



Muncaster  
Environmental  
Planning Inc.

April 25, 2016

The Salvation Army Barrhaven Church  
c/o Michaela Jones  
Territorial Project Coordinator  
Property Department  
The Salvation Army  
2 Overlea Blvd  
Toronto Ontario  
M4H 1P4

Dear Ms. Jones:

**RE: 102 Bill Leathem, The Salvation Army Barrhaven Church  
Environmental Impact Statement**

This Environmental Impact Statement addresses the existing vegetation, potential impacts on the natural heritage system and Species at Risk utilization on an approximate 1.96 hectare site at 102 Bill Leathem Drive, on the west side of Leikin Drive in the northeast portion of Barrhaven. At its closest point the Rideau River is approximately 600 metres to the east of the site, east of Prince of Wales Drive, the RCMP headquarters and associated surface parking, and urban residential developments. The site is within the South Merivale Business Park and is described as Concession 1 (Rideau Front), Part of Lots 17 and 18 in the Nepean Geographic Township of the City of Ottawa.

The site is dominated by former cultivated agricultural fields with planted trees along the south side of Bill Leathem Drive and the west side of Leikin Drive and a mature white ash in the north-central portion of the site (Figure 1). 1965 – 2014 aerial photography shows the site and adjacent lands as cultivated fields. The Clarke Bellinger Environmental Facility is 30 metres to the south of the site. This facility is a series of on-line ponds that provide stormwater treatment for much of this portion of Barrhaven. A 3 metre wide access road/ pathway and many areas of woody vegetation are between the site and the facility. No potential aquatic habitat is on or adjacent to the site other than the ponds and a meandering channel conveying stormwater to the pond approximately 75 metres south of the southwest corner of the overall site. Barrhaven Creek enters the ponds further to the south of this channel.

For the purposes of this report Bill Leathem Drive is assumed to be in an east-west orientation.

### ***Background and Project Description***

A 1673 m<sup>2</sup> slab on grade multi-purpose single floor building, with an associated 112 surface parking spots, access lanes and landscaped areas is proposed for the east portion of the overall site (Figures 1 and 2). An extension to the building to the southwest is proposed for Phase 2 of the development, along with a west expansion of the parking areas (Figures 1 and 2). Vehicle access to the parking lot will be off the south side of Bill Leathem Drive, with a footpath extending from the west side of Leikin Drive. Although the proposed development occupies only the east portion of the overall site, the current conditions of the entire site and adjacent lands were reviewed for this assessment.

The site is designated Employment Area on Schedule B of the City of Ottawa Official Plan and is zoned Light Industrial (*IL9*). The closest Urban Natural Area is Sach's Forest to the south and southwest of the site (Figure 1). At the closest point the Urban Natural Area is approximately 120 metres south of the southwest portion of the site, on the opposite side of the Clarke Bellinger Environmental Facility. The Urban Natural Area is designated Urban Natural Features on Schedule B, with the Clarke Bellinger Environmental Facility and adjacent lands designated Major Open Space. The Major Open Space designation continues southeast to the Rideau River corridor, including the Rideau Glen Ravine Urban Natural Area, which begins approximately 380 meters to the southeast of the site. Unstable slopes are shown on the channels upstream and downstream of the Clarke Bellinger Environmental Facility on Schedule K and the site is within the Ottawa Airport Operating Influence Zone. Much of the west portion of the site is shown on Schedule L3 as part of the Natural Heritage System as is the Clarke Bellinger Environmental Facility and Urban Natural Feature to the south of the site. However, as assessed below, including the site as part of the Natural Heritage System may be a mapping error as the site was an agricultural field since at least 1965. There are no Areas of Natural and Scientific Interest or provincially significant wetlands in this portion of Barrhaven.

