

APPROVED MINUTES

Present: Anne Barr
Anne Robinson
Gary Waterfield

Brian Dowdall
Kristin Strackerjan

Staff: Sommer Casgrain-Robertson, General Manager
Laura Cummings, Regulations Enforcement Officer
Terry Davidson, Director Engineering & Regulations
Nick Fritzsche, Regulations Inspector
Marissa Grondin, Recording Secretary
Isabelle Maltais, Natural Hazard Water Resources Engineer

Guests: Karen Sergeant, Landowner
Kim Villa, Landowner's neighbour
Ian Watson, Contractor/Agent

File Number: RV3-59/23
Date Received: August 30, 2023
Revised Date: November 15, 2023

Name: Karen Sergeant
Address: 6079 James Bell Drive, Lot 11, Concession A,
Manotick, City of Ottawa

1. Approximately 30-metre-long armour stone retaining wall of 29" to 48" (2 blocks – 3 blocks) in height has been installed on the slope adjacent to the Rideau River.
2. A staircase 7' wide 13' deep & 2.13 metres in height, consisting of paving stones, has been constructed to replace an existing staircase in a different location.
3. Approximately 19 metres of slope behind constructed armour stone wall has been cut back to a 2.5:1 - 3:1 slope ratio. Slope to be planted with natural vegetation

and covered with appropriate erosion control blanket.

4. The existing interlock surrounding dwelling on table land has been expanded around the eastern side of the dwelling with additional interlock.
5. Existing concrete pad at base of slope has been leveled by the placement of gravel and interlock.

Legal Description of Property:

1. 6079 James Bell Drive, Lot 11, Concession A, Manotick, City of Ottawa

1.0 Roll Call and Introductions

The meeting was officially commenced by Chair Kristin Strackerjan at 7:03 p.m. Sommer Casgrain-Robertson, RVCA General Manager, conducted a roll call for member attendance and invited introductions from staff, applicants, and agents.

2.0 Executive Committee to sit as Hearing Board

Resolution 1B-231214

Moved by:

Brian Dowdall

Seconded by:

Anne Barr

That the Rideau Valley Conservation Authority's Executive Committee sit as a Hearing Board for the purpose of holding a Hearing under Section 28 of the *Conservation Authorities Act*.

Resolution Carried

3.0 Declarations of Interest

There were no declarations of interest.

4.0 Chair's Opening Remarks

Chair Strackerjan outlined the purpose of a hearing under Section 28 (12) of the *Conservation Authorities Act*, R.S.O. 1990 as amended to the applicant and their agent.

- The application is # RV3-59/23
- The properties are located at 6079 James Bell Drive, Lot 11, Concession A, Manotick, City of Ottawa.
- The applicant is Karen Sergeant
- The applications are for

1. Approximately 30-metre-long armour stone retaining wall of 29" to 48" (2 blocks – 3 blocks) in height has been installed on the slope adjacent to the Rideau River.
2. A staircase 7' wide 13' deep & 2.13 metres in height, consisting of paving stones, has been constructed to replace an existing staircase in a different location.
3. Approximately 19 metres of slope behind constructed armour stone wall has been cut back to a 2.5:1 - 3:1 slope ratio. Slope to be planted with natural vegetation and covered with appropriate erosion control blanket.
4. The existing interlock surrounding dwelling on table land has been expanded around the eastern side of the dwelling with additional interlock.
5. Existing concrete pad at base of slope has been leveled by the placement of gravel and interlock.

While our procedures are generally informal, we do require that all evidence be given under affirmation.

The proceedings are governed by the provisions of an Ontario statute called the *Statutory Powers Procedure Act*. Witnesses are afforded protection similar to the protection of the *Ontario Evidence Act*, this means that any statements that you make may not be used against you in subsequent civil matters or in prosecutions against you under a Provincial statute, but it does not apply to federal matters. Under the provisions of the *Canada Evidence Act*, a witness must specifically request protection before answering any question which the witness is concerned may incriminate them. This Tribunal is required to draw this matter to your attention.

None of this relieves the witness of the obligation to tell the truth, since perjury is not included under the protection provided by these federal and provincial statutes.

Our normal practice is to ask staff to proceed first as they have exhibits that will help us understand the location of the property as well as the nature of the issue before us. If you feel there are any special circumstances that need to be considered, please tell us. We rely on you to make us aware of why an exception should be made, if indeed one is required, in this case.

Once sworn, you are free to ask questions or make statements providing all questions are directed through the Chair.

Do you have any objections at this time?

There were no objections.

5.0 Administration of Affirmations

The affirmations were administered by Vice Chair Anne Robinson. Staff members Nick Fritsche, Terry Davidson, and Isabelle Maltais, along with applicant Karen Sergeant, and agents Kim Villa and Ian Watson, were affirmed.

6.0 Presentation by RVCA Staff

Terry Davidson, Director of Engineering and Regulations, introduced file number RV3-59/23 and provided an overview of the following exhibits. A copy of the PowerPoint presentation is attached at the end of the minutes.

Exhibit 1 – Case Overview

- File: RV3-5923
 - Municipal address: 6079 James Bell Drive, Manotick
 - Owner: Karen Sergeant
- Retroactive Revised Development Proposal:
 - “Proposal for Changes to Landscape Project located at 6079 James Bell Drive”
 - “Installation of a Second Row of Armor Stone”
 - “Additional Armor Stone Installed Adjacent to Newly Constructed Stairs”
 - “Installation of Interlock within the Floodplain”

Exhibit 2 – Site Location

The slide illustrates a map encompassing the region of Manotick, Ontario, pinpointing the applicant’s site location and the RVCA office location for contextual reference.

Exhibit 3 – RVCA Hazard Map

Exhibit 3 features an RVCA Hazard Map displaying the regulatory details of ARN: 06141828200210000000, specifically focusing on the property located at 6079 James Bell Drive. The map illustrates key elements such as the delineation of reduced flood risk areas, the City Planning Conservation Authority Boundary, Regulation Limits, 100-year Floodline, Dominant Hazards, and other relevant features. This visual representation provides a comprehensive overview of the regulatory context and hazard characteristics associated with the specified location.

Mr. Davidson stated the following facts in relation to the hazard map;

- The property spans 1356.27 m² or 0.34 acres on the west shore of the Rideau River.

-The shoreline extends approximately 37 meters (121.4 feet) and is fully developed, featuring an approximately 73 m² rectangular concrete pad with some cracks. The shoreline is connected to the watercourse by a vertical concrete wall.

-The 1:100-year floodplain at the site is at 86.86 meters geodetic, and development regulations apply roughly 15 meters from this elevation, following the OMNRF Guidelines for hazard mapping. Notably, the 1:100-year floodplain elevation aligns with the top of the concrete pad toward the slope's toe.

Exhibit 4 – Development Location

Exhibit 4 presents the identical RVCA Hazard Map showcased in Exhibit 3, accompanied by an additional feature that outlines the precise location of the development property. This inclusion provides a contextual reference, integrating the hazard map with the specific site of interest, contributing to a more detailed understanding of the regulatory and hazard aspects relevant to the development. It was noted that the map image is from 2021.

Exhibit 5 – Existing Conditions 1/2 and 2/2

Exhibit 5, part one of two, displays two photographs of the property, submitted by the applicant in August 2023. The left photograph captures the eastern side of the dwelling, facing south, revealing interlock and brick landscaping extending from the front of the dwelling, wrapping around the north side, and ending at the eastern end, approximately in line with the sunroom.

The right photograph features the western side of the shoreline, also facing south. Concrete stairs on the west side of a mature tree provided access to the concrete pad. An existing brick crib surrounded the base of the tree, but it was in poor condition. Mr. Davidson highlighted that the concrete pad on the western shoreline is Federally owned by Parks Canada.

Exhibit 5, part two of two, features two photographs of the property submitted by the applicant in August 2023. The left photograph captures the eastern side shoreline, facing south, while the right photograph showcases the eastern side shoreline, facing southeast.

Mr. Davidson provided an overview, explaining that the slope adjacent to the concrete pad exhibited signs of a previously existing two-tiered wooden retaining wall. By August 29, 2023, most of these wooden walls had been removed. The slope featured mostly non-manicured vegetation, and minimal erosion of fines was noted in areas lacking vegetation. Although minor surficial erosion and weathering from runoff water were observed, they did not suggest significant slope instability. Importantly, current residence foundations were not dependent on the retaining structure and were adequately setback, ensuring they would not be compromised by any potential instability or failure of the slope or retaining wall.

