

York University Senate

Notice of a Special Meeting

Thursday, December 10, 2015 at 11:45 a.m. or shortly thereafter. Founders Assembly Hall, Room 152 Founders College

AGENDA

Page

- 1. Chair's Remarks (G. Comninel)
- 2. Academic Standards, Curriculum and Pedagogy (F. van Breugel).....1
 - a. Establishment of a Masters of Real Estate and Infrastructure Degree Type (Appendix A)
 - b. Establishment of a Master Real Estate and Infrastructure Degree Program (Appendix A)

Maureen Armstrong, Secretary

Meeting Notes

"Only items of business specifically identified in the notification of such meeting can be transacted at a special meeting (i.e., there is no "Other Business" on the agenda)." (Senate Rule A IV. 8.c).

The meeting will begin a few minutes after the conclusion of an open forum on the University Academic Plan that will be held from 9:30 to 11:45 in Founders Assembly Hall. Senators are strongly encouraged to attend the forum and remain for a brief meeting of Senate, or to plan to arrive at the meeting location at 11:45.



Academic Standards, Curriculum and Pedagogy Committee

Report to Senate

At the special meeting of 10 December 2015

For Action

1. Establishment of the Degree Type, Master of Real Estate and Infrastructure • Schulich School of Business / Faculty of Graduate Studies

At the Senate meeting of 26 November 2015 ASCP provided notice of its intention to propose the establishment of the new degree type, Master of Real Estate and Infrastructure at a subsequent meeting. Accordingly, ASCP recommends:

That Senate approve the establishment of the degree type, Master of Real Estate and Infrastructure, effective Fall/Winter 2016-2017.

Rationale

The proposed Master of Real Estate and Infrastructure (MREI) is a professional Master's degree to be housed in the Schulich School of Business. It will provide students with a comprehensive understanding of, and a broad skill base in, real estate and infrastructure, covering development, investment and finance in both the real estate and infrastructure industries. The MREI emanates from the existing MBA specialization and graduate diploma in Real Estate and Infrastructure, where the programming has maintained a strong and growing presence within the MBA, increased its international reputation, and established an extensive alumni base.

The new program's intent is to capture a sizeable untapped market of individuals in Canada and abroad who wish to pursue or enhance their careers in real estate or infrastructure but seek an alternative to the MBA. The Schulich School of Business is ideally situated to offer the degree program given its existing strength in this area, and its location within the extremely robust real estate and development market in the GTA. From an industry perspective, the MREI will address the need for graduates with leadership attributes, skills and knowledge specifically tailored to both the real estate and infrastructure industries.

Concrete program learning outcomes have been articulated. The MREI will provide prospective students the opportunity to obtain a master's degree at a top-ranked business school in Canada, where currently the only other option is a US program at substantial cost and a narrow focus on US based course content. The School is finalizing the remaining few new course proposals and the instructors for the program. It will commence with some shared courses in the MBA until MREI enrolments are sufficient to maintain separate course sections. The proposal and supporting documentation is attached as Appendix A.

Academic Standards, Curriculum and Pedagogy Committee

Report to Senate

2. Establishment of Master of Real Estate and Infrastructure Program • Schulich School of Business / Faculty of Graduate Studies

ASCP recommends

That Senate approve the establishment of a Master of Real Estate and Infrastructure degree program, effective F/W 2016 - 2017.

Rationale

See Item 1 above.

Approvals: FGS Council 5 November 2015 • ASCP 11 November 2015 • APPRC 19 Nov

Franck van Breugel, Chair

York University Schulich School of Business

Proposal for a Master of Real Estate and Infrastructure (MREI)

November 2014

Vs. November 19, 2015



Master of Real Estate and Infrastructure

1. Introduction

The Program in Real Estate and Infrastructure (originally known as the Program in Real Property Development) was launched in 1992 as a concentration in the Schulich MBA. It was initiated by Canadian real estate industry leaders who foresaw a need for improved formal education within the field. In 2009, the Program was recast to include infrastructure in order to reflect growing international interest in addressing global infrastructure needs. The scope of the Program now covers development, investment and finance in both the real estate and infrastructure industries. MBA and IMBA students have the option of taking individual courses or pursuing a specialization via a *specialization* or the *Graduate Diploma in Real Estate and Infrastructure* (formerly the *Graduate Diploma in Real Property Development*). Since inception the Program has maintained a strong and growing presence within the MBA program, increased its international reputation, and established an extensive alumni base.

The Program is strongly committed to an applied field of study where academic and industry interaction is essential and experiential learning drives the curriculum. This commitment is reflected in the Program's administration through a tenured Academic Director and a practitioner Executive Director. This governance approach facilitates the creation of opportunities to expand and support an active co-curricular program and to engage students, alumni and industry in a variety of successful initiatives including the annual Perspectives Lecture, the annual Developers' Den case competition, the annual Real Estate and Infrastructure Networking Breakfast and the Schulich Real Estate and Infrastructure Student Experience Fund, amongst others. The Program has actively supported the development of Schulich's Real Estate and Infrastructure Student Club (the SRPSA), which offers an extensive and varied program of activities and events facilitating student/ industry engagement, and has supplemented the career counseling and placement services offered by the Career Centre. The primary focus of all these activities is to enrich student learning by creating real world learning opportunities that run parallel to the formal curriculum.

The Program's intent is to capture a sizeable untapped market of individuals in Canada and abroad who wish to pursue or enhance their careers in real estate or infrastructure but seek an alternative to the MBA through the creation of a Masters in Real Estate and Infrastructure (MREI). From an industry perspective, the MREI will address the need for graduates with leadership attributes, skills and knowledge specifically tailored to both the real estate and infrastructure industries. The MREI will address a significant resource need in both the real estate and infrastructure sectors for qualified professions capable of contributing to what is recognized as the single largest industry in the region (when combining real estate and infrastructure and measured by percent of GDP). It will be the only such program in Canada and sets itself apart from programs in the US and Europe designed only for real estate and typically offered through architecture or planning faculties; please see Section 3). There are no master's degrees in infrastructure in existence, anywhere, with the exception of some specializations in civil engineering faculties. Given its long and strong track record, combined with strong support from industry for this program (see support letters in Appendix 2), the Schulich School of Business is well

positioned to attract students to the MREI both nationally and internationally and vault them into management and leadership careers across the globe.

This proposal intends to introduce a new Master's degree, commencing September 2016. The MREI is designed to appeal to highly motivated and intellectually strong students who demonstrate an appreciation of the social, environmental and ethical considerations affecting the real estate and infrastructure industries. Graduates of the MREI program will be positioned to be future leaders in both domestic and international markets.

The Master's program will only be available on a full-time basis and will span three consecutive terms through a highly structured curriculum. Similar to the MBA concentration, the MREI will be co-directed by a tenured Academic Director and a practitioner Executive Director. In the future, a joint MREI/ MBA program may be possible.

2. The Industry, the Vision and the General Objectives of the Program

2.1 Real Estate – an Evolving Industry

Over the past two decades the real estate industry has undergone a period of considerable change both domestically and internationally. These changes are driven by technology, demographics, financial volatility and the globalization of the economy, and are reflected in two major themes.

The first theme is the evolution of real estate into what is effectively a mainstream asset class. In Canada, pension funds have become dominant players in the commercial real estate market and on the international scene these funds are viewed as being at the leading edge of investment strategy. The public market for real estate continues to grow, as has the sophistication of industry participants. Moreover there has been a popularization of real estate as an investment option with significant growth in the retail-oriented investor market.

The second theme is the internationalization of real estate. In large part this theme is the product of the emergence of developing economies and the attendant demand for a variety of real estate product, which has attracted cross border capital flows from the US, Canada and Western Europe. Capital has also begun to flow from developing economies in the form of liquid sovereign wealth funds and other institutions.

Real estate today is one of the largest industry sectors in both developed and developing countries. It dominates the Canadian banking industry through the mortgage markets, attracts and manages large sums of private equity and debt, is the largest of the alternative asset classes among the institutional investors, and facilitates a thriving development and construction industry across the country. Real estate is the single largest source of personal and household wealth. Housing accounts for 40-60% of total household wealth and homeownership in North America and in Europe and is more widespread than the ownership of financial assets such as stocks and mutual funds. The numbers throughout Asia are much larger and increasing as the world's population accelerates their migration to existing and emerging cities.

2.2 The Emergence of Infrastructure

Infrastructure shares two important similarities with real estate: the creation and maintenance of a tangible asset, usually by the same contractors involved in buildings; and the investment of large sums of capital, usually capital that sees real estate and infrastructure as a preferred alternative asset class with long-term investment appeal. The demand for new infrastructure globally is overwhelming whether this is social infrastructure such as hospitals or schools, or economic infrastructure such as energy plants, ports and harbours, water and waste treatment, sewage and various transportation systems ranging from highways to bridges, tunnels to subways. Infrastructure is the backbone of any city, essential to the health and well-being of citizens and for moving goods and services to customers wherever they are located. The McKinsey Global Institute estimates that the global demand for infrastructure will be US\$75 trillion between 2013-2030.¹

Canada is currently in the fortunate position of being viewed as a world leader in the development of, and investment in, large-scale infrastructure projects. Almost every major global firm in the infrastructure field is active in Canada. On the investment side, three Toronto-based pension funds are among the top 10 in the world with a total investment in infrastructure of US\$32.2 billion (2014).

2.3 The Interaction of Real Estate and Infrastructure

In today's global economy, and due to the mutual drivers and trends that affect both industries, an understanding of both real estate and infrastructure is increasingly valuable for students anticipating a professional career in either industry.

Real estate and infrastructure are essential to addressing sustainability and quality of life issues. Both industries are building blocks for cities, directly affecting sustainability. These two industries are inextricably linked by providing the places in which we live and work as well as the means to connect the two. The links are strengthened by the increasing pace of urbanization across the globe, the nature and complexity of the opportunities that arise, and the increasing reliance on the private sector and private capital to implement public policy initiatives.

Financially, real estate and infrastructure are closely linked in the capital markets as the two primary alternative asset classes for investors. Recent studies have shown that infrastructure is the number one driver affecting real estate investments. Both real estate and infrastructure are capital intensive, require equity and debt often from the same sources, apply leverage, and are sensitive to similar systemic risks including interest rate swings. Large infrastructure projects now incorporate elements of both project and real estate finance and are attractive to institutional investors who desire long-term stable commitments.

Both real estate and infrastructure involve construction that requires most of the same service providers from architects and engineers to contractors and facility managers. On the capital side both are exposed to many of the same risks from controlling construction cost and timing of delivery, to building

¹ McKinsey Global Institute, Infrastructure Productivity: How to save \$1 Trillion a Year, January 2013.

performance, obsolescence, and operating costs. Real estate, and more so infrastructure, increasingly involves formal arrangements to incorporate life-cycle costing as part of the value proposition. Both use similar methodologies and assumptions in their calculations and rely on the same or similar organizations to support asset maintenance and operations.

New partnership models are also needed in infrastructure and real estate that can affect new roles for the private and the public sector respectively and promote models that extend beyond risk allocation to address value creation. The move to increasing urban intensification will drive the need for more successful "brownfield" solutions that can integrate infrastructure and real estate to address urban redevelopment opportunities in new partnership arrangements. Infrastructure in brownfield situations must contend with the same conditions that affect real estate in similar situations from environmental remediation to regulatory regimes.

Finally, investors and developers, both in real estate and infrastructure, will continue to gravitate to markets where new opportunities exist and these opportunities may require the creation of new infrastructure as a foundation for proposed real estate initiatives.

2.4 The MREI Vision

The MREI will provide students with a more comprehensive understanding of, and a broader skill base in, real estate and infrastructure than is achievable within the MBA. By choosing this option, graduates may not have the benefit of the MBA first-year core curriculum, but will have the benefit of a highly specialized curriculum. The MREI will build upon the curriculum of the existing Program in Real Estate and Infrastructure, formalize certain co-curricular features of the Program, and add additional courses to provide students with a comprehensive foundation for their careers. In the MREI students will progress as a cohort by taking a common set of courses in two terms with the option to take real estate or infrastructure electives in the third and final term. The MREI offers a shared experience among a group of full-time students who enter and graduate together, not dissimilar to what EMBA students experience. The result is a one-year program that has a highly structured curriculum emphasizing leadership and supported by an intensive line-up of co-curricular activities, including mentorship and career planning. The aim is to assist graduates with their personal and professional growth, grounded in a value system reflective of the Schulich School.

Despite its narrower focus as compared to the MBA, graduates of the MREI must achieve a balance between specialist and generalist; specialist in the sense of expertise in real estate and infrastructure, and generalist in the sense of possessing the integrative skills necessary to manage projects, lead organizations, and advance one's career. Students will be taught to appreciate the value of good design, understand the historical roots of the industry and why projects and organizations have succeeded or failed, and explore the social, cultural, environmental and economic impacts of real estate and infrastructure development.

