

University Services – Preparing for Capital Renovations and Small Projects

Anthony C. Masi
Provost

Robert Couvrette
Associate Vice-Principal
(University Services)



McGill

**Academic Leadership
Forum**

24 February 2015

Agenda

- 8:30AM -8:35AM** **Provost's Welcome** (*Prof. Anthony C. Masi, Provost*)
- 8:35AM-9:00AM** **Introduction** (*Mr. Robert Couvrette, Associate Vice-Principal University Services*)
- 9:00AM-9:30AM** **Panel Discussion**
(*Mr. Adam Finkelstein, Educational Developer, Teaching and Learning Services*
Prof. R. Bruce Lennox, Department of Chemistry,
Dr. Nathalie Foisset, Associate Director, Institutional Strategic Initiatives, Vice-Principal - Research & International Relations)
- 9:30AM-9:55AM** **Q&A Session**
- 9:55AM-10:00AM** **Closing remarks** (*Prof. Anthony C. Masi, Provost*)

Outline

1. Definitions

- a) Non-capital projects**
- b) Capital project small and large**

2. Current processes

- a) Small projects**
- b) Large projects**

3. Current challenges

- a) Time and cost**
- b) Scope**
- c) Communication**

4. Panel discussion and ideas for improvements

1-A) What is **not** a capital project

- **Maintenance and decorating**
 - Repainting a room
 - Replacing flooring
 - Replacing a sink, a light fixture, a door without changing it's location or configuration
 - Movable equipment



1-B) What is a capital project?

REGARDLESS OF FUNDING

- Redevelopment
- Modifying
- Redesigning/Upgrading
- Improvement/Enhancement
- Infrastructure (HVAC/Plumbing/Electricity)
- Fixed equipment or fixed furniture

The only difference between a small and a large capital project is the cost and the complexity.

A small project must stay under 100 K and not involve a complex infrastructure modification.

2-A) Current process for small projects (< \$100K)

A small project can be done in just a few weeks or sometimes in one week, depending on complexity and availability of a pre-approved contractor