Exhibit 6 – Initial Application Submission – Submitted August 24, 2023

Exhibit 6 depicts agent submitted photos of the applicant's application for "Development, Interference with Wetlands and Alterations to Shorelines and Watercourses" Ont. Reg. 174/06. Signed by Karen Sergeant and Ian Watson and dated August 10, 2023.

Quoted directly as specified in the application, the purpose of the work is for:

"Repair foundation of existing house – re-do existing interlock, build new stairs (where existing stairs were, build new retaining wall due to old wall has failed"

; with a completion date of October 1, 2023, and no start date stated on the document.

Exhibit 7 – Existing Conditions on August 29, 2023

Exhibit 7 presents three images capturing the existing conditions on the site, taken during a staff visit on August 29, 2023. Mr. Davidson explained in detail the following;

It was discovered that development work had commenced within the regulated area without obtaining a permit. Despite the submission of an application from the agent and an authorization letter from the landowner, neither had received approval nor a permit. RVCA staff informed the applicant and agent about the requirement for development plan drawings and directed them to consult the minimum application requirements document for guidance.

In the left photograph, a raised concrete sill of four to six inches in height was installed on the concrete pad. The middle image shows the dismantling of the brick crib and stairs, while the right photograph reveals regrading and vegetation removal on table lands without proper authorization.

During the site visit, staff determined that the aforementioned work was unnecessary, as the site conditions could accommodate measures like regrading, re-naturalization, or bioengineering erosion mitigation to effectively address minor erosion issues and limit the risk of instability. Additionally, evidence of a previous retaining wall constructed with wooden railway ties led staff to conclude that there was an opportunity to re-naturalize the slope.

Exhibit 8 – Initial Site Plan Submission – Submitted August 30, 2023

Exhibit 8 presents the initial site plan submitted by the applicant on August 30, 2023, in response to the initial site conditions outlined in Exhibit 7. Mr. Davidson elaborated; staff conducted a review of the drawing and identified inconsistencies in dimensions, along with a lack of geodetic elevations.

On August 31, 2023, Nick Fritzsche, a staff member, contacted Ian Watson to request additional information.

Exhibit 9 – Initial Cross section Submission – Submitted August 30, 2023

Exhibit 9 presents the initial site plan submitted by the applicant on August 30, 2023, from a cross section point of view.

Exhibit 10 – Initial Grading Plan Submission – Submitted August 31, 2023

Mr. Davidson presented exhibit 11, the applicant's initial grading plan submission. He explained that after Mr. Fritzsche's request for additional information on August 30, 2023, Mr. Watson submitted an inadequate grading plan, which lacked geodetic elevations.

On September 14, 2023, RVCA staff convened to review the submitted plans. A meeting was scheduled for September 18, 2023, involving RVCA staff and the applicant's agent, to address concerns raised by RVCA and explore potential solutions.

Exhibit 11 – 6079 James Bell Drive – September 14, 2023

Mr. Davidson outlined the events that took place on September 14, 2023, noting that during on site visits, RVCA staff observed work in progress at 6079 James Bell Drive without permit approval. Excavation on the slope, directly adjacent to the Rideau River, was observed with no sediment control measures in place, the shoreline was noted to be stripped of vegetation.

The photograph in exhibit 11 showcases an excavator on site and the shoreline stripped of vegetation.

Exhibit 12 – Notice of Violation – September 15, 2023

Mr. Davidson outlined the actions taken by RVCA staff to issue the Notice of Violation to Karen Sergeant and Ian Watson. On September 15, 2023, RVCA staff issued a notice of violation to the property owner and agent to halt work without a permit from continuing.

Mr. Davidson further explained that on September 18, 2023, a meeting took place between staff and the agent. Following the meeting, amendments were requested to bring the design to a point where it could be approved at staff level.

RVCA staff requested the following:

- Lot grading plan prepared by Professional Engineer or Ontario Land Surveyor

- Site Plan prepared by a Professional Engineer.
- Clarification of inconsistencies in the agent's drawings and a detailed view of how the floodplain affected the property.

Exhibit 13 – Amended Site Plan Submission – Submitted September 25, 2023

Exhibit 13 depicts an amended site plan from a bird's eye view perspective, showing regulated 100-year flood levels based on November 20, 2018, ground elevations.

Mr. Davidson explained that following the meeting on September 18, 2023, the agent submitted amended drawings on September 25, 2023, bringing the design closer to expectations, though staff concerns persisted.

On September 28, 2023, RVCA staff engaged in discussions regarding the amended drawings, leading to a decision on the design direction that could receive approval.

By September 29, 2023, RVCA provided the agent with detailed requests for amendments to achieve a design that would be approvable at the staff level. A concession was made, allowing for the use of 200mm landscape blocks at the toe of the slope instead of a fully naturalized solution.

Exhibit 14 – 6079 James Bell Drive – October 5, 2023

Mr. Davidson explained that on October 5, 2023, staff observed work without permit approval.

The slide shows an image of the site with landscaping excavating machines on the property and the changes outlined below.

Despite previous warnings, staff observed ongoing work on the site without approval, noting the use of two blocks of armor stone instead of the agreed-upon eight-inch landscape blocks. Staff issued a reminder to the agent and applicant, referencing the Notice of Violation and emphasizing the need to halt work until approval was obtained. In response to the reminder, the agent contacted staff, requesting a meeting. A meeting was scheduled for October 10, 2023.

Exhibit 15 – Approved Site Plan – Approved October 12, 2023

The slide shows a bird's eye view of the approved site plan.

Mr. Davidson explained that on October 10, 2023, the agent and applicant met with RVCA staff, during which staff outlined requirements concerning the retaining wall design and slope grading. After the meeting, the agent submitted updated drawings; however, staff noted the need for additional information, including geodetic elevations, existing and proposed grades, dimensions, and erosion control measures.

On October 11, 2023, the agent and a member of his staff visited the RVCA office in Manotick, working on the drawings until the end of the day. RVCA approved the proposed design submitted on October 11, 2023, and a Letter of Permission (LoP) was provided on October 12, 2023. The LoP was signed by the property owner and returned on October 15th.

Exhibit 16 – Approved Cross Section – Approved October 12, 2023

The slide shows a cross section of the approved site plan noted in exhibit 15.

Exhibit 17 – Letter of Permission – Issued October 12, 2023

The slide shows the Letter of Permission under Ont. Reg 174/06 S. 28 of the *Conservation Authorities Act*, sent to the applicant on October 12, 2023.

Mr. Davidson explained that on October 15, 2023, the property owner, Karen Sergeant, signed and returned the Letter of Permission (LoP).

On October 17, 2023, Agent Ian Watson requested an Executive Committee Hearing. In response, Mr. Fritzsche provided information on the formal appeal process, indicating that the agent would need to submit a revised design. Only if the design is deemed not approvable at a staff level could the proposal proceed to a Hearing. On October 18, 2023, Ian Watson requested an RVCA visit to 6079 James Bell, and a meeting was set for October 19th.

Exhibit 18 – October 19, 2023 Site Visit

The presentation slide includes textual information and three images capturing the development site during the planned visit on October 19, 2023. Mr. Davidson spoke to the slide; RVCA staff confirmed that the completed works on site exceeded the scope of the design approved in RV3-59/23 Letter of Permission issued on October 12, 2023. Non-conforming elements included stairs, the armour stone wall, and the arrangement of armour stone around a tree. Additionally, gravel and interlock were observed on the concrete pad.

Mr. Davidson provided further details, stating that on November 10, 2023, revised drawings and a Proposal of Amendments document were submitted. However, RVCA staff noted that the revised drawings did not accurately reflect the development at 6079 James Bell Drive and exhibited inconsistencies. RVCA staff set a deadline for completed revised drawings by November 14, 2023, to proceed to the December 14, 2023 hearing date.

Exhibit 19 – Submitted Retroactive Revised Site Plan

The slide shows a bird's eye view perspective of the retroactive revised site plan as submitted by the agent.

Mr. Davidson elaborated on the revised proposal, as outlined in the site plan submitted on November 15, 2023. The plan includes a vertical armour stone wall approximately twenty-three (23) meters long, ranging from twenty-nine to forty eight (29 to 48) inches in height, positioned about thirteen to eighteen (13 to 18) feet from the shoreline. Another eighteen (18) inch, sixty-two (62) feet long armour stone wall is proposed along the southern edge of the property. Additional interlock hardscaping extends past the eastern edge of the dwelling, reaching up to the crest of the slope in some areas.

