Muncaster
Environmental
Planning Inc.

December 20, 2022

Richcraft Properties Ltd.
2280 St. Laurent Blvd. Suite 201
Ottawa, Ontario
K1G 4K1

Dear Ms. Wahab:

RE: 2370 Walkley Road – Drainage Modifications and Additional Parking
Tree Conservation Report

This Tree Conservation Report (TCR) addresses the existing vegetation, potential tree retention, and associated recommended mitigation measures for proposed work at 2370 Walkley Road in the Urban Area of the City of Ottawa. The site is on the south side of Walkley Road, between St. Laurent Boulevard and Russell Road. For the purposes of this report Walkley Road is assumed to be in an east-west orientation.

Background

A Tree Conservation Report is required to support a Site Plan Application submitted by Richcraft Properties Ltd. to replace an existing drainage ditch, that conveys stormwater runoff from both 2480 and 2370 Walkley Road, into the Mather-Award Ditch with a 1350 dia storm sewer to permit additional surface parking for cars and truck trailers on 2370 Walkley Road. The proposed extent of new asphalt is shown with an orange line on Map 2. In addition to abandoning the drainage ditch along the east and south sites edges (blue line on Map 2), small areas of rip rap outlet will be installed to convey local overland drainage during extreme events to the new storm sewer and Mather-Award Ditch.

The site is highly developed and used primarily for distribution centres and warehousing, with a large amount of truck traffic. Tree coverage is present along the site edges, including to the east of the Mather-Award Ditch. There are no portions of the Natural Heritage System on or adjacent to the site, as shown on Schedule C11-C of the Official Plan. No Significant Wetlands, Natural Environment Areas, Areas of Natural and Scientific Interest, or Urban Natural Features are in the general vicinity of the site. No unevaluated wetlands are mapped or were observed on or adjacent to the site.

Methodology

This TCR was prepared in accordance with the City of Ottawa TCR Guidelines. The purpose of the Tree Conservation Report is to establish which vegetation should be retained and protected on the site and to assess co-owned and adjacent trees. It is anticipated that the woody vegetation not proposed for retention will be removed in 2023 outside of the breeding bird period. The study area is shown as a solid red line on Map 1. This includes the areas proposed for disturbance and adjacent trees with critical root zones that may extend into the disturbed areas.

Colour aerial photography (1965 - 2021) was used to review the natural environment features in the general vicinity of the site. A field survey of the site and adjacent lands was completed on December 6th, 2022, from 09:15 to 11:40. The weather conditions included cloudy skies, a light breeze, and an air temperature of 5° C. No snow cover was present.

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

Existing Conditions

The site is highly disturbed with existing development and fill and other material that has been historically placed, including likely excavations from the ditches. The site was an agricultural field in 1965, with warehouses present in 1976. Map 1 shows two vegetation descriptions, cultural meadow and cultural woodland, for the portions of the study area without impermeable surfaces. Tree group numbers are shown on Maps 1 and 2.

Cultural Meadows

The cultural meadows are in locations where regenerating woody vegetation is less dense and for the east portion of the study area, mowed areas. In addition to the dominant blue grass in the mowed areas, ground flora in the cultural meadows include red clover, curled dock, Canada thistle, wild carrot, common strawberry, yellow avens, evening primrose, common dandelion, and the very invasive black swallowwort. A north-south planted row of white spruce and amur maple up to 30cm and 25cm diameter at breast height (dbh), respectively (Tree group # 1) is along the top of a berm approximately five metres west of the east property line (Photo 1). These planted trees appear to be in generally good condition. A 35cm dbh white elm is further to the south. Other scattered trees in the cultural meadow in the east portion of the study area include white elm up to 35cm dbh, multi-stem Manitoba maple up to 25cm dbh, smaller Siberian elm (Tree group # 2), and staghorn sumac shrubs. Many of the Manitoba maple had poor form with no dominant leader and damaged trunks.

