negotiating an iron-clad comprehensive agreement are crucial elements to the success of P3s. There are consultants and legal firms who now specialize in assessing and establishing P3s, should NSCAD wish to explore a P3 option further.

Co-location at Dalhousie University Campus

Representatives of Dalhousie University indicate that the location that they would consider for NSCAD is a site on the Sexton campus. Dalhousie does not own the entire site at the moment but has the right of first offer on the lands and plans to exercise that right.

Current plans for the site include the building and operation of a 37,200 gross square meters (400,000 gross square feet) building on a commercial basis and the construction of a separate 6,500 GSM (70,000 GSF) 'IDEA' building to house workshops and teaching space for the Faculties of Engineering and Architecture and Planning. The commercial building would generate capital funds that Dalhousie would use to address some of its growing deferred maintenance problems.

If NSCAD were to locate on the site, Dalhousie would structure the agreement to generate the same capital funds for its own uses as it would from any other occupant of the new space.

Dalhousie would decide at a future date whether development and operation of the facility would be by a private developer or by Dalhousie itself. If offered to a private developer, Dalhousie would require that the developer prepay a 20 to 25 year land lease at market rates. In that scenario, NSCAD would enter into a long term lease with the developer as a significant anchor tenant. The building, including the space occupied by NSCAD, would revert back to Dalhousie at the end of the lease.

If developed directly by Dalhousie, Dalhousie would expect full recovery of construction costs and financing charges plus 0.5% markup through a 20 to 25 year lease arrangement. It is expected that this arrangement would result in somewhat lower lease rates for NSCAD given that Dalhousie's cost of capital is significantly lower than that of a commercial developer. There was no mention as to how the lease under direct development might net equivalent revenue streams for Dalhousie.

In either case, lease payments by NSCAD would include a contribution to life cycle costs of approximately 2% of replacement value per annum to ensure that the building and all its components were in good condition at the end of the lease.

If Dalhousie developed the project, it would could include the IDEA building uses within the new structure (i.e. approximately 9,300 GSM (100,000 GSF) of commercial space; approximately 6,500 GSM (70,000 GSF) for IDEA; and approximately 23,000 GSM (250,000 GSF) for NSCAD). The building's design could ensure that NSCAD retained a strong presence and autonomy over its space while presenting the possibility that some facilities such as general purpose classrooms could be shared.

Savings relative to the operation of the facilities are not expected in the short term since NSCAD appears to be under-servicing its current facilities relative to institutional standards and Dalhousie standards. For example, Dalhousie security staff tour every facility 5 times through the evening and occupational health and safety standards are rigorously enforced. There is the potential for significant savings in the cost of utilities if the new building is connected to Dalhousie's central thermal plant. However, the likelihood of connection cannot be assessed at this time.

Access to student services (e.g. library, cafeteria, athletic, computing, etc.) would be on the basis of cost, with such cost to be passed on to students as ancillary fees. All other services that NSCAD might wish to avail itself of (e.g. administrative services, IT support, and facilities management) would be offered at cost.

Dalhousie representatives made it clear that they would expect terms to be on a "commercial basis" and subject to negotiation on that basis if NSCAD were interested in locating on the Dalhousie campus. This is to be expected as an opening position.

Overall, a long term lease with Dalhousie is preferable to one with a private developer. In addition to the opportunity for some savings arising from Dalhousie's preferred borrowing rate, its non-taxable status, and lower utilities rates, there is a stronger possibility that the term might be extended beyond 20 years and that renewal terms might be negotiable in advance. This is only conjecture and would have to be tested if NSCAD decides to pursue a large new construction. One might also presume that the greater the program collaboration opportunities, the greater the likelihood of improving on the lease terms. Similarly, a lease with Dalhousie directly might mitigate donor concerns over donations in respect of a private sector lease.

Notwithstanding private versus Dalhousie development, one of the underlying cost considerations relative to the Sexton campus is its significant land value which will drive the cost for any developer and Dalhousie's revenue expectations. If new construction is a realistic option, costing of the Sexton campus opportunity should be weighed against the cost of developing on other urban properties.

Conclusion

The eight financial scenarios are driven almost entirely by program and mix of facilities. This analysis demonstrates how financial considerations vary in response to size, type, and mix of renovation and new construction of facilities. Because the analysis is built using very broad assumptions, they can only be relied upon to set general direction, consider broad financial implications, and prioritize options.

Once a short list of preferred options is established, every element of the financial analysis will have to be explored in greater detail to ensure that costing is as realistic as possible, legal constraints on properties and debt are well understood and factored in, and government interests have been considered.

Considerations relative to the location of new facilities, development management and construction financing can and likely should be deferred to later in the process.

Section 6: Next Steps

Context

NSCAD is facing challenges related to long-term debt positions and recent difficulties in meeting enrolment projections. The configuration and condition of the physical plant, as it currently exists, is a major contributor to the financial situation faced by NSCAD over the short and long-terms. Technical and financial challenges related to campus infrastructure include:

- How to coordinate programs and services across three campuses
- How to cope with deteriorating infrastructure with a significant deferred maintenance backlog
- How to fund the premium for renovation and upkeep that heritage designation drives
- How to adapt non-purpose-built space to complex institutional needs
- How to make the facilities accessible to those with disabilities
- How to meet Occupational Health and Safety requirements
- How to offer students the range of services and facilities that are considered essential for post-secondary institutions such as recreation and sports, housing, and food services

Scenario Selection

The Study sets out eight scenarios for the future deployment of facilities to address the long-term infrastructure challenges faced by NSCAD. Identifying and recommending a single most advantageous scenario – from a financial perspective and also in terms of supporting the academic mission – is not possible at this time for a number of reasons.

Long-range Strategic Vision Not in Place

In an ideal world, institutions would have a clear understanding of their future plans and directions before considering significant infrastructure decisions and investments. Successfully consolidating, contracting or expanding facilities requires a clear vision of institutional priorities and how academic and service delivery will evolve in the future.

At NSCAD, a long-range strategic vision with priorities to guide decision-making and resource allocations is currently being prepared. To be useful in planning physical infrastructure, the vision should be informed by and explain: how each discipline is expected to evolve; how teaching and learning models are expected to change; how teaching and research priorities relate to current or emerging strengths and regional needs; how teaching and learning technologies are expected to impact and/or support disciplines; how NSCAD programs intersect or might intersect with those offered by other institutions (universities, colleges, galleries, etc.) locally, regionally, nationally, and internationally; how service delivery might be further optimized; and finally, whether and how affiliation with other parties might play a role in strengthening the institution.

Providing space that is appropriately suited to pedagogy and easily adapted to changes in pedagogical needs and priorities is a major challenge for universities. Well-considered strategic and academic plans ensure the design of infrastructure that can more easily respond and adapt to the needs of today's and tomorrow's learners and instructors, and ensure better returns on capital investments.

In the absence of well-developed long-term planning directions, this analysis was predicated solely on NSCAD's current offerings and models of teaching and learning.

Affiliation Strategy Yet to be Finalized

Several planning scenarios propose new NSCAD facilities, some located on local university campuses. Academic collaboration, integration of administrative and student services, and research partnerships could change space requirements and scenario deployment strategies.

Since the Affiliation Study report and strategy are not yet available, the analysis assumes no impact of affiliation on facilities beyond those that currently exist.

As part of the strategic planning exercise, a framework for assessing the impact of the various affiliation opportunities on space needs and location should be established.

Variability of Assessment Assumptions

The financial analysis herein provided makes a series of assumptions and estimates relative to costs, rates, termination of loans, proceeds on sales, and many other factors in order to develop high level estimates of the net cost of each scenario and their impacts on operating budgets. The resulting financial analysis is far from definitive and should be used strictly as a planning tool. It provides a sense of the scale of costs involved and a relative comparison among the eight scenarios.

The scenario costing comparisons can be used to narrow down the list of options and develop a strategy to move ahead with those options which are of greatest interest. Because of the large number of assumptions made in order to compare very different options, a further level of detailed analysis will be required to more accurately assess the costs and impacts of the preferred options in a next stage of planning.

Next Steps

Among the campus planning scenarios, there is no stand-out option that serves institutional needs while delivering a 'magic bullet' solution to NSCAD's fiscal challenges. Although each option offers both advantageous and less advantageous features, it is premature to recommend the implementation of a particular scenario given the concerns and uncertainties expressed above.

Optimally, the following steps should be undertaken or addressed by NSCAD in order to better consider the identified scenarios and/or support decision-making relative to space needs, facilities options, and location.

1. Identify long-range academic and institutional direction

- Determine how art, craft and design disciplines are evolving and how each fits into a future vision for art education generally, for NSCAD in particular, and for the region. Identify pedagogical and technological changes emerging in each discipline.
- Define NSCAD's research priorities. Assess the implications for faculty and graduate student space and operating support, if any.
- Identify NSCAD's policy relative to first year and ongoing student learning support and the space implications (for example, library, learning commons, studio allocations, etc.).

- Determine and prioritize the student services to be provided in order to address student needs and/or support enrolment targets. Indicate whether such services should ideally be offered on site; within a certain distance; privately; or by a university or college.
- Identify what, if any, faculty support is to be provided relative to pedagogy development, technological change, or creative practice.

2. Confirm a direction for affiliation

- Using the Affiliation Study report findings and within the framework of institutional strategic directions, identify/confirm the viability of affiliation opportunities - academic and/or service-related. Explore the terms with the potential partner(s) in order to adjust the space requirements and implications of campus location.

3. Assess capital financing options

- Assess whether a compelling case can be made for capital investment support based on the future-oriented strategic vision and, if applicable, affiliation opportunity.
- Determine to what extent capital financing might realistically be supported by debt, government subsidy, and fundraising, or whether P3 opportunities might be pursued.
- Consider the academic and financial implications of an expansion; establish how much impact on operations the NSCAD Board/Government will allow for capital purposes.

4. Develop planning scenario short-list

- Determine how each scenario supports or detracts from NSCAD's vision for its future.
- Select a short-list of planning scenarios that best match key criteria: long-range strategic vision, academic and service delivery priorities, financial viability and benefits, ease of implementation, etc.
- Adjust the short-listed scenarios as required. For example, determine how much space would have to be eliminated in order to pursue a preferred location at a more affordable level and adjust program offerings to fit the available space; determine how much administrative or student support spaces might be eliminated through greater outsourcing in order to expand academic spaces, etc. The strategic directions will provide a framework for prioritizing activities and functions as not all elements are equally important.

Additional inputs required include:
Determine whether expansion of the Port campus is even a feasible option
i.e. Is there space? Would the Port Authority consider an expanded presence? At terms that are similar to existing terms?
Determine to what extent existing space can be reduced considering program scope, enrolment targets, and feasibility of making changes.
Go to market to explore the opportunities for sale of Granville campus and determine its best and highest value.

5. Opportunities to pursue in the short-term

- The Study identified 1,500 sm (16,000 sf) of underused space at the Port Campus. All Port Campus scenarios include moving activities from Granville or Academy to optimize use of Port and release space elsewhere for other uses. In the short-term, while NSCAD develops its academic and strategic plans, a reduced NSCAD footprint at Granville or Academy allows the University to increase the amount of leasable space. Appendix B to this Report sets out a possible configuration of NSCAD assignable area and leasable space in Granville that vacates the North block, providing approximately 10,000 sf on 6 levels for lease. Alternative planning solutions can be considered that would release an equivalent area in different configurations. Deciding on an appropriate plan will require academic program space needs to be balanced against marketability of the vacated space and renovation costs for repurposing Granville space.

NSCAD University
Space Utilization Study

Planning Scenarios
Appendix A: Financial Models

October 18, 2013
Educational Consulting Services
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Planning Scenario Financial Models

The tables in this Appendix provide a summary and details of the inputs into the financial analysis for each scenario.

Summary

	A1	A1-Alt	A2	B1	B2	C1	C1-Alt	B3	B3-Alt	C2	D1	D1-Alt
	Port Granville	Port Granville (Reconstruct)	Port Academy Part of G	Port Academy New	Port New Port Lease	Port Academy Exp Acad	Port + Exp Academy Exp Acad	Port New Dal or Other	Port New VIA	Acad New Dal or other	All new NSCAD at Dal or Other	All new NSCAD at other site
Total NSM assigned to NSCAD (current 14580)	13,420	13,420	13,460	12,235	12,250	10,325	12,250	12,250	12,250	12,350	12,350	12,350
Total GSM (current 23440)	**20,367**	**20,367**	**23,440**	**19,700**	**16,427**	**14,642**	**19,190**	**17,602**	**17,602**	**19,446**	**18,525**	**18,525**
COST of OPTIONS												
Capital Cost of construction and renovation and deferred maintenance	20,760,000	42,617,046	26,313,250	38,986,300	27,963,300	21,266,300	28,166,300	38,077,800	38,077,800	53,357,300	55,151,000	55,151,000
Cost of land acquisition	0	0	0	3,000,000	0	0	0	4,500,000	4,500,000	4,500,000	6,000,000	10,000,000
Total capital cost	20,760,000	42,617,046	26,313,250	41,986,300	27,963,300	21,266,300	28,166,300	42,577,800	42,577,800	57,857,300	61,151,000	65,151,000
PV of Rental revenues lost	1,876,958	1,876,958	-2,310,306	5,634,836	6,547,737	6,547,737	6,547,737	6,547,737	6,547,737	5,634,836	6,547,737	6,547,737
PV of savings in operating costs	-3,592,031	-3,592,031	0	-4,371,759	-8,197,461	10,284,327	-6,759,790	-6,824,149	-6,824,149	-4,669,128	-5,745,236	-5,745,236
Total cost of the option before sale of properties	19,044,927	40,901,973	24,002,944	43,249,377	26,313,576	17,529,710	27,954,247	42,301,388	42,301,388	58,823,008	61,953,501	65,953,501
Proceeds from sale	-3,873,600	-3,873,600		19,012,920	-22,886,520	19,012,920	19,012,920	22,886,520	22,886,520	19,512,920	-23,386,520	-23,386,520
Paydown of debt on sold properties				6,860,000	6,860,000	6,860,000	6,860,000	6,860,000	6,860,000	14,484,981	14,484,981	14,484,981
NET COST of OPTIONS	15,171,327	37,028,373	24,002,944	31,096,457	10,287,056	5,376,790	15,801,327	26,274,868	26,274,868	53,795,069	53,051,962	57,051,962
DEBT FINANCING REQUIRED	16,886,400	38,743,446	26,313,250	29,833,380	11,936,780	9,113,380	16,013,380	26,551,280	26,551,280	52,829,361	52,249,461	48,249,461
ESTIMATED IMPACT ON ANNUAL OPERATING BUDGET:												
Loss of Rental Revenues	136,484	136,484	-334,450	409,747	476,131	476,131	476,131	476,131	476,131	409,747	476,131	476,131
Savings in Operating Costs	-261,205	-261,205	0	-317,900	-596,105	-747,847	-491,555	-496,230	-496,230	-339,533	-417,775	-417,775
Increase in Debt Financing over current levels	1,784,772	3,663,864	2,262,192	1,871,685	-717,231	625,015	1,097,129	1,552,041	1,552,041	1,678,355	2,075,867	2,075,867
Estimated annual impact on operating budget	1,660,051	3,539,143	1,927,742	1,963,532	-837,205	353,299	1,081,705	1,531,942	1,531,942	1,748,570	2,134,223	2,134,223

Scenario A1

A1	**Retain Port Campus**															
	Retain Granville Campus															
	Sell Academy Campus															
Campus	**Uses**	**Assignable Areas (sm)**	**Total Building Area (sm)**	**Changes in Area Changes in Assignable Area due to new constr., sale of site, or cancelled leases**	**Changes in Total Builidng Area due to new constr., sale of site, or cancelled leases**	**Resulting Final Assignable Area (sm)**	**Resulting Final Total Builidng Area (sm)**	**New Construction Unit Rates $/SM**	**Project Costs - New Construction**	**Renovated Area - Assign. Area (sm)**	**Renovated Area - Total Building Area (Note A)**	**Renovation Unit Rates -($/sm)**	**Projects Cost - Renovations**	**Total Costs - New + Renovations**	**Site Purchase Costs/Asset Sale Proceeds**	**Change in Annual Lease Revenue**
Port	Assignable	4,800	4,800			4,800	4,800									
	Leased	0	0			0	0									
	Non-assignable		1,627				1,627									
	Area Sub-totals	**4,800**	**6,427**	**0**	**0**	**4,800**	**6,427**									$0
	Areas untouched												$0	$0		
	Areas renovated (GSM factor 1.0)	1,555								1,555	1,555	$ 1,400	$2,177,000	$2,177,000		
	New areas added												$0	$0		
	Leased space recaptured & renov												$0	$0		
	Project Cost Sub-totals												**$2,177,000**	**$2,177,000**		
Granville	Assignable	8,420	8,420	200		8,620	8,620									
	Leased	1,150	1,150	-200		950	950									-$58,000
	Non-assignable		4,370				4,370									
	Area Sub-totals	**9,570**	**13,940**	**0**	**0**	**9,570**	**13,940**									-$58,000
													$0	$0		
	Areas renovated (GSM factor 1.5)	3,100	4,650							3,100	4,650	$ 1,600	$7,090,000	$7,090,000		
	Leased space recaptured & renovated	200	340							200	340	$ 1,600	$544,000	$544,000		
	Sale of any space/ more space leased												$0	$0		
	Project Cost Sub-totals												**$7,634,000**	**$7,634,000**		
Academy (incl. Annex)	Assignable	1,360	1,360	-1,360		0	0									
	Leased (incl. Annex)	600	600	-600		0	0									-$78,484
	Non-assignable		1,113		-1,113		0									
	Area Sub-totals	**1,960**	**3,073**	**-1,960**	**-3,073**	**0**	**0**								**$3,873,600**	**-$78,484**
													$0			
													$0			
	Project Cost Sub-totals												**$0**	**$0**		
Builidng Areas Sub-totals				**-1,960**	**-3,073**	**14,370**	**20,367**									
Project Costs Totals									**$0**				**$9,811,000**	**$9,811,000**		
Site Purchase Costs/Asset Sale Proceeds															**$3,873,600**	
Total Change in Annual Lease Revenue																**-$136,484**
Total Change in Operating Costs																
Provisional Unit Rates									**$ 4,000**			**$ 1,500**				**$ 290**

NOTE A: GSM Renovated Area is calculated at variable rates, depending on the extent of change required. It ranges from 0 for space with up-to-date building systems to 70% for Granville Campus areas.