The proposal also entails the removal of existing stairs, replaced by new stairs in a different location. The new stairs are supported by adjacent tapered armour stone walls, reaching up to five (5) stones high. The deteriorated brick crib, which previously housed a tree, has been removed and replaced with a larger armour stone crib. The shoreline-facing vertical wall of this crib is forty-eight (48) inches tall and is positioned thirteen (13) feet from the shoreline. Tapering up to five (5) stones high, it meets the table land at an elevation of eighty-eight point eight (88.80) meters geodetic, approximately two point thirteen (2.13) meters tall.

Exhibit 20 – Submitted Retroactive Revised Cross-Sections

The slide shows a cross section view of the submitted retroactive revised site plan.

Mr. Davidson elaborated on the details of the retroactive revised site plan, elucidating that the submission includes a cross-section diagram outlining the placement of the armour stone on the existing concrete pad. The diagram illustrates plans to taper the armour stone wall to a height of four to five stones. Furthermore, the drawing specifies the addition of a new concrete paver on the existing concrete pad, featuring approximately four to six inches of gravel covered by interlock paver stones atop the concrete pad.

Exhibit 21 – Retroactive Revised Project Description

Mr. Davidson read the following text which was displayed on the slide for exhibit 21;

- The installation of an approximately 62' feet long armour stone retaining wall of 29" to 48" (2 blocks – 3 blocks) in height at toe of slope adjacent to the Rideau River.
- Install 7' wide, 13' deep access stairs and relocate to opposite side of tree. The relocated stairs are approximately 6' 11 ³/₄" (2.13 metres) in height.
- Install armour stone adjacent to the relocated stairs.
- Install armour stone wall surrounding mature tree.
- Approximately 62' (19 metres) of existing slope behind proposed wall to be cut back to a 2.5:1 - 3:1 slope ratio. Slope to be planted with natural vegetation and covered with appropriate erosion control blanket.

- The existing interlock surrounding dwelling on table land to be expanded around the eastern side of the dwelling with additional interlock.
- Leveling out of existing concrete pad with new gravel and interlock installed on concrete pad.

Exhibit 22 – Current Condition

Exhibit 22 displays a photograph capturing the current site conditions at 6079 James Bell Drive, taken by RVCA staff on November 30, 2023.

During the presentation, Mr. Davidson, with permission from the Chair, approached the screen and indicated the unapproved changes in the photograph. He emphasized that the entire development falls within the regulated zone as the regulation limit extends through the house. Mr. Watson interjected, asserting that there will be natural vegetation. However, Mr. Davidson clarified that the concrete pad falls under the jurisdiction of Parks Canada, and RVCA has no authority over that area.

The next slide, as part of Exhibit 22, is a comparison of the application, file number RV3-59/23, of the previously approved application on October 12, 2023 to the revised application dated November 15, 2023.

Mr. Davidson read the comparison depicted in the PowerPoint presentation;

“RV3-5923 Previously Approved Application on October 12, 2023

- Armour stone retaining wall (single block) 15” in height, 62’ in length along the toe of the shoreline slope
- Armour stone wall tapering to 69” (4 blocks) high to stabilize slope on eastern side of property
- Armour stone wall 48” (3 blocks) high to replace existing brick crib around tree on west side of shoreline
- Install 7’ wide by 6’ 11 ³/₄” high access stairs (location of stairs changed to opposite side of tree)
- 62’ of slope behind armour stone wall to be cut back at a 2.5:1 – 3:1 slope, planted with natural vegetation and covered with erosion control blanket

RV3-5923 Revised application dated November 15, 2023

- Additional armour stone 17” in height, 62’ in length – total height of wall is now 29” – 32”
- Additional fill added to slope to backfill higher armour stone wall
- Same
- Armour stone wall up to 5 blocks in height
- larger than previous brick crib structure
- Armour stone abutting stairs
- Area to be planted has been reduced due to height of wall and hardscaping on the tableland, including approximately 85 square metres of interlock

- Extension of 18" high, 69' long armour stone retaining wall to connect with shoreline retaining wall which splits the table land into two parts
- 4" to 6" gravel and interlock has been installed on the concrete pad (7.4 cubic metres of fill)"

Exhibit 23 – Issues with Revised Proposal 1/3

Exhibit 23 part one of three contains the following text;

- Conservation of Land
 - **A net environmental gain** should be achieved in matters associated with on-site natural heritage features, such as riparian zones.
 - More sustainable erosion mitigation techniques are feasible at the site.
- Conservation of Land
 - is the protection, management or restoration of lands within the watershed ecosystem for the ***purpose of maintaining or enhancing the natural features*** and ecological functions and hydrological functions, within the watershed.

Mr. Davidson emphasized that the concept of Conservation of Land encompasses all facets of the physical environment, including terrestrial, aquatic, biological, botanical, and air components, as per the court's definition in the case of 611428 Ontario Ltd vs. Metropolitan Toronto and Region Conservation Authority. By this definition, Conservation of Land involves maintaining or enhancing the natural features, ecological functions, and hydrological functions of the shoreline area within the watershed. Under RVCA policy, there is a stipulation for achieving a net environmental gain in matters related to natural heritage features, such as the riparian zone of the Rideau River, where this development has occurred.

Contrary to the current approach of implementing armour stone walls and hardscaping, Mr. Davidson suggested that more sustainable erosion mitigation techniques, such as regrading, naturalization, or bio-engineering, could be considered for the site. These measures have the potential to stabilize the slope and mitigate erosion risks without the necessity of a hardscape retaining wall. He further noted that the existing residence foundations are not reliant on the retaining wall structure, and they are adequately set back from the slope, ensuring that they would not be compromised by any instability or failure of the slope or retaining wall. Consequently, the wall was deemed unnecessary for the stability and safety of the dwelling.

Exhibit 23 – Issues with Revised Proposal 2/3

Exhibit 23 part two of three contains the following text;

- Existing conditions on site with respect to erosion do not warrant the type/size of retaining wall that has been constructed.

- Based on preliminary evaluation of the slope stability and erosion hazards at the site from a geotechnical perspective, staff concluded that the use of hardscape retaining wall was not required.
- Precedent set for development on the Rideau River for unnecessary hardscaping when natural solutions are available.
 - Such as naturalization, regrading, or bio-engineering erosion mitigation techniques.

Mr. Davidson added that toe erosion from the watercourse is an improbable cause for the site's previous conditions, given that the lower concrete structure provides the primary erosion protection. He emphasized that the minor erosion observed on the slope is more likely attributed to the natural degradation of the wooden retaining walls and runoff from precipitation. In response to these sources of erosion, sustainable erosion mitigation techniques, rather than an armour stone retaining wall and hardscaping, could be effectively employed.

Considering that the site mainly consists of clay sediment, which is generally resistant to erosion, Mr. Davidson suggested that measures such as re-sloping, naturalizing, or implementing bioengineering techniques from a geotechnical perspective would likely be sufficient to address the observed surface erosion.

Exhibit 23 – Issues with Revised Proposal 3/3

Exhibit 23 part three of three contains the following text, and is accompanied by two images of the site, taken by RVCA staff on October 19, 2023.

Location of Proposed Development

- Additional hardscaping proposed located entirely within 30-metres of the Rideau River.
- Fill proposed within 1:100-year floodplain.
 - Precedence set by this development has significant cumulative impact potential on floodplain storage along the Rideau River.

Pollution

- Proposed additional hardscaping increases sheet runoff volume and may cause increased erosion.
 - Increased sheet runoff can bring additional nutrient loading into the river.

Mr. Davidson emphasized that the larger armour stone crib and the armour stone abutting the access stairs are instances of unnecessary additional hardscaping from an erosion control and slope stability perspective. He highlighted that such additions increase the potential for sheet runoff on the site.

Furthermore, he pointed out that the installation of four-to-six-inch (4 to 6) gravel and interlock on the concrete pad resulted in approximately seven point four (7.4) cubic meters of fill being added within the 1:100-year floodplain. While this volume may not individually pose a significant impact on floodplain storage, Mr. Davidson stressed the precedent set by this development for shoreline

development on the Rideau River, potentially leading to cumulative impacts on floodplain storage.

Regarding the use of interlocked pavers at the top of the slope, Mr. Davidson raised concerns about limiting infiltration and inducing uncontrolled runoff water from precipitation. He recommended implementing stormwater control measures, such as permeable surfaces or rain gardens, to capture and slow down runoff water, thus reducing its erosive potential. This recommendation implies revisiting or reducing the use of interlocked pavers to mitigate the increased volume of runoff water.

In conclusion, Mr. Davidson underscored the importance of carefully evaluating the potential consequences of multiple properties implementing hardscape or fill within the 1:100-year floodplain elevation. Such actions can have negative impacts beyond a single property, affecting the entire river geomorphological process. Hence, a thorough assessment is crucial before deciding to implement hardscape retaining walls.