2.5 Objectives of the MREI Program

The primary objective of the MREI is to prepare students for future leadership roles in real estate and infrastructure development, investment and management. The program seeks to:

- Provide a broad understanding of the real estate and infrastructure industries locally and in a global context;
- Impart the fundamental skills and knowledge of real estate and infrastructure investment and development;
- Develop strong communication and critical thinking skills;
- Engender self-awareness and commitment to personal growth; and
- Stimulate a desire to create and operate assets that are not only profitable but also socially and environmentally beneficial.

This proposed MREI reflects several dimensions of *University Academic Plan 2010-2015* (UAP)'s. The new degree is a recognition of, and *"commitment to, global issues that face our communities and to the development of solutions to those issues"* (UAP, page 3). No greater challenge exists today than the need to provide for the rapid migration of populations from rural to urban environments that impact existing cities and require entirely new cities. This must be achieved in ways that address environmental sustainability, provide safe and healthy environments, and address the necessities of life including shelter, and food, water and energy sources. These challenges must be addressed in the context of *"globalization and internationalization, with their concomitants of increasing interactions of all kinds and new modes of thinking about the world, as well as opportunities for York to build upon its leadership in international partnerships for teaching, learning and research"* (UAP, page 4).

Building on the international successes achieved through the Program's *concentration* in the MBA degree and the Diploma program, the MREI will directly address the three overarching themes of the UAP: academic quality, student success, and engagement and outreach (UAP, page 6). **Academic quality** is reflected in the ability of our MBA students to consistently place at the top of various international case competitions and garner major scholarships and awards. The MREI will maintain this level of academic achievement. **Student success** can be measured by the increasing number of graduate students attracted to York, from here and abroad, to enroll in the Program and the MREI. Student success is also evident in the many career opportunities secured by our graduates and the strength of our alumni association. **Engagement and outreach** is a foundation of the current Program and the MREI will increase these opportunities, particularly in the area of experiential learning.

The MREI cannot achieve its objectives without a strong applied research orientation (UAP, page 8). We are "committed to an inclusive understanding of scholarship that encompasses discovery, integration, collaboration, application, and dissemination. We take it as axiomatic that active researchers are active teachers, and we insist on the inseparability of research and pedagogy at all levels as part of this culture." This commitment to experience-based learning will influence our hiring of new tenured faculty and extend into the classroom through assignments, independent work, and opportunities in the curriculum for creative thinking.

3. Need and Demand

3.1 Similar Programs in North America

There is a wide variety of real estate courses and programs at the undergraduate and graduate levels in both the U.S. and the U.K, in addition to a few undergraduate programs in real estate at Canadian universities. In Canada, real estate specializations are typically offered within a B.Com degree. These are available at Ryerson University, the University of Guelph and the University of British Columbia Sauder School of Business. Several graduate schools offer real estate courses including Ryerson University, the Rotman School of Management within their MBA, the Sauder School of Business and Queen's University in their urban planning program. Many graduate business schools in the U.S. offer real estate courses, primarily in the area of real estate finance. In the U.K. there is a long tradition of undergraduate courses, promoted in large part by the requirements of the Royal Institution of Chartered Surveyors (RICS), that cover a broad scope of real estate related topics such as valuation, appraisal and property management. This tradition provided a foundation for a host of Masters of Science degree programs in real estate at such U.K. universities as Cass, Kingston, Henley, Leeds, Glasgow, the Bartlett School and the London School of Economics.

Real estate undergraduate programs typically focus on local and regional industry needs and careers in the service and supporting industries. Starting in the mid-1980s, and following the successful launch of the MIT Masters of Science in Real Estate in 1984, numerous U.S. universities introduced one and two year Masters of Science real estate degree programs. Of the many Masters of Science programs there are a select few that have garnered strong national reputations and fewer still with a global reach. The notable masters programs include MIT, Columbia, NYU, Florida, Berkeley, Cornell, and USC. There are well over 75 such masters programs throughout the U.S. today. These programs are offered through various faculties including architecture and planning, business, and continuing and professional studies. Wharton, Columbia, Wisconsin, UCLA, USC, University of Texas, Berkeley and Cincinnati have well-established real estate concentrations within their MBA in a manner similar to what is offered at the Schulich School.

Masters programs in real estate in both the U.S. and the U.K. still focus largely on domestic markets. Several programs have attempted to expand curriculum to attract international students, primarily from China and India where building activity is intense and educational opportunities in the field are limited. These master degree programs still rely on a curriculum that is almost exclusively based on local and country practices despite an international cohort of students. When it comes to infrastructure, opportunities at the undergraduate and graduate level are largely non-existent beyond a select few courses offered by engineering schools.

3.2 Need and Demand for the Proposed Program

3.2.1 Real Estate

Over the last two decades the Canadian real estate industry has transitioned from a locally-based and entrepreneur led industry to one that is increasingly "professionalized, institutionalized and globalized". Commercial real estate is now dominated by large pension funds, a healthy public market sector, and a variety of private third party professional management businesses including investment advisory firms and private equity funds. On the residential side, firms are often considerably larger, more sophisticated in their structure and operations, and more likely to move into national and even international markets. Internationally, the emergence of the middle class in emerging markets has driven rapidly growing demand for housing and commercial real estate. This in turn is driving growing interest in tapping into the experience and expertise of developed economies and in taking advantage of educational opportunities in these markets. These changes are driving a need for better-educated employees with greater leadership capabilities, a more global orientation, and advanced investment, project management and risk management skills.

It should be noted that although the industry has changed significantly over the past two decades, the approach to real estate education has not. What is being taught in most programs is 'how to make money' and 'how things are done' rather than 'how to add value' and 'how things should be done'. In particular, there is a lack of attention to examining the social purposes of the industry, promoting innovation and sustainability, exploring new ways of thinking, and developing future leaders that will think critically.

For prospective students seeking a graduate program, the choice in real estate is a U.S. program at substantial cost and seldom dealing with other than U.S. based course content. There are no similar programs available in Canada. The MREI would address the opportunity for students to obtain a master's degree at one of the world's top-ranked business schools in Canada.

3.2.2 Infrastructure

This is a highly skilled industry sector due to the large-scale and complexity of the projects, the substantial investment levels, the management of particular kinds of risk, the nature of the long-term commitments involved, and the global focus. The challenge is developing a curriculum and teaching materials when very little currently exist, where there is a paucity of academic research, and there is still no acknowledgment among business schools of the importance of this fast growing industry sector. For example, few business programs teach project finance as opposed to corporate or even real estate finance. This is an industry that requires sophisticated technical skills in such areas as the pricing of risk, investment analysis based on non-asset based lending, project management of complex projects, financial modeling with assumptions on revenues and costs over a 30 year period, and asset management of very large amounts denominated in various currencies. The forecasted growth in demand for infrastructure world-wide for the next several decades is an indication of the high demand for professionals on both the development and investment side of infrastructure in the years to come.

It should be noted that in the case of infrastructure the Schulich School currently enjoys a "first-mover" advantage as options for study elsewhere do not exist other than in some civil engineering programs.

There are no programs comparable to the one being proposed. Schulich wishes to capitalize on this advantage given the rapid expansion of global career opportunities in infrastructure.

Industry has expressed a strong interest in supporting the MREI as it will contribute to maintaining Canada's status as an acknowledged world leader in both sectors. Well educated professionals are at the foundation of these intersecting industry sectors. This interest is confirmed through support letters from several major organizations operating in these sectors, included in Appendix 2.

See Section 8 for enrolment projections.

4. Program Content and Curriculum

4.1 Program Requirements

The MREI will require students to complete 42 credit hours over an 11-month period, comprised of three consecutive terms that coincide with the Schulich academic calendar. In the first two terms, all students will enroll in a set of core courses that covers both real estate and infrastructure with the option of taking electives in either industry during the third term. The third term is highlighted by a workshop experience that focuses on collaboration and creative thinking. The workshop will direct students to opportunities that address significant environmental and social challenges. Over the duration of the MREI, students will attend a mandatory leadership course that will be taught on a non-credit basis, Pass/Fail basis, during the first two terms and, upon successful completion of the course during the final term of the MREI, students will receive course credit on a Pass/Fail basis. Course work will be delivered through a combination of lectures and assignments, utilizing case work where appropriate, and the extensive use of guest lectures.

The MREI curriculum is comprised of 6 existing 3-credit courses currently offered in the MBA concentration with new sections, and 10 new 3-credit courses, for a total of 16 courses. Graduates complete 36 course credits that are required courses, and 6 course credits that are electives. Advanced standing in, or waiver of, any core course in the MREI will not be permitted. Each student must complete 42 credit hours.

4.2 List of Courses

TERM 1 (Fall): Mandatory for all MREI students, 15.0 Course Credits

- PROP 6100 3.00 Real Estate Finance and Investment. (Existing Course)
- PROP 6150 3.00 Markets and Their Behavior (NEW)
- PROP 6200 3.00 Development Prototypes (Existing Course)
- PROP 6250 3.00 Site Planning and Design (NEW)
- PROP 6300 3.00 Public Private Infrastructure Delivery (Existing Course)
- PROP 6001 0.00 Leadership in Real Estate and Infrastructure I (NEW)

TERM 2 (Winter): Mandatory for all MREI students, 15.0 Course Credits

- PROP 6050 3.00 Changing Landscapes: Historical Perspectives on the Industry (NEW)
- PROP 6450 3.00 The Life of a Project (NEW)
- PROP 6550 3.00 Sustainable Cities: Urbanization, Infrastructure, and Strategic Choices (Existing Course)
- PROP 6750 3.00 Project Finance for Infrastructure (Existing Course)
- PROP 6850 3.00 Structuring Development Transactions (NEW)
- PROP 6002 0.00 Leadership in Real Estate and Infrastructure II (NEW)

TERM 3 (Summer): 12.0 Course Credits (2 electives and two mandatory courses)*

Mandatory for all students

- PROP 6080 3.00 Creative Workshop (NEW)
- PROP 6003 3.00 Leadership in Real Estate and Infrastructure III (NEW)

Select two electives

- PROP 6350 3.00 Infrastructure as an Asset Class (NEW)
- PROP 6600 3.00 Real Estate Portfolio Management (Existing Course)
- PROP 6650 3:00 Commercial Real Estate Asset Management (NEW)
- PROP 6780 3.00 Case Studies in Infrastructure (NEW)

* Courses taken during Term 3 will be offered on Fridays and weekends. Students will be encouraged to pursue internships or undertake research during Term 3 to enhance experienced-based learning.

The proposed course structure is illustrated in Appendix 5.

4.3 Course Descriptions

Appendix 4 contains a list of all 18 courses, along with their descriptions. These descriptions provide an overview of what these courses (will) contain. Of the twelve new courses, five are adapted from existing courses:

• PROP 6001, 6002, 6003 0.00, Leadership in Real Estate and Infrastructure I, II and III is derived from MGMT 5150, Skills for Leadership;

- PROP 6850 3.00, Structuring Development Transactions, is based on PROP 6580, Structuring Real Estate Transactions and Managing Project Delivery;
- PROP 6150 3.00, Markets and their Behavior, is derived from ECON 5100, The Economic Environment of Business.

Rather than submitting preliminary course proposals well in advance of implementing the program, and then potentially changing them as staffing is solidified, it is the program's intent to involve those that (will) teach the courses in the course design in order to ensure that their delivery will be effective. This approach (defining the learning outcomes and content of a course upfront, but submitting detailed outlines at a later point) has worked well in the past. It is the Program's intent to complete the design of the one new and two adapted courses for Term 1 (to be taught in Fall 2016) plus the remaining two Leadership courses by the end of Fall 2015 and the remaining new or adapted courses by the end of Winter 2016.

Note to Senators: Full course proposals were submitted for the courses below, but have not been duplicated in the Senate material. Copies are available upon request.