Scenario A2

Campus	Uses	Assignable Areas (sm)	Total Building Area (sm)	Changes in Area Changes in Assignable Area due to new constr., sale of site, or cancelled leases	Changes in Total Builidng Area due to new constr., sale of site, or cancelled leases	Resulting Final Assignable Area (sm)	Resulting Final Total Builidng Area (sm)	New Construction Unit Rates $/SM	Project Costs - New Construction	Renovated Area - Assign. Area (sm)	Renovated Area - Total Building Area (Note A)	Renovation Unit Rates -($/sm)	Projects Cost - Renovations	Total Costs - New + Renovations	Site Purchase Costs/Asset Sale Proceeds	Change in Annual Lease Revenue
A2	**Retain Port Campus**															
	Vacate Part of Granville															
	Retain Academy Campus															
Port	Assignable	4,800	4,800			4,800	4,800									
	Leased	0	0			0	0									
	Non-assignable		1,627				1,627									
	Area Sub-totals	**4,800**	**6,427**	**0**	**0**	**4,800**	**6,427**									$0
													$0	$0		
	Areas renovated (GSM factor 1.0)	1,555								1,555	1,555	$ 1,400	$2,177,000	$2,177,000		
	New areas added												$0	$0		
	Leased space recaptured & renov												$0	$0		
	Project Cost Sub-totals												**$2,177,000**	**$2,177,000**		
Granville	Assignable	8,420	8,420	-1,195		7,225	7,225									
	Leased	1,150	1,150	1,195		2,345	2,345									$346,550
	Non-assignable		4,370				4,370									
	Area Sub-totals	**9,570**	**13,940**	**0**	**0**	**9,570**	**13,940**									$346,550
	Areas untouched	3,035											$0	$0		
	Areas renovated (GSM factor 1.5)	2,023								2,023	3,035	$ 1,600	$4,856,000	$4,856,000		
	Leased space recaptured & renovated	1,150								1,150	1,955	$ 1,600	$3,128,000	$3,128,000		
	Sale of any space/ more space leased	-2,345								2,345	3,987	$ 300	$1,195,950	$1,195,950		
	Project Cost Sub-totals												**$9,179,950**	**$9,179,950**		
Academy (incl. Annex)	Assignable	1,360	1,360	75		1,435	1,435									
	Leased (incl. Annex)	600	600	-75		525	525									-$12,100.00
	Non-assignable		1,113				1,113									
	Area Totals	**1,960**	**3,073**	**0**	**0**	**1,960**	**2,400**									**-$12,100**
	Areas untouched															
	Areas renovated (GSM factor 1.0)	110								110	110	$ 580	$63,800	$63,800.00		
	Leased recapt & ren (GSM factor of 1.0	75								75	75	$ 580	$43,500	$43,500.00		
	Project Cost Sub-totals												**$107,300**	**$107,300**		
Builidng Areas Sub-totals				**0**	**0**	**16,330**	**22,767**									
Project Costs Totals									**$0**				**$11,464,250**	**$11,464,250**		
Site Purchase Costs/Asset Sale Proceeds																
Total Change in Annual Lease Revenue																**$334,450**
Total Change in Operating Costs																
Provisional Unit Rates									**$ 4,000**			**$ 1,500**				**$ 290**

NOTE A: GSM Renovated Area is calculated at variable rates, depending on the extent of change required. It ranges from 0 for space with up-to-date building systems to 70% for Granville Campus areas.

Scenario B1

B1	**Retain Port Campus**																
	Sell Granville Campus																
	Retain Academy Campus																
	Construct New Building/New Site			**Changes in Area**													
Campus	**Uses**	**Assignable Areas (sm)**	**Total Building Area (sm)**	**Changes in Assignable Area due to new constr., sale of site, or cancelled leases**	**Changes in Total Buildng Area due to new constr., sale of site, or cancelled leases**	**Resulting Final Assignable Area (sm)**	**Resulting Final Total Buildng Area (sm)**	**New Construction Unit Rates $/SM**	**Project Costs - New Construction**	**Renovated Area - Assign. Area (sm)**	**Renovated Area - Total Building Area (Note A)**	**Renovation Unit Rates -($/sm)**	**Projects Cost - Renovations**	**Total Costs - New + Renovations**	**Site Purchase Costs/Asset Sale Proceeds**	**Change in Annual Lease Revenue**
Port	Assignable	4,800	4,800			4,800	4,800									
	Leased	0	0			0	0									
	Non-assignable		1,627				1,627									
	Area Sub-totals	**4,800**	**6,427**	**0**	**0**	**4,800**	**6,427**									$0
													$0	$0		
	Areas renovated (GSM factor 1.0)	1,555								1,555	1,555	$ 1,400	$2,177,000	$2,177,000		
	New areas added												$0	$0		
	Leased space recaptured & renov												$0	$0		
	Project Cost Sub-totals												**$2,177,000**	**$2,177,000**		
Granville	Assignable	8,420	8,420	-8,420	-8,420	0	0									
	Leased	1,150	1,150	-1,150	-1,150	0	0									-$397,647
	Non-assignable		4,370		-4,370		0									
	Area Sub-totals	**9,570**	**13,940**	**-9,570**	**-13,940**	**0**	**0**								$19,012,920.00	-$397,647
														$0		
														$0		
	Project Cost Sub-totals													**$0**		
Academy	Assignable	1,360	1,360	75		1,435	1,435									
(incl. Annex)	Leased (incl. Annex)	600	600	-75		525	525									-$12,100
	Non-assignable		1,113				1,113									
	Area Sub-totals	**1,960**	**3,073**	**0**	**0**	**1,960**	**3,073**									**-$12,100**
	Areas untouched															
	Areas renovated (GSM factor 1.0)	110								110	110	$ 580	$63,800	$63,800.00		
	Leased recapt & ren (GSM factor of 1	75								75	75	$ 580	$43,500	$43,500.00		
	Project Cost Sub-totals												**$107,300**	**$107,300**		
New Facility	Assignable	6,000	6,000	6,000	6,000	6,000	6,000									
	Non-assignable		4,200		4,200		4,200									
	Area Sub-totals	**6,000**	**10,200**	**6,000**	**10,200**	**6,000**	**10,200**									
	New areas added							$3,216	$32,802,000					$32,802,000.00	-$3,000,000.00	
	Project Cost Sub-totals								**$32,802,000**					**$32,802,000.00**		
Builidng Areas Sub-totals				**-3,570**	**-3,740**	**12,760**	**19,700**									
Project Costs Totals									**$32,802,000**				**$2,284,300**	**$35,086,300**		
Site Purchase Costs/Asset Sale Proceeds															**$16,012,920**	
Total Change in Annual Lease Revenue																**-$409,747**
Total Change in Operating Costs																
	Provisional Unit Rates							**$ 4,000**				**$1,500 to 2,500/m2**				**$ 290**

NOTE A: GSM Renovated Area is calculated at variable rates, depending on the extent of change required. It ranges from 0 for space with up-to-date building systems to 70% for Granville Campus areas.

Scenario B2

Campus	Uses	Assignable Areas (sm)	Total Building Area (sm)	Changes in Area Changes in Assignable Area due to new constr., sale of site, or cancelled leases	Changes in Total Buildng Area due to new constr., sale of site, or cancelled leases	Resulting Final Assignable Area (sm)	Resulting Final Total Buildng Area (sm)	New Construction Unit Rates $/SM	Project Costs - New Construction	Renovated Area - Assign. Area (sm)	Renovated Area - Total Building Area (Note A)	Renovation Unit Rates -($/sm)	Projects Cost - Renovations	Total Costs - New + Renovations	Site Purchase Costs/Asset Sale Proceeds	Change in Annual Lease Revenue
B2	**Retain Port Campus**															
	Sell Granville Campus															
	Sell Academy Campus															
	Expand Port Campus with additional leased space															
Port	Assignable	4,800	4,800			4,800	4,800									
	Leased	0	0			0	0									
	Non-assignable		1,627				1,627									
	Area Sub-totals	**4,800**	**6,427**	**0**	**0**	**4,800**	**6,427**									$0
													$0	$0		
	Areas renovated (GSM factor 1.0)	1,555								1,555	1,555	$ 1,400	$2,177,000	$2,177,000		
	New areas added												$0	$0		
	Leased space recaptured & renov												$0	$0		
	Project Cost Sub-totals												**$2,177,000**	**$2,177,000**		
Granville	Assignable	8,420	8,420	-8,420	-8,420	0	0									
	Leased	1,150	1,150	-1,150	-1,150	0	0									-$397,647
	Non-assignable		4,370		-4,370		0									
	Area Sub-totals	**9,570**	**13,940**	**-9,570**	**-13,940**	**0**	**0**								$19,012,920.00	-$397,647
	Project Cost Sub-totals												**$0**	**$0**		
Academy (incl. Annex)	Assignable	1,360	1,360	-1,360		0	0									
	Leased	600	600	-600		0	0									-$78,484
	Non-assignable		1,113		-1,113		0									
	Area Sub-totals	**1,960**	**3,073**	**-1,960**	**-3,073**	**0**	**0**								**$3,873,600**	**-$78,484**
	Project Cost Sub-totals												**$0**	**$0**		
New Facility	Assignable	7,450	7,450	7,450	7,450	7,450	7,450									
	Non-assignable		2,550		2,550		2,550									
	Area Sub-totals	**7,450**	**10,000**	**7,450**	**10,000**	**7,450**	**10,000**									
	New areas added	7,450	10,000						$21,574,000					$21,574,000.00		
	Project Cost Sub-totals								**$21,574,000**					**$21,574,000.00**		
Builidng Areas Sub-totals				**-4,080**	**-7,013**	**12,250**	**16,427**									
Project Costs Totals									**$21,574,000**				**$2,177,000**	**$23,751,000**		
Site Purchase Costs/Asset Sale Proceeds															**$22,886,520**	
Total Change in Annual Lease Revenue																**-$397,647**
Total Change in Operating Costs																
	Provisional Unit Rates							**$ 4,000**				**$1,500 to 2,500/m2**				**$ 290**

NOTE A: GSM Renovated Area is calculated at variable rates, depending on the extent of change required. It ranges from 0 for space with up-to-date building systems to 70% for Granville Campus areas.

Scenario B3

B3	Retain Port Campus																
	Sell Granville Campus																
	Sell Academy Campus																
	Construct New Building/DAL or SMU site			Changes in Area													
Campus	Uses	Assignable Areas (sm)	Total Building Area (sm)	Changes in Assignable Area due to new constr., sale of site, or cancelled leases	Changes in Total Builidng Area due to new constr., sale of site, or cancelled leases	Resulting Final Assignable Area (sm)	Resulting Final Total Builidng Area (sm)	New Construction Unit Rates $/SM	Project Costs - New Construction	Renovated Area - Assign. Area (sm)	Renovated Area - Total Building Area (Note A)	Renovation Unit Rates -($/sm)	Projects Cost - Renovations	Total Costs - New + Renovations	Site Purchase Costs/Asset Sale Proceeds	Change in Annual Lease Revenue
Port	Assignable	4,800	4,800			4,800	4,800									
	Leased	0	0			0	0									
	Non-assignable		1,627				1,627									
	Area Sub-totals	**4,800**	**6,427**	**0**	**0**	**4,800**	**6,427**									$0
	Areas untouched												$0	$0		
	Areas renovated (GSM factor 1.0)	1,555								1,555	1,555	$ 1,400	$2,177,000	$2,177,000		
	New areas added												$0	$0		
	Leased space recaptured & renov												$0	$0		
	Project Cost Sub-totals												**$2,177,000**	**$2,177,000**		
Granville	Assignable	8,420	8,420	-8,420	-8,420	0	0									
	Leased	1,150	1,150	-1,150	-1,150	0	0									-$397,647
	Non-assignable		4,370		-4,370		0									
	Area Sub-totals	**9,570**	**13,940**	**-9,570**	**-13,940**	**0**	**0**								$19,012,920.00	-$397,647
													$0	$0		
													$0	$0		
	Project Cost Sub-totals												**$0**	**$0**		
Academy (incl. Annex)	Assignable	1,360	1,360	-1,360		0	0									
	Leased (Incl. Annex)	600	600	-600		0	0									-$78,484
	Non-assignable		1,113		-1,113		0									
	Area Sub-totals	**1,960**	**3,073**	**-1,960**	**-3,073**	**0**	**0**								**$3,873,600**	**-$78,484**
	Project Cost Sub-totals													**$0**	**$0**	
New Facility Univ. Site	Assignable	7,450	7,450	7,450	7,450	7,450	7,450									
	Non-assignable		3,725		3,725		3,725									
	Area Sub-totals	**7,450**	**11,175**	**7,450**	**11,175**	**7,450**	**11,175**									
	New areas added	7,450	11,175					$3,202	$35,900,800					$35,900,800.00	-$4,500,000.00	
	Project Cost Sub-totals								**$35,900,800**					**$35,900,800.00**		
Builidng Areas Sub-totals				**-4,080**	**-5,838**	**12,250**	**17,602**									
Project Costs Totals									**$35,900,800**				**$2,177,000**	**$38,077,800**		
Site Purchase Costs/Asset Sale Proceeds															**$18,386,520**	
Total Change in Annual Lease Revenue																**-$476,131**
Total Change in Operating Costs																
	Provisional Unit Rates							**$ 4,000**	**$ 4,000**			**$1,500 to 2,500/m2**				**$ 290**

NOTE A: GSM Renovated Area is calculated at variable rates, depending on the extent of change required. It ranges from 0 for space with up-to-date building systems to 70% for Granville Campus areas.

Scenario C1

C1	**Retain Port Campus**																
	Sell Granville Campus																
C1	**Retain Academy Campus (Annex demolished)**																
	Construct New Building on Academy Site																
Campus	**Uses**	**Assignable Areas (sm)**	**Total Building Area (sm)**	**Changes in Area Changes in Assignable Area due to new constr., sale of site, or cancelled leases**	**Changes in Total Buildng Area due to new constr., sale of site, or cancelled leases**	**Resulting Final Assignable Area (sm)**	**Resulting Final Total Buildng Area (sm)**	**New Construction Unit Rates $/SM**	**Project Costs - New Construction**	**Renovated Area - Assign. Area (sm)**	**Renovated Area - Total Building Area (Note A)**	**Renovation Unit Rates -($/sm)**	**Projects Cost - Renovations**	**Total Costs - New + Renovations**	**Site Purchase Costs/Asset Sale Proceeds**	**Change in Annual Lease Revenue**
Port	Assignable	4,800	4,800			4,800	4,800									
	Leased	0	0			0	0									
	Non-assignable		1,627				1,627									
	Area Sub-totals	**4,800**	**6,427**	**0**	**0**	**4,800**	**6,427**									$0
													$0	$0		
	Areas renovated (GSM factor 1.0)	1,555								1,555	1,555	$ 1,400	$2,177,000	$2,177,000		
	New areas added												$0	$0		
	Leased space recaptured & renov												$0	$0		
	Project Cost Sub-totals												**$2,177,000**	**$2,177,000**		
Granville	Assignable	8,420	8,420	-8,420	-8,420	0	0									
	Leased	1,150	1,150	-1,150	-1,150	0	0									-$397,647
	Non-assignable		4,370		-4,370		0									
	Area Sub-totals	**9,570**	**13,940**	**-9,570**	**-13,940**	**0**	**0**								$19,012,920.00	-$397,647
													$0	$0		
													$0	$0		
	Project Cost Sub-totals												**$0**	**$0**		
Academy	Assignable	1,360	1,360	75		1,435	1,435									
(Annex demolis	Leased	600	600	-600		0	0									-$78,484
	Non-assignable		1,113		-373		740									
	Area Sub-totals	**1,960**	**3,073**	**-525**	**-898**	**1,435**	**2,175**									**-$78,484**
	Areas untouched	860														
	Areas renovated (GSM factor 1.0)	110								110	110	$ 580	$63,800	$63,800.00		
	Leased recapt & ren (GSM factor of 1	75								75	75	$ 580	$43,500	$43,500.00		
	Project Cost Sub-totals												**$107,300**	**$107,300**		
New Academy	Assignable	4,000	4,000	4,000	4,000	4,000	4,000									
Site Facility	Non-assignable		2,040		2,040		2,040									
	Area Sub-totals	**4,000**	**6,040**	**4,000**	**6,040**	**4,000**	**6,040**									
	New areas added	4,000	6,040					$3,131	$17,032,000					$17,032,000.00		
	Project Cost Sub-totals								**$17,032,000**					**$17,032,000.00**		
Building Areas Sub-totals				**-6,095**	**-8,798**	**10,235**	**14,642**									
Project Costs Totals									**$17,032,000**				**$2,284,300**	**$19,316,300**		
Site Purchase Costs/Asset Sale Proceeds															**$19,012,920**	
Total Change in Annual Lease Revenue																**-$476,131**
Total Change in Operating Costs																
	Provisional Unit Rates							**$ 4,000**	**$ 4,000**			**$1,500 to 2,500/m2**				**$ 290**

NOTE A: GSM Renovated Area is calculated at variable rates, depending on the extent of change required. It ranges from 0 for space with up-to-date building systems to 70% for Granville Campus areas.