Exhibit 24 – Geotechnical Memo 1/3

Exhibit 24 showcases pages one, two and three of the Technical Review Memorandum, conducted on December 4, 2023, by RVCA staff member Isabelle Maltais, P. Eng., who serves as RVCA's Natural Hazard Water Resources Engineer.

Exhibit 24 – Geotechnical Memo 2/3

Exhibit 24 showcases pages four and five of the Technical Review Memorandum.

Exhibit 24 – Geotechnical Memo 3/3

Exhibit 24 showcases pages six and seven of the Technical Review Memorandum.

Mr. Davidson summarized the letter; our geotechnical assessment indicates that the implementation of a hardscape retaining wall was not essential to address the identified structural stability and erosion concerns at the site. The slope has demonstrated satisfactory stability and can be appropriately addressed through alternative approaches such as regrading, naturalization, and bioengineering. Additionally, the observed erosion problems seem to stem primarily from the deterioration of the former wooden retaining walls and runoff water from the slope.

Exhibit 25 – Notification Letter November 17, 2023 1/2

Exhibit 25 showcases pages one and two of the Notice of Application Review letter under Ont. Reg 174/06 S. 28 *Conservation Authorities Act* 1990, As Amended, sent to the applicant on November 17, 2023.

Mr. Davidson clarified that the revised drawings submitted on November 15, 2023, were found to be inadequate in meeting RVCA's policy documents. Despite efforts to address outstanding details, the submission did not align with the policy letter, and as of November 17, 2023, RVCA staff determined that approval could not be granted at the staff level.

Exhibit 25 – Notification Letter November 17, 2023 2/2

Exhibit 25 showcases page three of the Notice of Application Review letter under Ont. Reg 174/06 S. 28 *Conservation Authorities Act* 1990, As Amended.

Policy Implications

Mr. Davidson reviewed the following policy implications;

- The information received in the application was reviewed under RVCA's Development Policies which the Conservation Authority administers under Section 28 of the Conservation Authorities Act.
- Specifically, this application was reviewed under:
 - Section 1.1 *General Principles*
 - Section 2.0 *Policies Regarding Placing of Fill*
 - Section 2.7
 - Section 3.0 *Policies Regarding Alterations to Waterways Applications*
 - Section 3.1
- Certain aspects of the retroactive revised development proposal **do not meet** criteria outlined in RVCA's development policy.

Conservation Authorities Act – Section 28

Mr. Davidson reviewed the following section from the *Conservation Authorities Act*;

28.1 (1) An authority may issue a permit to a person to engage in an activity specified in the permit that would otherwise be prohibited by section 28, if, in the opinion of the authority,

- a) The activity is not likely to affect the control of flooding, erosion, dynamic beaches or pollution or the conservation of land.*

Ontario Regulation 174/06, Development Prohibited

Mr. Davidson cited the following Ontario Regulation 174/06;

2. (1) *Subject to section 3, no person shall undertake development or permit another person to undertake development in or on the areas within the jurisdiction of the Authority that are,*
- b) *river or stream valleys that have depressional features associated with a river or stream, whether or not they contain a watercourse, the limits of which are determined in accordance with the following rules:*
- i. *where the river or stream valley is apparent and has stable slopes, the valley extends from the stable top of bank, plus 15 metres, to a similar point on the opposite side*
3. (1) *The Authority may grant permission for development in or on the areas described in subsection 2 (1) if, in its opinion, the control of flooding, erosion, dynamic beaches, pollution or the conservation of land will not be affected by the development. O. Reg. 174/06, s. 3 (1).*

RVCA Local Development Policy 1/4

Mr. Davidson referred to the following Development Policies;

Section 1.1 General Principles

- *1.1 The Authority's consideration of all applications for permission to construct buildings and structures and to place fill or undertake site grading or to alter a waterway will be guided by the following principles of flood plain and watershed management:*
 - a) *New development must not, in the opinion of the Authority, have the result of polluting or contributing to the pollution of the abutting watercourse nor will new development be permitted which will adversely affect the Authority's interest in terms of the conservation of land.*
 - b) *Development is to be set back a minimum distance of 30 metres from the normal high-water mark of a water course. Additionally, where there is a defined bank, development shall be no closer than 15 metres from the top of the bank.*

RVCA Local Development Policy 2/4

Mr. Davidson referred to the following Development Policies;

Section 2.0 Policies Regarding the Placing of Fill

- *2.0 Within the allowance of the regulatory floodplain described in Section 1.6 site grading or fill placement or removal may be permitted provided it will not have an adverse effect on the control of flooding, erosion, pollution, or the conservation of land.*
- *2.7 General Provisions*
 - a) *Matters related to the conservation of land shall be addressed such that a **net environmental gain** shall be achieved associated with on-site natural heritage features (wooded areas, riparian zones, wildlife habitat, etc.)*

RVCA Local Development Policy 3/4

Mr. Davidson referred to the following Development Policies;

Section 3.0 Policies Regarding Alterations to Waterways Applications

- *The Conservation Authority's primary interest is the **preservation of natural channels which perform natural functions and the restoration of such natural functions where degradation has occurred.** Altering, straightening, changing, diverting or interfering with the channel of any natural watercourse in the Authority's area of jurisdiction must meet the following requirements.*

RVCA Local Development Policy 4/4

Mr. Davidson referred to the following Development Policies;

Section 3.1

- (i) *Shoreline protection/improvement projects must meet the following criteria:*
 - b. *Transitions from **proposed protection to adjacent shorelines must be designed so that local erosion, debris accumulation or undesirable changes in local currents will not occur.***
- (ii) *Shoreline alteration and disturbance related to the provision of water access or viewing points including docks, boathouses, boat launch ramps, boat lifts, mooring points, decks, gazebos etc. must not result in a cumulative disturbance of more than 25% of the width (river frontage) of the property to a maximum of 50 feet (15.24 metres) whichever is less. The balance of the lot frontage will be left undisturbed in a state of nature.*

RVCA Strategic Plan

Mr. Davidson referred to the Rideau Valley Conservation Authority's Strategic Plan;

*Our Vision: A thriving watershed with clean abundant water, **natural shorelines**, rich forests and wetlands, diverse habitat and sustainable land use that is valued and protected by all.*

Summary

Mr. Davidson provided the following summary;

The development proposal cannot be approved at a staff level due to the following reasons:

1. The granting of permission will be inconsistent with the approved Development Policies, Sections 1.1, 2.0, 2.7, 3.0 and 3.1, as amended and approved by the RVCA Board of Directors, February 2018; specifically:
 - a. Development entirely within the 30-metre setback of the Rideau River without any net environmental gain for the riparian zone.

- b. Fill within the 1:100-year floodplain resulting in adverse impact for flood control due to cumulative loss of floodplain storage capacity.
 - c. Adverse impact with the respect to pollution control due to reduced infiltration and increased runoff from hardened surfaces.
 - d. Increased erosion potential due to sheet runoff and on adjacent shorelines.
2. The granting of permission will set a precedent for shoreline development and hardening on the Rideau River.
3. The project is inconsistent with the principles of conservation of land because it removes natural shoreline functions.

7.0 Presentation by Applicant / Agent

Mr. Watson, the applicant's agent provided background information on Karen Sergeant's home purchase on the Rideau River. He highlighted ongoing discussions with Ms. Sergeant over the past year to make the home livable. Referring to RVCA's Exhibit 5, he emphasized that the concrete pad remained untouched but had cracked and shifted over time. Mr. Watson clarified that the original proposal involved using concrete interlock to maintain the natural vegetation hanging over the sitting area with a firepit. The intention was not to create a new waterfront but to restore it to the way it was before deterioration.

Mr. Watson asked Mr. Fritzsche to open RVCA Exhibit 5 1/2, and discussed the evidence of a two-tier structure, which he considered an eyesore. Mr. Watson explained that they had initially proposed another two-tier retaining wall but compromised on a single tiered wall. After the first row of rocks, they found the slope still steep and added another row, deviating from the agreed upon plan. During a site visit with Mr. Fritzsche and another RVCA staff member and Section 28 Inspector, Matt Jokiel, Ms. Sergeant expressed concerns over the steep slope, however, staff rejected the installed second row of armour stone. Mr. Watson argued for reinstating the two-tier structure, citing the previous existence of partially visible remnants of a deteriorated structure. He emphasized the need to restore it for Ms. Sergeant family to use in the ways they want to.

Mr. Watson further explained that Ms. Sergeant had experienced water issues in the basement of the dwelling, leading to the need for excavation around the foundation of the dwelling. The City of Ottawa confirmed no permit was needed to proceed with excavating. The existing interlock, reaching the patio door and top of the foundation, caused water-related problems in the basement. The modifications were made to address this issue. Concerns about water in the basement prompted discussions with RVCA staff member Laura Cummings, Regulations Officer.