PROP 6250 PROP 6150 PROP 6003 PROP 6002 PROP 6001

5. Program Structure, Learning Outcomes and Assessment

5.1 Program Learning Outcomes

LEARNING OUTCOMES	How are the learning outcomes achieved?	PROP 6001, 6002 & 6003	PROP 6100	PROP 6150	PROP 6200	PROP 6250	PROP 6300	PROP 6050	PROP 6450	PROP 6550	PROP 6750	PROP 6850	PROP 6080	PROP 6350	PROP 6600	PROP 6650	PROP 6780
1. Depth and Breadth of																	
 Knowledge Graduates should understand the global scope of real estate and infrastructure and the social, political, environmental and economic forces which impact risk and opportunity within these industries Graduates should be sensitive to the role that real and infrastructure developers, financiers and investors play in shaping the quality of the built environment and impacting the social and economic success of the communities within which they 	Students take a required set of core courses in both real estate and infrastructure aggregating 36 credit hours. Students take an additional six credit hours in either real estate or infrastructure or a combination of both. The program addresses a broad spectrum of knowledge and skills, combines theory and practice, includes macro and micro perspectives and examines local and international environments.	v		v	V	v	v	v		v		V	V	V	V	v	V
 operate Graduates should be able to describe the structure of each industry and the roles, responsibilities, activities and relationships amongst the main industry players Graduates should be able to differentiate amongst the various property and infrastructure types by reference to the activities, users, functional characteristics and business models in each case 			V		V	v	V V		v		V	v		V	√ √		v

LEARNING OUTCOMES	How are the learning outcomes achieved?	PROP 6001, 6002 & 6003	PROP 6100	PROP 6150	PROP 6200	PROP 6250	PROP 6300	PROP 6050	PROP 6450	PROP 6550	PROP 6750	PROP 6850	PROP 6080	PROP 6350	PROP 6600	PROP 6650	PROP 6780
• Graduates should have the fundamental knowledge and skills to evaluate and manage real estate and infrastructure developments, investments and operations		V	v	v	v	v	v						v		v		
 2. Knowledge of Methodologies Graduates should have the ability to relate effectively to the planning, design, construction and project management issues encountered in major capital projects Graduates should be familiar with the challenges and opportunities associated with the environmental impact and sustainability performance of real estate and infrastructure projects 	Several of the required courses teach fundamental industry skills and methods including analytical methodologies, design and construction solutions, project management and the legal framework of prototypical transactions.				v v	v v	v v		v	v			v v			V	V
 Graduates should be able to distinguish, quantify and analyze demand and supply factors that describe market conditions and set prices 			v	٧	٧								٧	٧	v	٧	V
 Graduates should be able to apply financial analytical methods, tools and techniques to assess investment opportunities Graduates should understand the regulatory and contractual framework 			V										v	v	V	v	v
governing real estate and infrastructure development and investments						٧	٧		V	٧		٧	٧	٧	V	٧	V

LEARNING OUTCOMES	How are the learning outcomes achieved?	PROP 6001, 6002 & 6003	PROP 6100	PROP 6150	PROP 6200	PROP 6250	PROP 6300	PROP 6050	PROP 6450	PROP 6550	PROP 6750	PROP 6850	PROP 6080	PROP 6350	PROP 6600	PROP 6650	PROP 6780
3. Level of Application of																	
Knowledge																	
• Graduates should have the ability to estimate investment returns including the impact of income tax and leverage	Extensive use is made of case work in which knowledge and skills taught in the courses must be integrated and applied. The		٧										٧	٧	٧	٧	
• Graduates should be able to assess the economic viability of a proposed development site and to assess its highest and best use	creative workshop serves as a capstone project in which students are guided through a creative process requiring the use and		v		٧								v			٧	v
• Graduates should be able to translate user and performance requirements; market intelligence; and site, building and regulatory	application of the skills and knowledge taught throughout the Program.				٧	v	v		٧				V				
constraints into a schematic building form																	
• Graduates should be able to identify features that contribute to enhanced building performance and sustainability					٧	v			٧	٧			٧			٧	v
• Graduates should be able to evaluate mortgage, direct real estate, REIT, private equity fund and international real estate investment			٧												٧		
opportunities in the context of portfolio strategyGraduates should be able to																	
describe and analyze various business models and approaches to partnership arrangements for infrastructure including the structure of contractual arrangements and the allocation of rick							v			٧		٧		٧			٧
-							V			V		~		V			

LEARNING OUTCOMES	How are the learning outcomes achieved?	PROP 6001, 6002 & 6003	PROP 6100	PROP 6150	PROP 6200	PROP 6250	PROP 6300	PROP 6050	PROP 6450	PROP 6550	PROP 6750	PROP 6850	PROP 6080	PROP 6350	PROP 6600	PROP 6650	PROP 6780
4. Awareness of Limits of																	
Knowledge																	
 Graduates should be able to identify critical analytical assumptions 	All courses emphasize sound research and critical thinking as an	٧	٧					٧				٧		٧	٧		
 Graduates should be cognizant of the need to utilize multiple analytical procedures and to synthesize 	approach to risk management. Through case work, readings and guest lectures courses incorporate		V	v	v								V	v	v		
quantitative and qualitative information	examples of failures, as well as successes, in order to convey the		v	v	v								v	v	v		
 Graduates should be able to identify and assess sources of risk in 	risks attached to poor research, analysis, execution and/ or governance.																
the context of development, finance and investment and to propose	governance.		V		V		V	٧				٧	V	٧	V	٧	V
appropriate risk mitigation strategies 5. Level of Communication Skills																	
 Graduates should demonstrate 	The Skills for Leadership course																
literacy in the language and constructs	serves as the base line for the																
of real estate and infrastructure	acquisition and refinement of	V	V	V	V	V	V	V	V	V		V		V	V	V	V
development, finance and investment	communication and negotiation																
Graduates should have the ability	skills. Most courses require																
to communicate analysis and	students to write reports and																
recommendations clearly and	make individual or group	V											V				
persuasively in report form and oral	presentations. Written reports are evaluated based on content																
presentations	and clarity of exposition. Oral																
	presentations present the																
	opportunity to hone public																
	speaking and general presentation																
 Graduates should have intermediate negotiating skills 	skills. Cases requiring role playing	v															
	are used to develop negotiation																
	skills.																

LEARNING OUTCOMES	How are the learning outcomes achieved?	PROP 6001, 6002 & 6003	PROP 6100	PROP 6150	PROP 6200	PROP 6250	PROP 6300	PROP 6050	PROP 6450	PROP 6550	PROP 6750	PROP 6850	PROP 6080	PROP 6350	PROP 6600	PROP 6650	PROP 6780
6. Autonomy and Professional																	
Capacity																	
• Graduates should recognize the value of one's professional reputation and what it embodies in terms of integrity, ethical practices and social responsibility	Teamwork is emphasized throughout the program culminating in the Creative Workshop experience. Career paths are explored throughout	٧								٧			٧				
• Graduates should be able to characterize the organizations and firms involved in real estate and infrastructure and identify potential career options and competency requirements	many of the courses in the Program. The Skills for Leadership course encourages self awareness and prepares students to manage their careers. The importance of personal integrity,	v	V		v	v					v	v		v	v	٧	v
• Graduates should have an appreciation of the value of building a strong professional network and have the skills required to do this	ethical practices and social responsibility is highlighted in this course and is reflected throughout the curriculum via the selection of	٧															
• Graduates should have an appreciation for the role of vision and entrepreneurship in advancing the industry and turning ideas into realities	case studies and guest speakers.	٧						٧		٧			٧				V
• Graduates should have the ability to work effectively in teams		٧															

5.2 Mode of delivery, methods and criteria for assessing students

The majority of courses in the Program will be delivered through a mix of lectures, research projects, and case studies, with the exception of the creative workshop that employs a studio format. Extensive use is made of real world cases and/ or real world research assignments such that students have multiple opportunities to apply theory and methods in realistic scenarios. This approach develops critical thinking skills and builds students' awareness and understanding of industry specific language, concepts and practices. Most courses will make frequent use of industry speakers to bring examples of current transactions and projects into the classroom and to illustrate application with practical examples. In addition, guest speakers often provide career advice, which assists students in understanding career options and developing effective career development strategies. Guest speakers will also embody leadership qualities. Student achievement will be assessed by a mixture of exams, group projects, individual projects, and class participation. Group work serves to develop team skills and participation marks encourage engagement and the development of public speaking skills.

5.3 Program Length

The Program is a continuous eleven months and will run concurrently with the Schulich School's threeterm structure commencing with the Fall term. This structure will permit MBA students to catch up to the MREI curriculum during the fall term and be eligible to take the winter term electives alongside the MREI students. The Program will be preceded by a one week 'boot camp' to supplement basic accounting and finance skills for students lacking a business degree or wishing to improve on their skills. Non-lecture periods may be used for out-of-country field trips. The Summer term is structured with only nine electives that may be offered of Fridays and weekends to create opportunity for students to pursue part-time internships should they choose to do so. An internship will contribute to the experiential learning component of the MREI. Undertaking a research project in this period will also be an option for some students.

5.4 Co-curricular Activities

Although not a formal part of this proposal, the Program is planning to offer co-curricular activities to enrich the formal education of its students. Examples of such activities include field trips, internships and research opportunities offered in Term 3, local site visits and lunch and learn events. Co-curricular activities offer students opportunities to be inspired by new experiences, to develop their leadership skills, to enhance valuable relationships, to build professional networks, to apply what they learn in the classroom to the real world and to discover potential career paths. They are consistent with the one of the three overarching themes of the UAP, namely engagement and outreach, co-curricular activities are offered to supplement to the MREI curriculum. Even though encouraged, participation in the Program will be voluntary and carry no credits.

6. Admission Requirements and Academic Standards

6.1 Admission Criteria

- 4-year undergraduate degree from a recognized university with a minimum GPA in the final two years equivalent to a B.
- Acceptable scores on all measurements of the GMAT or GRE.²
- Two letters of recommendations one of which one should be from an academic, if possible.
- Relevant full-time work experience of 2-5 years strongly preferred.
- A supplementary application may be required.

In the future a joint MBA/MREI may be possible and students pursuing a joint degree will have to satisfy the admission requirements for both degrees.

Applicants whose first language is not English must submit evidence of English proficiency, with the exception that those who have studies for at least two years in a university where the language of instruction was English. Evidence, if required, shall be a TOEFL score of 600 (internet-based) or 250 (computer-based), 100 iBT, IELTS 7.0 or YELT score of Band 1, or equivalent.

The curriculum is designed to advance the careers of individuals who have already chosen real estate or infrastructure, or a related field; however, the admissions criteria shall not preclude the opportunity for highly motivated applicants with strong academic backgrounds to use the degree to launch or change career paths.

6.2 Academic Standards

The academic standards shall be governed by the *Graduate Student Handbook* and will encompass the following:

Master of Real Estate and Infrastructure students will be reviewed as follows to determine whether or not they have met promotion requirements below:

- 1. The Master of Real Estate and Infrastructure is a full time program.
- 2. Initial review upon completion of the Fall term (Term 1)
- 3. Subsequent review at the end of each following term (Terms 2 and 3).
- 4. To maintain their standing in the program, all students must maintain a GPA of at least 4.20.
- 5. Students who receive a grade of F in more than 3.00 credits of coursework will be withdrawn.
- 6. Students who fail a required course must retake it. Students who fail an elective course may repeat it, or may elect to take another course. Students who repeat a failed course and receive a second failing grade will be withdrawn. A student that is required to repeat a course will be permitted to take the equivalent course in a consecutive semester in the MBA program if offered

² For specialized Masters degrees Schulich typically requires a minimum GMAT score of 600 or an equivalent GRE score. Due to competitive reasons, minimum scores are not published and do not appear in calendar copies.

and subject to the maximum limit of 18 credits per semester, or enroll part-time for the sole purpose of repeating this course.

- 7. Grades for all courses taken will remain on the official York University transcript
- 8. To graduate, a student must achieve an overall GPA of at least 4.40 (B-). For specific requirements, see 'Graduation Requirements' on page 10.
- 9. Students with a GPA of 6.95 (A-) or above will be placed on the Dean's Honour List upon graduation.

7. Resources

The program will be taught by Schulich's usual mix of tenure stream and contract faculty members, many of whom are delivering the current Real Estate and Infrastructure diploma and specialization. Indeed, the external reviewers positively commented on the capabilities of the current diploma's teaching faculty but pointed out that "new required courses have no syllabus or an instructor of record" (p. 3) and that "the existing faculty per se isn't sufficient to cover the teaching load for all of the newly required real estate offerings" (p. 6). They also noted that "the faculty at Schulich appears to have the necessary expertise to contribute substantively" (p. 5) with "several urban economists at Schulich" present (p. 8). The reviewers recommended that "at least one or more tenured or tenure track faculty" are necessary, also to "lend research credibility to this program" (p. 6).

It must be noted that the proposed program is not a research program; it is course-based and has no explicit research component. As such, the discussion of faculty resources focuses on graduate supervision from a teaching rather than research perspective. As well, since this is a Management program, no distinct physical spaces or equipment are required for program delivery. As noted in the Dean's statement, administrative resources (student services, career services, etc.) are already in place through the diploma program. They are sufficient for servicing a full cohort of about 45 students within the MREI program. Finally, while classroom capacity at Schulich is very stretched, Appendix 5 shows that, at least in the first year of the program's operation, space for a net of only 3 classes each for the Fall and Winter terms is needed. It will be possible to accommodate those within the current constraints. This reduced classroom requirement is the result of aligning the specialization courses offered within the MBA with those of the MREI. Having addressed the physical resources, the balance of this section focuses on the staffing required for course delivery.