Scenario C2

C2	Sell Port Campus																
	Sell Granville Campus																
	Retain Academy Campus																
	Construct New Facility/DAL or SMU Site			Changes in Area													
Campus	Uses	Assignable Areas (sm)	Total Building Area (sm)	Changes in Assignable Area due to new constr., sale of site, or cancelled leases	Changes in Total Builidng Area due to new constr., sale of site, or cancelled leases	Resulting Final Assignable Area (sm)	Resulting Final Total Builidng Area (sm)	New Construction Unit Rates $/SM	Project Costs - New Construction	Renovated Area - Assign. Area (sm)	Renovated Area - Total Building Area (Note A)	Renovation Unit Rates -($/sm)	Projects Cost - Renovations	Total Costs - New + Renovations	Site Purchase Costs/Asset Sale Proceeds	Change in Annual Lease Revenue
Port	Assignable	4,800	4,800	-4,800	-4,800	0	0									
	Leased	0	0		0	0	0									
	Non-assignable		1,627		-1,627		0									
	Area Sub-totals	**4,800**	**6,427**	**-4,800**	**-6,427**	**0**	**0**								$500,000	$0
												$ 1,400				
	Project Cost Sub-totals												**$0**	**$0**		
Granville	Assignable	8,420	8,420	-8,420	-8,420	0	0									
	Leased	1,150	1,150	-1,150	-1,150	0	0									-$397,647
	Non-assignable		4,370		-4,370		0									
	Area Sub-totals	**9,570**	**13,940**	**-9,570**	**-13,940**	**0**	**0**								$19,012,920.00	-$397,647
	Project Cost Sub-totals												**$0**	**$0**		
Academy (incl. Annex)	Assignable	1,360	1,360	75		1,435	1,435									
	Leased	600	600	-75			525									-$12,100
	Non-assignable		1,113				1,113									
	Area Sub-totals	**1,960**	**3,073**	**0**	**0**	**1,435**	**3,073**									**-$12,100**
	Areas untouched	860														
	Areas renovated (GSM factor 1.0)	110								110	110	$ 580	$63,800	$63,800.00		
	Leased recapt & ren (GSM factor of 1.	75								75	75	$ 580	$43,500	$43,500.00		
	Project Cost Sub-totals												**$107,300**	**$107,300**		
New Facility Univ. Site	Assignable	10,915	10,915	10,915	10,915	10,915	10,915									
	Non-assignable		5,458		5,458		5,458									
	Area Sub-totals	**10,915**	**16,373**	**10,915**	**16,373**	**10,915**	**16,373**									
	New areas added	10,915	16,373					$3,014	$49,350,000					$49,350,000.00	-$4,500,000.00	
	Project Cost Sub-totals								**$49,350,000**					**$49,350,000.00**		
Builidng Areas Sub-totals				**-3,455**	**-3,995**	**12,350**	**19,446**									
Project Costs Totals									**$0**				**$107,300**	**$107,300**		
Site Purchase Costs/Asset Sale Proceeds															**$15,012,920**	
Total Change in Annual Lease Revenue																**-$397,647**
Total Change in Operating Costs																
	Provisional Unit Rates							**$ 4,000**	**$ 4,000**			**$1,500 to 2,500/m2**				**$ 290**

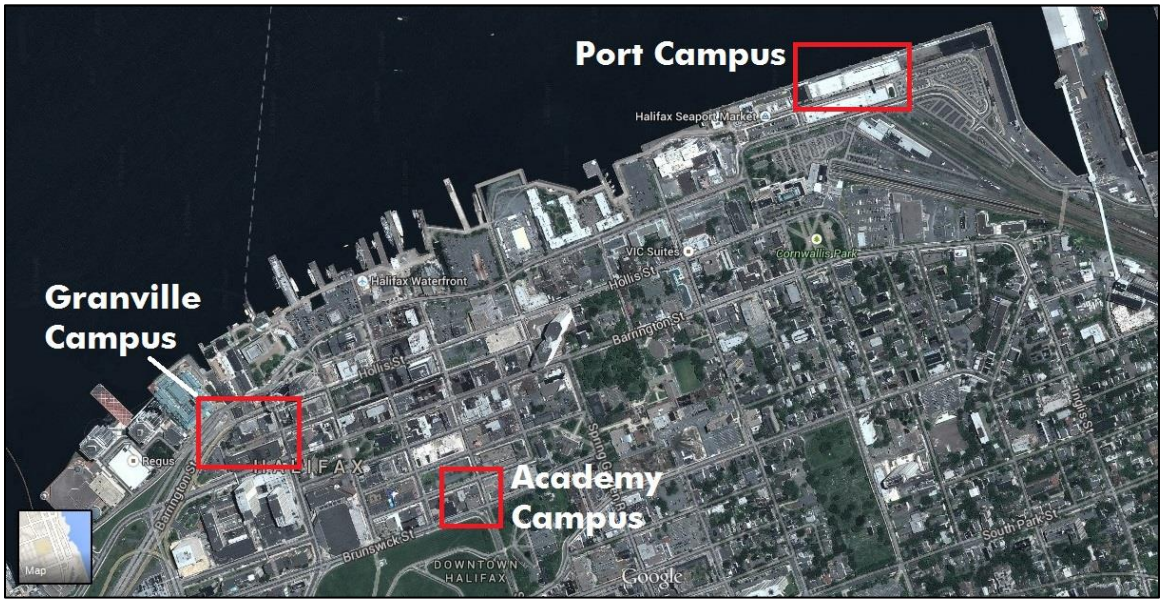
NOTE A: GSM Renovated Area is calculated at variable rates, depending on the extent of change required. It ranges from 0 for space with up-to-date building systems to 70% for Granville Campus areas.

Scenario D1

D1	Sell Port Campus																
	Sell Granville Campus																
	Sell Academy Campus																
	Construct New Facility on New Site			Changes in Area													
Campus	Uses	Assignable Areas (sm)	Total Building Area (sm)	Changes in Assignable Area due to new constr., sale of site, or cancelled leases	Changes in Total Builidng Area due to new constr., sale of site, or cancelled leases	Resulting Final Assignable Area (sm)	Resulting Final Total Builidng Area (sm)	New Construction Unit Rates $/SM	Project Costs - New Construction	Renovated Area - Assign. Area (sm)	Renovated Area - Total Building Area (Note A)	Renovation Unit Rates -($/sm)	Projects Cost - Renovations	Total Costs - New + Renovations	Site Purchase Costs/Asset Sale Proceeds	Change in Annual Lease Revenue
Port	Assignable	4,800	4,800	-4,800	-4,800	0	0									
	Leased	0	0		0	0	0									
	Non-assignable		1,627		-1,627		0									
	Area Sub-totals	**4,800**	**6,427**	**-4,800**	**-6,427**	**0**	**0**								$500,000	$0
												$ 1,400				
	Project Cost Sub-totals													**$0**	**$0**	
Granville	Assignable	8,420	8,420	-8,420	-8,420	0	0									
	Leased	1,150	1,150	-1,150	-1,150	0	0									-$397,647
	Non-assignable		4,370		-4,370		0									
	Area Sub-totals	**9,570**	**13,940**	**-9,570**	**-13,940**	**0**	**0**								$19,012,920.00	-$397,647
													$0	$0		
													$0	$0		
	Project Cost Sub-totals													**$0**	**$0**	
Academy (incl. Annex)	Assignable	1,360	1,360	-1,360		0	0									
	Leased (Incl. Annex)	600	600	-600		0	0									-$78,484
	Non-assignable		1,113		-1,113		0									
	Area Sub-totals	**1,960**	**3,073**	**-1,960**	**-3,073**	**0**	**0**								**$3,873,600**	**-$78,484**
	Project Cost Sub-totals													**$0**	**$0**	
New Facility New Site	Assignable	12,350	12,350	12,350	12,350	12,350	12,350									
	Non-assignable		6,175		6,175		6,175									
	Area Sub-totals	**12,350**	**18,525**	**12,350**	**18,525**	**12,350**	**18,525**									
	New areas added	12,350	18,525					$2,977	$55,151,000					$55,151,000.00	-$6,000,000.00	
	Project Cost Sub-totals								**$55,151,000**					**$55,151,000.00**		
Builidng Areas Sub-totals				**-3,980**	**-4,915**	**12,350**	**18,525**									
Project Costs Totals									**$55,151,000**					**$0**	**$55,151,000**	
Site Purchase Costs/Asset Sale Proceeds															**$17,386,520**	
Total Change in Annual Lease Revenue																**-$476,131**
Total Change in Operating Costs																
	Provisional Unit Rates							**$ 4,000**	**$ 4,000**			**$1,500 to 2,500/m2**				**$ 290**

NOTE A: GSM Renovated Area is calculated at variable rates, depending on the extent of change required. It ranges from 0 for space with up-to-date building systems to 70% for Granville Campus areas.

Appendix B: Scope of Work Descriptions



Introduction

This section provides detailed descriptions of how NSCAD activities are accommodated in the various campus locations for each of the 8 scenarios presented in Section 4.

Port Campus

Scenarios that make use of the Port Campus space include renovations and space reallocations to intensify use and increase the occupancy of the facilities. The specific activities relocated to the Port Campus vary depending on other aspects of the various scenarios.

Port Campus
Renovated Areas:
Scenarios A1, A2, B1, B2, B3, C1

Building Level	ASM
100	455
200	915
300	185
Total Area	1,555

Building Level	ASF
100	4,896
200	9,845
300	1,991
Total Area	16,732

Scenario A1/B2/B3

All Media Arts program space relocated to Port Campus,
vacating space in the Academy Campus.

Scenario A2/B1/C1

All Design programs relocated to Port Campus,
vacating space in the Granville Campus.

In both of these scenarios, the extent of renovations required in the building is constant; the assigned uses vary. Detailed description of the scope of work is provided below:

Space Reallocation and Renovation Scope – Scenarios A1, A2, B1, B2, B3, and C1

Level 100 Block A - Metal Shop – no change

Blocks B/C – Sculpture Studio and Wood Shop
Finishing and sanding rooms relocated to open studio space in Block B
New partitions required and relocation of dust control systems
Assignable area altered –45m^2 (484 sf)

Block D - Foundry
Wax room subdivided to accommodate slurry room
New partitions required
Assignable area altered – 50m^2 (538 sf)

Block E - New Classrooms
Wood finishing and sanding space and adjacent offices renovated to create two new classrooms
Assignable area altered - 160m^2 (1,722 sf)

Block F – Offices
Existing slurry room repurposed as office space
Assignable – 35m^2 (377 sf)

Block G - Existing Loggia
Renovated to function as a multipurpose gallery space, student social space, project presentation and critique space
Some subdivision of existing area with demountable display panels
Assignable area – 165m^2 (1,775 sf)

Space Reallocation and Renovation Scope – Scenario A1/B2/B3

Level 200 To accommodate Media Arts studios and support spaces including large film studio

Blocks A/B/C/D – No change to existing studios and workshop

Block E – Foundation studios repurposed for film program
New partitions to enclose space, with redesigned power, lighting and mechanical systems to accommodate film studio activities
Significant improvements to the acoustic environment will be required to provide acceptable noise levels for filming
Office areas to remain
Assignable area altered – 475m^2 (5,111 sf)

Block F – Classroom & office area reconfigured to increase assignable area
New partition layout to provide new classrooms
Assignable area – 145m^2 (1,560 sf)

Block G – Digital lab and seminar space reconfigured to accommodate Multimedia Services Unit service desk, equipment cage, workshop and office area
Partition changes required
Assignable area – 60m^2 (646 sf)

Block H – Existing open lounge and display space repurposed to provide enclosed studios, new digital lab and open display and social spaces
New partitions, changes to mechanical and electrical layouts required
Assignable area - 235m^2 (2,529 sf)

Space Reallocation and Renovation Scope – Scenario A2/B1/C1

Level 200 To accommodate Design Program studios and support spaces

Blocks A/B/C/D – No change to existing studios and workshop

Block E – Foundation studios repurposed for Design programs
New partitions to enclose space, with redesigned power, lighting and mechanical systems
Office areas to remain
Assignable area altered – 475m^2 (5,111 sf)

Block F – Classroom & office area reconfigured to increase assignable area
New partition layout to provide new classrooms
Assignable area – 145m^2 (1,560 sf)

Block G – Digital lab and seminar space reconfigured to accommodate Multimedia Services Unit service desk, equipment cage, workshop and office area
Partition changes required
Assignable area – 60m^2 (646 sf)

Block H – Existing open lounge and display space repurposed to provide enclosed studios, new digital lab and open display and social spaces
New partitions, changes to mechanical and electrical layouts required
Assignable area - 235m^2 (2,529 sf)

Space Reallocation and Renovation Scope – Scenarios A1, A2, B1, B2, B3, and C1

Level 300 Ceramics studio spaces consolidated to provide additional multipurpose studios space for MFA students and research projects

Blocks A/B/C – No change to uses in existing studios and support spaces
some additional enclosure may be required to contain dust and noise

Block D - Reconfigured to create separate ceramics support areas – parking for ware carts – and multipurpose studio space that can be assigned to MFA students and research projects.
Existing locker enclosures and storage units will be relocated an reused in existing ceramics studios spaces
Assignable area – 185m^2 (1,991 sf)

Granville Campus

Scenarios for the Granville Campus include **space reallocations** and **renovations to selected areas** to reflect the revised space requirements developed in the new Functional Space Program. The reduced NSCAD footprint at the Granville Campus allows the University to increase the amount of leasable space or to divest selected buildings on the site. The configuration varies depending on the planning solutions proposed.

Scenarios A1 and A2

All Media Arts program space relocated to Port Campus
Academy Campus is vacated
Granville campus reconfigured and renovated in part.

All B, C and D Scenarios

All activity relocated from the Granville Campus

Space Reallocation and Renovation Scope – Scenarios A1/A2

Allocations are made as basic blocks of space. Generally there will be limited subdivision of space required within the confines of these blocks.

Drawings showing the proposed allocation of space uses for Scenario A2 are attached to provide an indication of the changes proposed for Granville. The blocks of space included in the renovations' scope are outlined in red on the drawings.

The following assumptions have been made to guide development of construction cost estimates:

1. Studio and office areas that are not being reallocated and where there is not expected to be a significant change in plan or mechanical and electrical system requirements will not be renovated.
2. Areas reallocated to new purposes will be renovated to upgrade finishes and mechanical and electrical systems.
3. The configuration of non-assignable areas such as corridors and stairways are generally not being changed; no allowances are included for upgrades or improvements to these areas.

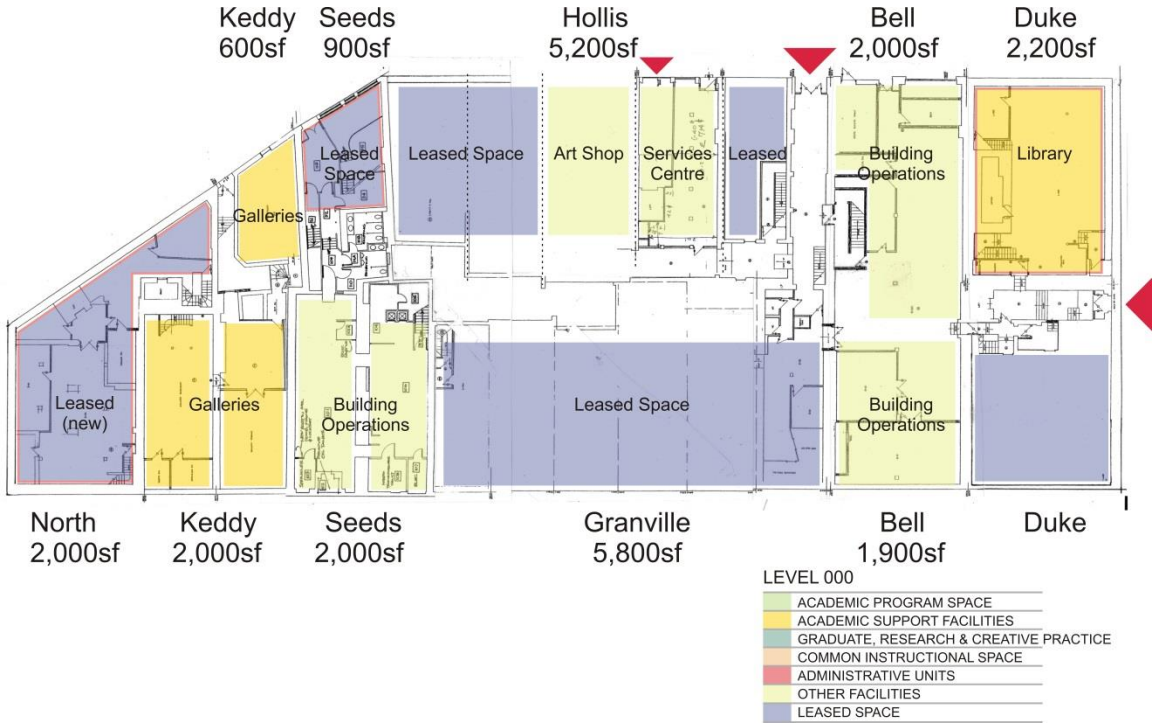
Granville Campus
Renovated Areas:
Scenarios A1 and A2

Building Level	ASM
000	474
100	483
200	730
300	762
400	465
500	186
Total Area	3,100

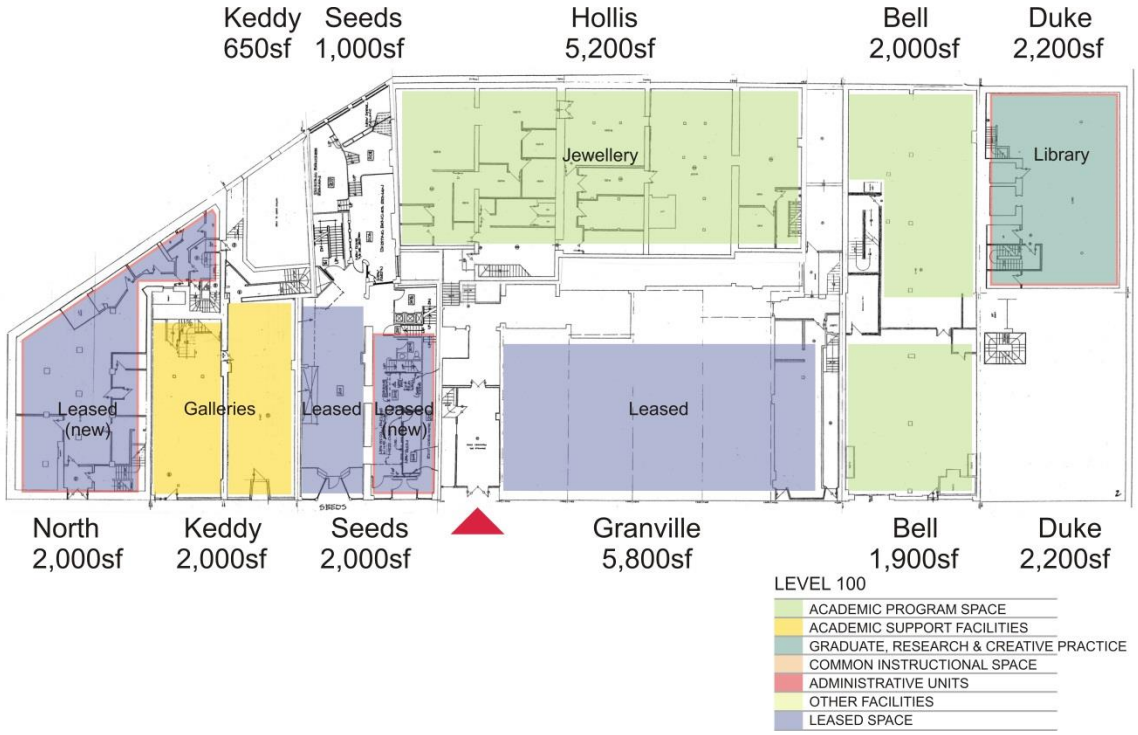
Building Level	ASF
000	5,100
100	5,197
200	7,855
300	8,199
400	5,003
500	2,001
Total Area	33,356

4. The floor areas indicated on the drawings are approximate figures and include some non-assignable uses. These areas generally exceed the space requirements. Renovation costs should be based on the noted areas which will provide some capacity to address non-program areas.