### ***Methodology***

This EIS was prepared in accordance with Section 4.7.8 of the City of Ottawa Official Plan (2010) following the EIS Guidelines found at <http://ottawa.ca/en/development-application-review-process-0/environmental-impact-statement-guidelines>, with guidance from the Natural Heritage Reference Manual (OMNR, 2010). This report includes the components of an Environmental Impact Statement as identified in Section 4.7.8.2 a) through h) of the City of Ottawa Official Plan (City of Ottawa, 2010).

The major objective of this EIS is to determine the features and functions of the on-site and adjacent natural environment conditions and to assess the anticipated impacts associated with the proposed development on these features and functions, including the Urban Natural Features. The EIS will verify the presence of significant valleylands and other significant natural heritage features on or adjacent to the site and assess whether the proposed development will have a negative impact, as defined in the Provincial Policy Statement, on the significant features, including net impacts after proper implementation of recommended mitigation measures. The EIS will also assess the site and adjacent lands for potential significant habitat of threatened or endangered Species at Risk.

Aerial photography (1965 - 2014) was used to assess the natural environment features in the general vicinity of the site. A field review of the site was completed on April 14<sup>th</sup>, 2016, under sunny skies, a light breeze and an air temperature of 7° C.

The field survey and this report were completed by Bernie Muncaster, who has a Master's of Science in Biology and over twenty-eight years of experience in completing natural environment assessments.

### ***Existing Conditions***

The topography of the site is virtually level, with less than a half a metre of elevation change over the site. The site is at grade with Bill Leathem Drive. Clay soils dominate the site and adjacent lands. Paterson (2016) estimated the overburden to be in the range of 15 to 25 metres thick, with the long-term groundwater table estimated to be between 3.5 and 4.5 metres below ground surface.

### **On-Site**

Cultural meadow habitat is present on former agricultural lands (Photos 1 and 2). Common ground flora includes orchard grass, blue grass, wild carrot, common burdock, Canada thistle, common milkweed, wild parsnip, reed canary grass, bluegrass, evening primrose, goldenrod, aster and white-sweet clover. Woody vegetation is common in areas, including red raspberry, staghorn sumac, pussy willow and slender willows shrubs and regenerating trembling aspen, Manitoba maple and white ash stems up to 10cm diameter at breast height (dbh) are also present. A 95cm dbh white ash, with many dead branches, is in the north-central portion of the site (Photo 3). The ash trunk splits above the dbh point.

Wildlife observations on and immediately adjacent to the site included song sparrow, red-winged blackbird, European starling, mourning dove, American robin and coyote scat.

### **Planted Street Trees**

The deciduous and coniferous plantings along the south side of Bill Leathem Drive and west side of Leikin Drive include white spruce and Austrian pine in the 18 – 23 cm dbh range and smaller green ash and sugar maple. The pines appear to be in generally good condition (Photo 4) but the ash trees and some of the sugar maple have extensive trunk damage and suckering (Photo 5). The sugar maples adjacent to the northwest site edge appear to be in the best condition of the deciduous plantings.

### **Woody Vegetation along the North Side of the Clarke Bellinger Environmental Facility**

Many areas of dense woody vegetation plantings are along the north slope and adjacent tablelands of the Clarke Bellinger Environmental Facility. Scot's pine up to 34cm dbh are the most common, with white spruce up to 30cm dbh (Photo 6) and green ash and trembling aspen in the 25cm dbh range. Tartarian honeysuckle, slender willow, staghorn sumac and red-osier dogwood shrubs are also common along the slope. A cedar hedge is to the northwest of the facility, adjacent to the access road/recreational pathway.

Older beaver cuttings were common along the north slope of the facility. Mallard, ring-billed gull and Canada goose were observed in the vicinity of the facility.

#### Sach's Forest Urban Natural Area

The Urban Natural Feature and associated Sach's Forest Urban Natural Area are dominated by mature, deciduous forests with many mature examples in the 60cm dbh range of sugar maple, eastern hemlock, bur oak, red maple, basswood, white pine and American beech and other representation of bitternut hickory, ironwood, white birch and yellow birch (Photo 7). The understory was limited in many areas and the impact of non-native vegetation seemed minor.