The program always had two full time faculty members – one tenured, one contract. Over the past year Schulich has also hired a Sessional Assistant Professor (CLA) with a background in Management, Real Estate and Infrastructure and Law to complement the program. This colleague has not only teaching experience in the diploma program but also a publication track record, if mostly in the legal realm. Schulich's Operating Committee has prioritized a tenure track position for the Program, and the program is in the process of hiring into that position (the applications deadline just passed and hiring is expected to be completed during the early Winter semester). Finally, the Dean hopes to soon secure

funding for a chaired position in Real Estate & Infrastructure. Particularly the latter two positions would help establish a research profile in this area.

As pointed out above, five of the twelve newly proposed courses are adapted from existing courses. The implication is that existing faculty can teach those courses, as follows:

- PROP 6001, 6002, 6003 0.00, Leadership in Real Estate and Infrastructure I, II and III and PROP 6150 3.00, Markets and their Behavior: as the demand for the MBA program is in a decline, no net resources will be required to staff these courses (all three Leadership courses are similar to one 3.00 credit course in terms of teaching effort).
- PROP 6850 3.00, Structuring Development Transactions: the original course, PROP 6580, Structuring Real Estate Transactions and Managing Project Delivery, will be retired; the new courses will be taught by the original instructor.

As the existing specialization will be aligned with the offerings of the proposed Masters program, 3 courses would be shared with the MBA program in the Fall and Winter semesters each, at least in the early years of the MREI (i.e., until the program can sustain sufficient enrolment for separate course sections). Appendix 5 shows the shared courses as well as a list of the faculty members capable of teaching these courses, Appendix 6 those faculty members' ranks and areas of specialization. The staffing of four courses needs to be determined – two in Term 2, and two in Term 3. It is expected that the new tenure stream position will provide some of the required capacity. Until the appointment of the chaired colleague, the program will be able to make use of overload assignments or hire qualified industry experts.

The Program intends to offer an optional internship during Term 3. The diploma program has a very long and rich track record with regards to co-curricular activities that facilitate students' socialization into the industry as well as job placement. These activities are directed by the diploma's Executive Director and strongly supported by a very active student club. As a result of these activities, Schulich student groups have won international competitions in Real Estate Management against venerable competitors, including MIT and Columbia. The Program has also raised a Student Experience Fund of \$100,000 that allows students to obtain training in analytical software or take part in field excursions. While students would ultimately be responsible themselves for securing internships, these resources will be used (in addition to those of Schulich's Career Development Center) to facilitate students' abilities to secure them.

8. Enrollment Projections

The new MREI anticipates an initial class size of 25 students at launch, with an expected growth to 40 students within three years of launch. These numbers would be in line with those experienced in other specialized Schulich Masters programs, enrolment trends in related programs in the USA, and consistent with the results of conversations the program proponents had with industry leaders in Canada and abroad with regards to need and career opportunities. The program will be marketed nationally and

internationally. With the Schulich name and reputation, the MREI is well positioned to compete with similar graduate programs in the U.S. and the U.K. Toronto is very well positioned in both real estate and infrastructure with a vibrant real estate and infrastructure community that has already garnered international attention. In combination with Toronto's reputation as an attractive and safe place in which to reside, it should not be difficult to capture up to 50% of the class from international markets. Schulich's intake of visa students is currently around 40% and experience shows that specialized Masters programs are highly attractive to international students.

APPENDIX 1: A COPY OF THE MREI PROGRAM AS IT WILL APPEAR IN THE GRADUATE CALENDAR

The primary objective of the Master of Real Estate and Infrastructure (MREI) is to prepare students for future leadership roles in real estate and infrastructure development, investment and management. The MREI is an 11-month graduate degree with a highly structured curriculum emphasizing leadership qualities and supported by an intensive line-up of co-curricular activities including internships, research opportunities and career planning. It is only available on a full-time basis and spans three consecutive terms. In the first two terms all students enroll in a set of required courses that cover both real estate and infrastructure, with the option of taking electives in either real estate or infrastructure in the third term. The third term is highlighted by a workshop experience that focuses on collaboration and creative thinking that addresses significant environmental and social challenges. Students will attend a mandatory leadership skills course over the duration of the MREI. Course work is delivered through a combination of lectures and assignments, utilizing case studies where appropriate, with extensive use of guest lectures from industry. Graduates are expected to achieve a balance between specialist and generalist; specialist in the sense of expertise in real estate and infrastructure and generalists in the sense of possessing the integrative skills necessary to manage projects and lead organizations. Students are taught to appreciate the value of good design and environmental stewardship, respect the historical roots of the industry, and why projects and organizations succeed or fail. The curriculum offers the opportunity to explore the social, cultural, environmental and economic impacts of real estate and infrastructure development.

The MREI seeks to:

- Provide a broad understanding of the real estate and infrastructure industries locally and in a global context;
- Impart the fundamental skills and knowledge of real estate and infrastructure investment and development;
- Develop strong communication and critical thinking skills;
- Engender self-awareness and commitment to personal growth; and
- Stimulate a desire to create and operate assets that are not only profitable but also socially and environmentally beneficial

The curriculum is designed to advance the careers of individuals who have already chosen real estate or infrastructure, or a related field; however, the admissions criteria shall not preclude the opportunity for highly motivated applicants with strong academic backgrounds to use the degree to launch or change a career path.

Requirements for admission to the Master of Real Estate and Infrastructure include:

- 4-year undergraduate degree from a recognized university with a minimum GPA in the final two years equivalent to a B.
- An acceptable score on the GRE or GMAT.

- Two letters of recommendation, one of which one should be from an academic, if possible.
- Relevant full-time work experience of 2-5 years strongly preferred.
- A supplementary application may be required.

Applicants whose first language is not English must submit evidence of English proficiency, with the exception that those who have studies for at least two years in a university where the language of instruction was English. Evidence, if required, shall be a TOEFL score of 600 (internet-based) or 250 (computer-based), 100 iBT, IELTS 7.0 or YELT score of Band 1, or equivalent.

APPENDIX 2: EXTERNAL SUPPORT FOR THE PROGRAM



55 University Avenue Suite 300 Toronto ON Canada M5J 2H7

T 416.681.3400 F 416.681.3405

www.bentallkennedy.com

December 2, 2014

Prof. James McKellar Academic Director and Andre Kuzmicki Program in Real Estate & Infrastructure Room W362L Schulich School of Business York University Toronto, Ontario M3J 1P3

Dear Andre and James,

I would like to offer this letter of support in respect of the proposed new Master in Real Estate and Infrastructure (MREI) program. I have had the opportunity to meet and discuss this proposed program with Andre on two occasions earlier this year and have reviewed the MREI Abridged Proposal. My comments follow from those discussions and the document.

As a 35 year participant in the industry and senior executive within one of the largest real estate investment management firms in North America, I can attest to the value that such a program would deliver to our industry. As noted in the proposal, there is a very real need in Canada for a more in-depth curriculum which delivers some of the broader based skills embodied within an MBA program but which also delves deeper into key topics than can be achieved in an MBA or undergraduate program. I am familiar with the MIT and Columbia masters in real estate programs and from the graduates whom I know and have worked with of these two leading programs, their value proposition is very evident.

In particular, I am excited by several components of the proposed new MREI program;

- I have long admired Schulich for its commitment to Environmental, Social and Governance principles (ESG) and the incorporation of these. I am delighted to see that these important ESG considerations will be integrated into the curriculum and into the experiential learning components.
- Leadership development is a critically important topic within our industry. That is true in any industry, but in one such as ours where technical and quantitative abilities are highly sought after, it is often too late in an employee's career development that fundamental leadership and human capital management skills are taught and emphasized. I am very pleased to see the emphasis that will be placed on this topic in all

three semesters of the program. This will provide graduates with a perspective on the importance of leading and motivating others and give them a framework in which to develop their skills in this area.

- I believe strongly that ours is an industry in which experiential learning in various ways
 – must be combined with in-classroom or research based learning in order for students
 to truly think integratively. The emphasis that the program will place on student
 experience via a major workshop exercise, a third semester internship, and continued
 participation in various other existing Schulich activities (such as the Developers' Den,
 networking events and the Perspectives Lecture series will all combine to reinforce and
 bring to life the learning accomplished through other methods.
- I am very pleased to see that the MREI would span both investment and development activities, and would include the range of considerations that go from the physical built form, to urban design and urban geography, to project economics and investment return. This comprehensive approach is almost impossible to treat in meaningful depth within a broader based multi-industry program. It testifies to the need for exactly this kind of more specialized and more foundational advanced degree.

Please accept this enthusiastic endorsement of both the objectives of the MREI as well as the curriculum specifics as outlined in the document. I sincerely hope that this program comes to fruition for the 2016 year, and would be pleased to participate via the provision of internship opportunities for students seeking their MREI.

Yours very truly,

Gary Whitelaw Chief Executive Officer Bentall Kennedy Group



11 CHURCH STREET, SUITE 401 TORONTO ON, CANADA M5E 1W1 TEL: 416 861 9404 FAX: 416 861 9209

December 5th, 2014

Andre Kuzmicki Adjunct Professor & Executive Director Schulich School of Business York University 4700 Keele St Toronto ON M5J 1P3

Dear Andre,

It was a pleasure to meet with you in September to discuss your proposed new eleven month Master in Real Estate and Infrastructure degree.

Based on examining your proposal and our discussions, I believe this program will provide candidates with the academic background to pursue a successful and fulfilling career in the Real Estate Industry. My personal view, as expressed to you, is that we need executives who are generalists and we certainly need talented people with entrepreneurial ability.

Your program, as outlined, will focus on the correct academic topics, which when combined with practical experience will prepare candidates to be the future leaders in our industry.

Best of luck and I look forward to continuing to work together.

Yours Truly,

7L-f-

Tom Schwartz



77 King St. W, Suite 4010 P.O. Box 159 Taronto Dominian Centre Taronto, Ontario M5K 1H1 Tel: 647.925.7539 Celi: 647.938.2022 Fax: 416.861.1240

December 5, 2014

Mr. Andre Kuzmicki Adjunct Professor and Executive Director Program in Real Estate and Infrastructure Schulich School of Business York University

Re: Potential Implementation of a Master's of Real Estate and Infrastructure Degree / Program

Dear Andre,

I am writing to you in regard to the above noted topic and encourage you to share my letter with faculty and administration who may be involved with the implementation of the new degree / program.

You and I have spoken often about the significant growth in the overall professionalism and intellectual advancement in the Canadian real estate industry over the past ten or more years. I have on occasion wondered about the "cause and effect" aspects of this ten year growth. Has the industry become more professional and in turn created the rationale for undergraduate and post graduate real estate programs and curriculums or has the advancements in the industry been driven, at least in part, by such outstanding programs and resulting graduates produced by schools such as the Schulich School of Business? Ultimately, the answer is that it is all intertwined and most certainly without programs such as those Schulich offers, new entrants into the industry would neither bring about advancement nor be sought after by those hiring.

I believe that the real estate related programs, courses, teaching process and ultimately graduates produced by the Schulich School over the past many years has been nothing short of remarkable. Having taught, hired, worked with, sat across the table from or transacted with so many of these graduates, I consider myself fortunate to be part of an industry now populated by so many Schulich graduates who make it so much more professional than when I first joined the industry some thirty years ago.

The next stage in evolution of the program to me clearly fits within the bounds of the newly proposed Masters of Real Estate and Infrastructure. The obvious and multiple connections between these asset classes, both academically and in practice, the growth in both sectors and the huge capital allocations to these asset classes on a global basis to me represents a tremendous opportunity for Schulich and for the industry(s).

In virtually every way I can express my support for the implementation of the new degree / program, I do so enthusiastically and thoughtfully. Schulich was and is in my opinion the leader in advancement of graduate studies in real estate and is the rightful and logical future leader for a combined real estate and infrastructure program and master's degree.

Sincerely,

Tom Heslip ³ Chief Executive Officer Granite REIT

AN OMERS WORLDWIDE COMPANY

E.M. Blake Hutcheson President and CEO Oxford Properties Group Royal Bank Plaza, North Tower 200 Bay Street, Suite 900 Toronto, Ontario M5J 2J2 (416) 865-5353, http://www.mail.org/ord/properties.com

December 12, 2014

Mr. Andre Kuzmicki Executive Director Program in Real Estate and Infrastructure Room W362L Schulich School of Business York University Toronto, ON M3J 1P3

To Whom It May Concern:

Please consider this an unqualified letter of support for the Schulich School for Business providing a new Master's Degree in Real Estate and Infrastructure to the Canadian business landscape and community. In my view it would be extremely well received, timely, valued – and successful. As background to my letter of support I make the following points:

 As CEO of Oxford Properties, a real estate development and investment company supported by OMERS with over \$30 billion of assets under management globally, we are a major employer (approximately 2,000 employees in Canada alone) and have a respected window on the real estate industry at large. While we have employed several of your MBA students with a concentration in real estate, the concept of having a fully dedicated degree would position your students much better for success, as there will be no doubt about their commitment to the industry in the eyes of potential employers and they will launch, or enhance, their career with a full and appropriate academic foundation with no major holes to fill.