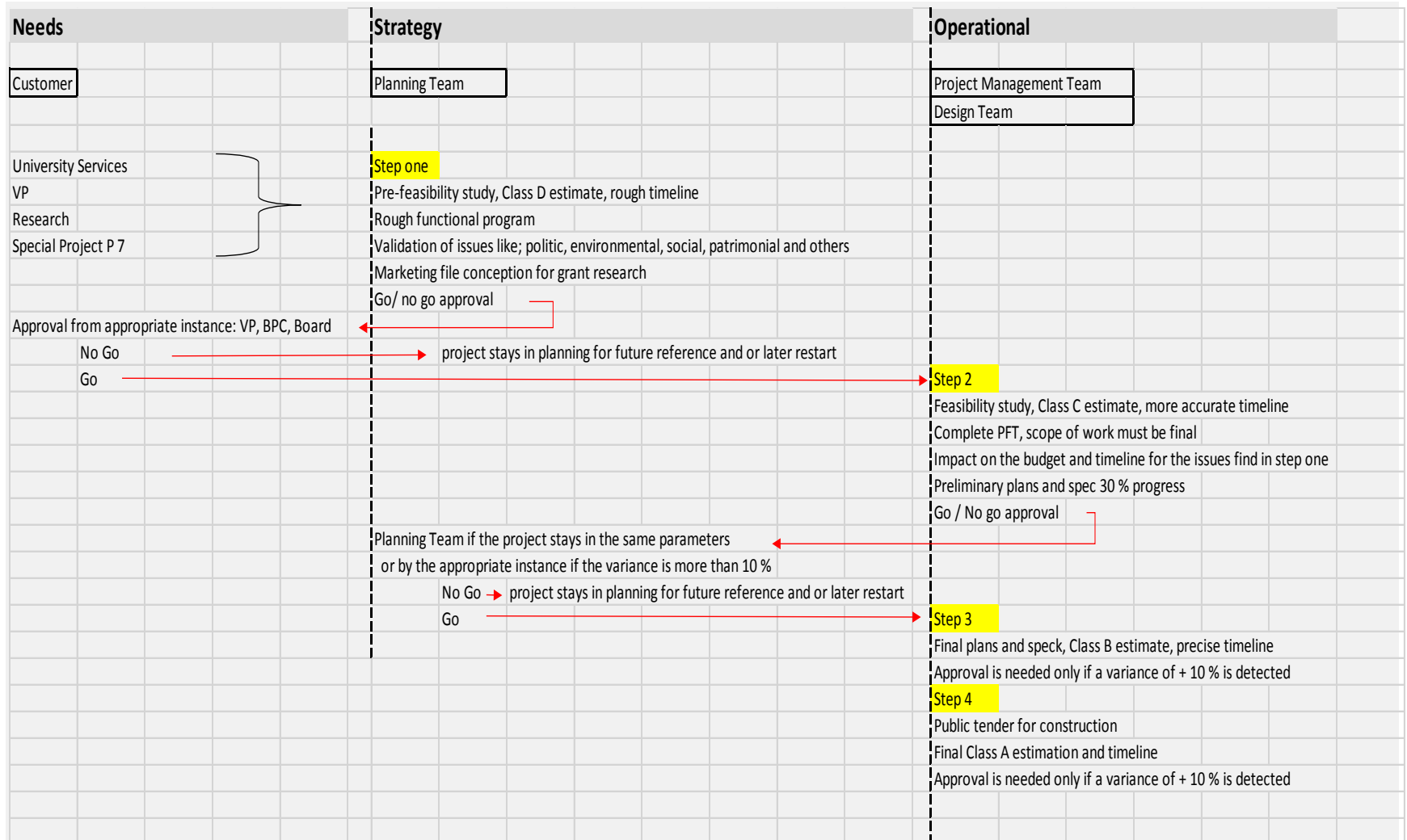
Pathway #1

- **Annual capital budget meetings with Campus Space Planning(CSP) and Deans**
 - Faculty priorities
- **Project is opened and assigned to a Project Manager if it requires:**
 - Design
 - Preparation of drawings and specifications
 - Approvals
 - Formal tender process

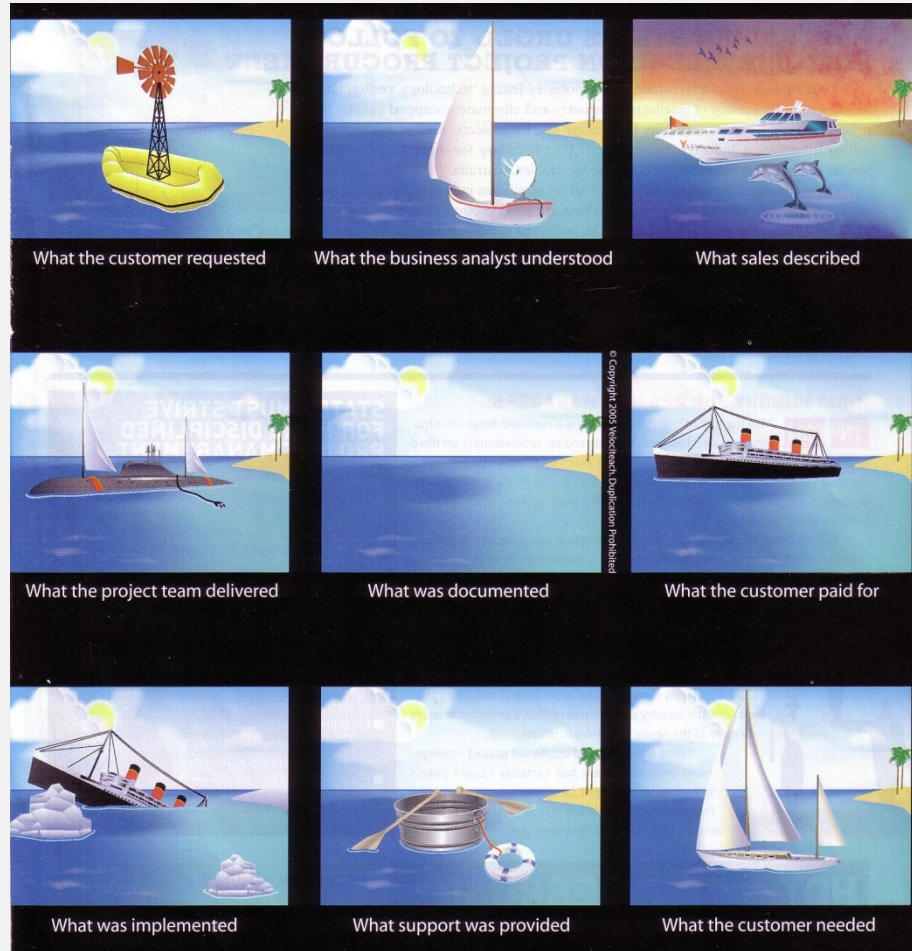
Pathway # 2

- **Project Request to the Facilities Call Center (FCC)**
- **The project could be assigned directly to a contractor with a one sheet description to obtain a quote for approval purposes. The supervision is done by Facilities.**

