ONTARIO MUNICIPAL BOARD
COMMISSION DES AFFAIRS MUNICIPALES DE L'ONTARIO

IN THE MATTER OF subsection 17 (36) of the *Planning Act*, R.S.O. 1990, c.P.13, as amended

Appellants:	Greater Ottawa Homebuilders Association, Zbigniew Hauderowicz, Karson Holdings Inc., Ken McRae; and others
Subject:	Proposed Official Plan Amendment No. OPA #76
Property Location:	All lands within the City of Ottawa
Municipality:	City of Ottawa
OMB Case No.:	PL100206
OMB File NO.:	PL100206

WITNESS STATEMENT OF ROMAN DIDUCH

I, ROMAN DIDUCH, of the City of Ottawa, state as follows:

I am the Program Manager of Infrastructure Policy, responsible for infrastructure planning of water, wastewater and stormwater management for the City of Ottawa

Qualifications

I have 40 years of professional experience in the planning and design of water, sanitary and stormwater systems. I am currently employed by the City of Ottawa and work for the Planning and Growth Management Department as the Program Manager of Infrastructure Policy. In my current capacity I undertake the planning of growth related water, wastewater and stormwater management infrastructure.

Prior to working for the Region of Ottawa Carleton and the City of Ottawa (since amalgamation) I was a consulting engineer, specializing in urban water, sanitary and stormwater systems planning.

A copy of my CV is attached.

Issues to be Addressed

I will be addressing Issues 13-14 and 19 from the Procedural Order Issues List.

Opinions on Issues

The following opinions on the issues:

Issue 13. Should there be criteria and weighting assigned to lands that can be developed in the next 5 years?

Opinion: Criteria or weighting for land that can be developed in the next five years is not relevent in this assessment.

Issue 14. Should there have been a criteria and weighting for the question of adjacency to the existing Urban Area?

Opinion: Integration of the water infrastructure with the existing system is already a consideration in the rating and not a factor for sewers. A separate criteria for adjacency would have no additional benefit.

Issue 19. Why does the City's methodology include depth of bedrock as a measurement tool when this forms part of the landowners cost of development?

Opinion: Blasting of rock for construction of infrastructure and homes can have a detrimental effect on surrounding homeowners. It was felt that this was a valid criteria for distinguishing areas.

Reasons for Opinions

Issue 13. Should there be criteria and weighting assigned to lands that can be developed in the next 5 years? (Also raised by Jim Maxwell)

The intent of evaluating the servicing of the candidate parcels was to establish how efficiently they could be serviced utilizing existing or planned infrastructure capacity and not who can develop first. The determined need for the land was over a 22 year period. When they actually develop is a matter of cost of accessing capacity and market demand and capacity is currently available or will be available within a 10 year period. All key infrastructure upgrades needed to create capacity to service the existing urban area are

planned within the 2009 to 2019 period. It was assumed that any resulting residual capacity could be made available to candidate parcels to develop so all candidate areas still have an opportunity to be developed in a timely manner.

The City does not impose development timelines on lands entering the urban boundary through an OPA or land already within the urban area. There is no urgent need for the expansion lands to develop as soon as possible nor do they take away infrastructure capacity that could be available for other development. Therefore there is no particular need to create separate criteria for early development.

Issue 14. Should there have been a criteria and weighting for the question of adjacency to the existing Urban Area?

All the candidate areas are near the urban boundary. The adjacency is reflected in the evaluation of the servicing integration with the existing infrastructure. Water service is designed to form a looped network and benefits by the proximity to an existing infrastructure network as this facilitates multiple interconnections and improves the reliability. This requirement contributes to the scoring. Wastewater and stormwater do not create a similar network as they form branched networks and rarely can they utilize local adjacent infrastructure. Availability of local sewers is not important and is not considered in the scoring. Attaching a separate criteria and rating based on proximity to the boundary without some measure of what the benefit is would be too difficult and subjective. It therefore should not be considered separately.

Issue 19. Why does the City's methodology include depth of bedrock as a measurement tool when this forms part of the landowners cost of development?

This criteria has a small score but it was felt that this was a useful criteria for comparing and distinguishing areas across the city. The effects of blasting through bedrock, whether it occurs onsite or as a result of extension of services, can be detrimental to nearby homeowners. There is the nuisance value of shockwaves but more significantly there is the concern that subsurface groundwater movement could be altered and then affect well water supply to rural residents.