The largest trees in the meadow habitat in the south portion of the study area (Tree group # 4) are Siberian elms up to 30cm dbh. Smaller trembling aspen and green ash are also present along within regenerating trembling aspen, crack willow, green ash, and Manitoba maple stems. A dead 20cm dbh white spruce was also noted. Siberian elms up to 34cm dbh are dominant in the cultural meadow along the west portion of the study area (Tree groups # 6 and 7, Photo 4). Windthrow is common in this area, along with branch damage. Regenerating trembling aspen,

amur maple, and Manitoba maple up to 15cm dbh are also present along with common buckthorn and red-osier dogwood shrubs. Smaller trees are present in the north portion of the cultural meadow along the west portion of the study area (Tree group # 8, Photo 5), including green ash and Manitoba maple up to 20cm dbh and smaller amur maple and common buckthorn shrubs.

Cultural Woodlands

Where the density of tree stems is greater, these areas are identified as cultural woodlands on Map 1. Tree group # 3 in the southeast corner of the study area is dominated by young trembling aspens up to 30cm dbh (Photo 2). Windthrow is extensive through this area. Regenerating Manitoba maple and amur maple area also present, along with red raspberry and red-osier dogwood shrubs. Goldenrods appear to dominate much of the ground flora, with June meadow grass, reed canary grass, orchard grass, and common burdock also noted.

Another cultural woodland is in the southwest portion of the study area (Tree group # 5). Siberian elm and crack willow up to 30cm and 50cm dbh, respectively are dominant, with smaller regenerating stems of Manitoba maple and poplar (Photo 3). Many of the crack willow are multi-stem and they have extensive trunk damage. The largest cultural woodland area is in the northwest portion of the study area (Tree group # 9). Siberian elm is dominant, with large common buckthorn shrubs well represented (Photos 6 and 7). White elm, green ash, amur maple up to 25cm dbh are also present. The largest elms are twin-stem examples along the bank of the Mather-Award Ditch. The individual stems are up to 38cm dbh. Windthrow is extensive in this cultural woodland and many of the trunks appear dead (Photos 6 and 7). Ground flora includes yellow avens, common burdock, goldenrods, orchard grass, reed canary grass, Canada thistle, wild cucumber, and ground ivy.

City and other Adjacent Trees

The proposed work is not adjacent to City land and no city owned or co-owned trees will be impacted, including trees along the south side of the Walkley Road allowance well to the north of the proposed work. Due to parking areas immediately to the east of the study area, an open railway embankment to the south and the Mather-Award Ditch to the west, there are no adjacent trees with critical root zones that may extend onto the site. In addition, with the proposed work along the site peripheries limited to grading to meet the existing boundary grade along portions of the east and south boundaries at a maximum slope of 3:1, no impacts on adjacent woody vegetation, if present, would occur. The tree groups described above are summarized in Table 1 (numbers shown on Maps 1 and 2).

Table 1 – Description of Tree Groups (located on Maps 1 and 2)

Trees #	Species	dbh (cm)	Condition	Fate
1	White spruce Amur maple White elm	up to 30 up to 25 35	Planted in a row – spruce appear to be in good condition with upright growth form and good needle colour. Trunk rot on amur maples and poor form with asymmetrical crowns	Majority of row retained

2	Siberian elm White elm Manitoba maple Crack willow Trembling aspen	up to 16 up to 35 up to 15 20 20	Elms appear to be in generally good condition with some broken branches but good crown density No dominant leader on the regenerating Manitoba maples. Other Manitoba maples are multi-stem and have major bark loss and branch damage Crack willow along ditch has better upright growth form	Removed
3	Trembling aspen	up to 25	Lots of windthrow and damaged branches. Regenerating Manitoba and amur maple stems also present.	Removed
4	Trembling aspen Crack willow Green ash Manitoba maple	up to 25	Poplars appear to be in good condition with trunk rot and asymmetrical crowns associated with the crack willows. Major branch damage on the ash and Manitoba maple	Removed
5	Siberian elm Crack willow	up to 30 up to 50	Larger crack willows are multi-stem, with major trunk rot and some branch damage, but fair crown density. Regenerating Manitoba maple and poplar also present	Mostly removed with northwest portion retained
6	Siberian elm	up to 30	Many elm multi-stem with asymmetrical crowns and no dominant leaders. Some windthrow. Regenerating elm, amur maple, and trembling aspen also present	Removed
7	Siberian elm	up to 34	Generally in a row. Branch damage and windthrow common. Regenerating elm, amur maple, and trembling aspen also present	Removed
8	Manitoba maple Green ash Amur maple	up to 20 up to 16 up to 18	No dominant leader on most of the stems and poor form	Removed
9	Siberian elm Crack willow Green ash Amur maple Manitoba maple	up to 38 up to 43 up to 22 up to 22 up to 20	Extensive windthrow and many stems appear standing dead. Some of the larger elms and willows are multi stem with no dominant leader and associated poor crown density.	Mostly retained with portions removed for rip rap outlet