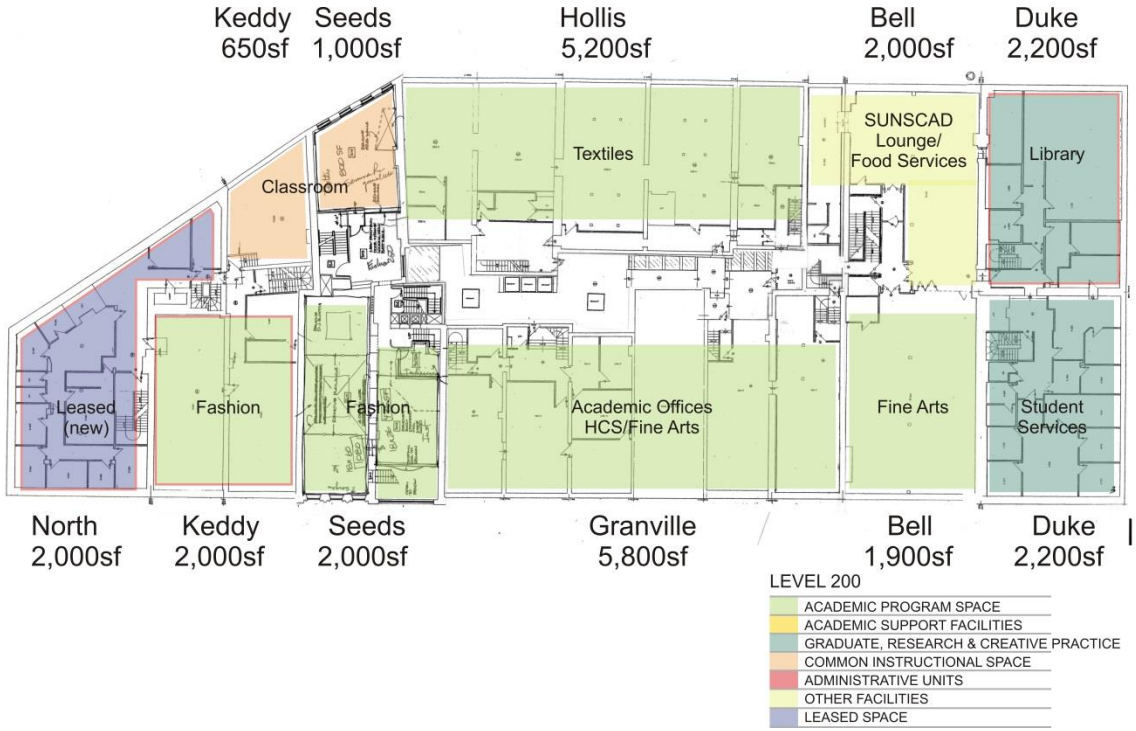
Level 000



Level 100


Keddy
650sf
Seeds
1,000sf
Hollis
5,200sf
Bell
2,000sf
Duke
2,200sf
Jewellery
Library
Leased
(new)
Galleries
Leased
Leased
(new)
Leased
North
2,000sf
Keddy
2,000sf
Seeds
2,000sf
Granville
5,800sf
Bell
1,900sf
Duke
2,200sf
LEVEL 100
ACADEMIC PROGRAM SPACE
ACADEMIC SUPPORT FACILITIES
GRADUATE, RESEARCH & CREATIVE PRACTICE
COMMON INSTRUCTIONAL SPACE
ADMINISTRATIVE UNITS
OTHER FACILITIES
LEASED SPACE

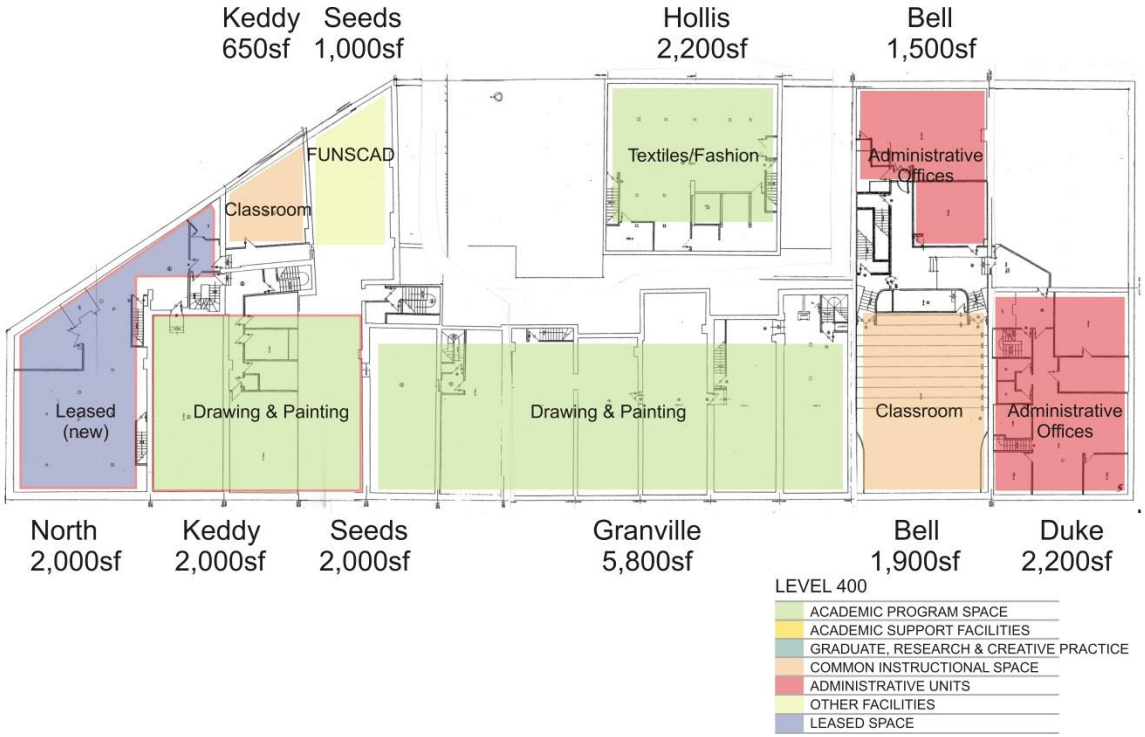
Level 200


Keddy
650sf
Seeds
1,000sf
Hollis
5,200sf
Bell
2,000sf
Duke
2,200sf
Classroom
Textiles
SUNSCAD
Lounge/
Food Services
Library
Leased
(new)
Fashion
Fashion
Academic Offices
HCS/Fine Arts
Fine Arts
Student
Services
North
2,000sf
Keddy
2,000sf
Seeds
2,000sf
Granville
5,800sf
Bell
1,900sf
Duke
2,200sf
LEVEL 200
ACADEMIC PROGRAM SPACE
ACADEMIC SUPPORT FACILITIES
GRADUATE, RESEARCH & CREATIVE PRACTICE
COMMON INSTRUCTIONAL SPACE
ADMINISTRATIVE UNITS
OTHER FACILITIES
LEASED SPACE

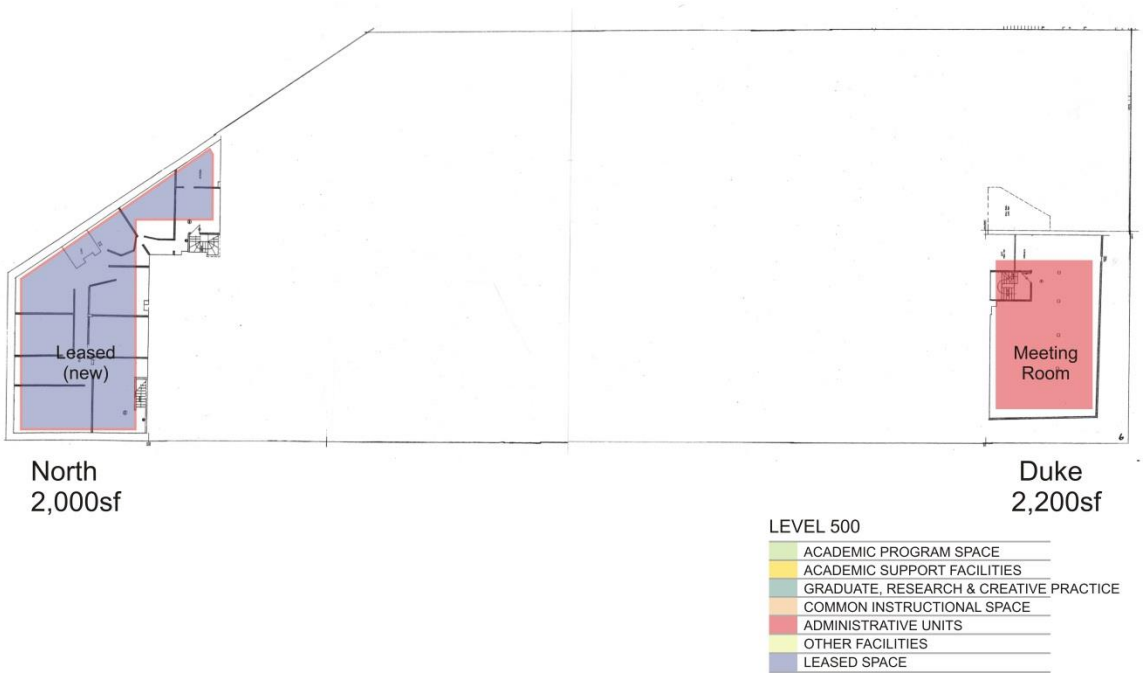
Level 300


Keddy
650sf
Seeds
1,000sf
Hollis
5,200sf
Bell
2,000sf
Duke
2,200sf
Print-making
MultiMedia
Printmaking
Photography
Administrative Offices (new)
Leased (new)
Learning Support
Research Creative Practice
Painting & Drawing
Photography
Photography
Student Services
North
2,000sf
Keddy
2,000sf
Seeds
2,000sf
Granville
5,800sf
Bell
1,900sf
Duke
2,200sf
LEVEL 300
ACADEMIC PROGRAM SPACE
ACADEMIC SUPPORT FACILITIES
GRADUATE, RESEARCH & CREATIVE PRACTICE
COMMON INSTRUCTIONAL SPACE
ADMINISTRATIVE UNITS
OTHER FACILITIES
LEASED SPACE

Level 400


Keddy 650sf
Seeds 1,000sf
Hollis 2,200sf
Bell 1,500sf
FUNSCAD
Classroom
Textiles/Fashion
Administrative Offices
Leased (new)
Drawing & Painting
Drawing & Painting
Classroom
Administrative Offices
North 2,000sf
Keddy 2,000sf
Seeds 2,000sf
Granville 5,800sf
Bell 1,900sf
Duke 2,200sf
LEVEL 400
ACADEMIC PROGRAM SPACE
ACADEMIC SUPPORT FACILITIES
GRADUATE, RESEARCH & CREATIVE PRACTICE
COMMON INSTRUCTIONAL SPACE
ADMINISTRATIVE UNITS
OTHER FACILITIES
LEASED SPACE

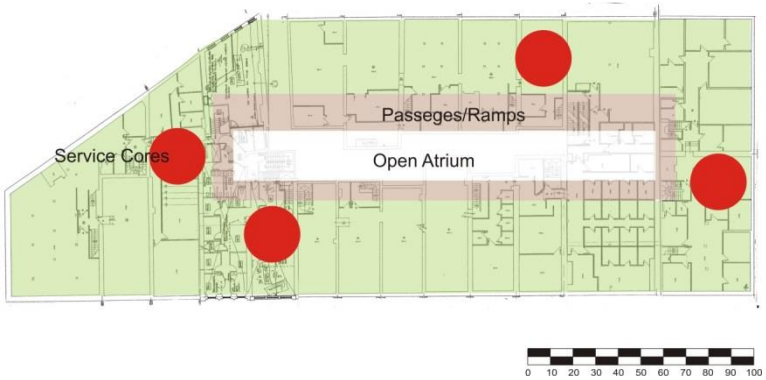
Level 500


Leased
(new)
Meeting
Room
North
2,000sf
Duke
2,200sf
LEVEL 500
ACADEMIC PROGRAM SPACE
ACADEMIC SUPPORT FACILITIES
GRADUATE, RESEARCH & CREATIVE PRACTICE
COMMON INSTRUCTIONAL SPACE
ADMINISTRATIVE UNITS
OTHER FACILITIES
LEASED SPACE

Granville Campus Reconstruction

To provide a baseline against which to measure the advantages and disadvantages of maintaining a NSCAD presence at the Granville Campus, a high-level estimate has been generated for carrying out a full reconstruction of the Granville Campus. The scope of such a project would include:

1. Demolition of the interior core of the block to construct a new structure that accommodates a series of interior circulation corridors with stairs, ramps and elevators configured around a new top-lit atrium space. The new structure would integrate and provide access to all levels of each of the discrete building blocks that make up the complex, providing as near as possible full accessibility to teaching and service spaces. the
2. Renovation of all assignable and unassignable spaces in the remainder of the complex to a modern institutional quality. The extent of work would leave most of the major masonry party walls in place.
3. A full restoration of the exterior facades to the standards required of the various heritage bodies that would be involved; an estimated surface area of 5,200 m^2 (Perimeter – 260 lineal metres x average height – 20 metres).
4. New mechanical, electrical, fire and life safety systems, etc.



The resulting gross floor area of the completed complex would be approximately equivalent to the current total area – 14,000 gross square metres (8,400 assignable square metres) or 150,640 GSF (90,384 ASF). The sketch indicates an approximate extent of an atrium space and encircling passageways.

Based on a very high-level assessment of the scope of such a project, construction and related soft costs would be on the order of $30 million.

Academy Campus

Two options are proposed for the Academy Campus, if it stays in NSCAD ownership:

Scenarios A2/B1/ C2 -
All facilities for Media Arts programs are accommodated in the Academy Building. The Annex building in these scenarios continues to be used as leasable space.

Space Reallocation and Renovation Scope – Scenarios A2/B1/C2

Level 000 Undeveloped basement level space upgraded to accommodate Media Arts studios
Work includes partitioning, all new finishes, and mechanical and electrical services.
Assignable area –110m^2 (1,184 sf)

Level 100 – Current leased space repurposed for NSCAD office uses
No other change is anticipated in this space
Assignable area – 75m^2 (807 sf)

Academy Campus
Renovated Areas:
Scenarios A2/B1/C1/C2

Building Level	ASM
000	110
100	75
Total Area	185

Building Level	ASF
000	1,184
100	807
Total Area	1,991

Academy Campus New Construction Scenario C1		
Building Level	ASM	ASF
000	930	10,007
100	930	10,007
200	930	10,007
300	710	7,640
400	710	7,640
	4,210	45,300
Existing Assignable	1,435	15,441
Total Assignable	5,645	60,740

Scenario C1

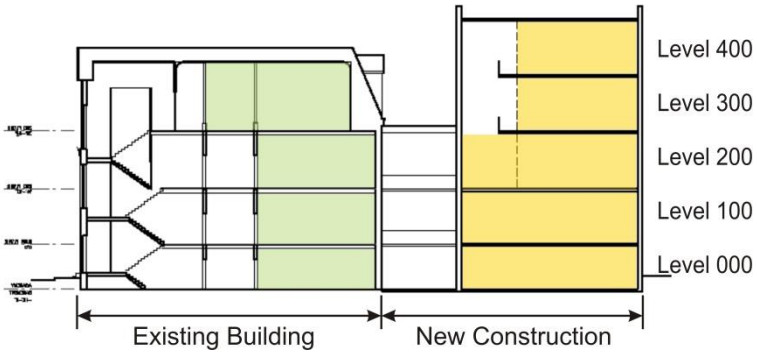
The second option for the Academy Campus proposes construction of a new multi-storey building located on the undeveloped portion of the site. To maximize the footprint and assignable area, the Annex Block would be demolished. Space in the existing Academy building would accommodate all facilities for Media Arts programs. Newly constructed space would accommodate activities relocated from the Granville Campus.

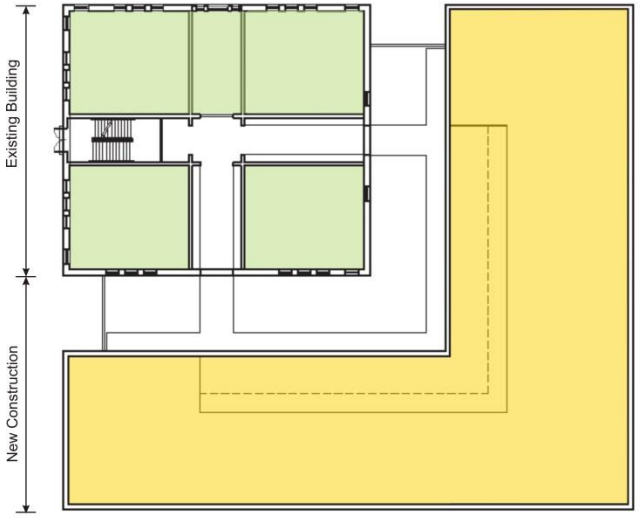
New Construction and Renovation Scope – Scenario C1

Scope of renovation work for existing space in Scenario C1 is identical to that proposed for all other scenarios that maintain activity at the Academy campus. The new structure would provide five levels of program and service space in new space wrapped around two sides of the existing building and interconnected on the first three floors of the Academic block.

Available footprint for new construction is 1,340 m^2 (14,400 gsf).

Section and Plan Views – Academy Campus Expansion





Credit: Base drawings provided by Lydon Lynch Architects

Overall Project Scope

The built-up capacity of the Academy site is limited by both the site footprint and the allowable height of any development. Building heights are set in part by the limits established by the Municipality for view plains extending from Citadel Hill. The view plain from the Citadel extending to Georges Island overlaps the north-east corner of the site.

Lydon Lynch Architects in their capacity as architects for the renovation of the Academy campus provided schematic drawings that illustrate the capacity of the site to support new development. The analysis and illustrations provided here are based on input from their analysis.

Existing Building			New Construction		Total New Construction	
	Assignable Area		Assignable	Non-assignable	Total Area	
Level	(m^2)	(sf)	Area (m^2)	area (m^2)	(m^2)	(sf)
000	310	3,336	930	280	1,210	13,021
100	345	3,712	930	280	1,210	13,021
200	345	3,712	930	280	1,210	13,021
300	435	4,681	710	195	905	9,738
400	nil	nil	710	195	905	9,738
Total	1,435	15,441	4,210	1,230	5,440	58,534

Project Total

Building out the total capacity of the Academy site with the existing assignable area of the Port Campus generates a total assignable area of 10,445 m^2 (112,388 sf) and an overall shortfall in assignable space of 1,905 m^2 (20,498 sf).