Two channels in the Urban Natural Feature discharge to Clarke Bellinger Environmental Facility. The channels have excellent canopy cover, lots of in-stream large woody vegetation and a meandering form. Fines dominate the substrate, with rock protection near the pathway crossings providing some coarse substrate. There appeared to be no permanent blockages to potential fish movement between the channels and the upper portion of the Clarke Bellinger Environmental Facility, with some drops in channel elevation likely preventing some seasonal upstream access. Treatment facilities and other structures prevent potential fish movement from the upper portion of the Clarke Bellinger Environmental Facility to the downstream outlet.

Each channel meanders on the floor of a ravine. Given the presence of ravines, meandering channels and mature forests portions of the Urban Natural Feature would likely be considered a Significant Valleyland. Although there is a top-of-slope associated with the north side of Clarke Bellinger Environmental Facility, this slope and associated ponds would not be considered part of the Significant Valleyland due to the artificial and maintained nature of the ponds and adjacent lands to the north, and a lack of closed forests in this area.

Wildlife observations in the Urban Natural Feature included American crow, downy woodpecker, pine siskin, American robin, house finch, American goldfinch, dark-eyed junco and grey squirrel. Woodpecker activity was noted in many of the older trees in the natural area.



*Photo 1 – East portion of the site, including the lands proposed for development.  
View looking west from west side of Leikin Drive*



*Photo 2 – Central and west portions of the overall site.  
View looking west from the central-east portion of the site*



*Photo 3 – Mature white ash in the he north-central portion of the site.  
View looking north, with Bill Leathem Drive in the background.*



*Photo 4 – Planted Austrian pine along the south side of Bill Leathem Drive.  
View looking west*



*Photo 5 – Planted ash and maple along the south side of Bill Leatham Drive.  
View looking west*



*Photo 6 – White spruce along the north slope from the Clarke Bellinger Environmental Facility.  
View looking west, with the gravel access road on the right and the facility on the left (south)*



*Photo 7 – The Clarke Bellinger Environmental Facility looking south from the gravel access road with the mature deciduous and coniferous trees in the Sach’s Forest Urban Natural Feature in the background on the south side of the facility*

### **Species at Risk**

No butternuts or other Species at Risk were observed during the field survey. On April 11<sup>th</sup>, 2015 the Ontario Ministry of the Natural Resources and Forestry’s Make a Map: Natural Heritage Areas website was reviewed ([www.giscoeapp.lrc.gov.on.ca/web/MNR/NHLUPS/NaturalHeritage/Viewer/Viewer.html](http://www.giscoeapp.lrc.gov.on.ca/web/MNR/NHLUPS/NaturalHeritage/Viewer/Viewer.html)). This site allows for a search of Threatened and Endangered species covered by the 2008 *Endangered Species Act*, as well as other species of interest. A search was conducted on the 1 km squares including the site and adjacent areas (18VR41-35 and -45). No Species at Risk were reported for these squares with two provincially rare species noted, pitch pine and ram's-head lady's-slipper. Pitch pine is found in a variety of habitats from dry sandy uplands to swampy lowlands, and can survive in very poor conditions. Pitch pine is easily told by its cluster of three needles. No pitch pine was observed on or adjacent to the site. The ram's-head lady's-slipper orchid is found in mature coniferous forests or coniferous fens, habitat not present on or adjacent to the site.

Species at Risk identified in the Ontario Breeding Bird Atlas for the 10km square (18VR41) that includes the site and general area were bobolink, eastern meadowlark, barn swallow, bank swallow and chimney swift. The on-site meadow habitat is too small and contains too much woody vegetation to be used by eastern meadowlark or bobolink, which nest in larger grasslands such as hayfields with a general minimum size of five hectares identified in the Ministry of Natural Resources and Forestry’s General Habitat Description. No suitable structures or other habitats were observed on or adjacent to the site for barn swallow, bank swallow or chimney



swift, which nest in barns and other structures with access to open rafters, on the side of sand banks, and accessible brick chimneys with no liners, respectively.