2-B) Current Process for large projects



3) Communication Challenges



Why does it seem to take too long ?

Why does it seem to be so costly?

Requirements for institutional work are different from residential work

Regulatory Constraints:

- **Respect of restrictive Government rules**
- **Law restriction for mandatory competitive bids**
- **Depending on the situation, need for building permits, approval from Ministry of Cultural Affairs**
- **Respect of regulation “Arrondissement historique du Mont-Royal”**
- **Exclusive use of fully insured contractors**

Internal Operational Constraints:

- **Procurement time for institutional-grade construction material and custom furniture and equipment**
- **Review by internal University committees, depending on the nature of the project (e.g. Architectural Advisory)**

Institutional construction standards for a better life cycle cost and maintenance efficiency

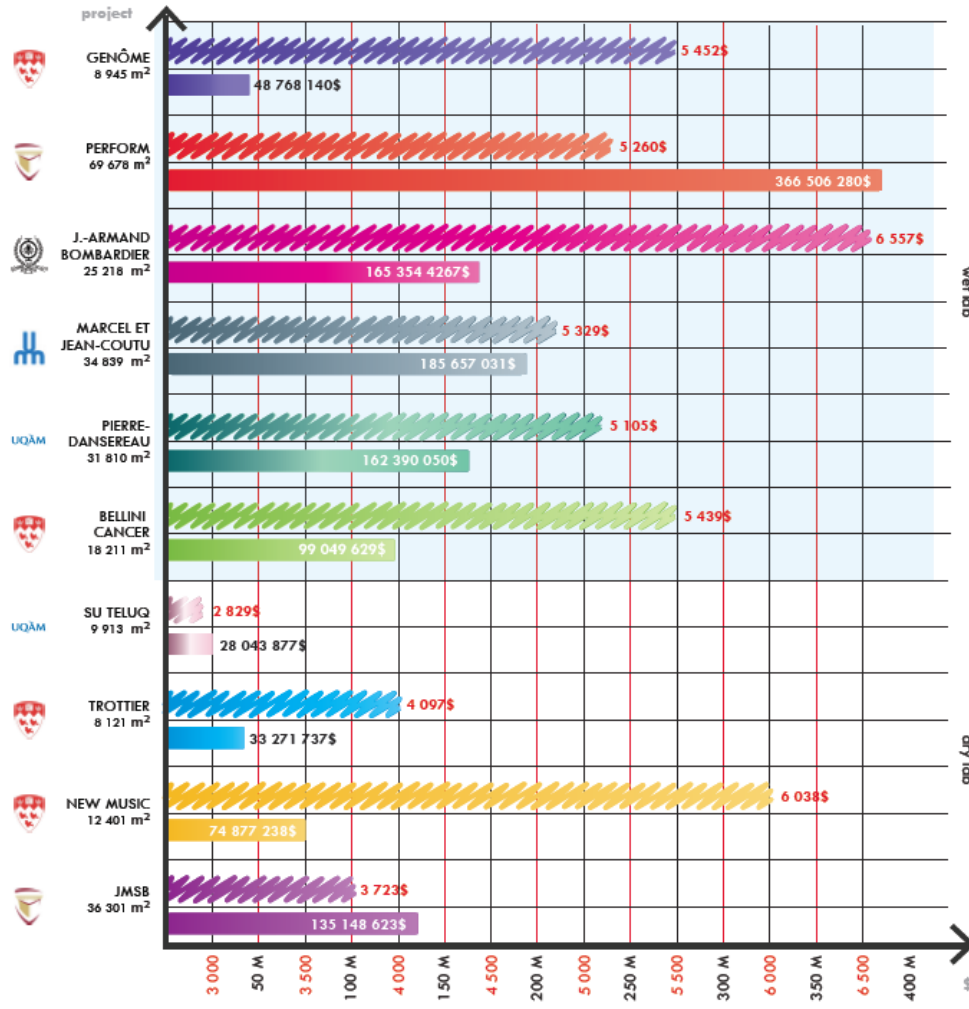
What can be done to improve the time and cost