I also feel that the combination of both real estate and infrastructure will allow for a greater understanding of the interplay between these two important disciplines and provide more depth and opportunity for the next generation of leaders. Any discussion of city and community building now encompasses a comprehensive understanding of both disciplines and how they work together. I do not know of another respected school in the world that offers this combination at a masters level. In my view, this will track, and should track, a huge market demand.

OMERS Worldwide: OMERS Strategic Investments • OMERS Capital Markets • Oxford • OMERS Private Equity • Borealis

I have also looked at the initial scope for the program and respect the focus that will be placed on sustainability and social responsibility. These areas are now an essential part of the fabric of both the real estate and infrastructure industries.

- 2. Knowing that a student can emerge from a great <u>Canadian</u> school with both real estate and infrastructure as a foundation is very exciting. In recent years we have done most of our hiring out of MIT, Columbia and New York University where we could focus on students with a dedicated MSc degree in real estate development. Your program will be a service to both the country and the industry. It will encourage employers like Oxford to shop within Canada first. It should also be noted that Canada and Canadians are among the most respected international entrepreneurs and professionals in both real estate and infrastructure. This new program should be a platform for both celebrating that fact, and building upon it. I am confident that you will get many industry leaders to become guest lecturers etc. in service of supporting and enriching this Canadian competitive advantage.
- 3. We have known Andre Kuzmicki very well over the years and our entire industry respects him immensely. If he can be one of the torch bearers for this initiative we know that it will be a success. Andre has also been a professor at the MSc program at Columbia so he will have learned both what to do, and in some areas what not to do, in order to make it a success. Having the right leadership in place is always critical when both conceiving of a plan and executing against it.
- 4. I personally graduated with an MSc in real estate from Columbia in 1989. It has served me incredibly well and several of my peers are now leaders at the highest level of the real estate business globally. I can speak with firsthand knowledge about what this background can do for a young Canadian with big ambitions, needing a strong and specialized academic foundation to get launched! I really think York has an opportunity to do this, in a globally competitive way, for a whole new generation of ambitious Canadian and international students.

I sincerely hope York makes the decision to proceed with this program. Oxford will support it as will OMERS through its infrastructure company Borealis – by hiring graduates, by being available to lend our minds and teams to assist with its success, and perhaps even financially as the program gets rolled out.

All the best with it and if you have any questions or comments please do not hesitate to

call.

E.M. Blake Hutcheson President and CEO

Received via Email (12/02/2014)

James,

Just went through the material and was quite impressed. Certainly addresses a gap as we face the need for huge infrastructure investments going forward. The only comment I would make is that the program is focused on financial and transactional elements. Will the graduates learn anything about the technical aspects of this? What's missing is "civil engineering 101". Can they be expected to assess risk when they don't know how it works? E.g. soils engineering, brownfields, bearing capacity etc.

They don't need to be civil engineers but they should be aware of what to be mindful . Regards,

John W. Campbell, President and Chief Executive Officer, Waterfront Toronto

Received via Email (1/29/2014)

Jim,

I just read through your proposal and I think it's EXCELLENT. It's an impressive and well-conceived vision of what masters students should learn and how they should learn it. If you have the faculty that can live up to your course descriptions, I think you'll have one of the best one-year programs in the world.

I received a call late Friday afternoon from Andre Kuzmicki and will speak with him on Monday or Tuesday about our JV Negotiation event in San Francisco in January. It's a collaborative, international, experiential learning event that engages students, faculty and prominent industry practitoners around the topic of negotiating development joint ventures. It would be great if you thought it was a good co-curricular event for your students (I can assure you it is) and encouraged them to participate. Attached is the feedback we received from the JV Negotiation event we did with Columbia University (Business, Law, and MSRED) last month, in case it's helpful. I think our event in San Francisco will be even better.

Thanks for having Andre reach out to me, and I call you later in the week after we speak.

Tod McGrath, Chairman, Center of Real Estate Advisory Board Lecturer, MIT Center for Real Estate

Received via Email (12/08/2014)

Hi James,

Sorry for slight delay, we were in Vancouver Wednesday through Saturday.

Here are our thoughts on where the proposal could be slightly refined:

- It should stress upfront that high quality expertise is needed in the growing sector of public-private partnerships, particularly given the complexity of the arrangements. As Canada is a world leader in this industry, it is important to not only fill the labour force need domestically, but also capitalize on the expertise needed internationally.
- 3.22 is a real strong paragraph that accomplishes a lot of the point above. You may want to move some of this up front and distinguish P3s from traditional infrastructure.
- A need to continually scrutinize industry practices by conducting industry research will lead to a refinement of best practices

Overall thoughts:

- Strong proposal
- Fills a gap in academia and the labour force
- A lot of opportunity for industry (both public and private) to collaborate with the University to make the program a success

Statement of support:

The Canadian Council for Public-Private Partnerships has reviewed the proposal for a Master of Real Estate and Infrastructure and is supportive of its direction. Canada now has 220 P3 projects with a value over \$70B and is viewed as best-in-class when it comes to using the P3 approach. However, there is very little in the way of post-secondary courses that specialize in infrastructure and/or public-private partnerships. This proposal would help students gain the necessary knowledge and experience to succeed in a very specialized industry. The proposal provides opportunity for the public and private sector to partner with the University in ensuring students get the most out of this program. We would be pleased to engage our membership and help the University achieve its goals.

Steven Hobbs

Director, Strategic Planning and Partnerships The Canadian Council for Public-Private Partnerships 55 University Avenue, Suite 608, Toronto, ON M5J 2H7

APPENDIX 3: LIBRARY SUPPORT



MEMORANDUM

YORK UNIVERSITY LIBRARIES

Office of the University Librarian

516 Scott Library 4700 Keele Street Toronto ON Canada M3J 1P3 Tel 416 736 5601 Fax 416 736 5451 www.library.yorku.ca

To:	Dr. James McKellar, Director Real Property Development Program, Schulich School of Business
From:	Catherine Davidson, University Librarian
Date:	November 24, 2014
Subject:	Library Support for the Proposed Master of Real Estate and Infrastructure program

Library resources housed in the Peter F. Bronfman Business Library are among the best in the world and are complemented by equally extensive collections in Scott Library. Students and faculty have access to an excellent collection of journals and books in both print and electronic form. Furthermore, York University Libraries license an ever-expanding array of electronic resources such as government statistical data bases, geospatial files, and economic and business databases. And, as Ms An notes in her accompanying statement, resources in the Osgoode Hall Law Library, and the Steacie Science and Engineering Library will further support study in this interdisciplinary area. We are well-positioned to support this proposed graduate program in Real Estate and Infrastructure, not just by means of our extensive collections but also through the array of other supports and services offered by the Libraries. These include instructional services, research and reference assistance, library facilities such as a dedicated graduate student study space and group study rooms and interlibrary loan services.

Reference assistance continues to be offered both in the libraries and online, and students may use the librarian consultation service which is available by appointment. York University Libraries' digital initiatives program provides electronic journal publishing services to graduate students and researchers and supports a variety of titles including the Journal of Income Distribution: an International Quarterly. Currently the Libraries are working with the Faculty of Graduate Studies to support the future publication of electronic dissertations.

In summary, York University Libraries are well-positioned to provide excellent library support for the proposed Master of Real Estate and Infrastructure program and look forward to expand the research collections to support the curricula for this program.

cc: Angie An, Business Librarian Xuemei Li, Head, Peter F. Bronfman Business Library Adam Taves, Acting Associate University Librarian, Collections and Research


APPENDIX 4: COURSE DESCRIPTIONS

TERM 1: Mandatory for all MREI students, 15.0 Course Credits

PROP 6100 3.00 Real Estate Finance and Investment (Existing Course)

This course provides the requisite quantitative skills for analyzing real estate investments and fosters the development of a critical perspective in financial decision-making. It covers valuation techniques, cash flow modeling, development feasibility analysis, tax considerations, debt and equity financing, risk assessment and also examines strategic and tactical investment considerations. The course uses a prescribed text, case studies, problem sets and group assignments and has a quantitative focus. Use of financial calculators and personal computers is required.

PROP 6150 3.00 Markets and Their Behaviour (NEW)

In market economies, the combined effect of market forces and deliberate government actions generate urban spatial structure. This course discusses how markets operate, the criteria for assessing market performance, and the circumstances under which markets perform well or poorly. The first half of the course covers skills for predicting market behavior including the supply and demand for space and capital as it influences investment decisions. The second half examines the rationale for government intervention in markets including problems of information, monopoly, externalities and collective or public goods. No prior exposure to economics is required and applications to urban planning and spatial analysis are stressed.

PROP 6200 3.00 Development Prototypes (Existing Course)

This course deals with development, developers and the products that they create. The course provides an understanding of the business of real estate development, insights into the economic, functional, and technical and aesthetic factors that shape dominant building forms, and an understanding of the link between demand and product development. Course content spans an understanding of the spatial economy of cities-where economic activity occurs and the interaction between demand and supply in the marketplace, a detailed examination of the products that are shaped by the market forces, and an overview of new prototypes that are emerging to meet emerging demands. The course is delivered through a combination of lectures, case studies, and guest speakers from industry.

PROP 6250 3.00 Site Planning and Design (NEW)

Acquiring a site is a prerequisite for any new real estate or infrastructure project. Site planning and design involves a myriad of factors that include sensitivity to various stakeholder and community interests, design issues, regulatory and code constraints, site configuration, topography, soil and other geotechnical factors, infrastructure requirements, traffic impacts, and intended uses. Improvements on the land include both below grade and above grade structures. Some of the most significant development risks occur at the site planning stage whether these are regulatory issues, access and egress constraints, limits on building height and massing, or foundation conditions. Site planning requires a myriad of technical investigations, site engineering, and architectural studies. The result is the translation of this information into 3-dimensional built forms and configuration of the site to handle traffic, landscaping and other development requirements. Decisions at this stage shape financial performance.

PROP 6300 3.00 Public Private Infrastructure Delivery (Existing Course)

Infrastructure has been elevated to an international business of increasing scope and scale. This course examines the many "moving parts" of this business and explores the various models that are being employed to address a variety of infrastructure needs, from hospitals and schools to airports, highways, and energy plants.

PROP 6001 0.00 Leadership in Real Estate and Infrastructure I (NEW)

The objective of this course is to teach students the thinking and reflective skills required for business leadership. The course develops and enhances student ability to deliver compelling and coherent presentations; to apply analytic, critical and strategic thinking to complex business problems and to identify and reflect upon underlying assumptions and reframe them in order to drive to actionable outcomes. Students will attend this course throughout Terms 1, 2 and 3. The course will be taught on a non-credit basis during the first two terms and, upon successful completion of the course during Term 3, students will receive course credit on a pass-fail basis.

TERM 2: Mandatory for all MREI students, 15.0 Course Credits

PROP 6050 3.00 Changing Landscapes: Historical Perspectives on the Industry (NEW)

This course offers a unique opportunity to learn from the past through evidence of the key issues faced by the industry today. The framework for the course is built on three perspectives: a) the drivers of market cycles, what drove these cycles, and the impact of market cycles on value creation and destruction for investors as well as the spatial structure of cities and the development industry over time; b) the factors that drove and influenced the success or failure of key real estate and infrastructure projects as impacted by the evolution of technology, building systems, and assemblies and their influences on building form, functionality and infrastructure; and c) how successive generations of entrepreneurs built businesses which influenced perceptions of the industry, and the business organizations that they shaped. A primary objective for the course is to understand the dynamic relationship between market forces, technological advancements, and leading entrepreneurs. The course is built around a selection of projects that have gained international recognition. The course may involve travel to other cities.

PROP 6450 3.00 The Life of a Project (NEW)

The course covers project management concepts, needs identification, proposed solutions, and implementing the project, whether real estate or infrastructure. Project management concepts covers the definitions of a project and its attributes, the key constraints within which a project must be managed, how a project is 'born', the life of a project, and the steps in the project management process. Actual projects are discussed. Planning covers project definition, developing a work breakdown structure, assigning roles and responsibilities, and defining detailed activities. Scheduling deals with estimating activity duration and identifying the critical path of activities. Resource considerations leads to cost planning cost. The course also deals with the responsibilities of the key managers, characteristics of effective project teams, barriers to effectiveness and approaches assembling project teams. Finally, the course deals with the characteristics, advantages and disadvantages of the functional, project, and matrix organization structures, as well as the advantages and concerns about using project management software.