	Assignable Area (m^2)	Assignable Area (sf)
Academy Campus - existing	1,435	15,441
Academy Campus – new	4,210	45,300
Total assignable area	*5,645*	*60,740*
Total NSCAD assignable area requirement	12,350	132,886
Port Campus area	4,800	51,648
Academy Campus area	5,645	60,740
Available Assignable Area	*10,445*	*112,388*
Scenario C1 Shortfall – assignable area	1,905	20,498

New Space on the Port Campus

Scenario B2 is based on the acquisition of additional NSCAD space at the Port Campus in the form of an existing building, which would then be renovated to suit NSCAD's requirements. In this scenario, the existing Port building would (as described above) also undergo renovations.

For a more in-depth assessment of this scenario, see Section 4 – Scenario Descriptions. For more information on the substantial unproven assumptions regarding real estate and leasing that this scenario involves, see Appendix C: Real Estate Assessment - Supplemental Notes.

Scenario B2 – Retain Port building with a lease of additional space on the Port site for balance of NSCAD activities

New space requirement

Assignable Area: 7,450m^2 (80,162 sf) Total new space – 10,000 gsm (107,600 gsf)

New Campus/New Location

Several scenarios include development of new facilities for NSCAD on new sites, either a newly acquired location in Halifax or on sites that might be made available by either Dalhousie University or Saint Mary's University. The requirement for new space depends on which of the existing campuses are retained.

For the scenarios considered:

Scenario C2 – Retain Academy with new building for balance of NSCAD activities

New construction requirement

Assignable Area: 10,915m^2 (117,445 sf) Total new construction – 16,373 gsm (176,173 sf)

Scenario D1 – New building for all NSCAD activities

New construction requirement

Assignable Area: 12,350m^2 (132,886 sf) Total new construction – 18,525 gsm (199,329 sf)

Appendix C: Real Estate Assessment - Supplemental Notes

Prepared by Bill MacAvoy, Cushman & Wakefield

June 28, 2013

Real Estate Overview

The following notes are intended to discuss the Real Estate aspects of the various alternative scenarios presented by ECS to the NSCAD project team and Board.

The proceeds of the sale of Commercial Real Estate assets, especially ones that:

- Are unique in nature,
- Have physical condition issues, and
- Are not based on a multiple of an income stream (i.e. occupied),

are difficult to estimate with precision as they are the function of the market at any given point of time. Real Estate has often been defined as an illiquid asset, and does not generally align with commodity based pricing.

As such, the scenarios presented in the report are subject to the final pricing of any dispositions. There are risks to be borne by potential purchasers because two of the NSCAD owned assets are in the downtown area, and have heritage aspects, development approvals by the city are almost always controversial and time consuming,. This can lead to wild variations in offer prices, a suppression in the number of offers, and longer than standard due diligence periods.

There are some comparable sales available for nearby properties attached, but none close enough in size, condition, or design to draw a direct comparison. While appraisals can better pinpoint theoretical value, only the investment community will determine the outcome.

Appendix C:
Real Estate
Assessment Notes

Current Asset Notes

Granville Campus

Much has been written regarding the physical condition of the Granville Campus. And while it is geographically in the heart of the historic section of the City, its pedestrian traffic levels are at an all time low, due to both circumstances with adjacent properties (construction, vacancies), but also changes in use of the downtown generally. There are many people in various organizations working hard to change that trend.

A number of $150/sf on a sale basis is the midpoint of the possible sale proceeds. The attached comparables show sales between $70/sf for small empty buildings, with maintenance deficits and limited development potential and $290/sf, based on both the pre-existing development and existing rental income. The NSCAD Granville site does have redevelopment potential, and there is a natural buyer in the Armour Group who is a neighbour, and holds a Right of First Refusal on any sale, however, it does not guarantee that any specific price will be achieved.

A partial disposition, or compression of used space to create room for third party leasing, are also viable options, but again subject to market forces.

Port Campus

The long term prepaid lease by NSCAD may have some attraction in the market, but likely not a large amount. It is a large block of space, with user specific improvements, and for a duration which is longer than most occupiers prefer. The lease of the adjacent Farmer's Market space was deemed to have limited, if any, value by the previous project lender prior to the Port Authority assuming the Landlord position.

Academy Campus

This asset was acquired by NSCAD from Michael Donovan, and that purchase contains a series of covenants which could impair a sale. As with Granville, $150/sf represents the midpoint of the same range of possible proceeds. The adjacency to the Convention Centre site is of value, however, commercial tenancy in the immediate area has been declining in recent months. Leasing is also a possibility here.

Market Notes

The Halifax Commercial Real Estate market is a complex place in 2013. There are a record number of large, new developments underway, and at the same time, demand is flat for office, and multi-family demand is waning as expressed by vacancy rates.

The peninsula area of Halifax has three unique challenges:

- Access
  - The two bridges, the 102 highway, the Armdale rotary and the Fairview overpass are the five pinch points which impede traffic flow
- Demographics
  - The population in the core has decreased over the past 30 years due to both average family size, and new available options outside the core. The peninsula's population now is predominantly seniors, students, and those not in the workforce
- High proportion of institutional interests
  - As the East Coast base of the navy, the largest employer in the market is the Department of National Defence. With that comes installations both on the water, and near it, in normally developable areas (Stadacona, Windsor park, Royal Artillery Park, Shannon Park, Shearwater, etc)
  - The heavy concentration of three levels of government services as the regional centre, as well as the universities and the hospitals make for high demand for high traffic land with strong transit access, etc.

As such, development lands in the core are rarely available, and when they are, they are expensive. This, along with demographics, is a reason why suburban sprawl has occurred.

For NSCAD, this holds promise that asset divestiture may occur despite the headwinds previously described, however, acquiring a net new site will be challenging.

Development Rents

Development rents are the revenue levels which allow an investor/developer for a market yield over and above the amortization of construction costs. For uses in the Central Business District, $20/sf net, plus a recovery of operating costs and taxes (+/- $15/sf) is a reasonable assumption to use, on the basis of modest fitout/leaseholds funded by the developer. The more expensive the land and the more custom the leaseholds, the higher the rents.

Third Party Leasing

NSCAD has a solid history of acquiring rents from unrelated tenants within the Granville complex. This would go back 20 years to the bar/restaurant JJ Rossy's, to today with a number of small footprint tenants.

While there has been some revenue, there has, for some time, always been vacancy as well. This is indicative of the nature of being a landlord to third parties. It bears risk, and is not predictable in nature. There is an element of chance, and the success is a function of three items:

1. Landlord attention to tenancies
   a. Tenant relations
   b. Ongoing quality of space
2. Marketing efforts, directly and/or through brokers
3. The performance of the market as a whole.

Many businesses who are not core in Real Estate, such as NSCAD, can run solid leasing programs on excess space. It does however require a long term view to the initiative, as well as dedicated resources, in order to ensure that there is a return on the resources dedicated to this initiative. Leasing revenues should also be treated with provisions for tenant default, and capital and operating requirements.

Available Lands in the Market

The Project team asked specifically about the following sites. Please see the comments below.

1. Gorsebrook site

The Halifax Regional Municipality (HRM) owns two thirds of a 20+ acre site at the corners of South, Robie, and Inglis streets. Three schools (an elementary, a Junior High, and the Atlantic Provinces Special Education facility) are on the outer perimeter of the parcel. There have been numerous initiatives incorporating these lands, including possible expansion of the IWK Children's Hospital, which is across the street, and of late, Dalhousie and Saint Mary's have been studying a deal whereby a multi surface ice facility would be developed.

There would be a possibility to discuss a land swap with HRM. Market value of the land per tax assessment is in the order of $1million/acre.

2. Port Campus Expansion

The Halifax Port Authority has a large availability at Shed 22, and the Halifax Seaport Farmers Market would also be open to a reduction in its footprint immediately to the north of the NSCAD premise. Financial terms in both cases are subject to negotiation.

3. Gerard Hall/Queen Street site/Sexton

A site identified through the process was either a development on the Sexton site in conjunction with Dalhousie, or perhaps an independent development on the HRM lands to the south of the new library.

Market value of the land is in the vicinity of $2million/acre. This is among the most expensive neighborhoods in the regions.

4. Former Saint Patrick's High School Site

This site on Quinpool Road is being decommissioned by Halifax Regional School Board. There is desire from large retailers for the high traffic site, but it will not attract the pricing in the downtown or Spring Garden Road areas. Some of the asset may be salvageable for use by NSCAD.

5. NSCC Leeds Campus

Located at the northern end of Robie, this site is being utilized less since the NSCC Waterfront Campus was developed in Dartmouth. Leeds does lack the adjacent amenities that the current NSCAD campuses enjoy.

6. Former RCMP Headquarters, Bayers Road

This large, single tenant office and laboratory facility will be vacated in favour of a new building Burnside in short order. It is a federal asset, which would require a different set of conversations, and may not lend itself to trading of assets.

7. Via Rail Development

Via Rail has commenced a process to increase the density at the train station in the vicinity of the Port campus. Size, pricing, and timing are not know as yet.

8. Cogswell Interchange

HRM has started the process to dismantle the roadways to the north of the Granville campus, which will create new developments lands. The process is at its infancy, pricing is not known, and the lead time is 5 years or more.

Suggested Process

From a purely Real Estate perspective it is recommended that a market based process (RFP, etc.) be used to validate the pricing and costing of the preferred alternatives articulated in the report, prior to selecting the ultimate path forward for NSCAD.

The RFP process may also yield new alternatives which were not tabled.

Placing all the current assets as possibilities for divestiture will allow for maximum creativity by the development and investor community. While the NSCAD assets all have issues which impact value, what is of great value in the market at this time is the occupier potential of NSCAD, given the size of its footprint, and strength of covenant.

As a parallel exercise, conversations with the Halifax Regional Municipality, and the Province of Nova Scotia (Departments of Education, Transportation and Infrastructure Renewal) are warranted in order to further analyze:

- the relevant sites listed above,
- other sites they may have interest in, and
- either (or both) parties' appetite for the NSCAD assets on a swap basis

NSCAD University
Space Utilization Study

Campus Planning Scenarios
Appendix D

Class 'D' Cost Estimates
Prepared by Hanscomb Limited

October 18, 2013

NSCAD UNIVERSITY
SPACE UTILIZATION REVIEW
HALIFAX, NOVA SCOTIA

CLASS 'D' ESTIMATE

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August 12, 2013

TABLE OF CONTENTS

Appendices

1. INTRODUCTION

1.1 Purpose:

These Class 'D' Estimates are intended to provide an order of magnitude assessment of the total project costs associated with the proposed scenarios for NSCAD University at their current sites as well as possible new location in Halifax, Nova Scotia as proposed in the NSCAD University Space Utilization Study

Accordingly, these Class 'D' Estimates should only be considered within the full context of the above noted documentation

1.2 Methodology:

Generally, the areas of work projected by the Master Program are priced using parametric quantities and unit rates considered appropriate for a project of this scope and nature.

Costs reported in these estimates provide for all building construction and include related site development work, allowances for Furnishings & Equipment and Professional Fees & Expenses. Separate provision has also been made where appropriate for such things as building demolition, site clearance, etc.

1.3 Construction Phasing:

Allowances have been made to cover premiums for phased construction essentially for renovated areas. Please note that a phasing plan has not yet been developed.

1.4 Cost Considerations:

All costs are estimated on the basis of competitive bids (a minimum of 5 general contractors bids and at least 3 to 4 subcontractor bids for each trade) being received in August 2013 from general contractors and all major subcontractors and suppliers based on a stipulated sum form of contract. Pricing shown reflects probable costs obtainable in the Halifax area on the effective date of this report and is therefore a determination of fair market value for the construction of the work and not a prediction of low bid.

Escalation to tender has not been allowed to the anticipated time of construction start.

An allowance of 20% has been included to cover design and pricing unknowns. This allowance is not intended to cover any program space modifications but rather to provide some flexibility for the designers and cost planners during the remaining contract document stages.

1. INTRODUCTION (continued)

1.4 Cost Considerations: (continued)

An allowance of 5% for new construction and 10% for renovation work has been made to cover construction (post contract) unknowns to mitigate potential change order conditions.

The units rates used in the preparation of these Class 'D' Estimates include labour and material, equipment, subcontractor's overheads and profit

The following items have been specifically excluded from these Class 'D' Estimates:

- Removal or Mitigation / Remediation of contaminated soils
- Cost of Design Exclusions, Omissions, & Errors
- Escalation Allowance
- Value Added Taxes (GST, HST, QST, etc.)
- Financing Fee's & Carrying Costs
- Fund Raising Requirements
- Owner's Staff and Associated Management
- Relocation of Existing Facilities, Furniture or Equipment
- Impact of Adjacent Properties and their Conditions
- Removal of Asbestos or Mitigation of any Hazardous Material

1.5 Statement of Probable Costs:

Hanscomb has no control over the cost of labour and materials, the contractor's method of determining prices, or competitive bidding and market conditions. This opinion of probable cost of construction is made on the basis of experience, qualifications and best judgment of the professional consultant familiar with the construction industry. Hanscomb cannot and does not guarantee that proposals, bids or actual construction costs will not vary from this or subsequent cost estimates.

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

1.6 Ongoing Cost Control:

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

1. INTRODUCTION (continued)

1.6 Ongoing Cost Control: (continued)

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

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

2. DOCUMENTATION

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

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

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

3. GROSS FLOOR AREAS

Scenario	Port Renovation m2	Granville Renovation m2	Academy Renovation m2	Academy Addition m2	New m2	TOTAL m2
A1	1,555	3,100				4,655
A2	1,555	3,100	185			4,840
B1			185			185
B3			185	5,440		5,625
C1			185		11,213	11,398
C2			185		16,373	16,558
C3					18,525	18,525
C4			185		10,200	10,385

Other Scenarios	m2
Reconstruction of Granville Campus	10,000
Additional Lease Space in Port Campus	10,000

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

Appendix
A - PORT CAMPUS

NSCAD UNIVERSITY
SPACE UTILIZATION STUDY
PORT CAMPUS - SCENARIO A1

Hanscomb

REPORT DATE: August 12, 2013

Description	Area		Rate	Cost	Subtotal
CONSTRUCTION COSTS					
PORT CAMPUS					
Renovated Areas	**1,555**	**m2**	**$858.65**		**$1,335,200**
Metal Shop (no work)				*$0*	
Sculpture Studio and Wood Shop	*45*	*m2*	*$552.00*	*$24,840*	
relocate dust control systems		*Sum*		*$46,000*	
Foundry	*50*	*m2*	*$609.50*	*$30,475*	
Classroom	*305*	*m2*	*$690.00*	*$210,450*	
Offices	*35*	*m2*	*$632.50*	*$22,138*	
Presentation space	*165*	*m2*	*$879.75*	*$145,159*	
demountable display panels		*Sum*		*$28,750*	
Film Program	*475*	*m2*	*$937.25*	*$445,194*	
acoustics improvement		*Sum*		*$11,500*	
Multimedia Services	*60*	*m2*	*$776.25*	*$46,575*	
Digital Lab	*235*	*m2*	*$920.00*	*$216,200*	
Ceramics Support	*185*	*m2*	*$552.00*	*$102,120*	
relocate locker enclosures and storage units		*Sum*		*$5,750*	
NET BUILDING COST - EXCLUDING SITE	**1,555**	**m2**	**$858.65**		**$1,335,200**
SITE ALLOWANCE					
Site Development & Site Services					**N/A**
NET BUILDING COST - INCLUDING SITE	**1,555**	**m2**	**$858.65**		**$1,335,200**
BUILDING ALLOWANCES					
Hazardous Material Abatement					NIC
Project Phasing Premium	2.5%				$33,400
Sustainable Design Allowance ***(LEED)***	0.0%				$0
General Requirements & Fees ***(Included in Unit Rates)***	0.0%				$0
NET BUILDING COST - EXCLUDING CONTINGENCIES	**1,555**	**m2**	**$880.13**		**$1,368,600**
CONTINGENCIES					
Design & Pricing Allowance	20.0%				$273,700
Construction Allowance	10.0%				$164,200
SUB-TOTAL - WITH CONTINGENCIES	**1,555**	**m2**	**$1,161.70**		**$1,806,500**
ESCALATION	0.0%				$0
SUBTOTAL	1,555	m2	$1,161.70		$1,806,500
ANCILLARIES & SOFT COSTS					$370,300
Professional Fees	11.0%			$198,700	
Soft Costs (Non FF & E)	2.0%			$36,100	
Furnishing & Draperies	2.5%			$45,200	
Technology & Equipment Budget	5.0%			$90,300	
TOTAL PROJECT COST	**1,555**	**m2**	**$1,399.87**		**$2,176,800**

Notes:

(1) The above estimate is based on the Space Utilization Study received on **June 18, 2013**

NSCAD UNIVERSITY
SPACE UTILIZATION STUDY
PORT CAMPUS - OPTION A2

Hanscomb

REPORT DATE: August 12, 2013

Description	Area		Rate	Cost	Subtotal
CONSTRUCTION COSTS					
PORT CAMPUS					
Renovated Areas	**1,555**	**m2**	**$746.88**		**$1,161,400**
Metal Shop (no work)				*$0*	
Sculpture Studio and Wood Shop	*45*	*m2*	*$552.00*	*$24,840*	
relocate dust control systems		*Sum*		*$46,000*	
Foundry	*50*	*m2*	*$609.50*	*$30,475*	
Classroom	*305*	*m2*	*$632.50*	*$192,913*	
Offices	*35*	*m2*	*$632.50*	*$22,138*	
Presentation space	*165*	*m2*	*$879.75*	*$145,159*	
demountable display panels		*Sum*		*$28,750*	
Design Programs	*475*	*m2*	*$632.50*	*$300,438*	
Multimedia Services	*60*	*m2*	*$776.25*	*$46,575*	
Digital Lab	*235*	*m2*	*$920.00*	*$216,200*	
Ceramics Support	*185*	*m2*	*$552.00*	*$102,120*	
relocate locker enclosures and storage units		*Sum*		*$5,750*	
NET BUILDING COST - EXCLUDING SITE	**1,555**	**m2**	**$746.88**		**$1,161,400**
SITE ALLOWANCE					
Site Development & Site Services					**N/A**
NET BUILDING COST - INCLUDING SITE	**1,555**	**m2**	**$746.88**		**$1,161,400**
BUILDING ALLOWANCES					
Hazardous Material Abatement					NIC
Project Phasing Premium	2.5%				$29,000
Sustainable Design Allowance ***(LEED)***	0.0%				$0
General Requirements & Fees ***(Included in Unit Rates)***	0.0%				$0
NET BUILDING COST - EXCLUDING CONTINGENCIES	**1,555**	**m2**	**$765.53**		**$1,190,400**
CONTINGENCIES					
Design & Pricing Allowance	20.0%				$238,100
Construction Allowance	10.0%				$142,900
SUB-TOTAL - WITH CONTINGENCIES	**1,555**	**m2**	**$1,010.50**		**$1,571,400**
ESCALATION	0.0%				$0
SUBTOTAL	1,555	m2	$1,010.50		$1,571,400
ANCILLARIES & SOFT COSTS					$322,200
Professional Fees	11.0%			$172,900	
Soft Costs (Non FF & E)	2.0%			$31,400	
Furnishing & Draperies	2.5%			$39,300	
Technology & Equipment Budget	5.0%			$78,600	
TOTAL PROJECT COST - INCLUDING TAX BURDEN	**1,555**	**m2**	**$1,217.75**		**$1,893,600**