An information request has been submitted to the Ministry of the Natural Resources and Forestry (MNR). Additional potential Species at Risk in the general area identified in other MNR correspondence include butternut, little brown bat and Blanding's turtle. Butternut is found in a variety of habitats and has been documented in other portions of Barrhaven. No butternuts were observed on or adjacent to the site. Little brown bat uses cavities in larger trees as summer roosts and prefers habitats adjacent to surface water for the insect production. No large cavity trees were observed on-site and no potential cavity trees in the Urban Natural Feature and associated forest to the south will be disturbed. Blanding's turtle is found in relatively undisturbed marshes and swamps with standing water and also utilizes upland habitats for nesting and moving among wetland parcels. No suitable wetland habitat is present on the site, with potential utilization in the Clarke Bellinger Environmental Facility to the south. Turtle activity in the general area would be along the open space corridor to the south. As there is no wetland habitat on the site or to the north, west or east away from the open space corridor there is no expectation that turtles may utilize the site to access adjacent lands.

The potential Species at Risk in the City of Ottawa and those listed on Parts 1 – 4 of Schedule 1 of the List of Wildlife Species at Risk provided by the Government of Canada's Species at Risk Act Public Registry, with input from the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) Canadian Species at Risk, were also reviewed. Many endangered and threatened species have historically been reported in the overall City, including butternut, American ginseng, eastern prairie fringed-orchid, wood turtle, spiny softshell, Blanding's turtle, musk turtle, Henslow's sparrow, loggerhead shrike, little brown myotis, northern long-eared bat, olive hickorynut, chimney swift, eastern meadowlark, barn swallow, bank swallow, bobolink, eastern whip-poor-will, bald eagle, golden eagle, cerulean warbler, least bittern, eastern cougar, lake sturgeon and American eel.

The habitat requirements of the above species along with those listed as special concern were reviewed. The only Species at Risk considered to have the potential to be on the site is butternut which is found in a variety of habitats in Ottawa. No butternuts were observed on or adjacent to the site.

### ***Sach's Forest Urban Natural Area***

The 8.1 hectare moderate rated Sach's Forest Urban Natural Area was described by Muncaster and Brunton (2005) as a sub-mature to mature upland deciduous forest with an exceptional quality maple forest in clay substrate along a stream corridor. The Urban Natural Area is linear, extending for 700 metres from west of the Clarke Bellinger Environmental Facility south of the site to the west towards Woodroffe Avenue. As described above the Urban Natural Area contains an excellent quality example (tall canopy) of mature sugar maple and a large example of the regionally rare black maple forest habitat (Muncaster and Brunton, 2005). Only one of the nine evaluation criteria, habitat maturity, scored above average, while four of the evaluation criteria scored average, regeneration, size and shape, wildlife habitat and representative flora. The balance of the evaluation criteria, connectivity, lack of disturbance and natural communities, scored less than average. No significant flora and fauna were observed and no interior habitat is

present in the Urban Natural Area. The impact of non-native vegetation was considered minor by Muncaster and Brunton (2005), with a moderate native flora diversity. Edge effect influence was noted throughout the Urban Natural Area. Muncaster and Brunton (2005) considered the Sach's Forest Urban Natural Area to have a high potential for breeding of regionally significant raptors such as Cooper's hawk and screech owl.

As described above given the presence of ravines, meandering channels and mature forests the applicable portions of this Urban Natural Feature would be considered a Significant Valleyland.

### ***Impact Analysis and Recommendations***

No natural heritage features, as identified in the Provincial Policy Statement and OMNR (2010), were observed on the site which is dominated by successional meadow habitat on a former cultivated agricultural field. There appears to be no potential for endangered or threatened Species at Risk on or adjacent to the site other than butternut which was not observed. Fish habitat, significant woodlands and significant valleylands are to the south of the site. The closest of these features is the north inlet channel to the Clarke Bellinger Environmental Facility which is approximately 75 meters south of the southwest corner of the overall site but over 240 metres from the closest portion of the proposed development. The forests of the northeast portion of the Sach's Forest Urban Natural Area are approximately 130 metres southwest of the closest part of the site proposed for development.