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PROP 6550 3.00 Sustainable Cities: Urbanization, Infrastructure, and Strategic Choices (Existing Course)

The course provides an understanding of issues related to the pace of urbanization across the globe and the impact on the demand for new infrastructure. The challenges for both developing and developed countries is examined from the perspective of potential new strategies, new technologies, new business models and new financing techniques that can begin to make a difference in addressing a full range of infrastructure needs. In terms of sustainability, this will include an understanding of the demand side and supply side, cultural factors, and the policy framework.

PROP 6750 3.00 Project Finance for Infrastructure (Existing Course)

Understanding the particular characteristics of project finance is fundamental to structuring all business models for the delivery of infrastructure. Financing is predicated on complex risk transfer arrangements and sources of revenue derived from long-term agreements that convey rights to collect user fees or receive availability payments. The course introduces the fundamentals of project finance as they affect infrastructure delivery that range from power and energy plants to mining, water and sewage and, more typical, infrastructure that supports our cities. The course examines project viability and risk, ownership and contractual structures, funding sources, financial modeling and structuring, and then examines a series of cases.

PROP 6850 3.00 Structuring Development Transactions (NEW)

This course serves real estate and infrastructure, both of which depend on the creation of an asset and involves the public and the private sectors in various roles and with respective responsibilities. The first half of the course deals with transactions that arise through the regulatory or public policy framework that affects the use of land and the environmental consequences. Particular attention is paid to the intended and unintended impacts of the public regulatory and policy framework on the built environments and resulting social and economic outcomes. Students gain a basic understanding of the theories, rationales, techniques, and implementing institutions involved in legally controlling the possession, use, development, and preservation of development rights. The second part of the course addresses the transactional details from inception through to completion and into the operational stages. The process is viewed from two perspectives. The first perspective involves the legal principles and related contracts necessary to properly structure transactions whether involving real estate or infrastructure. The second perspective relates to the process that commences with securing development rights, whether by acquisition or by concession, through to managing procurement and the delivery process.

PROP 6002 0.00 Leadership in Real Estate and Infrastructure II (NEW)

The objective of this course is to teach students the thinking and reflective skills required for business leadership. The course develops and enhances students' ability to deliver compelling and coherent presentations; to apply analytic, critical and strategic thinking to complex business problems and to reflect and identify underlying assumptions and reframe them in order to drive to actionable outcomes. Students will attend this course throughout Terms 1, 2 and 3. The course will be taught on a non-credit basis during the first two terms and, upon successful completion of the course during Term 3, students will receive course credit on a pass-fail basis.

Prerequisite PROP 6001 0.0

TERM 3: 12.0 Course Credits (2 required and 2 elective courses)

PROP 6080 3.00 Creative Workshop (NEW)

The workshop affords teams of no more than four and no less than two students the opportunity to integrate theory, skills and knowledge through a collaborative process and within a project framework. The project will be a test of creative thinking applied to a problem or project that embodies social and environmental challenges. Student teams may choose between a real estate or an infrastructure project and these projects may be drawn from both developed and developing economies. The course is intended to expose students to a broad range of issues that arise from the increasing pace of urbanization across the globe and better equip them to move into careers where creativity is an essential part of problem-solving. The course will be structured to promote self-awareness, curiosity, and independent thinking. The course replaces a lecture format with a studio format involving seminars and guests. Student teams will present their final work to a multi-disciplinary panel of experts.

PROP 6350 3.00 Infrastructure as an Asset Class (NEW)

The course offers an introduction to infrastructure as an asset class and provides an overview of the international infrastructure market with a particular focus on the demand for infrastructure assets and the expected capital requirements, as well as a comparison with and relationship to other asset classes. This is followed by an overview of the most important infrastructure sectors and the characteristics influencing performance in each sector. This course will also provide an examination of some of the most experienced/largest global infrastructure investors and the investment characteristics by sector and sub-sector. Finally, the course deals with direct investment in infrastructure assets and their evaluation, with a particular focus on the financing of such assets, their risk profiles, and the various kinds of capital and financing instruments that are used.

Prerequisite PROP 6300 3.0

PROP 6600 3.00 Real Estate Portfolio Management (Existing Course)

This course deals with the spectrum of investment styles, structures and strategies employed in the creation and management of institutional real estate investment portfolios in both the private and public markets. It includes a review of portfolio theory in a real estate context; examination of the concepts of risk, return, and diversification and how they influence portfolio planning decisions; consideration of the advantages and disadvantages of various investment vehicles; and the consequences of international diversification on portfolio performance. **Prerequisite** PROP 6100 3.0

PROP 6650 3.00 Commercial Real Estate Asset Management (NEW)

This course examines various strategies for optimizing performance of an asset during the operational phase of the property life cycle. It covers the major components of a strategic asset management plan including leasing, capital expenditures, revenue enhancement, re-positioning, re-development and the hold/sell analysis. Attention is paid to all major property types included in a portfolio of assets including office, retail, industrial and multi-residential. Extensive use is made of case studies. **Prerequisite** PROP 6100 3.0

PROP 6780 3.00 Case Studies in Infrastructure (NEW)

The course is structured as a seminar and draws upon a series of recently completed infrastructure projects representing a selection of sectors and sub-sectors – transportation, including road, rail and water; aviation; fresh/waste water and waste; energy; and social infrastructure including hospitals, schools, court houses and jails. Three to four cases will be selected each year for in-depth analysis. The

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analysis will include a detailed review of the development and management structure, the project agreement and the ancillary contracts, the risks and risk mitigation measures involved, the financial structure of the project, and assessment of specified performance requirements. The course relies upon lectures and field trips. Travel may be required. **Prerequisite** PROP 6300 3.0

PROP 6003 3.00 Leadership in Real Estate and Infrastructure III (NEW)

The objective of this course is to teach students the thinking and reflective skills required for business leadership. The course develops and enhances students' ability to deliver compelling and coherent presentations; to apply analytic, critical and strategic thinking to complex business problems and to reflect and identify underlying assumptions and reframe them in order to drive to actionable outcomes. Students will attend this course throughout Terms 1, 2 and 3. The course will be taught on a non-credit basis during the first two terms and, upon successful completion of the course during Term 3, students will receive course credit on a pass-fail basis.

Prerequisite PROP 6002 0.0

APPENDIX 5: PROPOSED COURSE STRUCTURE AND INSTRUCTORS

	Course No.	Credits	Course Title	Prerequisite(s)	Instructor			
Fall	PROP 6100 ¹	3.00	Real Estate Finance and Investment		Andre Kuzmicki			
ű	PROP 6150 ²	3.00	Markets and Their Behavior		Irene Henriques, Fred Lazar, Perry Sadorsky, Atipol Supapol			
	PROP 6200 ¹	PROP 6200 ¹ 3.00 Development Prototypes			Neil Prashad			
	PROP 6250 ³	3.00	Site Planning and Design		James Mckellar			
	PROP 6300 ¹	3.00	Partnership Models for Infrastructure Delivery		Sherena Hussain			
	PROP 6001 ²	0.00	Leadership in Real Estate and Infrastructure I		Alexandra Campbell, Ingo Holzinger, Detlev Zwick			
	Total credits	15.00						
er	PROP 6050 ³	3.00	Changing Landscapes: Historical Perspectives		TBD			
Winter	PROP 6450 ³	3.00	The Life of a Project		TBD			
-	PROP 6550 ¹	3.00	Sustainable Cities: Urbanization, Infrastructure, and Strategic Choices		James Mckellar			
	PROP 6750 ¹	3.00	Financing Large Scale Infrastructure		Sherena Hussain			
	PROP 6850 ^{1, 2}	3.00	Structuring Development Transactions		Tyler Hershberg			
	PROP 6002 ²	0.00	Leadership in Real Estate and Infrastructure II	PROP 6001	Alexandra Campbell, Ingo Holzinger, Detlev Zwick			
	Total Credits	15.00						
er	PROP 6080 ³	3.00	Creative Workshop		TBD			
Summer	PROP 6003 ²	0.00	Leadership in Real Estate and Infrastructure III	PROP 6002	Alexandra Campbell, Ingo Holzinger, Detlev Zwick			
Su	PROP 6350 ^{3, 4}	3.00	Infrastructure as an Asset Class	PROP 6300	Melanie Cao, Mark Kamstra, Eli Prisman, Yisong Tian,			
	PROP 6600 ⁴	3.00	Real Estate Portfolio Management	PROP 6100, PROP 6200	Andre Kuzmicki			
	PROP 6650 ^{2, 4}	3.00	Commercial Real Estate Asset Management	PROP 6100, PROP 6200	TBD			
	PROP 6780 ^{3, 4}	3.00	Case Studies in Infrastructure	PROP 6300	Sherena Hussain			
	Total Credits Program Cred.	12.00 42.00						
Legend		¹ Course shared with MBA specialization during program's startup phase						
		² New course adapted from existing course						
			 ³ Completely new course ⁴ Elective (choose 2 of the 4 electives); al other courses are core courses 					

APPENDIX 6: INSTRUCTORS FOR THE MASTER OF REAL ESTATE AND INFRASTRUCTURE

Surname	Given Name	Rank						
Surname	Given Name	Rank	Area(s) of Specialization					
			Management	Economics	Finance	Marketing	OMIS	PROP
Bhanich Supapol	Atipol	Assoc.		Х				
Campbell	Alexandra	Assoc.	х			х		
Сао	Melanie	Assoc.			х			
Henriques	Irene	Professor		х				
Kamstra	Mark	Professor			х			
Kristal	Murat	Assoc.					х	
Lazar	Fred	Assoc.		х				
McKellar	James	Professor					х	х
Prisman	Eliezer	Professor			х			
Sadorsky	Perry	Assoc.		х				
Tian	Yisong	Professor			х			
Zwick	Detlev	Assoc.	х			х		
Holzinger	Ingo	CLA	х					
Hussain	Sherena	CLA	х	Х				х
Hershberg	Tyler	Lecturer						х
Kuzmicki	Andre	Lecturer						х
Prashand	Neil	Lecturer						х
Zandi	Farrokh	Lecturer		х				
Legend:	omis Prop		Management and In and Infrastructure	nformation Syste	ms			



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	To:	Rhonda Lenton, Vice-Provost Academic
Office of the Dean	Cc:	Michael Schiff, Asst. Secretary, FGS; Cheryl Underhill, Secretary, Senate As de L
Suite N302 Seymour Schulich	From:	Dezsö J. Horváth, Dean
Building	Date:	February 20, 2015
4700 KEELE ST	Subject:	Resource Statement for the Master of Real Estate and Infrastructure

I would like to express my full support for the proposed Master of Real Estate and Infrastructure (MREI) Program. The Schulich School has offered a diploma and a specialization in Real Estate Management since 1992. The program was revised in 2009 to include infrastructure management, making it a world leader and unique internationally. With a strong curriculum and co-curricular activities, the program has very successfully competed and developed a strong reputation internationally. It is proposed to expand this offering into a 3-term Masters program to better serve the real estate and infrastructure industries, as well as financial institutions, consulting enterprises and governments with expertise in these different but related fields.

Conversations with industry experts and experience from MBA graduates who have pursued the diploma or specialization provide a strong indication of a need for such a program. We expect that the program will be able to attract (and place) about 25 students in its first year and 40 students within 3 years. Given the attractiveness of specialized masters programs internationally (based on enrolment trends in our other specialized programs) we expect a substantial interest in this program from not only domestic but also visa students.

The new 42-credit program makes use of many courses that currently exist in the diploma and specialization. With commencement of the Masters program the offerings in the MBA will be reduced to diminish overlap and account for resource use.

Academic staffing for the current diploma and specialization includes two full time faculty members. Hiring into a full time CLA position is in progress. Professors from other areas will contribute to the program as well (e.g., Leadership courses). Faculty resources will be complemented as needed, particularly with view to further developing the program's research capabilities. Like other cross-functional areas, the area also relies on experienced industry leaders who, as part time instructors, bring their knowledge and experience to bear as instructors of highly specialized courses.

Administrative resources needed for the program (Admissions, Student Services, secretarial support, etc.) are already in place and will also be adjusted if needed.

The Faculty has made known that, despite offering courses in locations outside of Keele campus and on evenings and weekends, it currently suffers from a shortage of teaching space. The board of governors has approved the construction of a new building (subject to financing), which is expected to become available in 2016, thus alleviating the concern with regards to physical resources.

In conclusion, I wish to express my full support for this very innovative Masters program in Real Estate and Infrastructure and wish the program proponents much success in the approval and implementation process.





