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# BROWNFIELD REDEVELOPMENT FOR HOUSING

## CASE STUDIES

### Built Project Initiatives

#### SPENCER CREEK VILLAGE

Dundas (Hamilton), Ontario

50 Hatt Street

#### PROJECT SUMMARY

Spencer Creek Village is a large-scale, high-density residential development located in the heart of the community of Dundas in Hamilton, Ontario. The development will contain 598 residential units in nine buildings along with 1,300 m<sup>2</sup> (14,000 sq. ft.) of commercial space. Two phases of the development are already complete, with a third one currently under construction. This redevelopment of a former steel foundry site incorporated extensive use of on-site soils sorting and recycling to reduce costs and materials sent to landfill. The development has also been designed to fit into the existing neighbourhood.

#### Developer

Urban Horse Developments

#### Date project started

1996

#### Date project completed

A total of 11 phases to be completed by 2010

#### Site area

4.5 hectares (11.0 acres)

#### Previous site use(s)

1861 to 1988 - Machine and tool company manufacturing woodworking tools (1860s), machine tools and engineering equipment for railroads and bridges (late 1800s), steel foundry for military tank parts, armaments and shell casings (1900s), and mining equipment

#### Number and types of residential units

598 residential units, including:

- 458 condominium apartment units in eight buildings ranging in height from 4 to 9 storeys
- 140 rental apartment units for seniors in a 4 storey building

#### Floor area of residential units

Condominium apartments: 84-186 m<sup>2</sup> (900-2,000 sq. ft.)

#### Gross residential density

134 units per hectare (54.4 units per acre)

#### Maximum height

Nine storeys

#### Parking

1.25 spaces per unit

#### Landscaped open space

1 hectare (2.5 acres) (23 per cent) dedicated for parkland including public walkway along Spencer Creek

#### Selling prices

Approximately \$2,153 per m<sup>2</sup> (\$200 per sq. ft.) or \$180,000 to over \$400,000 per unit

#### Non-residential uses

1,300 m<sup>2</sup> (14,000 sq. ft.) of commercial space including ground floor retail and medical offices



Figure 1: Phase One – 48-unit condominium apartment building  
Source: Luciano Piccioni

## PROJECT OVERVIEW

This 4.5 hectare (11 acre) property is located beside Spencer Creek in the heart of the former town of Dundas in Hamilton, Ontario. This was the location of the former Bertram Foundry (the John Bertram and Sons Company Limited), established in the 1860s. Woodworking tools, machine tools, engineering equipment for railroads and bridges, military tank parts, armaments and mining equipment were manufactured on this site. The site was primarily contaminated with foundry sand (heavy metals), creosote, polycyclic aromatic hydrocarbons (PAHs), polychlorinated biphenyls (PCBs) and petroleum hydrocarbons.

Urban Horse Developments purchased the property in the mid-1990s after attempts by other developers to initiate redevelopment of the site. The 20,440 m<sup>2</sup> (220,000 sq. ft.) foundry building was demolished and the site was remediated using primarily dig and dump, on-site sorting and reuse of acceptable soils as fill, and some bioremediation for the petroleum hydrocarbons. The developer also made extensive use of recycling of

wood, steel, brick and concrete during the demolition to lower costs and reduce the amount of material going to landfill.

The first phase of the 11-phase development, a 48-unit condominium apartment building, was completed in 2002. The second phase, a 62-unit apartment condominium, was completed in 2003. Construction has now commenced on the third phase, another 62-unit apartment condominium. These residential condominium buildings are being built by Alterra Developments. The development is expected to be completed by 2010 and will include 598 residential units comprised of 458 condominium apartment units in eight buildings, 140 rental apartment units for seniors in a four-storey building, and 1,300 m<sup>2</sup> (14,000 sq. ft.) of commercial space.

This project was the first large-scale, high-density residential brownfield redevelopment project in the Hamilton area, and one of the earliest examples of a successful large brownfield redevelopment project for residential uses in the province of Ontario and the country.

## PREVIOUS SITE USE(S) AND CONDITION

The property was the site of the John Bertram and Sons Company Limited. The foundry located here beside Spencer Creek in the late 1860s to take advantage of the creek to generate power. The Bertram Company manufactured woodworking tools, engineering equipment for railroads and bridges, and operated a steel foundry for military tank turrets, armaments, shell casings and mining equipment.