Linkage functions in the general area have long been impacted by agricultural activity and more recently expanding urban residential and industrial developments in the northeast portion of Barrhaven. Some linkage function likely exists from the Sach's Forest Urban Natural Area to the Rideau River corridor via the Clarke Bellinger Environmental Facility and the Rideau Glen Ravine Urban Natural Area, although the linkage function would be diminished by Leikin Drive, Prince of Wales Drive and residences along Winding Way.

The linkage function and significant features to the west and southwest of the site are not anticipated to be impacted by the proposed development due to:

- the extended distance to these features from the portion of the site proposed for development with the stormwater management ponds associated with the Clarke Bellinger Environmental Facility and associated planted woody vegetation, other landscaping and a three metre gravel access road between the features and the site ;
- the disturbed nature of the site and associated lack of extensive tree removal or creation of a new forest edge to prepare the site for development;
- the lack of hydrological connection between the site and these features to the west and southwest; and,
- proper implementation of the mitigation measures recommended below.

The one storey multi-use building is anticipated to produce limited potential for indirect impacts on the Urban Natural Feature and open space corridor due to the lack of residences and associated human and pet presence confined to limited hours, generally in the daytime. Any outdoor lighting, including in the parking lot, is to be minimized as much as possible and is not

to be directed towards the Clarke Bellinger Environmental Facility. The permanent pathway system around the pond and through the Urban Natural Feature will minimize the potential for impacts from improper access to the Urban Natural Feature. With the ponds between the site and the forests to the south, the existing pathway is the only way for foot traffic to access the Urban Natural Feature. It is anticipated that the proposed development will not add significantly to the potential for indirect impacts to the Urban Natural Feature and associated significant natural heritage features relative to the extensive urban residential communities immediately to the south of the Urban Natural Area.

The mature white ash in the central-east portion of the site is not recommended for retention due to the condition and susceptibility of ash to the Emerald Ash Borer. The site plan will retain the majority of the coniferous and deciduous plantings around the periphery of the site. Any of these plantings that must be removed should be considered for transplanting to the post-development open areas of the site provided the plantings are in relatively good condition and of a suitable size.

Plantings of native vegetation as part of the development will provide a diversity of natural environment and aesthetic features and increase the extent of woody vegetation on the site. To provide a natural appearance, trees and shrubs should be planted in a random, cluster fashion rather than in a grid system. Potential native species to plant include nannyberry, elderberry and dogwood shrubs along with sugar maple, red maple, basswood, balsam fir, white cedar, bur oak, red oak and white spruce trees. Sourcing native species from local seed sources is strongly recommended to ensure adaptability and longevity. Due to the clay soils, fast-growing trees located near buildings founded on cohesive soils that shrink on drying can result in long-term differential settlements of the structures. Tree varieties that may have the most pronounced effect on foundations are poplars, willows and Manitoba Maple and these species should not be considered in the landscaping design for the site.

Trees to be retained are to be protected with sturdy orange construction fencing at least 1.2 metres in height installed along the outer edges of the open space blocks or where feasible from the tree trunk a minimum distance of ten times the retained tree diameter. Signs, notices or posters are not to be attached to any tree. No grading, heavy machinery traffic, stockpiling of material, machinery maintenance and refueling or other activities that may cause soil compaction to occur within the critical root zones of the trees to be retained and protected. The root system, trunk or branches of the trees to be retained are to be protected and not damaged. If any roots of trees to be retained are exposed during site alterations, the roots shall be immediately reburied with soil or covered with filter cloth, burlap or woodchips and kept moist until the roots can be buried permanently. A covering of plastic should be used to retain moisture during an extended period when watering may not be possible. Any roots that must be cut are to be cut cleanly to facilitate healing and as far from the tree as possible. Exhaust fumes from all equipment during construction will not be directed towards the canopy of the retained trees.