Mr. Watson referred to a new photo, RVCA's Exhibit 22, noting that the retaining wall remained the same, with the addition of a cap. The existing concrete was uneven, preventing its use, and a two-tier retaining wall was transformed into a slope. A retaining wall was deemed necessary to prevent soil erosion around a mature tree. Additional elements like stairs

and interlock for a hot tub were included in response to Ms. Sergeant's requests, with planned vegetation as per RVCA recommendations. Mr. Watson affirmed their commitment to respecting RVCA guidelines and ensuring compliance.

The applicant's neighbour to the south, Kim Villa, gave a statement;

Kim Villa expressed concerns regarding the waterfront slope on her property, located south of the applicant's property, emphasizing her adherence to all RVCA rules and regulations during the time of her own property development. She elaborated that she implemented erosion control techniques with layers of mesh and straw, along with strategic planting, two summers ago, at the request of RVCA staff. However, dealing with the steep slope posed significant challenges to weeding and landscaping her yard, stressing that maintenance of her slope poses a danger to her personal safety. She then went on to further explain the procedure that took place on her property by stating she installed rip rap, composed of Rosetta stone (prefab concrete), which was initially recommended instead of natural stone like armour stone. Despite following guidelines, the rip rap proved ineffective, leading to her perception of erosion on her property's slope.

Ms. Villa highlighted the struggle to maintain the waterfront's safety and vegetation, noting that the RVCA recommended solutions were not proving sustainable. The insistence on using Rosetta stone instead of natural stone added to the frustration. Despite seeking approval for larger stones through a structural engineer's report, the challenges persisted. Ms. Villa expressed concern about the long-term sustainability of the current approach to Ms. Sergeant's property, emphasizing the increasing cost of fixing issues caused by following RVCA's approved recommendations based on her own experiences. Ms. Villa's statements lacked scientific data, design plans, or supporting photos to substantiate her claims. The RVCA did not provide comment on Ms. Villa's statements, and her file was separate from the one presented at the current Hearing.

The homeowner and applicant, Karen Sergeant then gave a statement.

Karen Sergeant addressed her application, highlighting the condition of the home she purchased on the river, which required various repairs. She emphasized the existence of a deteriorated retaining wall that was not initially visible due to overgrowth. Ms. Sergeant acknowledged the previous owners, mentioning a wooden retaining wall with eight-by-eight-foot (8' x 8') posts, likely constructed with railway ties. Desiring a natural stone replacement, Ms. Sergeant sought to enhance the property's appearance and prevent runoff from affecting the pier. She noted that she refers to the concrete pad as 'the pier'.

Ms. Sergeant clarified that the changes made, including the addition of interlock, aimed to address safety concerns due to the deteriorating condition of the existing features. She emphasized the preservation of the

river environment and protection against erosion, asserting that the current state is an improvement over the previous overgrown vegetation. Ms. Sergeant explained her need for a low-maintenance space, particularly after her husband's passing from lung cancer in 2021, making her a single mother. The project was driven by her desire to create a pleasant space for her children and herself to enjoy, contributing to her mental health recovery.

Expressing disagreement with RVCA's objections to the submitted plans, Ms. Sergeant requested acceptance by the RVCA Hearing Board of the development changes so that she can move forward and enjoy the space as a family, as she did not want to remove any work that had already been done. She thanked the committee for their time and expressed appreciation for any assistance in resolving the matter.

8.0 Discussion

Mr. Dowdall, referenced RVCA Exhibit 22 and inquired about the four rows of flagstone on the revised plan, questioning whether they were approved in the Letter of Authorization. Mr. Watson clarified that the four rows were included in the submitted drawing, emphasizing the need for them due to the presence of a shed. He explained that the wall was necessary to retain the shed, preventing it from ending up in the river. When asked about the height of the long row of stones, Mr. Watson indicated that it was two high, contrary to RVCA's suggestion of one high. He further noted that an additional row, initially removed based on RVCA's advice, was deemed necessary after realizing the steepness of the slope. Mr. Watson explained the constraints of the small yard, expressing the challenge of creating a sitting area at the top without the additional retaining wall.

Ms. Villa, noting that she wished there was a photograph with a wider shot to depict more of her property, contributed to the discussion, noting that even with her longer backyard, the presence of one row of concrete stone contributes to a steep slope. This observation highlighted the challenges in managing the slope and the need for careful consideration in retaining wall design to address these concerns effectively.

Chair Strackerjan asked for the Executive Committee members to specifically address the person they wish to answer their questions.

Mr. Waterfield asked Mr. Watson to share his professional background, history and experience working on waterfront properties. Mr. Watson emphasized his early start at the age of fourteen and his education in horticulture technology at Algonquin College. He currently owns a landscaping store in Carleton Place and has experience working on waterfront properties, though not extensively. Mr. Watson acknowledged receiving valuable assistance from RVCA staff and highlighted his expertise in interlock retaining walls construction. He also mentioned the challenges of competing with professionals such as Deep Shore Marine Contracting, who work off a barge to conduct their shoreline landscaping

work.

Mr. Waterfield posed a second question, asking Mr. Watson if he felt he could have consulted more with the RVCA or if he considered the consultation sufficient. Mr. Watson responded that there could have been more consultation and mentioned calling RVCA to get their opinion and to better understand what development is prohibited on this property. He highlighted Mr. Fritzsche's visit on day one, emphasizing the desire to restore what was already present. Mr. Watson acknowledged the need for drawings and engineers in the future, expressing awareness gained from this experience. He humorously referenced his employee's extensive effort of staying at the RVCA office for 8 hours until the drawings met all specifications as outlined by RVCA staff, noting the employee's desire not to return to Mexico.

Ms. Barr inquired about Isabelle Maltais's findings regarding the shoreline slope and its overall height. She asked if the values had been altered during the work and commented on the stability of a 2:1 slope. Ms. Maltais stated that the overall slope angle was calculated from the toe of the concrete wall to the crest of the slope and was at about 18 degrees. This is lower than a 3 Horizontal:1 Vertical slope. Ms. Maltais stated that it is inherently stable on its own and would not affect the stability of the existing dwelling foundation.

Ms. Robinson sought clarification from Mr. Davidson on what needs to be removed to align with the approved submitted plan. Mr. Davidson referred to Exhibit 22 and specified that the north section, including the row above the tree and the stones along the stairs, was not approved. Additionally, the row of armour stone along the concrete abutment, the stepped wall, the wall along the south property line, and the paving stones in front of the dwelling were not approved despite being in the drawing. The paving stones and additional fill on top of the concrete abutment cannot be approved as they are located on lands owned by Parks Canada, and completely within the floodplain.

Mr. Waterfield directed his question to Mr. Davidson and inquired about the practicality of removing the completed work. Mr. Davidson explained that the completed work has altered the slope, making it challenging to remove selectively, in addition, heavy equipment will be required to drive along the north end of the property to get to the areas that need to be removed. Ms. Sergeant interjected, mentioning that access was initially through the south side (Kim's side). Ms. Villa added, but now her property has been graded and the fence replaced, making access that way no longer feasible. Mr. Watson added that they had to excavate along the house due to water issues and had to fix the foundation.

Mr. Dowdall asked Mr. Fritzsche about his initial site visit. Mr. Fritzsche referred to Exhibit 7, explaining that the applicant had reached out to the Landowner Resource Center (LRC) ahead of the work. The LRC arranged a pre-consultation site visit, and during this visit, they observed that work had begun without permit approval. Heavy equipment, such as

a Kabota, was used to strip the land of vegetation, and they noticed the installation of a raised concrete sill along with changes to the brick crib.

Ms. Barr inquired about permeable materials, directing the question to Mr. Davidson. Mr. Davidson clarified that achieving permeability involves a system of materials, not just a single layer. The system typically includes various layers, such as underdrains, to collectively achieve the necessary permeable characteristics.

Chair Strackerjan sought clarity on the timeline of events and pointed out that it seemed like work had commenced before the application was approved. Mr. Watson responded, explaining that they started work on the foundation, believing that if they were working back from the water and dealing with existing structures, they did not require a permit. Mr. Watson expressed that they were not aware of the requirement for a permit when they started the work. He acknowledged a lack of experience and mentioned consulting with Deep Shore Marine Contracting, who informed them about potential fines if they continued development work within the regulated zone without a permit from the RVCA. He mentioned that Ms. Sergeant had paid for the application, assuming the application served as the permit. He stated that the RVCA contacted the City of Ottawa, suspecting that a permit might be needed for the foundation work, but it turned out not to be the case.