No butternut trees were noted on or within 50 metres of the study area.

Wildlife observed on and adjacent to the study area was limited by the time of year outside of the growing season but included American crow, Canada goose, blue jay, ring-billed gull, black-capped chickadee, American goldfinch, and red squirrel. Woodpecker cavities were noted in the dead trunks in the northwest cultural woodland ((Tree group # 9). However, these cavities were too low to the ground to function as suitable potential wildlife cavities.

Photo 1 – Row of white spruce (Tree group # 1), with amur maple along berm just west of east property line. View looking south

Photo 2 – Cultural woodland of young trembling aspen in the southeast corner of the study area (Tree group # 3). View looking southeast, with invasive European bur-reed dominating the existing ditch to be abandoned in the forefront

Photo 3 – Cultural woodland of Siberian elm, Manitoba maple, and crack willow in the southwest corner of the study area (Tree group # 5).
View looking southwest to the railway embankment.

Photo 4 – Siberian elms along the west portion of the study area adjacent to existing parking (Tree group # 6). View looking northwest

Photo 5 – Amur maples (Tree group # 8) in the northwest portion of the study area. View looking west from edge of current parking

Photo 6 – Typical condition of cultural woodland dominated by Siberian elm in the northwest portion of the study area (Tree group # 9). Windthrow and dead standing stems are common. View looking northwest with Mather-Award Ditch in the background

Photo 7 – Another view of the northwest cultural woodland (Tree group # 9). View looking south, with Mather-Award Ditch in the background right

Tree Assessment and Retention

Trees have regenerated on the periphery of the site since agricultural fields were present until approximately forty years ago. These trees are generally undesirable species due to their invasiveness, poor forms and/or limited longevity and include a dominance of Siberian elm in many areas, along with amur maple, Manitoba maple, white elm, trembling aspen, and crack willow. No specimen trees were observed. The invasive common buckthorn shrub is dominant in the northwest cultural woodland. Planted white spruce appear to be the most desirable trees in the study area. Due to the size of the planted spruce and low desirability of the other species, transplanting of existing trees is not recommended for this site. There are no City owned, co-owned or adjacent trees that may be impacted by the proposed work.

The trees however do provide some local wildlife habitat, which is limited by the non-native species, and bank stability and other functions for the Mather-Award Ditch. Thus, as always, the extent of tree retention should be maximized as much as possible.

As shown on Map 2, potential tree retention is limited by the expansion of surface parking and associated abandoning of ditch in the east portion of the study area. Associated with the change in drainage, a new storm sewer is proposed to be installed, as shown by the dashed purple line on Map 2, and several rip rap outlets are required. Three areas of proposed tree retention are shown on Map 2, including the majority of the planted white spruce along the east side and the majority of the northwest cultural woodland. The trees adjacent to the Mather-Award Ditch will be retained except where rip rap outlets are required. Please note the limits of tree retention may be modified based on the results of the detailed engineering work.

The long-term aesthetics and local wildlife activity for the site can be enhanced with post-construction plantings of native trees and shrubs where feasible. Please see below for recommendations for native plantings. Invasive non-native species are not to be planted.