OFFICE OF THE VICE-PRESIDENT ACADEMIC & PROVOST

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Memorandum

To:	Rebecca Pillai Riddell, Charr, Senate APPRC
From:	Rhonda Lenton, Provost
Date:	May 8, 2015



Subject: Proposal for Master of Real Estate and Infrastructure

I have undertaken an initial review of the proposal from the Schulich School of Business to establish a Master of Real Estate and Infrastructure (MREI). It is my intention to provide a more detailed statement with regard to this proposal, including its resource implications, following receipt of the reviewers' report, SSB's response, and the final version of the proposal incorporating any revisions to take account of the reviewers' comments. At this stage, however, let me signal that I am satisfied that this proposal is ready to go forward for consideration by the external reviewers.

The proposal for this degree program builds upon the success of the concentration in Real Property Development in the MBA, which was created in 1992 and was recast to include infrastructure 2009, and is now available as a diploma as well. It is consistent with institutional goals in relation to the expansion of graduate programming and enrolments through the offering of innovative programs. I am satisfied that the proposal sets out the case for the program in terms of its distinctiveness in the linking of real estate and infrastructure and the resulting demand from both domestic and international students. It also clearly describes the program structure and learning outcomes.

The program will add to the array of excellent programs offered by the Schulich School of Business, and the proposal enjoys strong support from the Dean of the School.

I look forward to seeing the reviewers' assessments of the proposal.

Cc: Dean D. Horvath

York University Quality Assurance Procedures (YUQAP) New Program Appraisal

External Appraisal Report on the Proposed New Master of Real Estate and Infrastructure

Schulich School of Business

Please provide feedback, as appropriate, on the evaluation criteria provided below.

External Reviewer(s) (Name, rank, university and unit/department/program)

Crocker H. Liu, Professor, Cornell, School of Hotel Administration, Finance, Accounting and Real Estate Subarea

Jay Handelman, Associate Dean Research and Associate Professor, Queen's University, School of Business, Marketing

1. Outline of the Visit

- Who was interviewed
- What facilities were seen
- Any other activities relevant to the appraisal

Over a two day period, May 19 and 20, 2015, the Review Team conducted an onsite review of Schulich School of Business. This on-site review was conducted in conjunction with Schulich's Cyclical Review. The review team was given full access to the both the York campus facilities of Schulich as well as the Miles Nadel Management Centre in downtown Toronto. The review team had interviews with all of Schulich's key stakeholders including the Management Committee, Directors of programs and areas of specialization, Research and Teaching support members, MBA and Master of Accounting students, some alumni and Board members, a few key University Administrators including the Vice Provost and the Associate Dean, Graduate Studies, as well as Professors McKellar and Kuzmicki who are directly involved in the design and implementation of the proposed Master of Real Estate and Infrastructure degree. The Review Team also had the opportunity to attend a part of an MBA and Master of Account class. Any request made by the review team during the visit for further documentation was immediately provided by Associate Dean Biehl and Dean Horvath. The Review Team is in agreement that they were given extensive access to Schulich School of Business.

2. General Objectives of the Program

• Is/are the program name and degree designation(s) appropriate?

The reviewers feel that the program name and degree designation is appropriate given the increasing demand for this specialized degree.

• For graduate programs that wish to have a Quality Council endorsed field(s), are the fields indicated in the proposal appropriate?

The fields indicated in the proposal are appropriate

• Are the general objectives of the program clear and are they consistent with University and Faculty missions and academic plans?

The general objectives of the program are clear and they appear to be consistent with the University and Faculty missions and academic plans.

3. Need and Demand

• Is there sufficient explanation of need/demand for the program?

The existing concentration in real estate has been offered in the Schulich School of Business at York University for over 20 years which is a signal that there continues to be demand for real estate courses. The new program represents a logical progression from a concentration in real estate to a specialization in real estate where the goal is to offer students who wish to specialize in real estate more real estate courses in lieu of the required general MBA courses. The letters provided to us evidence of the support of Dean Horvath and industry support for this initiative. Industry participants appear to favor a more specialized focus. A related guestion is why offer a real estate specialization now when the real estate program has been around for over 20 years? There are a few responses to this question. In addition to the recent industry appetite for a more specialized real estate degree, real estate alumni from Schulich have finally become prominent in managerial roles and more recruiters have started to interview students from Schulich for front office jobs. Real estate alumi events are also larger than alumni events for other Schulich programs in general which is further evidence that a critical mass has been achieved.

4. Program Content and Curriculum

• Does the curriculum reflect the current state of the discipline or area of study? If applicable, comment on the appropriateness of any unique curriculum or program innovations or creative components.

The proposed curriculum represents a Reimagining of Real Estate where Infrastructure takes on a more important role in the real estate process and the World is the stage rather than the national or local market. The new globally oriented curriculum reconstitutes traditional pedagogy such as Real Estate Principles, Real Estate Law, Real Estate Appraisal, Real Estate Development, etc into infusing these topics into each course rather than having each of the aforementioned courses as a standalone course. This forces the instructor to have some familiarity in the various aspects of real estate (a generalist rather than a specialist). The goal of each course is on value added decision-making with respect to a broad theme such as sustainable cities. I know of no real estate curriculum at any university offering real estate either in Canada or the United States that offers the curriculum that York University is proposing. This type of curriculum will give students a different mindset/perspective of the nature of the real estate business. Typically, urban planning, infrastructure and real estate are taught as separate disciplines with little, if any, cross fertilization between these real estate related disciplines. The new curriculum challenges this traditional perspective by integrating these real estate related disciplines which provides a more holistic perspective on the nature of the real estate business so that students can appreciate the multi-disciplinary nature of real estate.

• For undergraduate programs, comment on the appropriateness of the anticipated class sizes. For graduate programs, is there adequate evidence that each graduate student in the program will take a minimum of two-thirds of the course requirements from among graduate level courses?

Given the structure of the proposed 3-semester curriculum, students are required to take 2-semesters of required real estate courses so by default, each graduate student in the program must take a minimum of two-thirds of the course requirements from among graduate real estate level courses. In their last semester, students can take real estate electives based on their real estate area of interest.

5. Program Structure, Learning Outcomes and Assessment

• Are the program requirements and learning outcomes clear, appropriate and in alignment with the relevant degree level expectations?

Given the information provided on the new program, at a macro level the program requirements are clear. However since the new required courses have no syllabus or an instructor of record what is unclear is the learning outcomes for these new courses. The titles of the new courses and course descriptions appear to be relevant given the dynamic nature of real estate decision-making but without any information on the course content, we are unable to make any further assessment.

 Comment on the appropriateness of the program curriculum and structure to support the program learning outcomes. For undergraduate programs, comment on the nature and suitability of students' final-year academic achievement in the program. For research-focused graduate programs, comment on the nature and suitability of the major research requirement(s).

The program curriculum appears to be appropriate based on discussions with the existing real estate faculty although as stated previously, we are unable to obtain more in-depth knowledge about the program curriculum since there is no information on the content of the new course offerings other than a brief course description of each course. What we did see however is very encouraging. The curriculum is designed to be forward looking by using a cross-disciplinary platform

of integrating various real estate related disciplines. The end product is a fusion of real estate, facilities management, urban planning, architecture, and infrastructure management.

• Are the methods and criteria for assessing student achievement appropriate and effective relative to the program learning outcomes?

The mixture of exams, group projects, individual projects and class participation to assess student achievement is appropriate and effective. What is an innovative learning component is the new course entitled Creative Workshop where students will have the opportunity to integrate theory, skills and knowledge through a collaborative process and within a project framework. Student teams will present their final work to a multi-disciplinary panel of experts.

• For graduate programs, comment on the appropriateness of the program length, including on how students' time-to-completion will be supported and managed to ensure that the program requirements can be reasonably completed within the proposed time period.

Most real estate programs are either one or two year in length. The MREI program is 1.5 years in length, so falls within the boundaries of most real estate programs. There are good checks in place to ensure that "no student is left behind". There is a review of student progress at the end of each term. Students are also required to maintain a GPA of at least 4.2.0. As in other real estate programs, students who fail a required course must retake it. What appears to be a little inconsistent however is the requirement that "to maintain their standing in the program, <u>all students must</u> <u>maintain a GPA of at least 4.2</u>". <u>However</u>, a 4.2 is not sufficient to graduate from the program. "To graduate, a student must achieve an overall GPA of at least 4.4 (B-)".

 Comment on the appropriateness of the proposed mode(s) of delivery to meet the program learning outcomes.

According to the MREI proposal entitled "Proposal for a Master of Real Estate and Infrastructure (MREI) dated December 2014, "The majority of courses in the Program will be delivered through a mix of lectures, research projects, and case studies, with the exception of the creative workshop that employs a studio format. Extensive use is made of real world cases and/or real world research assignments such that students have multiple opportunities to apply theory and methods in realistic scenarios . Most courses will make frequent use of industry speakers". We find that this proposed mode of delivery is the typical delivery mechanism at most real estate professional programs. However, care must be taken to ensure that industry speakers are used to enhance learning rather than as a substitute for lectures.

6. Admission Requirements

• Are the admission requirements appropriately aligned with the program learning

outcomes?

We feel that the admission requirements are similar in nature to other schools in Canada and the U.S. that offer graduate real estate degrees although the preferred full time work experience required of 2-5 years is higher than the 2 years that most competitors require.

• Is there sufficient explanation of any alternative requirements, if any, for admission into an undergraduate, graduate or second-entry program, such as minimum grade point average, additional languages or portfolios, along with how the program recognizes prior work or learning experience?

For students whose first language is not English, the program requires that they must submit evidence of English proficiency. There is sufficient explanation of this requirement. The program is silent on whether work experience can be substituted for class credit which would allow students to take another real estate course.

7. Resources For all programs

 Adequacy of the administrative unit's planned utilization of existing human, physical and financial resources, and any institutional commitment to supplement those resources, to support the program.

Discussions with the administration suggest that they are ready, able and willing to support the program in terms of human resources by hiring more faculty in real estate and providing space in the new building to house activities related to the new MREI program. The Dean's letter indicates that "administrative resources needed for the program (Admissions, Student Services, secretarial support, etc) are already in place and will also be adjusted if needed." As we were not provided any information on financial resources, we are unable to comment on the financial viability of the program.

• Appropriateness of the collective faculty expertise to contribute substantively to the program.

The faculty at Schulich appears to have the necessary expertise to contribute substantively. The finance and economics as well as the entrepreneurship departments in particular are well suited to contribute since mortgages are a type of fixed income/structured product, there are real estate securitization products such as REITs, and developers are a type of entrepreneur.

• Participation of a sufficient number and quality of faculty who are competent to teach and/or supervise in the program, including qualifications, research, innovation and scholarly record.

We met with Andre Kuzmicki and Jim McKellar. Both faculty members are capable of teaching and supervising based on our discussions regarding their practical experience. However, neither faculty has an academic research record. There needs to be at least one if not more academically qualified research active professors. To this end, the Dean is currently raising funding for new positions in Real Estate, and the Associate Dean Academic is in the process of searching for existing Schulich faculty who can contribute to this program. We were unable to meet with and thus comment on the other property part time faculty to assess their capabilities.

 Evidence that there are adequate resources (e.g. library, laboratory) to sustain the quality of scholarship produced by undergraduate students as well as graduate students' scholarship and research activities.

There appears to be adequate resources to sustain learning quality produced by graduate students. Given the existing real estate concentration at Schulich, the basic real estate resources are already available. We expect with more specialized course offerings in real estate, the library will increase their collection of real estate related materials. While we did not explore and there was no formal discussion of computer resources, informal discussions suggest that there is currently no specialized real estate computer databases and software programs available such as ARGUS, CoStar, SNL, Means (<u>https://www.rsmeansonline.com/</u>), etc which will give students a comparative advantage, although the school does have Bloomberg which does have real estate information.

Additional criteria for undergraduate programs only

 Evidence of and planning for adequate numbers and quality of: (a) faculty and staff to achieve the goals of the program; or (b) of plans and the commitment to provide the necessary resources in step with the implementation of the program; (c) planned/anticipated class sizes; (d) provision of supervision of experiential learning opportunities (if required); and (e) the role of adjunct and contract faculty.

Additional criteria for graduate programs only

 Evidence that faculty has the recent research or professional/clinical expertise needed to sustain the program, promote innovation and foster an appropriate intellectual climate.