Chair Strackerjan directed her next question to Mr. Davidson, inquiring about the Parks Canada owned area of the property, and whether they are aware of the situation and how they are proceeding. Mr. Davidson confirmed that Parks Canada is aware of the situation.

Chair Strackerjan asked about the slope, the type of vegetation, and whether that is part of the process the RVCA has advised. Mr. Davidson explained that the RVCA shoreline naturalization program includes a list of suitable plant species, and shoreline staff were out to the site to discuss options with the property owner. Regarding the age of the wall, Ms. Villa mentioned that the previous owner and his father built it when they first constructed the house in the 1980's.

Mr. Dowdall asked Mr. Watson about the signing of the letter of permission and requested clarification. Mr. Watson and Mr. Davidson both clarified that they did sign the letter of permission.

Chair Strackerjan asked Mr. Davidson to review the timeline of the submitted applications. Mr. Davidson provided an overview of the timeline, outlining the key events from the initial site plan to the request for the Hearing.

Ms. Casgrain-Robertson clarified that the permit that was issued was not for the work that is on site now. This Hearing seeks approval for the work that was done after the permit was issued. Staff approved a scaled back version and now the request is for approval of the current state of the site.

Mr. Watson spoke up to state that it seems like we are arguing over the bottom row of rocks, and they compromised on the top row.

Ms. Robinson inquired about the concerns associated with removing the wall. Mr. Davidson explained that the request to remove the wall is aimed at eliminating the hardening of the shoreline. Initially, the discussion involved eight (8) inch blocks because there were no slope stability issues. If the wall is entirely removed, it would result in just an edging along the concrete, and vegetation could be utilized for slope stabilization. During the discussion, Mr. Watson and Ms. Villa emphasized that the slope on Ms. Villa's property is very steep and dangerous. When Chair Strackerjan asked about the slope degree for comparison to Ms. Sergeant's property, Ms. Villa mentioned that she doesn't have that information but highlighted that her slope goes directly to the water, not to a concrete pad. Ms. Sergeant chimed in, noting that with the two rows of armour stone, the slope starts from a higher point but remains very steep. Mr. Watson added that there is a drainage tile behind the wall, allowing water to be filtered out and providing a natural way to feed the plants with water.

Chair Strackerjan called for any further questions.

Mr. Watson asked the Hearing Board if they are all councillors. Each member replied, stating the municipality they represent, except for Anne Robinson who clarified that she is appointed by the City of Ottawa as a citizen representative.

9.0 Hearing Board to move In Camera

Resolution 2B-231214

Moved by:

Gary Waterfield

Seconded by:

Anne Robinson

THAT the Rideau Valley Conservation Authority's Executive Committee move in camera.

Resolution Carried

10.0 Hearing Board to move out of Camera

Resolution 4B-231214

Moved by:

Anne Robinson

Seconded by:

Brian Dowdall

THAT the Rideau Valley Conservation Authority's Executive Committee members move out of camera.

Resolution Carried

11.0 Chair to advise of Hearing Board decision.

The following resolution was voted on during the In Camera session and relayed verbatim to the applicants, agents, and staff at the Hearing.

Resolution 3B-231214

THAT the Rideau Valley Conservation Authority Hearing Board Deny the revised application, dated November 15, 2023, file number RV3-59/23 as submitted to the conservation authority for the following reasons:

1. The granting of permission will be inconsistent with the approved Development Policies, Sections 1.1, 2.0, 2.7, 3.0 and 3.1, as amended and approved by the RVCA Board of Directors, February 2018; specifically:
 - a. Development entirely within the 30-metre setback of the Rideau River without any net environmental gain for the riparian zone (Sections 1.1 a), 2.7 a) & 3.1).
 - b. Fill within the 1:100-year floodplain resulting in adverse impact for flood control due to cumulative loss of floodplain storage capacity (Sections 1.1 a) & 2.0).
 - c. Adverse impact with the respect to pollution control due to reduced infiltration and increased runoff from hardened surfaces (Section 3.1).
 - d. Increased erosion potential due to sheet runoff and on adjacent shorelines (Section 3.1)
2. The granting of permission will set a precedent for shoreline development and hardening on the Rideau River.
3. The project is inconsistent with the principle of conservation of land because it removes natural shoreline functions.

Resolution Carried

This decision of the Executive Committee of the Rideau Valley Conservation Authority on the application as filed with the Conservation Authority is final. You will receive a formal written notification of our decision in accordance with Section 4.2 of our Hearing Procedures (meaning registered mail or other means where proof of receipt is provided) once the hearing minutes have been prepared (usually within a week). You may appeal the decision on your application directly to the Ontario Land Tribunal within 30 days of receipt of the written reasons.

Resolution 5B-231214

Moved by:

Anne Barr

Seconded by:

Gary Waterfield

THAT the Rideau Valley Conservation Authority Hearing Board moves to sit as the Executive Committee.

12.0 Adjournment

The meeting adjourned at 9:21 p.m. on a motion by Brian Dowdall that was seconded by Anne Robinson.

Kristin Strackerjan
Chair

Marissa Grondin
Recording Secretary

Executive Committee Hearing S. 28 (12) of the Conservation Authority Act



Application File No.: RV3-5923
Owner: Karen Sergeant
Date Received: August 30, 2023

December 14, 2023

Exhibit 1 – Case Overview

- File: RV3-5923
 - Municipal address: **6079 James Bell Drive, Manotick**
 - Owner: Karen Sergeant
- Retroactive Revised Development Proposal:
 - “Proposal for Changes to Landscape Project located at 6079 James Bell Drive”
 - “Installation of a Second Row of Armor Stone”
 - “Additional Armor Stone Installed Adjacent to Newly Constructed Stairs”
 - “Installation of Interlock within the Floodplain”