The following is a summary of the recommended mitigation measures:

- The trees to be retained are to be protected with sturdy temporary fencing, at least 1.2 metres in height, to ensure the retained trees are not impacted by the construction. The protective fencing is to be installed along the outer limits of the work areas. 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 zone of the trees to be retained and protected. 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 zone, the barrier should be kept in place, maintained, and repaired when needed until all site servicing and construction have been completed;
- 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;

- Best management practices with respect to sediment and erosion control, stormwater, noise, dust, and light will be undertaken during the construction and operation of the residential development;
- 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 silt fencing described above is to be maintained during the construction period and removed when the site is stabilized;
- Once the silt fencing is in place and as recommended in City of Ottawa (2015) prior to beginning work each day, the work area is 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 or snakes observed in the vicinity of the work area or that may otherwise be in danger are to be safely relocated towards the Mather-Award Ditch 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;
- Many other helpful wildlife oriented mitigation measures are detailed in the City's Protocol for Wildlife Protection during Construction (City of Ottawa, 2015). The contractor is 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 butternut. Appendix 1 of City of Ottawa (2015) describes these species. The project biologist for this development is Bernie Muncaster (613-748-3753). Any Species at Risk sightings are to be immediately reported to the Ministry of the Environment, Conservation, and Parks and work that may impact the species suspended immediately;
- To protect breeding birds, tree or shrub removal should not occur between April 15th and August 15th, unless a breeding bird survey conducted by a qualified biologist 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;
- To discourage wildlife from entering the work areas during construction, the site should be kept clear of food wastes and other garbage, and proper drainage provided to avoid accumulation of standing water, which could attract amphibians, birds, and other wildlife to the work areas;
- Additional native trees are recommended in the regraded areas where the trees will not conflict with the installed storm sewers. Plantings of native vegetation will provide a diversity of natural environment and aesthetic features. Potential native species to plant include nannyberry, ninebark, elderberry and dogwood shrubs along with sugar maple, red maple, basswood, balsam fir, red oak, and white spruce trees. Obtaining native species from local seed sources is strongly recommended to promote adaptability and longevity. There are no planting sensitivities for the site, but it is very important that sufficient soil volumes be provided for the planted trees. For example, where multiple

medium sized trees are to be planted, at least 15 m^3 of high-quality planting soil is to be provided per tree planted. See the City of Ottawa Street Tree Manual for more details;

- 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.

Conclusion

An existing drainage ditch, that conveys stormwater runoff from both 2480 and 2370 Walkley Road into the Mather-Award Ditch adjacent to the southwest portion of the site is proposed to be abandoned and replaced with a 1350 dia storm sewer to permit additional surface parking on 2370 Walkley Road for both cars and truck trailers. Trees have regenerated on the periphery of the site following agricultural activity. These trees are generally undesirable species due to their invasiveness, poor forms and/or limited longevity. No specimen trees were observed and no transplanting is recommended for the site.

Potential tree retention is limited by the expansion of surface parking and associated abandoning of ditch in the east portion of the study area. Associated with the change in drainage, a new storm sewer is proposed to be installed and several rip rap outlets are required. Three areas of proposed tree retention, including the majority of the planted white spruce along the east side and the majority of the northwest cultural woodland. The trees adjacent to the Mather-Award Ditch will be retained except where rip rap outlets are required.

Where feasible native trees and shrubs should be planted.