Notes:
(1) The above estimate is based on the Space Utilization Study received on **June 18, 2013**

Appendix
B - GRANVILLE CAMPUS

NSCAD UNIVERSITY
SPACE UTILIZATION STUDY
GRANVILLE CAMPUS - SCENARIO A1 & A2

Hanscomb

REPORT DATE: August 12, 2013

Description	Area		Rate	Cost	Subtotal
CONSTRUCTION COSTS					
GRANVILLE CAMPUS					
Renovated Areas	**1,687**	**m2**	**$1,267.87**		**$2,138,800**
Library	*669*	*m2*	*$1,461.65*	*$977,730*	
Fashion	*235*	*m2*	*$1,335.15*	*$313,760*	
Learning Support	*106*	*m2*	*$1,174.15*	*$124,460*	
Research Creative Practice	*212*	*m2*	*$1,174.15*	*$248,920*	
Administrative Offices	*232*	*m2*	*$863.65*	*$200,367*	
Drawing & Painting	*233*	*m2*	*$1,174.15*	*$273,577*	
Other Areas	**1,413**	**m2**	**$635.93**		**$898,700**
Leased space	*1,413*	*m2*	*$635.95*	*$898,725*	
NET BUILDING COST - EXCLUDING SITE	**3,100**	**m2**	**$979.80**		**$3,037,500**
SITE ALLOWANCE					
Site Development & Site Services					**N/A**
NET BUILDING COST - INCLUDING SITE	**3,100**	**m2**	**$979.80**		**$3,037,500**
BUILDING ALLOWANCES					
Hazardous Material Abatement					NIC
Project Phasing Premium	2.5%				$75,900
Sustainable Design Allowance ***(LEED)***	0.0%				$0
General Requirements & Fees ***(Included in Unit Rates)***	0.0%				$0
NET BUILDING COST - EXCLUDING CONTINGENCIES	**3,100**	**m2**	**$1,004.28**		**$3,113,400**
CONTINGENCIES					
Design & Pricing Allowance	20.0%				$622,700
Construction Allowance	10.0%				$373,600
SUB-TOTAL - WITH CONTINGENCIES	**3,100**	**m2**	**$1,325.70**		**$4,109,700**
ESCALATION	0.0%				$0
SUBTOTAL	3,100	m2	$1,325.70		$4,109,700
ANCILLARIES & SOFT COSTS					$842,500
Professional Fees	11.0%			$452,100	
Soft Costs (Non FF & E)	2.0%			$82,200	
Furnishing & Draperies	2.5%			$102,700	
Technology & Equipment Budget (Included in above)	5.0%			$205,500	
TOTAL PROJECT COST - INCLUDING TAX BURDEN	**3,100**	**m2**	**$1,597.42**		**$4,952,200**

Appendix
C - ACADEMY CAMPUS

NSCAD UNIVERSITY
SPACE UTILIZATION STUDY
ACADEMY CAMPUS - SCENARIO A2, B1, B3, C1 & C2

Hanscomb

REPORT DATE: August 12, 2013

Description	Area		Rate	Cost	Subtotal
CONSTRUCTION COSTS					
ACADEMY CAMPUS					
Renovated Areas	**185**	**m2**	**$355.68**		**$65,800**
Media Arts Studios	*110*	*m2*	*$465.29*	*$51,182*	
Offices	*75*	*m2*	*$194.35*	*$14,576*	
NET BUILDING COST - EXCLUDING SITE	**185**	**m2**	**$355.68**		**$65,800**
SITE ALLOWANCE					
Site Development & Site Services					**N/A**
NET BUILDING COST - INCLUDING SITE	**185**	**m2**	**$355.68**		**$65,800**
BUILDING ALLOWANCES					
Hazardous Material Abatement					NIC
Project Phasing Premium	2.5%				$1,600
Sustainable Design Allowance ***(LEED)***	0.0%				$0
General Requirements & Fees ***(Included in Unit Rates)***	0.0%				$0
NET BUILDING COST - EXCLUDING CONTINGENCIES	**185**	**m2**	**$364.32**		**$67,400**
CONTINGENCIES					
Design & Pricing Allowance	20.0%				$13,500
Construction Allowance	10.0%				$8,100
SUB-TOTAL - WITH CONTINGENCIES	**185**	**m2**	**$481.10**		**$89,000**
ESCALATION	0.0%				$0
SUBTOTAL	185	m2	$481.10		$89,000
ANCILLARIES & SOFT COSTS					$18,300
Professional Fee	11.0%			$9,800	
Soft Costs (Non FF & E)	2.0%			$1,800	
Furnishing & Draperies	2.5%			$2,200	
Technology & Equipment Budget (Included in above)	5.0%			$4,500	
TOTAL PROJECT COST - INCLUDING TAX BURDEN	**185**	**m2**	**$580.00**		**$107,300**

Notes:
(1) The above estimate is based on the Space Utilization Study received on **June 18, 2013**

Project	: **NSCAD UNIVERSITY**		Report date : 12 Aug 2013
	: **ACADEMY CAMPUS ADDITION - SCENARIO B3**		Page No. : 1
Location	: **HALIFAX, NS**	**ELEMENTAL COST SUMMARY**	Bldg Type : 720
Owner	: **NSCAD**		C.T. Index : 0.0
Consultant	:		GFA : 5,440 m2

Element		Ratio to GFA	Elemental Cost Quantity	Elemental Cost Unit rate	Elemental Amount Sub-Total	Elemental Amount Total	Rate per m2 Sub-Total	Rate per m2 Total	%
A SHELL			5,440 m2			3,791,490		696.97	33.9
A1 SUBSTRUCTURE						310,366		57.05	2.8
A11	Foundations	0.222	1,210 m2	111.32	134,702		24.76		
A12	Basement Excavation	0.000	1 Sum	10,664.00	10,664		1.96		
A13	Special Conditions	0.000	1 Sum	165,000.00	165,000		30.33		
A2 STRUCTURE						2,082,670		382.84	18.6
A21	Lowest Floor Construction	0.222	1,210 m2	64.13	77,600		14.26		
A22	Upper Floor Construction	0.778	4,230 m2	389.42	1,647,250		302.80		
A23	Roof Construction	0.222	1,210 m2	295.72	357,820		65.78		
A3 EXTERIOR ENCLOSURE						1,398,454		257.07	12.5
A31	Walls Below Grade	0.014	76 m2	430.00	32,680		6.01		
A32	Walls Above Grade	0.227	1,234 m2	452.98	558,978		102.75		
A33	Windows & Entrances	0.151	823 m2	548.26	451,218		82.94		
A34	Roof Coverings	0.222	1,210 m2	182.89	221,300		40.68		
A35	Projections	0.000	1 Sum	34,278.00	34,278		6.30		
A36	Existing Enclosure	0.000	1 Sum	100,000.00	100,000		18.38		
B INTERIORS			5,440 m2			2,375,699		436.71	21.3
B1 PARTITIONS & DOORS						762,607		140.19	6.8
B11	Partitions	0.929	5,054 m2	126.06	637,107		117.12		
B12	Doors	0.022	117 Lvs	1,072.65	125,500		23.07		
B2 FINISHES						905,092		166.38	8.1
B21	Floor Finishes	1.000	5,440 m2	65.00	353,600		65.00		
B22	Ceiling Finishes	1.000	5,440 m2	58.00	315,520		58.00		
B23	Wall Finishes	1.972	10,726 m2	22.00	235,972		43.38		
B3 FITTINGS & EQUIPMENT						708,000		130.15	6.3
B31	Fittings & Fixtures	1.000	5,440 m2	75.00	408,000		75.00		
B33	Elevators	0.000	2 No	150,000.00	300,000		55.15		
C SERVICES			5,440 m2			3,726,400		685.00	33.4
C1 MECHANICAL						2,611,200		480.00	23.4
C11	Plumbing & Drainage	1.000	5,440 m2	85.00	462,400		85.00		
C12	Fire Protection	1.000	5,440 m2	35.00	190,400		35.00		
C13	HVAC	1.000	5,440 m2	320.00	1,740,800		320.00		
C14	Controls	1.000	5,440 m2	40.00	217,600		40.00		
C2 ELECTRICAL						1,115,200		205.00	10.0
C21	Service & Distribution	1.000	5,440 m2	65.00	353,600		65.00		
C22	Lighting, Devices & Heating	1.000	5,440 m2	95.00	516,800		95.00		
C23	Systems & Ancillaries	1.000	5,440 m2	45.00	244,800		45.00		
NET BUILDING COST - EXCLUDING SITE					**$**	**9,893,589**		1,818.67	88.6
D SITE & ANCILLARY WORK			5,440 m2			262,000		48.16	2.4
D1 SITE WORK						145,000		26.65	1.3
D11	Site Development	0.000	1 Sum	75,000.00	75,000		13.79		
D12	Mechanical Site Services	0.000	1 Sum	50,000.00	50,000		9.19		
D13	Electrical Site Services	0.000	1 Sum	20,000.00	20,000		3.68		
D2 ANCILLARY WORK						117,000		21.51	1.1
D21	Demolition Existing Wing	0.000	1 Sum	117,000.00	117,000		21.51		
NET BUILDING COST - INCLUDING SITE					**$**	**10,155,589**		1,866.84	90.9
Z1 BUILDING ALLOWANCES						1,015,559		186.68	9.1
Z11	General Requirements & Fee		10.0 %		1,015,559		186.68		
Z12	Hazardous Material Abatement	0.000	1 NIC	0.00	0		0.00		
Z13	Project Staging Premium		0.0 %		0		0.00		
Z14	Sustainable Design Allowance		0.0 %		0		0.00		
TOTAL CONSTRUCTION ESTIMATE - EXCLUDING ALLOWANCES					**$**	**11,171,148**		2,053.52	100.0
Z2 CONTINGENCIES						2,904,499		533.92	
Z21	Design & Pricing Allowance		20.0 %		2,234,230		410.70		
Z22	Construction Allowance		5.0 %		670,269		123.21		
Z23	Escalation Allowance		0.0 %		0		0.00		
Z3 ANCILLARIES & SOFT COSTS						2,955,885		543.36	
Z31	Professional Fees - 11%		1 Sum	1,548,321.00	1,548,321		284.62		
Z32	Soft Costs (non FF & E) - 2%		1 Sum	281,513.00	281,513		51.75		
Z33	Furnishings & Draperies - 3%		1 Sum	422,269.00	422,269		77.62		
Z34	Technology & Equipment - 5%		1 Sum	703,782.00	703,782		129.37		
TOTAL CONSTRUCTION ESTIMATE					**$**	**17,031,532**	**$**	**3,130.80**	

Appendix
D - NEW BUILD

Project : **NSCAD UNIVERSITY**
: **NEW CAMPUS - SCENARIO C1**
Location : **HALIFAX, NS**
Owner : **NSCAD**
Consultant :

ELEMENTAL COST SUMMARY

Report date : 12 Aug 2013
Page No. : 1
Bldg Type : 720
C.T. Index : 0.0
GFA : 11,213 m2

Element		Ratio to GFA	Elemental Cost Quantity	Elemental Cost Unit rate	Elemental Amount Sub-Total	Elemental Amount Total	Rate per m2 Sub-Total	Rate per m2 Total	%
A	**SHELL**		11,213 m2			8,335,054		743.34	35.4
A1	**SUBSTRUCTURE**					468,536		41.79	2.0
A11	Foundations	0.250	2,803 m2	112.00	313,936		28.00		
A12	Basement Excavation	0.000	1 Sum	57,350.00	57,350		5.11		
A13	Special Conditions	0.000	1 Sum	97,250.00	97,250		8.67		
A2	**STRUCTURE**					4,467,055		398.38	19.0
A21	Lowest Floor Construction	0.250	2,803 m2	61.78	173,180		15.44		
A22	Upper Floor Construction	0.750	8,410 m2	385.58	3,242,750		289.20		
A23	Roof Construction	0.250	2,803 m2	375.00	1,051,125		93.74		
A3	**EXTERIOR ENCLOSURE**					3,399,463		303.17	14.4
A31	Walls Below Grade	0.048	538 m2	430.00	231,340		20.63		
A32	Walls Above Grade	0.444	4,979 m2	377.00	1,877,083		167.40		
A33	Windows & Entrances	0.065	729 m2	550.00	400,950		35.76		
A34	Roof Coverings	0.250	2,803 m2	174.84	490,090		43.71		
A35	Projections	0.000	1 Sum	400,000.00	400,000		35.67		
B	**INTERIORS**		11,213 m2			4,591,041		409.44	19.5
B1	**PARTITIONS & DOORS**					1,578,067		140.74	6.7
B11	Partitions	0.929	10,417 m2	126.00	1,312,542		117.06		
B12	Doors	0.022	247 Lvs	1,075.00	265,525		23.68		
B2	**FINISHES**					1,871,999		166.95	8.0
B21	Floor Finishes	1.000	11,213 m2	65.00	728,845		65.00		
B22	Ceiling Finishes	1.000	11,213 m2	58.00	650,354		58.00		
B23	Wall Finishes	1.998	22,400 m2	22.00	492,800		43.95		
B3	**FITTINGS & EQUIPMENT**					1,140,975		101.75	4.9
B31	Fittings & Fixtures	1.000	11,213 m2	75.00	840,975		75.00		
B33	Elevators	0.000	2 No	150,000.00	300,000		26.75		
C	**SERVICES**		11,213 m2			7,680,905		685.00	32.6
C1	**MECHANICAL**					5,382,240		480.00	22.9
C11	Plumbing & Drainage	1.000	11,213 m2	85.00	953,105		85.00		
C12	Fire Protection	1.000	11,213 m2	35.00	392,455		35.00		
C13	HVAC	1.000	11,213 m2	320.00	3,588,160		320.00		
C14	Controls	1.000	11,213 m2	40.00	448,520		40.00		
C2	**ELECTRICAL**					2,298,665		205.00	9.8
C21	Service & Distribution	1.000	11,213 m2	65.00	728,845		65.00		
C22	Lighting, Devices & Heating	1.000	11,213 m2	95.00	1,065,235		95.00		
C23	Systems & Ancillaries	1.000	11,213 m2	45.00	504,585		45.00		
	NET BUILDING COST - EXCLUDING SITE				**$**	**20,607,000**		1,837.78	87.5
D	**SITE & ANCILLARY WORK**		11,213 m2			800,000		71.35	3.4
D1	**SITE WORK**					800,000		71.35	3.4
D11	Site Development	0.000	1 Sum	500,000.00	500,000		44.59		
D12	Mechanical Site Services	0.000	1 Sum	200,000.00	200,000		17.84		
D13	Electrical Site Services	0.000	1 Sum	100,000.00	100,000		8.92		
D2	**ANCILLARY WORK**					0		0.00	0.0
D21	Demolition				0		0.00		
	NET BUILDING COST - INCLUDING SITE				**$**	**21,407,000**		1,909.12	90.9
Z1	**BUILDING ALLOWANCES**					2,140,700		190.91	9.1
Z11	General Requirements & Fee		10.0 %		2,140,700		190.91		
Z12	Hazardous Material Abatement	0.000	1 NIL	0.00	0		0.00		
Z13	Project Staging Premium		0.0 %		0		0.00		
Z14	Sustainable Design Allowance		0.0 %		0		0.00		
	TOTAL CONSTRUCTION ESTIMATE - EXCLUDING ALLOWANCES				**$**	**23,547,700**		2,100.04	100.0
Z2	**CONTINGENCIES**					6,122,402		546.01	
Z21	Design & Pricing Allowance		20.0 %		4,709,540		420.01		
Z22	Construction Allowance		5.0 %		1,412,862		126.00		
Z23	Escalation Allowance		0.0 %		0		0.00		
Z3	**ANCILLARIES & SOFT COSTS**					6,230,721		555.67	
Z31	Professional Fees - 11%		1 Sum	3,263,711.00	3,263,711		291.06		
Z32	Soft Costs (non FF & E) - 2%		1 Sum	593,402.00	593,402		52.92		
Z33	Furnishings & Draperies - 3%		1 Sum	890,103.00	890,103		79.38		
Z34	Technology & Equipment - 5%		1 Sum	1,483,505.00	1,483,505		132.30		
	TOTAL CONSTRUCTION ESTIMATE				**$**	**35,900,823**	**$**	**3,201.71**	

Project	: **NSCAD UNIVERSITY**			Report date	: 12 Aug 2013
	: **NEW CAMPUS - SCENARIO C2**			Page No.	: 1
Location	: **HALIFAX, NS**	**ELEMENTAL COST SUMMARY**		Bldg Type	: 720
Owner	: **NSCAD**			C.T. Index	: 0.0
Consultant	:			GFA	: 16,373 m2