Exhibit 2 – Site Location

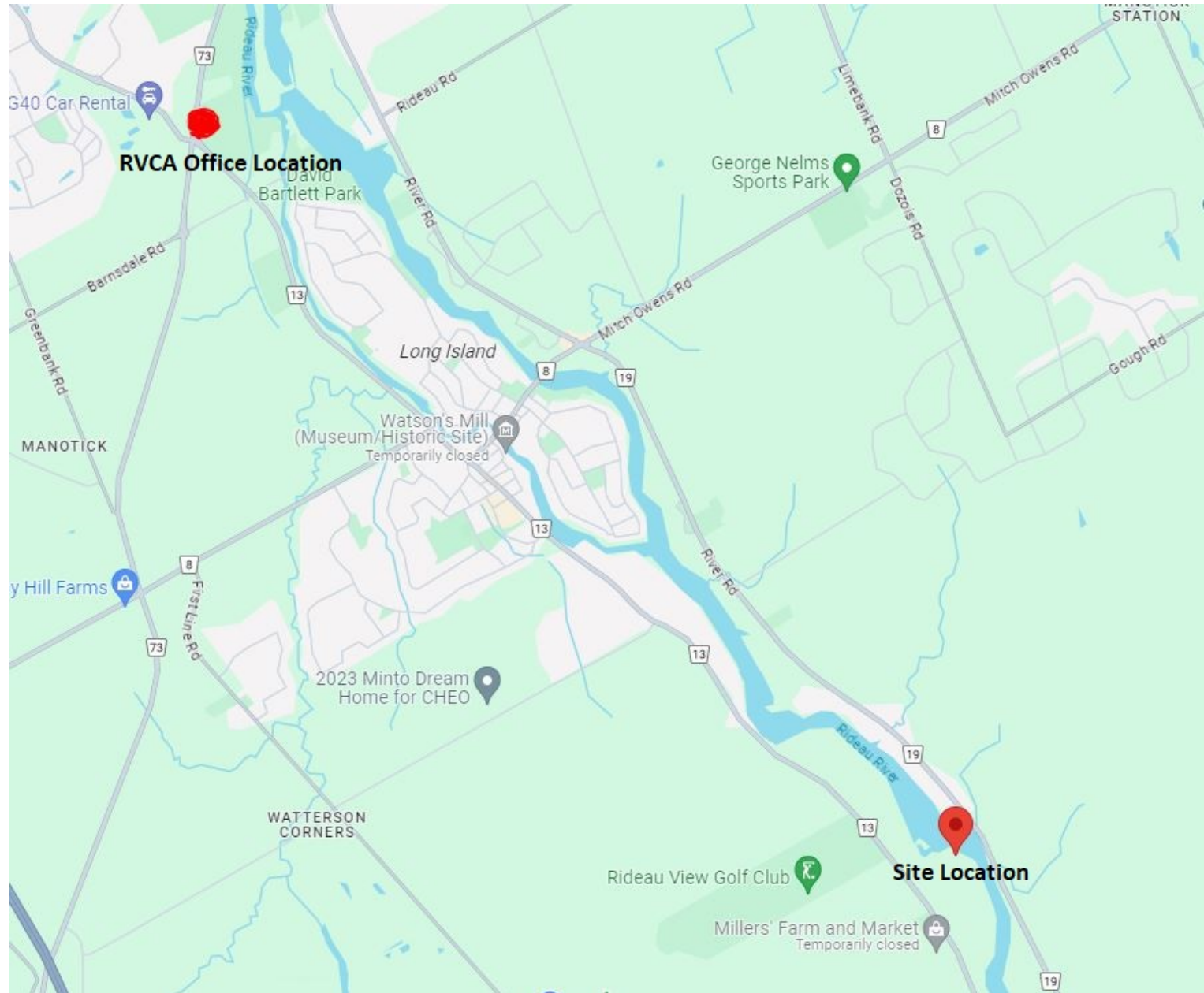


Exhibit 3 - RVCA Hazard Map

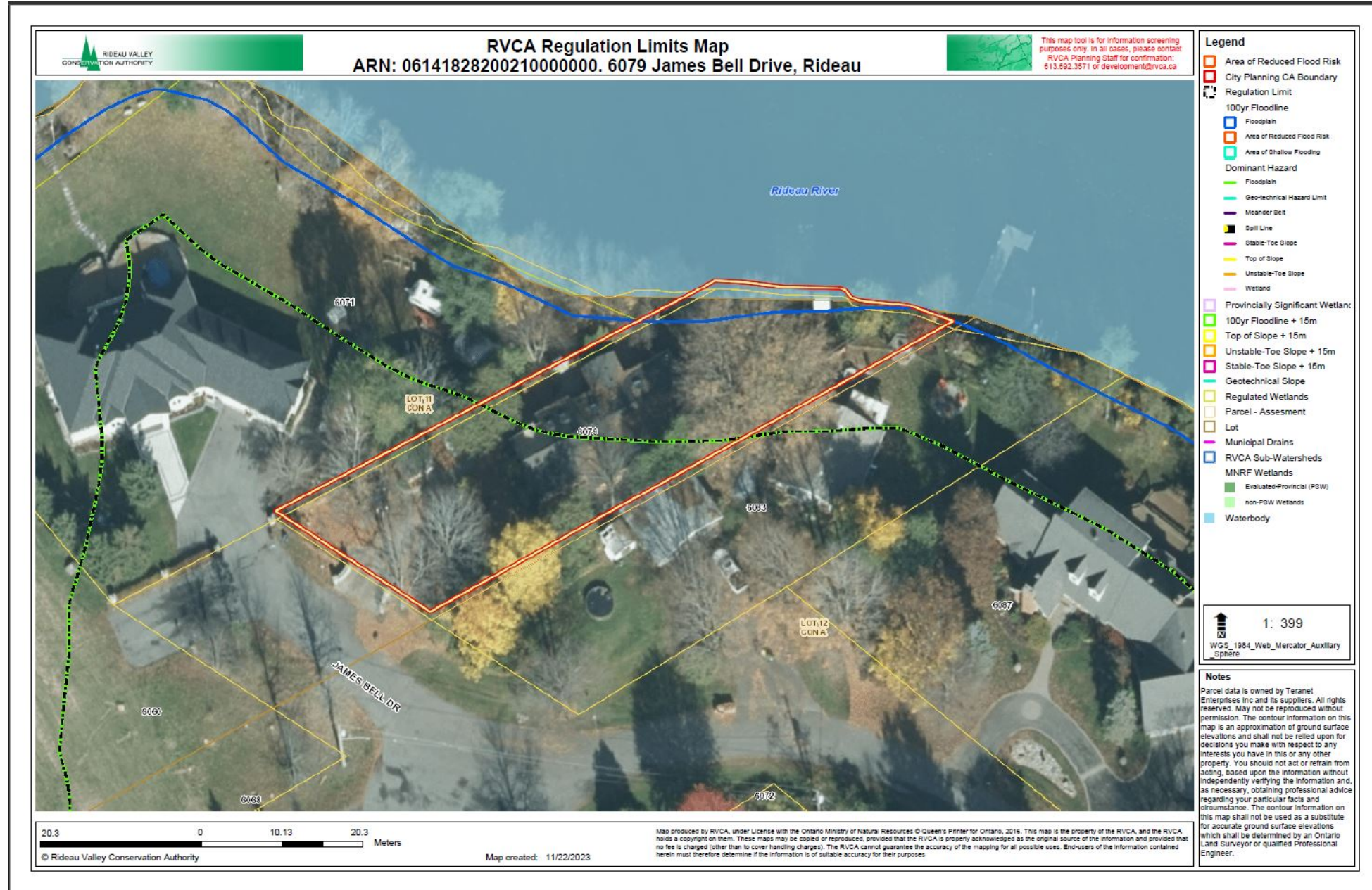


Exhibit 4 – Development Location



Exhibit 5 - Existing Conditions 1/2



Eastern side of dwelling, facing south



Western side of shoreline, facing south

Exhibit 5 – Existing Conditions 2/2



Eastern side shoreline, facing south



Eastern side shoreline, facing southeast

Exhibit 6 - Initial Application Submission – Submitted August 24, 2023

Rideau Valley Conservation Authority
Box 599, 3889 Rideau Valley Drive
Manotick, Ontario K4M 1A5
613-692-3571
www.rvca.ca

Application/File #: _____

Prior to application submission, please contact the RVCA for pre-consultation or visit: www.rvca.ca

Official Use Only
Date Received Stamp

Related Files

Fee

Application for "Development, Interference with Wetlands and Alterations to Shorelines and Watercourses" Ont. Reg. 174/06

Pursuant to Section 28 of the Conservation Authorities Act and Ontario Regulation 97/04

The Rideau Valley Conservation Authority will consider your application based on the information you provide below. Any false or misleading statement made on this application will render null and void any permission granted. Complete all relevant sections, date, sign and return the application along with applicable scale drawings and other documents necessary (refer to minimum guideline requirements) as well as the application fee "Schedule B".

Contact Information (please print clearly)

Property Owner's Name: Karen Sergeant

Mailing Address (Street, P.O. Box): 6079 James Bell City: Manotick Postal Code: _____

Telephone (Home): 613 447 0151 Work: _____ Mobile: _____

E-mail: _____

Agent's Name: 3996697 Can Inc

* Property owner's letter of authorization required

Mailing address (Street, P.O. Box): 380 Towneline rd east City: Carleton Pl Postal Code: _____

Telephone (Home): _____ Work: _____ Mobile: 613 223-1915

E-mail: ian.wat@hotmail.com

Location of Proposed Works

Property Assessment Roll Number (Form Property Tax Notice, required): 6079 James Bell

Municipal Street Address: Manotick

Municipality: _____ Former Municipality: _____ Watercourse/Drain: _____

Lot: _____ Corcasson: _____ Registered Plan Number: _____ Sublot: _____

Culvert Identification Number: _____

Description of Works (please check each that apply)

<input type="checkbox"/> Placement of fill, site alteration, changes in land elevation	<input type="checkbox"/> Construction of a structure (building, septic system, pools)
<input type="checkbox"/> Pond construction, cleanout and/or repair	<input type="checkbox"/> Watercourse crossing (culvert or bridge)
<input type="checkbox"/> Dam re-contruction/repair	<input checked="" type="checkbox"/> Bank protection
<input type="checkbox"/> Dredging	<input type="checkbox"/> Alteration to a watercourse or shoreline
<input type="checkbox"/> Drainage works and ditching	<input type="checkbox"/> Other _____
<input type="checkbox"/> Interference with a wetland	

What is the purpose of the work? Repair foundation of existing house
- re-do existing interlock, build new stairs (where
existing stairs were, build new retaining wall due
to old wall has failed.