Projects have to start with a clear scope of work

- Planning phase is crucial
- Scope of work has to be clear and have the approval of all involved
- Any subsequent change lengthens the project and increases the cost
- Communication has to flow well between all parties; there should be just one voice speaking for the requesting unit
 - Be sure the customer understands what he will get and what he will not get.
 - Be sure we have no disagreements in terms of budget, schedule and objectives.



Are we more costly?



building cost
case studies

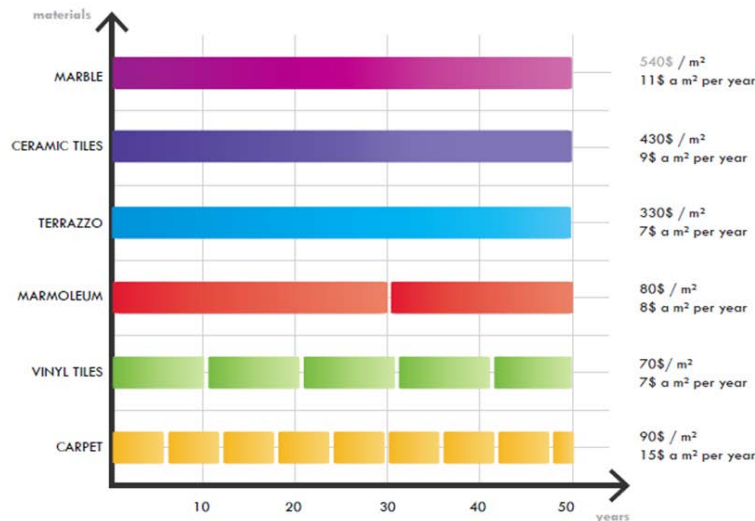
\$ / m² (2013)
 Total Project Costs

Example of flooring material standards

Quality of Construction Material, Institutional Buildings are there for the next 100 years, we can charge back our refurbishing on a tenant like an Office Building. We have to build with reasonable quality in order to diminish our cost of maintenance.

Future development will be guided by the principles of sustainability, with a view toward the long term needs of the Institution. The Master Plan will be therefore sufficiently broad and flexible in its outlook to accommodate changing needs, opportunities, and priorities over an extended period – potentially 20 years at a minimum.

material life cycle cost FLOORING



Added to these costs are the higher annual maintenance costs, the more rapid rate of deterioration and the shorter material life cycle of inferior quality materials.

The Variability/Accuracy of Cost Estimates (cont'd)

- **As the project progresses the uncertainty can be reduced and accuracy increased**
 - Scope Definition and Programme preparation: 30 – 50%
 - Schematic Design: 20 – 30%
 - Preliminary Design completed: 10 – 20%
 - Construction Documents ready for tender: 5 – 10%
 - **Small projects do not have the same rigor**

Factors Contributing to Project Costs

- **Indirect soft costs add 42% -50% to the cost of a project**

- Net taxes 7%
- Professional fees 15%
- Insurance varies
- Permit 1%
- PM & Administrative Cost 5%
- Misc. Security, Shutdowns, testing 1%
- Moving costs 2%
- Project contingency (minimum) 10%
- Artwork 1 %
- IT equipment (voice data, audiovisual, etc.) varies
- Furniture varies
- Signage varies

A small project does not have the same rigor or the same indirect cost

Addressing concerns raised in the survey

- **Communication between the customer and University Services**
- **Code compliance issues**
- **Tendency : Lab evolution (equipment lists), evolution in teaching space**
- **High costs: Project and material**
- **Timeline, delay in realization**
- **Process: small and large project**

Panel Discussion

Mr. Adam Finkelstein, Educational Developer,
Teaching and Learning Services

Prof. R. Bruce Lennox, Department of Chemistry

Dr. Nathalie Foisset, Associate Director,
Institutional Strategic Initiatives, Vice-Principal -
Research & International Relations (VP-RIR)



25 March 2015

Next ALF is **25 March**
*Building a Culture of
Service at McGill*