Element	Ratio to GFA	Elemental Cost Quantity	Elemental Cost Unit rate	Elemental Amount Sub-Total	Elemental Amount Total	Rate per m2 Sub-Total	Rate per m2 Total	%
A SHELL		16,373 m2			10,847,935		662.55	33.5
A1 SUBSTRUCTURE					455,936		27.85	1.4
A11 Foundations	0.167	2,728 m2	112.00	305,536		18.66		
A12 Basement Excavation	0.000	1 Sum	55,800.00	55,800		3.41		
A13 Special Conditions	0.000	1 Sum	94,600.00	94,600		5.78		
A2 STRUCTURE					6,437,380		393.17	19.9
A21 Lowest Floor Construction	0.166	2,723 m2	61.84	168,380		10.28		
A22 Upper Floor Construction	0.833	13,645 m2	384.60	5,247,875		320.52		
A23 Roof Construction	0.166	2,723 m2	375.00	1,021,125		62.37		
A3 EXTERIOR ENCLOSURE					3,954,619		241.53	12.2
A31 Walls Below Grade	0.040	655 m2	430.00	281,650		17.20		
A32 Walls Above Grade	0.362	5,927 m2	377.00	2,234,479		136.47		
A33 Windows & Entrances	0.051	835 m2	550.00	459,250		28.05		
A34 Roof Coverings	0.166	2,723 m2	176.00	479,240		29.27		
A35 Projections	0.000	1 Sum	500,000.00	500,000		30.54		
B INTERIORS		16,373 m2			6,562,839		400.83	20.3
B1 PARTITIONS & DOORS					2,267,985		138.52	7.0
B11 Partitions	0.929	15,210 m2	126.00	1,916,460		117.05		
B12 Doors	0.020	327 Lvs	1,075.00	351,525		21.47		
B2 FINISHES					2,706,879		165.33	8.4
B21 Floor Finishes	1.000	16,373 m2	65.00	1,064,245		65.00		
B22 Ceiling Finishes	1.000	16,373 m2	58.00	949,634		58.00		
B23 Wall Finishes	1.924	31,500 m2	22.00	693,000		42.33		
B3 FITTINGS & EQUIPMENT					1,587,975		96.99	4.9
B31 Fittings & Fixtures	1.000	16,373 m2	75.00	1,227,975		75.00		
B33 Elevators	0.000	2 No	180,000.00	360,000		21.99		
C SERVICES		16,373 m2			11,215,505		685.00	34.7
C1 MECHANICAL					7,859,040		480.00	24.3
C11 Plumbing & Drainage	1.000	16,373 m2	85.00	1,391,705		85.00		
C12 Fire Protection	1.000	16,373 m2	35.00	573,055		35.00		
C13 HVAC	1.000	16,373 m2	320.00	5,239,360		320.00		
C14 Controls	1.000	16,373 m2	40.00	654,920		40.00		
C2 ELECTRICAL					3,356,465		205.00	10.4
C21 Service & Distribution	1.000	16,373 m2	65.00	1,064,245		65.00		
C22 Lighting, Devices & Heating	1.000	16,373 m2	95.00	1,555,435		95.00		
C23 Systems & Ancillaries	1.000	16,373 m2	45.00	736,785		45.00		
NET BUILDING COST - EXCLUDING SITE				**$**	**28,626,279**		1,748.38	88.4
D SITE & ANCILLARY WORK		16,373 m2			800,000		48.86	2.5
D1 SITE WORK					800,000		48.86	2.5
D11 Site Development	0.000	1 Sum	500,000.00	500,000		30.54		
D12 Mechanical Site Services	0.000	1 Sum	200,000.00	200,000		12.22		
D13 Electrical Site Services	0.000	1 Sum	100,000.00	100,000		6.11		
D2 ANCILLARY WORK					0		0.00	0.0
D21 Demolition				0		0.00		
NET BUILDING COST - INCLUDING SITE				**$**	**29,426,279**		1,797.24	90.9
Z1 BUILDING ALLOWANCES					2,942,628		179.72	9.1
Z11 General Requirements & Fee		10.0 %		2,942,628		179.72		
Z12 Hazardous Material Abatement	0.000	1 NIL	0.00	0		0.00		
Z13 Project Staging Premium		0.0 %		0		0.00		
Z14 Sustainable Design Allowance		0.0 %		0		0.00		
TOTAL CONSTRUCTION ESTIMATE - EXCLUDING ALLOWANCES				**$**	**32,368,907**		1,976.97	100.0
Z2 CONTINGENCIES					8,415,915		514.01	
Z21 Design & Pricing Allowance		20.0 %		6,473,781		395.39		
Z22 Construction Allowance		5.0 %		1,942,134		118.62		
Z23 Escalation Allowance		0.0 %		0		0.00		
Z3 ANCILLARIES & SOFT COSTS					8,564,812		523.11	
Z31 Professional Fees - 11%		1 Sum	4,486,330.00	4,486,330		274.01		
Z32 Soft Costs (non FF & E) - 2%		1 Sum	815,696.00	815,696		49.82		
Z33 Furnishings & Draperies - 3%		1 Sum	1,223,545.00	1,223,545		74.73		
Z34 Technology & Equipment - 5%		1 Sum	2,039,241.00	2,039,241		124.55		
TOTAL CONSTRUCTION ESTIMATE				**$**	**49,349,634**	**$**	**3,014.09**	

Project	: **NSCAD UNIVERSITY**			Report date	: 12 Aug 2013
	: **NEW CAMPUS - SCENARIO C3**			Page No.	: 1
Location	: **HALIFAX, NS**	**ELEMENTAL COST SUMMARY**		Bldg Type	: 720
Owner	: **NSCAD**			C.T. Index	: 0.0
Consultant	:			GFA	: 18,525 m2

Element	Ratio to GFA	Elemental Cost Quantity	Elemental Cost Unit rate	Elemental Amount Sub-Total	Elemental Amount Total	Rate per m2 Sub-Total	Rate per m2 Total	%
A SHELL		18,525 m2			11,987,628		647.11	33.1
A1 SUBSTRUCTURE					400,544		21.62	1.1
A11 Foundations	0.143	2,646 m2	112.00	296,352		16.00		
A12 Basement Excavation	0.000	1 Sum	54,142.00	54,142		2.92		
A13 Special Conditions	0.000	1 Sum	50,050.00	50,050		2.70		
A2 STRUCTURE					7,251,385		391.44	20.1
A21 Lowest Floor Construction	0.143	2,646 m2	61.89	163,760		8.84		
A22 Upper Floor Construction	0.857	15,879 m2	383.86	6,095,375		329.04		
A23 Roof Construction	0.143	2,646 m2	375.00	992,250		53.56		
A3 EXTERIOR ENCLOSURE					4,335,699		234.05	12.0
A31 Walls Below Grade	0.040	741 m2	430.00	318,630		17.20		
A32 Walls Above Grade	0.362	6,707 m2	377.00	2,528,539		136.49		
A33 Windows & Entrances	0.051	945 m2	550.00	519,750		28.06		
A34 Roof Coverings	0.143	2,646 m2	177.17	468,780		25.31		
A35 Projections	0.000	1 Sum	500,000.00	500,000		26.99		
B INTERIORS		18,525 m2			7,408,435		399.92	20.5
B1 PARTITIONS & DOORS					2,567,285		138.58	7.1
B11 Partitions	0.929	17,210 m2	126.00	2,168,460		117.06		
B12 Doors	0.020	371 Lvs	1,075.00	398,825		21.53		
B2 FINISHES					3,061,775		165.28	8.5
B21 Floor Finishes	1.000	18,525 m2	65.00	1,204,125		65.00		
B22 Ceiling Finishes	1.000	18,525 m2	58.00	1,074,450		58.00		
B23 Wall Finishes	1.922	35,600 m2	22.00	783,200		42.28		
B3 FITTINGS & EQUIPMENT					1,779,375		96.05	4.9
B31 Fittings & Fixtures	1.000	18,525 m2	75.00	1,389,375		75.00		
B33 Elevators	0.000	2 No	195,000.00	390,000		21.05		
C SERVICES		18,525 m2			12,689,625		685.00	35.1
C1 MECHANICAL					8,892,000		480.00	24.6
C11 Plumbing & Drainage	1.000	18,525 m2	85.00	1,574,625		85.00		
C12 Fire Protection	1.000	18,525 m2	35.00	648,375		35.00		
C13 HVAC	1.000	18,525 m2	320.00	5,928,000		320.00		
C14 Controls	1.000	18,525 m2	40.00	741,000		40.00		
C2 ELECTRICAL					3,797,625		205.00	10.5
C21 Service & Distribution	1.000	18,525 m2	65.00	1,204,125		65.00		
C22 Lighting, Devices & Heating	1.000	18,525 m2	95.00	1,759,875		95.00		
C23 Systems & Ancillaries	1.000	18,525 m2	45.00	833,625		45.00		
NET BUILDING COST - EXCLUDING SITE				**$**	**32,085,688**		1,732.02	88.7
D SITE & ANCILLARY WORK		18,525 m2			800,000		43.18	2.2
D1 SITE WORK					800,000		43.18	2.2
D11 Site Development	0.000	1 Sum	500,000.00	500,000		26.99		
D12 Mechanical Site Services	0.000	1 Sum	200,000.00	200,000		10.80		
D13 Electrical Site Services	0.000	1 Sum	100,000.00	100,000		5.40		
D2 ANCILLARY WORK					0		0.00	0.0
D21 Demolition				0		0.00		
NET BUILDING COST - INCLUDING SITE				**$**	**32,885,688**		1,775.21	90.9
Z1 BUILDING ALLOWANCES					3,288,569		177.52	9.1
Z11 General Requirements & Fee		10.0 %		3,288,569		177.52		
Z12 Hazardous Material Abatement	0.000	1 NIL	0.00	0		0.00		
Z13 Project Staging Premium		0.0 %		0		0.00		
Z14 Sustainable Design Allowance		0.0 %		0		0.00		
TOTAL CONSTRUCTION ESTIMATE - EXCLUDING ALLOWANCES				**$**	**36,174,257**		1,952.73	100.0
Z2 CONTINGENCIES					9,405,306		507.71	
Z21 Design & Pricing Allowance		20.0 %		7,234,851		390.55		
Z22 Construction Allowance		5.0 %		2,170,455		117.16		
Z23 Escalation Allowance		0.0 %		0		0.00		
Z3 ANCILLARIES & SOFT COSTS					9,571,708		516.69	
Z31 Professional Fees - 11%		1 Sum	5,013,752.00	5,013,752		270.65		
Z32 Soft Costs (non FF & E) - 2%		1 Sum	911,591.00	911,591		49.21		
Z33 Furnishings & Draperies - 3%		1 Sum	1,367,387.00	1,367,387		73.81		
Z34 Technology & Equipment - 5%		1 Sum	2,278,978.00	2,278,978		123.02		
TOTAL CONSTRUCTION ESTIMATE				**$**	**55,151,271**	**$**	**2,977.13**	

Project	: **NSCAD UNIVERSITY**			Report date	: 12 Aug 2013
	: **NEW CAMPUS - SCENARIO C4**			Page No.	: 1
Location	: **HALIFAX, NS**	**ELEMENTAL COST SUMMARY**		Bldg Type	: 720
Owner	: **NSCAD**			C.T. Index	: 0.0
Consultant	:			GFA	: 10,200 m2

Element	Ratio to GFA	Elemental Cost Quantity	Elemental Cost Unit rate	Elemental Amount Sub-Total	Elemental Amount Total	Rate per m2 Sub-Total	Rate per m2 Total	%
A SHELL		10,200 m2			7,590,683		744.18	35.3
A1 SUBSTRUCTURE					423,500		41.52	2.0
A11 Foundations	0.250	2,550 m2	112.00	285,600		28.00		
A12 Basement Excavation	0.000	1 Sum	51,150.00	51,150		5.01		
A13 Special Conditions	0.000	1 Sum	86,750.00	86,750		8.50		
A2 STRUCTURE					4,072,000		399.22	18.9
A21 Lowest Floor Construction	0.250	2,550 m2	61.96	158,000		15.49		
A22 Upper Floor Construction	0.750	7,650 m2	386.63	2,957,750		289.98		
A23 Roof Construction	0.250	2,550 m2	375.00	956,250		93.75		
A3 EXTERIOR ENCLOSURE					3,095,183		303.45	14.4
A31 Walls Below Grade	0.048	490 m2	430.00	210,700		20.66		
A32 Walls Above Grade	0.444	4,529 m2	377.00	1,707,433		167.40		
A33 Windows & Entrances	0.065	663 m2	550.00	364,650		35.75		
A34 Roof Coverings	0.250	2,550 m2	178.59	455,400		44.65		
A35 Projections	0.000	1 Sum	357,000.00	357,000		35.00		
B INTERIORS		10,200 m2			4,181,676		409.97	19.4
B1 PARTITIONS & DOORS					1,413,276		138.56	6.6
B11 Partitions	0.929	9,476 m2	126.00	1,193,976		117.06		
B12 Doors	0.020	204 Lvs	1,075.00	219,300		21.50		
B2 FINISHES					1,703,400		167.00	7.9
B21 Floor Finishes	1.000	10,200 m2	65.00	663,000		65.00		
B22 Ceiling Finishes	1.000	10,200 m2	58.00	591,600		58.00		
B23 Wall Finishes	2.000	20,400 m2	22.00	448,800		44.00		
B3 FITTINGS & EQUIPMENT					1,065,000		104.41	5.0
B31 Fittings & Fixtures	1.000	10,200 m2	75.00	765,000		75.00		
B33 Elevators	0.000	2 No	150,000.00	300,000		29.41		
C SERVICES		10,200 m2			6,987,000		685.00	32.5
C1 MECHANICAL					4,896,000		480.00	22.8
C11 Plumbing & Drainage	1.000	10,200 m2	85.00	867,000		85.00		
C12 Fire Protection	1.000	10,200 m2	35.00	357,000		35.00		
C13 HVAC	1.000	10,200 m2	320.00	3,264,000		320.00		
C14 Controls	1.000	10,200 m2	40.00	408,000		40.00		
C2 ELECTRICAL					2,091,000		205.00	9.7
C21 Service & Distribution	1.000	10,200 m2	65.00	663,000		65.00		
C22 Lighting, Devices & Heating	1.000	10,200 m2	95.00	969,000		95.00		
C23 Systems & Ancillaries	1.000	10,200 m2	45.00	459,000		45.00		
NET BUILDING COST - EXCLUDING SITE				**$**	**18,759,359**		1,839.15	87.2
D SITE & ANCILLARY WORK		10,200 m2			800,000		78.43	3.7
D1 SITE WORK					800,000		78.43	3.7
D11 Site Development	0.000	1 Sum	500,000.00	500,000		49.02		
D12 Mechanical Site Services	0.000	1 Sum	200,000.00	200,000		19.61		
D13 Electrical Site Services	0.000	1 Sum	100,000.00	100,000		9.80		
D2 ANCILLARY WORK					0		0.00	0.0
D21 Demolition				0		0.00		
NET BUILDING COST - INCLUDING SITE				**$**	**19,559,359**		1,917.58	90.9
Z1 BUILDING ALLOWANCES					1,955,936		191.76	9.1
Z11 General Requirements & Fee		10.0 %		1,955,936		191.76		
Z12 Hazardous Material Abatement	0.000	1 NIL	0.00	0		0.00		
Z13 Project Staging Premium		0.0 %		0		0.00		
Z14 Sustainable Design Allowance		0.0 %		0		0.00		
TOTAL CONSTRUCTION ESTIMATE - EXCLUDING ALLOWANCES				**$**	**21,515,295**		2,109.34	100.0
Z2 CONTINGENCIES					5,593,977		548.43	
Z21 Design & Pricing Allowance		20.0 %		4,303,059		421.87		
Z22 Construction Allowance		5.0 %		1,290,918		126.56		
Z23 Escalation Allowance		0.0 %		0		0.00		
Z3 ANCILLARIES & SOFT COSTS					5,692,947		558.13	
Z31 Professional Fees - 11%		1 Sum	2,982,020.00	2,982,020		292.35		
Z32 Soft Costs (non FF & E) - 2%		1 Sum	542,185.00	542,185		53.16		
Z33 Furnishings & Draperies - 3%		1 Sum	813,278.00	813,278		79.73		
Z34 Technology & Equipment - 5%		1 Sum	1,355,464.00	1,355,464		132.89		
TOTAL CONSTRUCTION ESTIMATE				**$**	**32,802,219**	**$**	**3,215.90**	

Appendix
E – OTHER SCENARIOS

Project	: **NSCAD UNIVERSITY**			Report date	: 12 Aug 2013
	: **GRANVILLE CAMPUS RECONSTRUCTION**			Page No.	: 1
Location	: **HALIFAX, NS**	**ELEMENTAL COST SUMMARY**		Bldg Type	: 720
Owner	: **NSCAD**			C.T. Index	: 0.0
Consultant	:			GFA	: 10,000 m2

Element	Ratio to GFA	Elemental Cost Quantity	Elemental Cost Unit rate	Elemental Amount Sub-Total	Elemental Amount Total	Rate per m2 Sub-Total	Rate per m2 Total	%
A SHELL		10,000 m2			2,371,250		237.13	17.1
A1 SUBSTRUCTURE					0		0.00	0.0
A11 Foundations				0		0.00		
A12 Basement Excavation				0		0.00		
A13 Special Conditions				0		0.00		
A2 STRUCTURE					1,145,000		114.50	8.3
A21 Lowest Floor Construction	0.227	2,270 m2	11.01	25,000		2.50		
A22 Upper Floor Construction	0.773	7,730 m2	142.30	1,100,000		110.00		
A23 Roof Construction	0.227	2,270 m2	8.81	20,000		2.00		
A3 EXTERIOR ENCLOSURE					1,226,250		122.63	8.8
A31 Walls Below Grade	0.020	204 m2	49.02	10,000		1.00		
A32 Walls Above Grade	0.143	1,433 m2	250.00	358,250		35.83		
A33 Windows & Entrances	0.096	955 m2	800.00	764,000		76.40		
A34 Roof Coverings	0.227	2,270 m2	37.00	84,000		8.40		
A35 Projections	0.000	1 Sum	10,000.00	10,000		1.00		
B INTERIORS		10,000 m2			2,983,475		298.35	21.5
B1 PARTITIONS & DOORS					793,475		79.35	5.7
B11 Partitions	0.465	4,645 m2	125.00	580,625		58.06		
B12 Doors	0.020	198 Lvs	1,075.00	212,850		21.29		
B2 FINISHES					1,440,000		144.00	10.4
B21 Floor Finishes	1.000	10,000 m2	65.00	650,000		65.00		
B22 Ceiling Finishes	1.000	10,000 m2	58.00	580,000		58.00		
B23 Wall Finishes	1.400	14,000 m2	15.00	210,000		21.00		
B3 FITTINGS & EQUIPMENT					750,000		75.00	5.4
B31 Fittings & Fixtures	1.000	10,000 m2	75.00	750,000		75.00		
B33 Elevators				0		0.00		
C SERVICES		10,000 m2			6,850,000		685.00	49.4
C1 MECHANICAL					4,800,000		480.00	34.6
C11 Plumbing & Drainage	1.000	10,000 m2	85.00	850,000		85.00		
C12 Fire Protection	1.000	10,000 m2	35.00	350,000		35.00		
C13 HVAC	1.000	10,000 m2	320.00	3,200,000		320.00		
C14 Controls	1.000	10,000 m2	40.00	400,000		40.00		
C2 ELECTRICAL					2,050,000		205.00	14.8
C21 Service & Distribution	1.000	10,000 m2	65.00	650,000		65.00		
C22 Lighting, Devices & Heating	1.000	10,000 m2	95.00	950,000		95.00		
C23 Systems & Ancillaries	1.000	10,000 m2	45.00	450,000		45.00		
NET BUILDING COST - EXCLUDING SITE				**$**	**12,204,725**		1,220.47	88.0
D SITE & ANCILLARY WORK		10,000 m2			410,000		41.00	3.0
D1 SITE WORK					10,000		1.00	0.1
D11 Site Development				0		0.00		
D12 Mechanical Site Services				0		0.00		
D13 Electrical Site Services	0.000	1 Sum	10,000.00	10,000		1.00		
D2 ANCILLARY WORK					400,000		40.00	2.9
D21 Demolition of Interior	1.000	10,000 m2	40.00	400,000		40.00		
NET BUILDING COST - INCLUDING SITE				**$**	**12,614,725**		1,261.47	90.9
Z1 BUILDING ALLOWANCES					1,261,473		126.15	9.1
Z11 General Requirements & Fee		10.0 %		1,261,473		126.15		
Z12 Hazardous Material Abatement	0.000	1 NIC	0.00	0		0.00		
Z13 Project Staging Premium		0.0 %		0		0.00		
Z14 Sustainable Design Allowance		0.0 %		0		0.00		
TOTAL CONSTRUCTION ESTIMATE - EXCLUDING ALLOWANCES				**$**	**13,876,198**		1,387.62	100.0
Z2 CONTINGENCIES					3,607,812		360.78	
Z21 Design & Pricing Allowance		20.0 %		2,775,240		277.52		
Z22 Construction Allowance		5.0 %		832,572		83.26		
Z23 Escalation Allowance		0.0 %		0		0.00		
Z3 ANCILLARIES & SOFT COSTS					3,671,641		367.16	
Z31 Professional Fees - 11%		1 Sum	1,923,241.00	1,923,241		192.32		
Z32 Soft Costs (non FF & E) - 2%		1 Sum	349,680.00	349,680		34.97		
Z33 Furnishings & Draperies - 3%		1 Sum	524,520.00	524,520		52.45		
Z34 Technology & Equipment - 5%		1 Sum	874,200.00	874,200		87.42		
TOTAL CONSTRUCTION ESTIMATE				**$**	**21,155,651**	**$**	**2,115.57**	