This criteria should remain.

List of reports or Documents to be relied upon at the Hearing (prepared by City or Appellants)

- City of Ottawa Infrastructure Master Plan – 2009

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ROMAN DIDUCH, P.Eng

Appendix A

C.V. for Roman Diduch, P.Eng

ROMAN DIDUCH, P.Eng.

EDUCATION: University of Manitoba, Canada
B.Sc., Mechanical Engineering

PROFESSIONAL ASSOCIATIONS:

Association of Professional Engineers of the Province of Ontario

American Water Works Association

Water Environment Federation

POSITIONS:

2008 - Programme Manager, Infrastructure Planning, City of Ottawa, Ontario Canada

2000 - 2008 Senior Project Manager, Water and Wastewater Infrastructure Planning, Planning, Transit and the Environment Department, City of Ottawa, Ottawa, Ontario, Canada

1997 - 2000 Senior Project Manager, Water and Wastewater Infrastructure Planning, Planning and Development Approvals Department, Regional Municipality of Ottawa-Carleton, Ottawa, Ontario, Canada

1988 - 1997 Planning Engineer, Infrastructure Planning, Environmental Services Department, Regional Municipality of Ottawa-Carleton, Ottawa, Ontario, Canada

1979 - 1988 Consultant, Associate of Charles Howard and Associates Limited, Victoria, British Columbia, Canada

1977 - 1979 Branch Manager, Charles Howard and Associates, Vancouver

1974 - 1977 Design and Project Engineer, Underwood McLellan and Associates Limited (UMA Group), Vancouver, Canada

1968 - 1974 Design and Special Projects Engineer, Templeton Engineering Company, Winnipeg, Manitoba, Canada

SUMMARY OF PROFESSIONAL SKILLS:

- Strategic and operational planning.
- Budget preparation, long range financial planning, development charge rate structure
- Management of multi-disciplinary studies

- Design of municipal infrastructures (roads, sewer and water)
- Design of pumping stations (mechanical)
- Development of analytical techniques for planning and analysis of sewer and water systems
- Economic evaluation, optimization
- Providing technology transfer and liaison with other professions
- Hydrology, hydraulics - modeling, planning and design of water, drainage and wastewater systems
- Computer programming,(Fortran, Basic) data base management, (DB3, MS ACCESS) and GIS implementation

EXPERIENCE

City of Ottawa / Region of Ottawa Carleton

I am currently the programme manager for infrastructure planning for the City of Ottawa. The infrastructure includes water, wastewater, stormwater and rural servicing. I manage a staff of seven professionals.

As Senior Project Manager I was responsible for planning and facilitating the provision of infrastructure for growth and redevelopment. This required integrating land use planning, land development and infrastructure planning. My responsibility was to:

- undertake internal engineering and economic studies to plan water and wastewater infrastructure and develop policies related to growth and services.
- identify projects, develop terms of reference and hire consultants to undertake studies.
- provide technical support to consultants working on behalf of developers
- meet with developers and municipalities to discuss / negotiate infrastructure needs.
- identify functional design requirements and review servicing studies.
- provide support to the Planning and Infrastructure Approvals Department.
- participate on technical advisory committees.
- attend public information meetings.
- coordinate infrastructure improvements, data needs and hydraulic modeling with the Transportation, Utilities and Public Works Department.
- review Official Plan Amendments.
- provide a peer review and advice to staff.
- undertake budget preparation and coordination of growth related capital projects.
- Forecasting water demands and wastewater flows for design purposes and to update timing of infrastructure construction.

Some projects initiated by myself but undertaken by specialists were the development of a new method to determine fire flow requirements, based on science and a water supply system optimization using a genetic algorithm. These were undertaken to maximize the life of the existing infrastructure, improve water quality and reduce rehabilitation costs.