Although none of the current real estate faculty has recent research expertise, they do have a substantial amount of professional/clinical expertise. However, it is clear that the existing faculty per se isn't sufficient to cover the teaching load for all of the newly required real estate course offerings. Ideally, there needs to be at least one or more tenured or tenure track faculty with recent research expertise and a PhD to lend research credibility to this program. The new professors should be able to complement the existing faculty and have some empathy to real world issues. An ideal candidate should have some actual real estate work experience, if possible in addition to an active research agenda and publications in academic real estate journals such as *Real Estate Economics*, the *Journal of Real Estate Finance and Economics*, and the *Journal of Real Estate Finance and Economics*, and the *Journal of Real Estate Research* or urban economic journals such as the *Journal of Urban Economics* and the *Regional Science and Urban Economics*. Given the nature of the program, a more seasoned professor(s) is preferable for seamless integration. For some of the new course offerings, consideration might be given to using York faculty not currently affiliated with the business school. For example, <u>http://www.yorku.ca/laps/sosc/urst/faculty.html</u> is a listing of faculty at York affiliated with Urban Studies that could possibly teach the new proposed courses.

 Where appropriate to the program, evidence that financial assistance for students will be sufficient to ensure adequate quality and numbers of students.

The external review committee was not provided any information to address this issue.

• Evidence of how supervisory loads will be distributed, and the qualifications and appointment status of faculty who will provide instruction and supervision.

The external review committee was not provided any information to address this issue on supervisory loads. Faculty for the new MREI program has not yet been hired so it is impossible to determine the qualifications and appointment status of faculty.

8. Quality of Student Experience

• Is the evidence of a program structure and faculty research that will ensure the intellectual quality of the student experience?

Perhaps the best evidence of a quality learning experience is whether recruiters come to campus and where in the real estate organization former students are. Currently, a larger number of recruiters seek out real estate students who graduate from Schulich. We also met with a Schulich real estate alum who intimated that it is because of his education that he is now in a management position at a prominent real estate firm.

Note: Reviews are urged to avoid using references to individuals. Rather, they are asked to assess the ability of the faculty as a whole to deliver the program and to comment on the appropriateness of each of the areas/fields of the program that the university has chosen to emphasize, in view of the expertise and scholaily productivity of the faculty.

9. Other Issues

Challenges, Concerns, and Opportunities

<u>Succession Plan for Existing Real Estate Faculty</u>: Given the seniority of the existing real estate faculty, the administration should consider identifying and possibly hiring more junior faculty with some seasoning who can eventually step into the roles of teaching, research, and industry outreach.

<u>Center for Real Estate Excellence</u>: What the proposal document is silent on is the creation of a center for real estate excellence to compliment the MREI and the existing concentration in real estate. The center provides a venue for real estate industry professionals and faculty to exchange ideas and turn those ideas into research that benefits both groups as well as students. Most top real estate programs do have a real estate center.

Taking Advantage of Existing Faculty: Currently there is little or no interaction with urban economists and finance faculty. Since urban economics provides a large portion of real estate theory and there are already several urban economists at Schulich, more should be done to engage these faculty members.

<u>Taking Advantage of Real Estate Resources</u>: Currently, students who are interested in real estate modeling are encouraged to purchase their own copy of ARGUS, the gold standard in real estate software. Although the computer lab does not have a site license for ARGUS, the site license for ARGUS is free since they do fly in an ARGUS trainer from Houston each year to train students. In addition to this, CoStar, the largest commercial real estate data provider has a university program that allows free access to their database. These resources are free and we recommend that these resources be available for all students since not all students might be able to afford a copy of ARGUS and the university can get a free license for the computer lab. The Urban Land Institute (ULI), which is a real estate development industry organization also provides student memberships at a deeply discounted price.

Taking Inventory of What's Available in Terms of Existing Real Estate Related Resources at York University outside of the Business School: Although our primary exposure was to resources at Schulich, we suggest that the faculty do an inventory of existing real estate related resources in other parts of the University. For example, a google search revealed that York University has access to Geospatial Data (GIS). GIS has many, wide-ranging applications. It can be used for cartography, resource management, urban planning, marketing, statistical analysis, environmental impact assessment, and for countless other areas. See for example,

http://researchguides.library.yorku.ca/content.php?pid=245987&sid=2176381

<u>Work Experience as a Substitute for Class Credit</u> (Opting Out of a Class): The program is silent on whether work experience can be substituted for class credit in a particular class which would allow students to take another real estate course.

Real Estate Related Courses taught at York University Outside Schulich: While there was no discussion of the extent to which a Schulich student can take courses offered at York University (courses outside of the business school), York University does offer other courses that appear similar in nature to those at the business school. No mention is made as to whether any of these courses can be substituted for or cross listed as a faculty business school course. This (see for example. http://www.yorku.ca/laps/sosc/urst/faculty.html) might also be considered to teach some of the courses in the proposed MREI program. For example, the Department of Social Science Urban Studies (http://www.vorku.ca/laps/sosc/urst/) at York takes a similar perspective.

<u>Changes in Required Courses and/or Elective Courses</u>: Given the dynamic nature of real estate and the roll out of the new curriculum in 2016, it is clear that course offerings will need to be changed from time to time. No mention was made in the documentation provided to the external reviewers regarding how often the existing faculty will do an introspection regarding the appropriateness of the new curriculum.

<u>Real Estate Advisory Board</u>: Most real estate programs have a formal real estate advisory board to provide input on trends in the industry, relevant course offerings, job placement opportunities, research that industry is interested in, funding support and other real estate related activities. We understand that the real estate advisory board needs to be reconstituted and has been relatively inactive in recent years. With the new MREI initiative, we suggest that the faculty consider reestablishing the real estate advisory board.

<u>Urban Lab</u>: The idea of an Urban Lab that Professor McKellar used to study the growth of cities and the role of financing is a novel idea that might further differentiate the real estate program at Schulich from other real estate programs. Since no documentation on the urban lab was provided to the external reviewers, we are unable to provide further comment on it.

10. Summary and Recommendations (Note: The responsibility for arriving at a recommendation on the final classification of the program belongs to the Appraisal Committee. Individual reviewers are asked to refrain from making recommendations in this respect.)

We find that the proposed Master of Real Estate and Infrastructure (MREI) Program is a natural progression from the specialization in Real Estate Management which the Schulich School has offered a diploma in since 1992. The program has support not only from Dean Horvath but also from the industry. This suggests that the resources will be available to support the new program and graduates from this program should be able to do well in terms of job placement. The methods and criteria for assessing student achievement are appropriate. The length of the MREI program of 1.5 years is the average of most real estate program which range from 1-2 years. There are appropriate checks in place to make sure that "no student is left behind" with respect to students' time to

completion. The proposed mode(s) of delivery which consists of a mix of lectures, research projects, and case studies is appropriate. However, care must be taken to ensure that industry speakers are used to enhance learning rather than as a substitute for lectures. The admission requirements are similar in nature to other schools in the Canada and the U.S. that offer graduate real estate degrees.

A key concern is that much of the program's current success and near term future success is the continued presence of the two full time faculty who have been able to multi-task effectively not only from a teaching perspective but also from a placement perspective due to their industry engagement and presence. Consideration needs to be given to hiring other full time younger faculty who will be able to sustain the current faculty's achievements and who will also have a presence in terms of academic research to give the program academic (research) credibility. The school might consider reaching out to other faculty at York University both at Schulich and at other Schools within the university (where appropriate) who has the necessary expertise in real estate and infrastructure to help move the implementation of the program forward and help expand the teaching and research bandwidth. In terms of resources, we note that York University has real estate related resources outside of the business school such as access to Geospatial Data (GIS). To make sure that there is no duplication of resources, we suggest exploring what real estate related resources already exist outside the business school that would be available to Schulich students.

York University Schulich School of Business

Response to Report of External Consultants – Master of Real Estate and Infrastructure (MREI)

We are very pleased by the enthusiasm with which the consultants endorsed our proposed masters program in real estate and infrastructure. Comments such as "the proposed curriculum represents a reimagining of real estate" and "the curriculum is designed to be forward looking by using a cross-disciplinary platform of integrating various real estate disciplines" illustrate reviewers' opinions on the innovativeness and relevance of our proposed program.

In their report, the consultants commented on several broad areas:

<u>Admission requirements</u>. The consultants questioned the 2-5 year work experience, noting that just two years experience is required by most similar programs. Of course, two years is our normal minimum as well. However, we have found in the existing real estate specialization in our MBA (on which the MREI proposal is based) that more work experience leads to students receiving more benefit from their study. Hence, the program *encourages* work experience that goes beyond the minimum of two years. In addition, since 2-5 years of relevant full time work experience are *preferred* rather than required, the program is able to admit unusually strong candidates who may have a bit less than 2 years of experience. The supplementary application form and the candidate's letters of recommendation will assist the program in making such decisions.

Faculty and Research. The Schulich School is committed to engaging the necessary teaching staff to enable us to deliver each program effectively. Many of the teaching staff come from the real estate and infrastructure industries with substantial hands-on expertise and experience in dealing with the multiple diverse aspects of real property and infrastructure development and management.

Research faculty also are needed to support the program, especially at the senior level. To this end, Schulich's Operating Committee has prioritized the MREI program for a tenure stream position. Hopefully, this position can be filled within the coming academic year. In addition, the program is in the process of filling a new CLA position. The Schulich Dean currently is negotiating a contract with a strong candidate. These two additional faculty members would significantly raise the program's teaching capability and its research profile as well as ensuring the program's sustainability. The reviewers suggest that there are colleagues in other faculties of York University who are not currently involved in the MREI but who may potentially be available to support the program. The MREI Program Director is in the process of identifying those colleagues and gauging their interest. Their availability, of course, will depend on their willingness to cooperate as well as on the willingness of their home faculties to release them to teach some proportion of their course load in the MREI.

<u>Courses</u>. The proposed program consists of both (1) newly-designed courses and (2) existing courses that are being transferred from the existing MBA specialization in Real Estate and Infrastructure. Syllabi for the existing courses are available, while extended course descriptions for new courses are included in the program documentation. The syllabi for any new courses will, of course, be subjected to extensive review within the School as well as by the Faculty of Graduate Studies and the York University Senate. At Schulich, all courses are subject to a continuous development process. Syllabi are not fixed, but are modified regularly to improve effectiveness and to incorporate relevant new material and new experiences.

<u>Electronic resources</u>. The consultants have recommended a number of electronic resources that are not presently available within the School. Schulich will undertake to acquire additional resources that will assist the teaching, learning, and research objectives of the MREI program.

<u>Conclusion</u>. We greatly appreciate the time and energy that the consultants donated to reviewing our proposed new degree program and for providing us with a detailed and thorough report. We will continue our search for new faculty to join and strengthen the MREI program in teaching, research, and experiential learning experiences for the students. We have learned through our experience with the MBA Real Estate and Infrastructure concentration that the program is needed in the Canadian environment. The reviewers observe that we have "a clear and focused mission and vision." We thank the reviewers for endorsing our proposal.

Professor Dezsö J. Horváth Dean, Schulich School of Business 20 July 2015



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Memorandum

To: Rebecca Pillai Riddell, Chair, Senate APPRC

From: Rhonda Lenton Provost Date: September 11, 2015

Subject: Proposal for Master of Real Estate and Infrastructure

TANDA VIE

I am writing to follow up on my initial letter of May 8, 2015 (attached) with regard to the Schulich School of Business proposal to establish a Master of Real Estate and Infrastructure (MREI). I now have in hand the external reviewers' report - which I am pleased to note is highly positive with regard to the program's design and distinctiveness - and SSB's response.

As I indicated in my earlier communication, the proposal is consistent with institutional priorities around expansion of graduate programming. As described in the proposal, this Masters program will build on the success of the concentration in Real Property Development in the MBA, which was created in 1992 and recast to include infrastructure 2009. The reviewers found this to be a logical progression for the program and one which will respond effectively to the needs of the industry for a more specialized degree in this area. They also found its curriculum, which draws upon aspects of urban planning, real estate, and infrastructure in a cross-disciplinary approach, and integrates theory and skills development, to be distinctive and appropriate.

With regard to resources, the reviewers were not able to comment in detail about the program's financial viability, but noted a strong commitment from the School and the Dean to provide appropriate resources. They urged that the School engage in succession planning for this area, and that at least one academically qualified research active faculty member be added to the complement to ensure research credibility of the program and to help cover teaching of new courses. The reviewers also suggested increased interaction with faculty from related areas of the university, e.g., urban studies, urban economics, in order to ensure that resources are not duplicated across programs, including the possibility that those faculty might teach relevant courses in the program. Dean Horvath has indicated that real estate is a priority hiring area for the School, and I am pleased to confirm that Schulich has been authorized to undertake a search for a tenure stream faculty member in the area of real estate and infrastructure during the 2015-2016 academic year, as well as the completion of a CLA

appointment to which he refers (effective September 2015). The Dean also reports that the School will draw on professionals from the field to teach in the program, and that discussions will be undertaken with other areas of the university. I am satisfied that sufficient resources will be in place to support this program.

I am pleased to record my support for this proposal.

Cc: Dean D. Horvath VP Academic A. Pitt ASCP