Reference

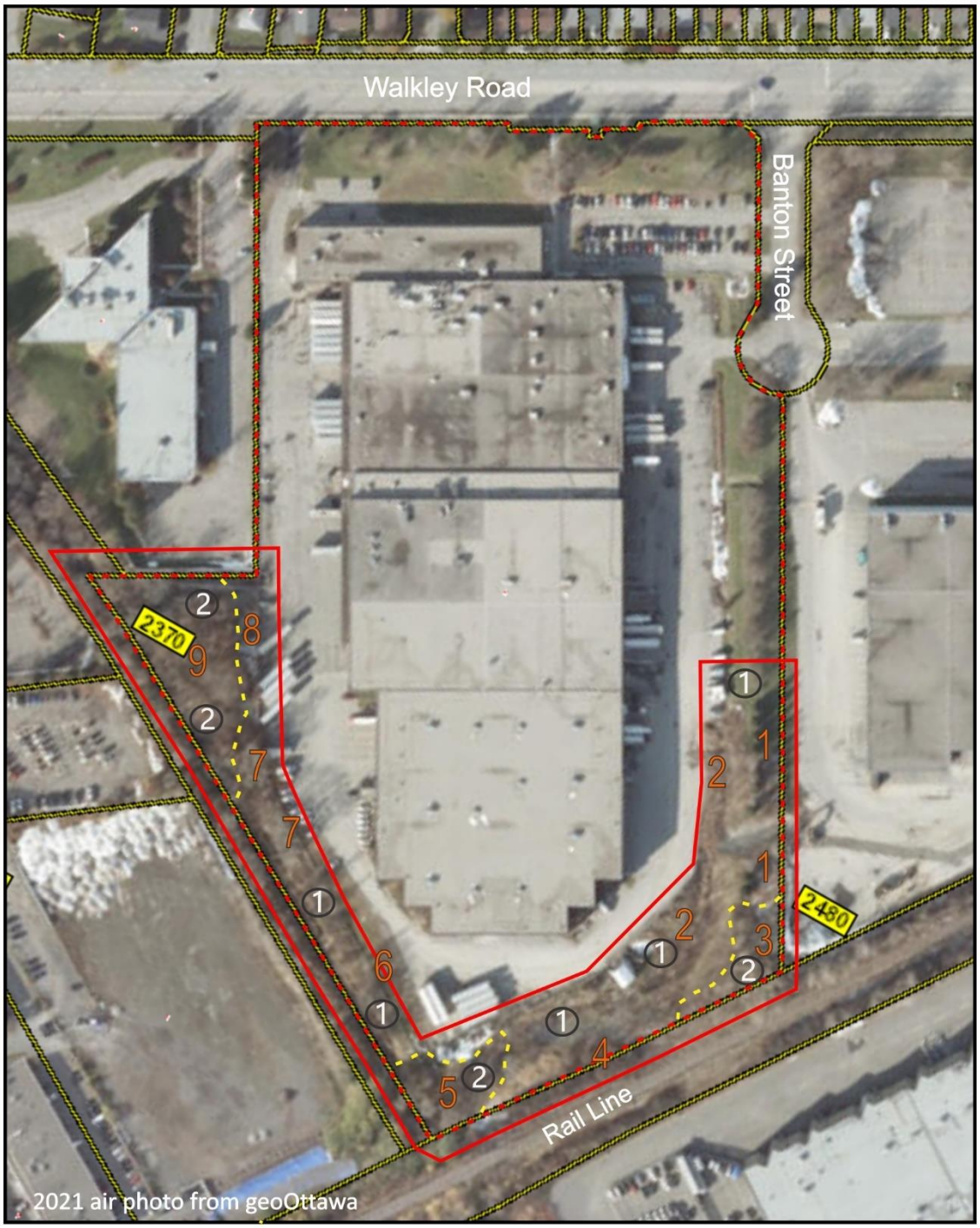
City of Ottawa. 2015. Protocol for Wildlife Protection during Construction. August, 2015. 14 pp & Append.

Please call if you have any questions on this Tree Conservation Report.

Yours Sincerely,
MUNCASTER ENVIRONMENTAL PLANNING INC.