All of the supports and bracing for the protective fencing should be placed outside of the protected area and should be installed in such a way as to minimize root damage. Also, since the desired effect of the barrier is to prevent construction traffic from entering the trees' critical root

zones, the barrier should be kept in place until all site servicing and construction has been completed.

To protect breeding birds, the woody vegetation removal should not occur between April 15<sup>th</sup> and August 15<sup>th</sup>, unless a breeding bird survey conducted within five days of the woody vegetation removal identifies no active nests in the trees or shrubs. No stick nests or other evidence of raptor utilization on the site was observed. The mature white ash did not appear to have any cavities used by wildlife although the field survey was completed in mid-April.

### Other Mitigation Measures

The extent of exposed soils is to be kept to a minimum at all times. Re-vegetation of exposed, non-developed areas is to be achieved as soon as possible. The objective with respect to erosion and sediment controls will be to ensure that the surface water runoff leaving the site is not degraded with respect to water quantity or quality. Erosion and sediment control will focus on best management practices such as grassed swales with a reduced slope and direction of roof runoff to grass or other permeable surfaces.

Many helpful wildlife oriented mitigation measures are detailed in the City's Protocol for Wildlife Protection during Construction (City of Ottawa, 2015). Contractors are to review in detail and understand the City's Protocol for Wildlife Protection during Construction prior to commencement of construction. The contractor is to be aware of the potential Species at Risk in the vicinity of the site including barn swallow and butternut. Appendix 1 of City of Ottawa (2015) describes these species. Appendix 1 should be modified for this construction project to include the contact information of the project biologist, as applicable. Any Species at Risk sightings are to be immediately reported to the contractor administrator/ City project manager and the Ministry of the Natural Resources and Forestry and work that may impact the species suspended immediately.

As recommended in City of Ottawa (2015) prior to beginning work each day, the work areas are to be checked for wildlife by conducting a thorough visual inspection of the work space and immediate surroundings. See Section 2.5 of the City's Protocol for Wildlife Protection during Construction (City of Ottawa, 2015) for additional recommendations on construction site management.

Any turtles and snakes observed in the work area are to be relocated to the open space corridor. Animals should be moved only far enough to ensure their immediate safety. See Appendix 1 and the links in Section 4 of City of Ottawa (2015) for suggestions on how to effectively relocate turtles and snakes.

Additional recommended mitigation measures for sediment and erosion control and general environmental protection include:

- Any groundwater that must be removed from work area will be pumped into a proper filter mechanism such as a sediment trap or filter bag prior to release to the environment;

- Seepage barriers such as silt fencing, straw bale check dams and other sediment and erosion control measures will be installed as required to OPSD requirements in any temporary drainage ditches and around disturbed areas during construction and stockpiles of fine material. These control measures must be properly maintained to maximize their function during construction;
- Silt fencing is recommended around the work area. The fencing must be properly keyed in to filter runoff and maintained as required including repair of broken panels and removal of accumulated sediment;
- Municipal by-laws and provincial regulations for noise will be followed and utilities will be located as required in the vicinity of the site prior to construction; and,
- Waste will be managed in accordance with provincial regulations. The contractor will have a spill kit on-hand at all times in case of spills or other accidents.

### ***Cumulative Effects***

The Canadian Environmental Assessment Agency (CEAA) defines cumulative effects as...*“the effects on the environment caused by an action in combination with other past, present, and future human actions...”* They occur when two or more project-related environmental effects, or two or more independent projects, combine to produce an augmented effect. These cumulative effects may be positive or negative.

There are no significant natural heritage features on the site, which contains meadow habitats regenerating on former agricultural lands. However the Urban Natural feature to the south of the site, south of the Clarke Bellinger Environmental Facility, is a significant natural heritage feature. Due to the distance from the Urban Natural Feature, existing residences in close proximity to the Urban Natural Feature, pathways established through the forests and relatively benign use for the site, with proper implementation of the mitigation measures described in this report it is anticipated that the construction and operation of the single storey building will not increase the potential for cumulative effects in the general landscape.