Figure 2: Former Bertram Foundry  
Source: Urban Horse Developments

Urban Horse Developments purchased the site in the mid-1990s after several attempts by other developers to initiate redevelopment of the site.

The major contaminant on the site was foundry sand which was used as fill across the site, in some places up to 6 metres (20 feet) deep. Other contaminants included creosote-impregnated wooden floor blocks, which were removed and shipped to the United States to be used as a fuel source, heavy metals, PAHs and petroleum hydrocarbons in soil. The site was also a former PCB storage site. A full-depth remediation of the property was conducted using primarily dig and dump, but also on-site sorting and reuse of acceptable soils as fill, and some bioremediation for petroleum hydrocarbons.

The 20,440 m<sup>2</sup> (220,000 sq. ft.) foundry building was demolished using extensive recycling techniques to greatly reduce demolition expense and reduce the amount of material transported and disposed of to landfill. These recycling techniques included:

- screening of the foundry sand in soils to sort out silica sand which was then sold to a cement company to be utilized as an input into the cement production process;

- wood from the building was sorted and recycled for use in new construction (wood beams), and manufacturing of flooring and furniture;
- steel from the building was recycled with large structural beams recycled for new construction and smaller steel pieces sent as scrap to local steel mills to be reused in steel production;
- 150,000 bricks were reclaimed, bundled and sold to a brick company;
- miscellaneous brick pieces were crushed and used for landscaping; and
- concrete was crushed and used in the road beds.

Ten of the 11 phases have been remediated to date with a Record of Site Condition (RSC) submitted on these 10 phases. Remediation of the remaining phase is expected to take place in 2005.

Total cost of the site remediation is estimated at \$2,000,000, with approximately \$1,500,000 spent to date. Demolition costs were approximately \$1,000,000.



Figure 3: Demolition and materials recycling  
Source: Urban Horse Developments

## DEVELOPMENT COSTS AND FINANCING

- Land purchase costs were nominal.
- Construction costs equal \$1,075 to \$1,345 per m<sup>2</sup> (\$100 to \$125 per sq. ft.) plus soft costs, servicing, financing and real estate commissions.

- Total project construction costs at build out will equal approximately \$95,000,000.
- Servicing costs are estimated at \$600,000.
- Development charges paid to date equal \$150,000.
- \$150,000 in planning application fees have been paid to the municipality to date.
- Building permit fees paid to date equal \$220,000.
- Environmental consulting fees of \$270,000 have been paid to date.
- \$200,000 in planning consulting fees have been paid to date.

The developer will be eligible for an ERASE Redevelopment Grant from the City of Hamilton of approximately \$500,000 for remaining remediation expenses. The bulk of the remediation work was completed prior to the introduction of the ERASE program<sup>1</sup>.



Figure 4: Structural steel recycling  
Source: Urban Horse Developments

The ERASE program rebates 80 per cent of the municipal tax increase generated by the project to the developer on an annual basis for up to 10 years. Based on the construction schedule and estimated assessed value of units being constructed, it will only take a few years for the developer to recoup the remaining \$500,000 in remediation expenses through the ERASE Redevelopment Grant.

## AFFORDABILITY

Condominium units are being offered at market rates. Sale prices started at \$1,615 per m<sup>2</sup> (\$150 per sq. ft.) for the first phase in 2002 and have increased to over \$2,150 per m<sup>2</sup> (\$200 per sq. ft.) for the third phase.



Figure 5: Phase Two – 62-unit condominium apartment building  
Source: Luciano Piccioni



Figure 6: Construction of Phase Three – 62-unit condominium apartment building  
Source: Luciano Piccioni

The rental units in the seniors' building are planned as high-end rental units.

The development is in the downtown core of the community of Dundas and is therefore within close walking distance of shopping, dining and other services.

## PLANNING

The site was originally zoned for heavy industrial use. The developer has obtained the following planning approvals to permit the residential and mixed uses:

- official plan amendment
- zoning bylaw amendment
- plan of subdivision/condominium
- site plan approvals

<sup>1</sup> For more information, see the CMHC Brownfield Redevelopment Case Study on Hamilton's ERASE Redevelopment Grant Program.

The size of the site and its location in the downtown core of an older community presented challenges with respect to building densities and integration of the development into the existing urban fabric.