I am also on the committee responsible for the development of the Regional Development Charge and development of the City of Ottawa Long Range Financial Plan

As the former Planning Engineer for the Environment and Transportation Department of the former Regional Municipality of Ottawa Carleton I was responsible for the planning and scheduling of the hydraulic infrastructure (water and wastewater facilities) for the Region. This included managing and developing a technical staff of 7, initiating internal studies, reviewing development proposals, developing terms of reference for consultant studies, managing external consultants, and providing technical support to other departments. In addition to strategic and operational planning I directed the development of the water infrastructure management programme, CSO control strategy, reviewed official plan amendments, developed the capital budget, and participated on steering committees of other municipalities and departments. This position required close liaison with the operating divisions for the water and wastewater systems in order to resolve operational problems such as watermain rehabilitation, water quality, emergency action plans and pump selection and testing.

As the Planning Engineer I identified the need, obtained council approval and developed the scope of work and staffing requirements for the Water and Wastewater Master Plans. I selected and developed the hydraulic models used for simulating the water and wastewater systems and initiated the flow monitoring and testing programmes needed to calibrate these models.

In both of these positions I have been called upon to appear as an expert witness before the Ontario Municipal Board.

Consulting Engineer Experience

As an associate at Charles Howard and Associates I shared responsibility for business development, client relations, project management, and consulting services. I was a specialist in urban water resources and undertook planning studies in Canada and the USA of water, wastewater and storm water systems. These studies usually included optimization of capital costs and performance. Prior to this as a Special Projects engineer with the UMA Group I designed various municipal works, including pump stations.

The following sections summarize some of my experience as a consulting engineer.

Water Supply and Distribution Systems:

Over 15 master planning studies. These include Winnipeg, Edmonton, Red Deer, Capital Regional District (B.C.), Dawson Creek (B.C) , Oak Bay (B.C.).

Optimum replacement scheduling for Cast Iron Pipe subject to frequent breaks, City of Edmonton, Alberta, and City of Winnipeg, Manitoba

Identify the risk and frequency of water rationing based on existing and future water supply and storage facilities, City of Edmonton

Develop economic planning models for assessment of staging of expansion (City of Edmonton)

Develop interactive computer model for training waterworks operations personnel and for identifying consequences of operating strategies

Design and Project Management:

Urban and rural storm drainage facilities (pipes, culverts, ditches, scour protection)

Waterworks distribution systems including valve stations, route selections, reservoir siting

Pump station mechanical system

Pilot plant for the treatment of fire fighting school waste; Department of National Defense, Esquimalt, B.C.

Water treatment facilities

Stormwater Management Studies and Risk Assessment:

Optimize storage utilization and outlet sizing using continuous simulation and optimization techniques

Develop master drainage plans for more than 10 major urban areas including Calgary, Brandon, Kelowna and Penticton.

Wastewater and Combined Sewer System Studies:

Develop master wastewater plans for more than 6 major urban areas including Brandon, District of Oak Bay (B.C.), Port Coquitlam (B.C.).

Related work included the forecasting of future design flows, frequency of overflows and predicting hydraulic transients for the East Coast Interceptor, Capital Regional District, Victoria, B.C.

Computer Programme Development:

Develop storm water and combined sewer hydraulic and economic analysis model, CSSIM

Develop an interactive water system management and hydraulic analysis computer model (RMP) for operation of a water distribution system.

Water supply and distribution expansion economic evaluation model

Pipe and pump station expansion optimization model.

Sewer design optimization model

Data base management programme for storing and evaluating TV inspection results for sewers

Permafrost regression model to simulate the effect of surface disturbances and operating a gas or oil pipeline in permafrost conditions.

Technology Transfer:

Technical papers or presentations at conferences

Western Canada Water and Wastewater Conference
British Columbia Water and Waste Conferences
International Federation of Municipal Engineers conference
British Columbia Water and Waste Association

Seminar Contributor:

EIC Seminar, Calgary, on Water Distribution Systems Analysis
Water Supply and Distribution Systems Planning, Charles Howard and Associates, Victoria, B.C.

Other:

Study to define potential seismic hazards for a Northern Canada gas pipeline

Study of frazil ice conditions at a large water intake, Whiteshell Nuclear Research Station

CPM computer scheduling of:
- Royal Columbian Hospital construction, New Westminster, B.C.
- Planning of Northern Canada gas pipeline

Hydrological modeling of Mackenzie Valley and Northwest Territory streams to estimate runoff from ungauged watersheds.

Effects on the ground and the surrounding environment of constructing and operating a gas pipeline in permafrost zones.