### ***Conclusion***

A one-storey 1673 m<sup>2</sup> slab on grade multi-purpose single floor building, with an associated 112 surface parking spots, access lanes and landscaped areas, is proposed for the east portion of the overall site. An extension to the building to the southwest is proposed for Phase 2 of the development, along with a west expansion of the parking areas. There are no significant natural heritage features on the site, which contains meadow habitats regenerating on former agricultural lands. However the Urban Natural Feature to the south of the site, south of the Clarke Bellinger Environmental Facility, is a significant natural heritage feature.

Due to the distance from the Urban Natural Feature, existing residences in close proximity to the Urban Natural Feature, pathways established through the forests and relatively benign use for the site, with proper implementation of the mitigation measures described in this report it is anticipated that the construction and operation of the single storey building will not have a negative impact on the features and functions of the Sach’s Forest Urban Natural Area, including the Significant Valleylands.

Any of the plantings adjacent to site peripheries that are in good condition and must be removed should be considered for transplanting to a post-development open portion of the site. Plantings of native trees and shrubs of local seed origin are also recommended to provide aesthetic and local wildlife value.

It is important that the mitigation measures outlined in this EIS and TCR are properly implemented and maintained.

### ***References***

City of Ottawa. 2010. City of Ottawa Official Plan. As adopted by City Council, May, 2003 and Updated 2010. Publication: 1-28. 227 pp & Sched.

City of Ottawa. 2015. Protocol for Wildlife Protection during Construction. August, 2015. 14 pp & Append.

Muncaster, B.W. and D.F. Brunton. 2005. Urban Natural Areas Environmental Evaluation Study. Prepared for the City of Ottawa.

Ontario Ministry of Natural Resources. 2010. Natural Heritage Reference Manual for Natural Heritage Policies of the Provincial Policy Statement, 2005. Second Edition. March 2010. 233 pp.

Ontario Ministry of Natural Resources and Forestry. 2015. Significant Wildlife Habitat Criteria Schedules for Ecoregion 6E. January, 2015. 38 pp.

Paterson Group. 2013. Geotechnical Investigation Proposed Salvation Army Building 102 Bill Leathem Drive, Ottawa, Ontario. Report: PG3792-1. April 8<sup>th</sup>, 2016. 20 pp & append.

Please call if you have any questions on this Environmental Impact Statement.

Yours Sincerely,  
**MUNCASTER ENVIRONMENTAL PLANNING INC.**



Bernie Muncaster, M.Sc.  
Principal

\\102billlethem



Vegetation Community

① Cultural meadow

Legend

- Overall Site
- Natural Heritage System (per Schedule L1)
- Sach's Forest Urban Natural Area



**Approx. Scale 1:2,300**

**Figure 1**

**FILE: 15-20**

April 16, 2015

Prepared for: **The Salvation Army**

Prepared by:

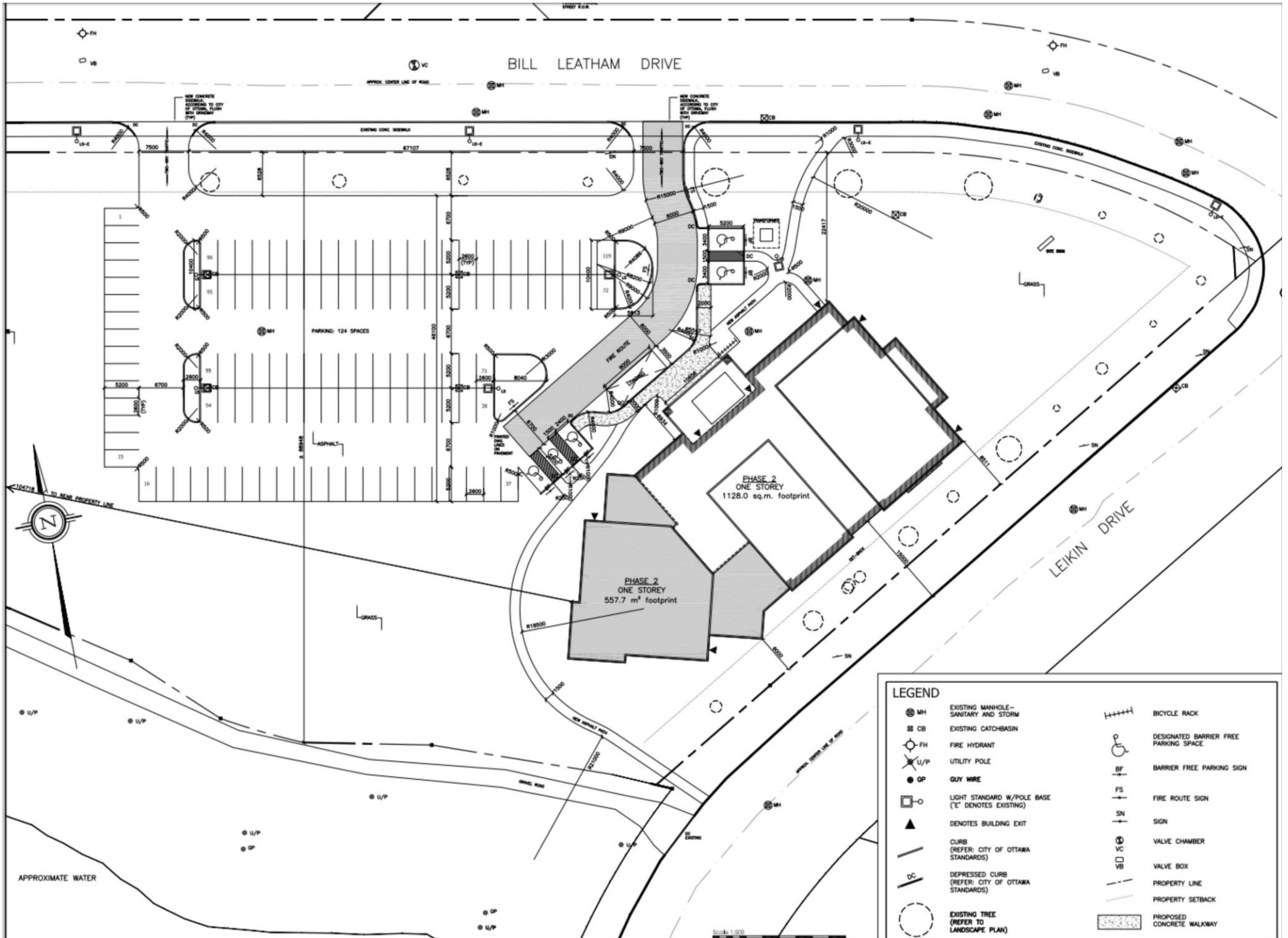


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**ENVIRONMENTAL IMPACT STATEMENT**

**102 Bill Leatham Drive  
Barrhaven, City of Ottawa**

FIGURE 2 – SITE PLAN



LEGEND	
	EXISTING MANHOLE-SANITARY AND STORM
	EXISTING CATCHBASIN
	FIRE HYDRANT
	UTILITY POLE
	GUY WIRE
	LIGHT STANDARD W/POLE BASE ('E' DENOTES EXISTING)
	DENOTES BUILDING EXIT
	CURB (REFER: CITY OF OTTAWA STANDARDS)
	DEPRESSED CURB (REFER: CITY OF OTTAWA STANDARDS)
	EXISTING TREE (REFER TO LANDSCAPE PLAN)
	BICYCLE RACK
	DESIGNATED BARRIER FREE PARKING SPACE
	BARRIER FREE PARKING SIGN
	FIRE ROUTE SIGN
	SIGN
	VALVE CHAMBER
	VALVE BOX
	PROPERTY LINE
	PROPERTY SETBACK
	PROPOSED CONCRETE WALKWAY