Project	: **NSCAD UNIVERSITY**			Report date	: 12 Aug 2013
	: **PORT CAMPUS LEASED SPACE**			Page No.	: 1
Location	: **HALIFAX, NS**	**ELEMENTAL COST SUMMARY**		Bldg Type	: 720
Owner	: **NSCAD**			C.T. Index	: 0.0
Consultant	:			GFA	: 10,000 m2

Element	Ratio to GFA	Elemental Cost Quantity	Elemental Cost Unit rate	Elemental Amount Sub-Total	Elemental Amount Total	Rate per m2 Sub-Total	Rate per m2 Total	%
A SHELL		10,000 m2			2,498,040		249.80	18.5
A1 SUBSTRUCTURE					0		0.00	0.0
A11 Foundations				0		0.00		
A12 Basement Excavation				0		0.00		
A13 Special Conditions				0		0.00		
A2 STRUCTURE					0		0.00	0.0
A21 Lowest Floor Construction				0		0.00		
A22 Upper Floor Construction				0		0.00		
A23 Roof Construction				0		0.00		
A3 EXTERIOR ENCLOSURE					2,498,040		249.80	18.5
A31 Walls Below Grade				0		0.00		
A32 Walls Above Grade	0.383	3,834 m2	475.00	1,821,150		182.12		
A33 Windows & Entrances	0.006	56 m2	1,550.00	86,800		8.68		
A34 Roof Coverings	0.280	2,803 m2	174.84	490,090		49.01		
A35 Projections	0.000	1 Sum	100,000.00	100,000		10.00		
B INTERIORS		10,000 m2			2,273,465		227.35	16.8
B1 PARTITIONS & DOORS					1,121,865		112.19	8.3
B11 Partitions	0.929	9,290 m2	85.00	789,650		78.97		
B12 Doors	0.025	247 Lvs	1,345.00	332,215		33.22		
B2 FINISHES					571,600		57.16	4.2
B21 Floor Finishes	1.000	10,000 m2	20.00	200,000		20.00		
B22 Ceiling Finishes	1.000	10,000 m2	17.00	170,000		17.00		
B23 Wall Finishes	2.240	22,400 m2	9.00	201,600		20.16		
B3 FITTINGS & EQUIPMENT					580,000		58.00	4.3
B31 Fittings & Fixtures	1.000	10,000 m2	58.00	580,000		58.00		
B33 Elevators				0		0.00		
C SERVICES		10,000 m2			7,110,000		711.00	52.6
C1 MECHANICAL					5,010,000		501.00	37.1
C11 Plumbing & Drainage	1.000	10,000 m2	88.00	880,000		88.00		
C12 Fire Protection	1.000	10,000 m2	35.00	350,000		35.00		
C13 HVAC	1.000	10,000 m2	336.00	3,360,000		336.00		
C14 Controls	1.000	10,000 m2	42.00	420,000		42.00		
C2 ELECTRICAL					2,100,000		210.00	15.6
C21 Service & Distribution	1.000	10,000 m2	65.00	650,000		65.00		
C22 Lighting, Devices & Heating	1.000	10,000 m2	100.00	1,000,000		100.00		
C23 Systems & Ancillaries	1.000	10,000 m2	45.00	450,000		45.00		
NET BUILDING COST - EXCLUDING SITE				**$**	**11,881,505**		1,188.15	88.0
D SITE & ANCILLARY WORK		10,000 m2			125,000		12.50	0.9
D1 SITE WORK					25,000		2.50	0.2
D11 Site Development	0.000	1 Sum	25,000.00	25,000		2.50		
D12 Mechanical Site Services				0		0.00		
D13 Electrical Site Services				0		0.00		
D2 ANCILLARY WORK					100,000		10.00	0.7
D21 Demolition	0.000	1 Sum	100,000.00	100,000		10.00		
NET BUILDING COST - INCLUDING SITE				**$**	**12,006,505**		1,200.65	88.9
Z1 BUILDING ALLOWANCES					1,500,813		150.08	11.1
Z11 General Requirements & Fee		12.5 %		1,500,813		150.08		
Z12 Hazardous Material Abatement	0.000	1 NIL	0.00	0		0.00		
Z13 Project Staging Premium		0.0 %		0		0.00		
Z14 Sustainable Design Allowance		0.0 %		0		0.00		
TOTAL CONSTRUCTION ESTIMATE - EXCLUDING ALLOWANCES				**$**	**13,507,318**		1,350.73	100.0
Z2 CONTINGENCIES					4,322,342		432.23	
Z21 Design & Pricing Allowance		20.0 %		2,701,464		270.15		
Z22 Construction Allowance		10.0 %		1,620,878		162.09		
Z23 Escalation Allowance		0.0 %		0		0.00		
Z3 ANCILLARIES & SOFT COSTS					3,744,229		374.42	
Z31 Professional Fees - 11%		1 Sum	1,961,263.00	1,961,263		196.13		
Z32 Soft Costs (non FF & E) - 2%		1 Sum	356,593.00	356,593		35.66		
Z33 Furnishings & Draperies - 3%		1 Sum	534,890.00	534,890		53.49		
Z34 Technology & Equipment - 5%		1 Sum	891,483.00	891,483		89.15		
TOTAL CONSTRUCTION ESTIMATE				**$**	**21,573,889**	**$**	**2,157.39**	

Appendix
Z - DOCUMENTATION

APPENDIX Z - DOCUMENTATION

Scenario A2 - Granville Campus Levels 000 to 500 (5 drawings)

Scenario B3 – Academy Campus (1 drawing)

Port Campus Levels 100 to 300 (3 drawings)

NSCAD University Space Utilization Study, Scope of Work Descriptions, July 2013

Appendix E: Art Education Space Benchmarks

Introduction

To provide a context for developing a comprehensive Functional Space Program for NSCAD, information about space use has been collected from Canadian institutions that are comparable to NSCAD in terms of the range of art and design disciplines offered.

1. ACAD Alberta College of Art and Design
2. ECUAD Emily Carr University of Art + Design
3. OCAD University Ontario College of Art & Design University

These institutions share some important characteristics:

- Each of the institutions provides studio-based instruction in a broad range of art and design disciplines, in both 2-dimensional and 3-dimensional media.
- The principal program offered is a four year baccalaureate with the first year designed as a common program for all entering students.
- All three are independent, stand-alone art education schools, a condition that sets them apart from fine art faculties and departments embedded in comprehensive universities where the resources to support activities such as student services, recreation, and athletic programs can be spread over large numbers of students.
- All institutions are publicly funded.
- ECUAD and OCAD offer graduate degrees. All provide access to credit and non-credit courses through continuing education units.

Space Inventory and Enrolments at Peer Institutions

The table provides a snapshot of current accommodation at the 4 institutions. It is important to note that, while they share many characteristics, total building area and, in particular, the average assignable area per student is driven by local factors. Low averages do not imply that the accommodation available is adequate for the functions housed, nor do high averages directly imply that there is excess space in all aspects of the institution's operations. Specific factors affecting the ratios shown here are detailed below.

	Input Measure	Enrolment	Net assignable area (m^2)	Net Assignable Area per Student (m^2)	Source
OCAD University	FTE Students	3,116	23,554	7.6	2011 Enrolment Data/ 2012 Space Inventory
ECUAD	FTE Students	1,776	13,976	7.9	2012 Data
ACAD	FLE Students	952	15,493	16.3	2013 Data
NSCAD University	Headcount	919	15,069	16.4	2013 Data

- Purpose-built vs. renovated space

  Both ECUAD and NSCAD accommodate most or all of their teaching programs in buildings originally constructed for other purposes. Major elements of ECUAD activities including instructional studios, galleries and office areas are housed in a 19th century commercial building, renovated over time to accommodate the needs of various programs.

  ACAD's building was designed and constructed specially for its use. OCAD's accommodation consists of a collection of 10 buildings that include purpose-built space (approximately 50% of the total inventory) and a mixture of early and late 20th Century multi-storey commercial structures. A large portion of the space in the commercial structures is leased to non-institutional tenants.

  In all cases, fitting activity to found space requires compromises and exacts a cost in terms of how efficient the use of the available space can be.

- Dedicated Studio Space Allocation Practices
  At OCAD dedicated space is provided for 4th year students in a limited number of disciplines: painting, jewellery, environmental and industrial design. All other disciplines share open studio space that, in many cases, is also used to accommodate scheduled class sessions.
  Allocation of space to graduate students depends on the discipline and program delivery model: fine art students are allocated individual areas; most other graduate students have access to a shared group workspace without individual assigned spaces.

  At ACAD, 3rd and 4th year undergraduate students are allocated dedicated studio space, called 'home studios' in all disciplines.

  ECUAD fine art students have access to designated studios: third year fine arts students enrolled in 6 credit 300-level studio courses have access to shared studio workspace. Fourth year students enrolled in 6 credit 400-level studio courses are allocated dedicated cooperative studio workspaces. Fourth year media arts students have access to shared studio workspaces, design students are not assigned dedicated studio workspace.

- Different mix of disciplines
  The characteristics of different studio disciplines drive different space requirements on a per student basis. The range of craft disciplines at NSCAD requires large areas to house equipment and studio work. Generally speaking, design disciplines and those that rely on digital technologies are less space intensive.

- OCAD's space to student ratio
  The low space to enrolment ratio for OCAD reflects its position in the provincial university system where it competes with degree-granting institutions that, for the most part, have larger enrolments. OCAD gained degree-granting status in 2002. Capital funding allocations to OCAD in the recent past have been granted based on commitments to substantial increases in enrolments, effectively negating any substantial improvement to the amount of space available for program activities.
  An alternate indicator of the appropriate amount of space required for OCAD's programs is the estimate generated by applying the Space Standards developed by the Council of Ontario Universities (COU). The Council publishes space standards for all relevant institutional space categories. The primary inputs are program enrolments and staff

establishment numbers. Different disciplines drive different allocations that reflect the mode of instruction. The COU standards are widely used across Canada. The 2011 edition of the system-wide COU Space Inventory Report generates a total assignable area for OCAD of 54,700 nasm (588,572 nasf) to accommodate an FTE enrolment of 3,440 students or 15.9 nasm (171 nasf) per FTE student. Based on COU space metrics, OCAD has 39% of the requirement generated by using COU standards.

- ECUAD's Great Northern Way Project
  ECUAD is in the process of developing a Functional Space Program setting out its space requirements as it proceeds with a plan to relocate to new facilities on the Great Northern Way site in Vancouver. ECUAD indicates that with the promise of new accommodation, they are looking comprehensively at all aspects of their operation including instruction modes, services and how space is allocated and used. The draft Functional Space Program is not available at this time.
  The preliminary project scope describes a facility of 26,600 gsm (288,216 gsf) with an estimated 16,000 nasm (172,160 nasf) to accommodate 1,800 degree program students with a substantial number of students enrolled in continuing education programs. The capital cost of the project is estimated to be $134 million. The Project will provide an assignable area per student in the order of 9 nasm/FTE (97nasf/FTE) based on these preliminary figures. At the present time, ECUAD is selecting a project development team.

Appropriate Space Allocation Target

NSCAD's current assignable space per full-time equivalent student is at the high end of the spectrum and comparable to the ratio for ACAD, which has a similar total enrolment and mix of disciplines. While total enrolment provides an overall measure of space use efficiency, other factors have an even more significant impact on space requirements and utilization:

- Enrolment levels in courses related to specific disciplines:
  Curriculum for many fine art and craft disciplines includes courses and projects that make use of a broad range of processes: printmaking processes include intaglio, lithography, screenprinting, relief, etc. Sculpture courses provide opportunities to work in metal, wood, stone, plastics and combinations of all of these. To support a wide range of processes, space and equipment as well as staff are required. Low enrolments result in low utilization rates and a high overall space to enrolment ratio.

- Technical requirements of art and craft disciplines:
  For many processes, technical and environmental conditions preclude the possibility of sharing space or creating truly effective multipurpose space. Setting up studio space as a multipurpose facility generates a requirement for additional staff to repurpose rooms and equipment for alternative uses.
- Incorporating digital processes:
  Adding digital processes to the curriculum has generated new demand for access to digital resources. However, these have not replaced the requirement for space to accommodate traditional processes. Photography curriculum retains courses in analog processes even as student's work increasingly involves digital processes.
- Scheduling practices:
  Space requirements are directly driven by scheduling practices. Weekly and time of day scheduling targets determine how much space is required. Extensive use of evening hours or providing courses during a summer semester can increase capacity and generate more effective utilization.

The Functional Space Program developed for this Study is based on the existing curriculum for the range of NSCAD disciplines. Utilization rates adopted represent best practice in the university sector. However, the low enrolments and limited numbers of class sections mean that most teaching studios are not used to their full capacity. Higher enrolments can be accommodated in the space provided.

An academic and strategic plan is required that addresses enrolment targets, the range of disciplines offered, program design and delivery modes, utilization factors, studio and allocation practices. With these in place, a revised space plan can be developed that would improve the overall ratio of area per student. For preliminary planning purposes, a target of 10 nasm per FTE (108 nasf per FTE) for a mid-size institution establishes an approximate overall space requirement that can help inform scenario building in a strategic planning exercise.

Benchmark Comparison Summary Table

	OCAD	ECUAD	ACAD	NSCAD
Program Range	Undergraduate Graduate	Undergraduate Graduate Continuing Studies	Undergraduate, Diploma, Extended Studies ARTSTREAM	Undergraduate Graduate, Certificate Extended Studies
Discipline Range	• Foundation • Craft (Jewellery, Ceramics, Fibre) • Design (Graphic, Illustration, Environmental, Industrial, Advertising) • Fine Art (Drawing, Painting, Printmaking, Sculpture) • Media (Photography) • Graduate Studies	• Foundation • Art History & Critical Studies • Craft (Ceramics) • Design (Communication, Industrial, Interaction) • Fine Art (Visual Arts, Drawing, Painting, Printmaking, Sculpture) • Media (Photography, Film & Video, Animation, Interactive & Social Media) • Graduate Studies (Applied Arts, Design, Digital Design)	• Foundation • Art History & Critical Studies • Craft (Ceramics, Fibre, Glass, Jewellery & Metals) • Design (Visual Communications) • Fine Arts (Drawing, Painting, Printmaking, Sculpture) • Media (Media Arts & Digital Technologies, Photography) • Interdisciplinary Studies	• Foundation • Art History & Critical Studies • Craft (Ceramics, Jewellery & Metal, Textiles, Fashion) • Design (Interdisciplinary) • Fine Arts (Drawing, Painting, Printmaking, Sculpture) • Media (Film, Intermedia, Photography)
Assignable Area (metric)	23,554 m^2	13,976 m^2	15,493 m^2	15,069 m^2
Assignable Area (imperial)	253,441 ft^2	150,382 ft^2	166,705 ft^2	162,142 ft^2
Enrolment	3,116 UG + 152 Grad = **3,268** (FTE)	1,576 UG + 41 Grad + 158 Cont. Stud. = **1,776** (FTE)	930 UG + 23 Non-Degree = **953** (FLE)	742 UG + 29 Grad + 55 Cert. + 93 Non-Degree = **919** (Headcount)
Assignable Area per Student (metric)	7.6 m^2	7.9 m^2	16.3 m^2	16.4 m^2
Assignable Area per Student (imperial)	82 ft^2	85 ft^2	175 ft^2	176 ft^2

Benchmark Comparison Summary Table

	OCAD	ECUAD	ACAD	NSCAD
Studio Allocation Policy	• Dedicated space is provided for 4th year students in a limited number of disciplines: painting, jewellery, environmental and industrial design. • All other disciplines share open studio space that is in most cases also heavily scheduled for class sessions. • OCAD makes intensive use of assignable space by, in part, not offering capacity for space-intensive large-scaled work.	• Fine Arts students have access to designated studios outside of class times. • Third year Fine Arts students with 6 credits of 300-level studio courses get shared studio workspace. • Fourth year Fine Arts students with 6 credits of 400-level studio courses get dedicated cooperative studio workspaces. • Fourth year Media Arts students get shared studio workspace. • Design students do not get dedicated studio workspace.	• Dedicated space is provided for majors students in 3rd & 4th year; the space is used for both scheduled instruction and project work.	Students enrolled in 3500 and 4000 level courses are assigned dedicated studio spaces in most disciplines. In some disciplines, such as media arts, space is provided as a shared workroom environment without dedicated stations.
Data Source	2011 Enrolment Data/ 2012 Space Inventory	2012 Data	2013 Data	2013 Data