The developer used building designs that would complement the existing architecture in the downtown core of Dundas, which contains a number of heritage properties.

The former municipality of Dundas hired an independent planning consultant to review the developer's building plans.

The phasing of environmental and planning approvals was an issue that had to be resolved. The municipality sought to ensure that all phases of the development would be remediated and that the worst areas of contamination would not be left undeveloped. Negotiations between the developer and the municipality in this regard resulted in a phasing agreement which ensures that certain phases will be released for development only once other phases have been remediated.

The developer repaired the deteriorated creek bed wall of Spencer Creek, and remediated and dedicated a pedestrian trail along the creek to the municipality. The developer also paid a parkland dedication of \$150,000 for the entire site.

As this was the largest brownfield redevelopment for a housing project in the municipality, Planning staff were excited and supportive of this proposal. The results of negotiations and commitments are now being realized as construction of residential buildings continues on the site.

## ECONOMIC AND OTHER BENEFITS

- The increase in annual property taxes to be collected by the municipality and the province at build out is approximately \$1,760,000.
- Personal income from on-site remediation and construction jobs will equal \$12,000,000.
- Income tax paid on personal income from remediation and construction jobs will equal \$3,600,000.
- Increase in GST revenues: \$6,609,000.
- Increase in PST revenues: \$7,554,000.
- Permanent full-time and part-time jobs: 40.
- 1 hectare (2.5 acres) of parkland was created with new public walkways and access along Spencer Creek.

- The population of downtown Dundas will increase by approximately 1,000 people.
- This development provides retirement residences in a downtown location close to shopping, services and public transit.

## LESSONS LEARNED

From an approvals perspective, brownfield redevelopment is often treated by municipal staff in the same way as a greenfield development. It is important for municipal staff and the developer to agree at the beginning of the process that brownfield sites may have to be treated in a more flexible manner. Establishing a positive relationship between the developer and staff early in the development approvals process is important.

Solid project financing must be in place from inception because brownfield projects always take longer than anticipated. The developer indicated that he would attempt to negotiate or secure as much as possible all development agreements ahead of time, and confirm all fees and charges at the beginning of the development process in order to avoid unanticipated cost increases as a result of increases in fees and charges. This is particularly important for a multi-phase, multi-year project.

Attempting a large-scale residential brownfield redevelopment project without a municipal incentive program in place and solid municipal support for the project is very difficult.

A brownfield developer must be very proactive and "hands-on." This means that the developer must understand and be involved in virtually every aspect of the project in order to control costs.

## SUCCESS FACTORS – DEVELOPER'S PERSPECTIVE

The developer attributed the project's success to a number of factors including:

- The extensive recycling of materials, which would have normally been landfilled, represented a significant cost savings.
- The various phases of the development are selling well and at high market rates.
- The relationship between the developer and the municipality improved significantly since the beginning of the project.

- The developer is eligible for \$500,000 in funding from the City's ERASE Redevelopment Grant Program.

## SUCCESS FACTORS – MUNICIPALITY'S PERSPECTIVE

From the municipal planning department's point of view:

- This project was the first large-scale, high-density residential brownfield redevelopment in the area and as such, will help increase the population of downtown Dundas and support existing retail and personal services as well as the expansion of new shopping and service opportunities.
- Municipal staff learned a great deal about coordinating and phasing environmental and planning approvals, and use of the RSC from this complex multi-phase project.
- This project is a well-planned and well-designed high-density residential development that fits into the character of the neighbourhood. The one hectare (2.5 acres) of parkland created with new public walkways and access along Spencer Creek also contribute to the project's success.
- The development will result in a significant long-term increase in property tax revenues.

## CONTACT INFORMATION

### Developer

#### Richard Leibtag

Urban Horse Developments

Hamilton, ON

Telephone: (905) 521-0731

E-mail: richardleibtag@hotmail.com

### Environmental Consultant

#### Dennis Kerr, M. Eng., P. Eng.

Principal Consultant, Geotechnical and  
Geoenvironmental Services

Peto MacCallum Ltd.

Hamilton, ON

Telephone: (905) 561-2231

E-mail: dkerr@petomacallum.com

### Municipal Planner

#### Paul Mallard

Manager, Development Planning

City of Hamilton

Hamilton, ON

Telephone: (905) 546-2424

E-mail: pmallard@hamilton.ca

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