Bernie Muncaster, M.Sc.
Principal

\Walkley Road TCR



Legend

- Overall Site
- Tree Study Area
- 10 Tree Group Number

Vegetation Communities

- 1 Cultural meadow
- 2 Cultural woodland

Approx. Scale 1:2,700

0 25 50 75 METRES

Map 1

FILE: 22 - 23

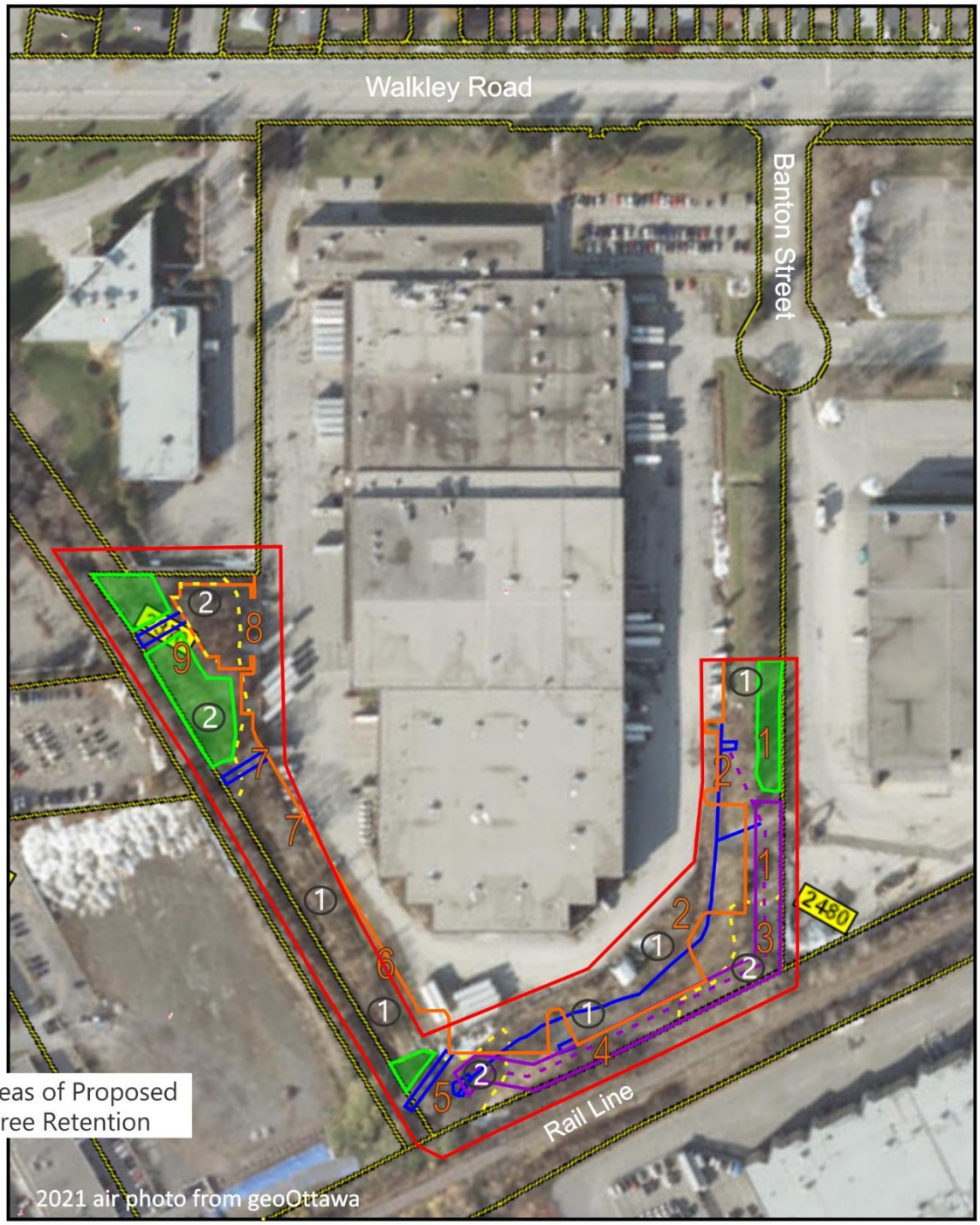
December 12, 2022

EXISTING CONDITIONS
TREE CONSERVATION REPORT

2370 Walkley Road
City of Ottawa

Prepared for: Richcraft Properties Inc.

Prepared by: Muncaster Environmental Planning Inc.



Legend

- 10 — Tree Group Number
- New Limit of Asphalt
- Proposed Areas of Rip Rap
- Ditch to be Abandonned and Areas Regraded
- Proposed Storm Sewer Easement
- Proposed Storm Sewer Alignment

Vegetation Communities

1. Cultural meadow
2. Cultural woodland

Approx. Scale 1:2,700

0 25 50 75 METRES

Map 2

FILE: 22 - 23

December 14, 2022

PROPOSED CONSERVED TREES
TREE CONSERVATION REPORT

2370 Walkley Road
City of Ottawa

Prepared for: Richcraft Properties Inc.

Prepared by: Muncaster Environmental Planning Inc.