Proposed Starting Date: _____ Completion Date: Oct 1st /23

Existing use of land: _____ Proposed use of land: _____

(i.e., residential, commercial, vacant) Details (e.g. Permit Number, Application Number)

Previous RVCA application on this property? ☐ yes ☒ no not sure

Planning approval required? (i.e. site plan approval or rezoning, minor variance) ☐ yes ☒ no

Applications made to other agencies? (e.g., MNR, MOEC, Parks Canada, DFO) ☐ yes ☒ no

Municipal Building Permit required? ☐ yes ☒ no

Septic application/permit is required? ☐ yes ☒ no

Is fill remaining on site? (If the answer is "no" you must specify an address where the fill is to be removed to.) ☐ yes ☒ no - address _____

Submission Requirements and Terms

Digital transmission of PDFs are: USB/Flash drive, CD or email (development@rvca.ca)

- Applications must be submitted digitally with one hard copy to scale.
- Permits or Approvals granted by the Rideau Valley Conservation Authority are non-transferable.
- Permits, approvals, etc. may be required from other agencies prior to undertaking the proposed work. Rideau Valley Conservation Authority permission, if granted for the proposed work, does not exempt the owner/agent from complying with any or all other laws, statutes, ordinances, directives, regulations, approvals, etc. that may affect the property or the use of same.
- Fees paid are for application processing only; the RVCA reserves the right to refuse permission based on policy provisions and the applicant's right to a hearing under Section 28(12) of the Act.
- Section 28 (2) Conservation Authorities Act — An official appointed by the RVCA may enter on private property, other than a dwelling or building, if the entry is for the purpose of considering a request related to the property for permission that is required by a regulation. By signing this form consent is being granted.
- Cancellation fee may apply to applications that have been accepted.

* I/we the undersigned hereby certify to the best of my/our knowledge and belief that all of the above-noted, attached and/or supporting documentation information is correct and true. I/we further solemnly declare that I/we have read and fully understand the contents of this application and specifically the terms and conditions, and the declaration which is written below.

By signing this application, consent is given to the Rideau Valley Conservation Authority, its employees and authorized representatives to access the property for the purposes of obtaining information and monitoring any approved works pursuant to Section 28(20) of the Act.

Owner's name: Karen Sergeant Date: 2023.08.10

Authorized Agent: Ian Watson

☒ Letter of Authorization from owner must be attached if agent is signing off on all works

Notice of Collection

Pursuant to the Municipal Freedom of Information and Protection of Privacy Act, the personal information contained on this form is collected under the Authority of the Conservation Authorities Act, R.S.O. 1990, Chapter C.27, and O. Regulation 174/06 RVCA Regulation of Development, Interference with Wetlands and Alteration to Shorelines and Watercourses. This information is used to access applications and where approved issue permits. Information on this form will be disclosed to government and municipal agencies for review and comments and may be disclosed to members of the public through the Freedom of Information process.

Source: Agent submitted photos

Exhibit 7 – Existing Conditions on August 29, 2023



Raised Concrete Sill

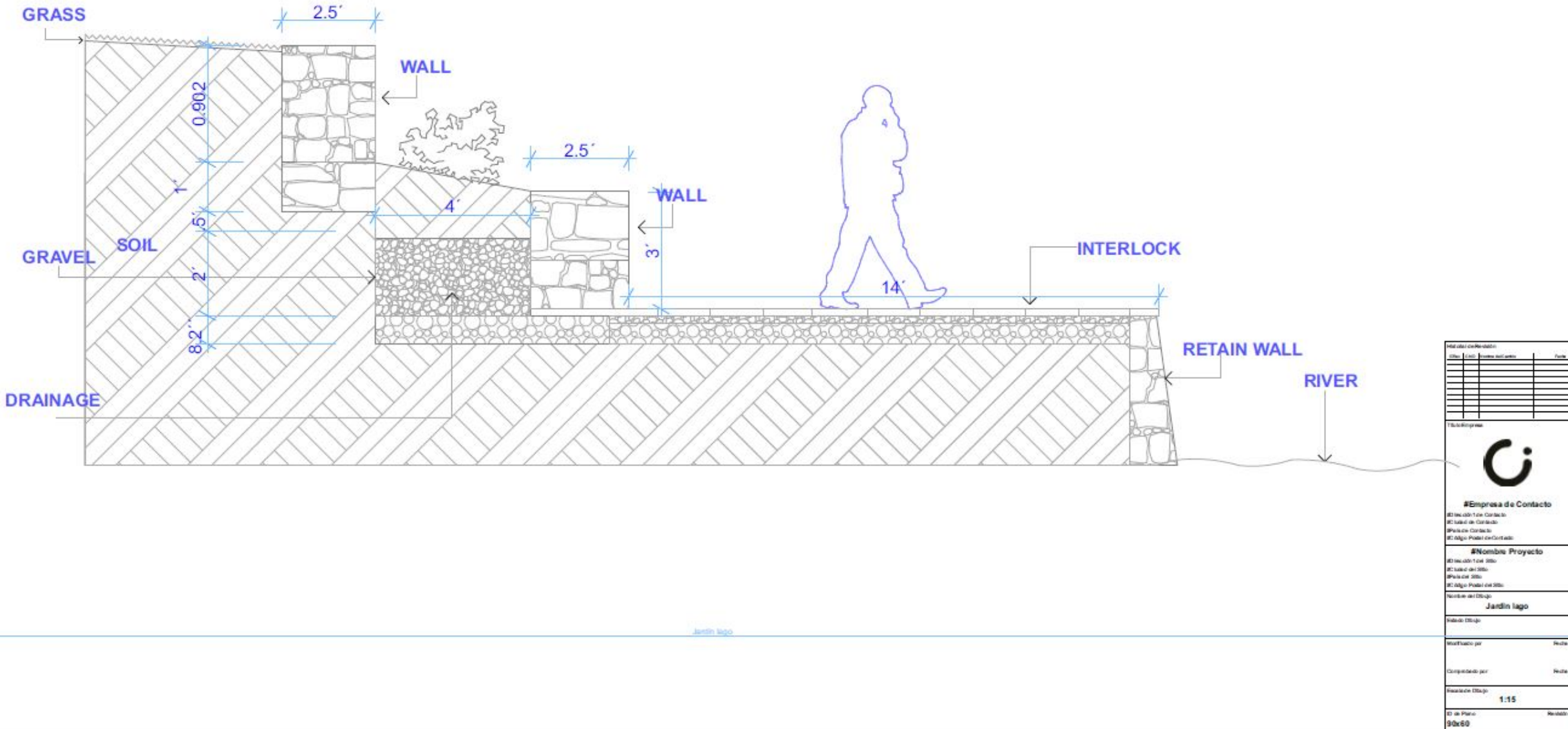
August 29, 2023 – 6079 James Bell Drive

Planta Baja (3)

1:50

90x60

Exhibit 9 - Initial Cross Section Submission – Submitted August 30, 2023



The image shows a detailed architectural site plan for a building complex. The plan includes a large building with a central courtyard, a parking lot with several cars, and a landscaped area with trees and shrubs. The drawing is oriented with North at the top. Dimensions are provided in feet and inches. A technical drawing table is located in the bottom right corner.

Historial de Revisión	
Fecha	Descripción de Cambio

Ficha Técnica	
#Ingreso de Contacto #Estructura de Contacto #Módulo de Contacto #Módulo de Contacto #Módulo de Contacto	
#Nombre Proyecto #Estructura de Contacto #Módulo de Contacto #Módulo de Contacto #Módulo de Contacto	
Planta Baja (1) #Módulo de Contacto #Módulo de Contacto #Módulo de Contacto #Módulo de Contacto	
Elaborado por: Revisado por: Aprobado por: Fecha de Entrega:	Fecha: Fecha: Fecha: Fecha:
Escala: 1:50 Hoja: 1 de 1 Proyecto: 90x60	



Exhibit 11

6079 James Bell Drive –
September 14, 2023

Work observed without permit approval

Exhibit 12 – Notice of Violation – September 15, 2023

Notice of Violation Ontario Regulation 174/06 Under Section 28 of the *Conservation Authorities Act*

Date: September 15, 2023
File: RV3-5223
Contact: Laura Cummings



-VIA EMAIL-

Karen Sergeant
6079 James Bell Drive
Manotick, ON K4M 1B3

3996697 Canada Inc. (c/o Ian Watson)
380 Townline Rd E
Carleton Place, ON K7C 3S3

SUBJECT: VIOLATION OF ONTARIO REGULATION 174/06 at 6079 James Bell Drive,
Lot 11, Concession A, in the Former Township of Rideau, now in the City of
Ottawa.
Roll Number: 0614 1828 2002 1000 0000

For: Development within the regulated area and 1:100-year floodplain of the
Rideau River

Dear Karen Sergeant and Ian Watson,

It has come to our attention that development and shoreline alteration has occurred on the
above noted property. This was done without the benefit of review or approval from Rideau
Valley Conservation Authority (RVCA).

As you know, the property is partially subject to regulation by the RVCA due to the property
being partially within the 1:100-year floodplain of the Rideau River. All shoreline alterations are
also subject to regulation. The RVCA regulation, Ontario Regulation 174/06, was established
under Section 28 of the *Conservation Authorities Act*, R.S.O., 1990, as amended.

The work undertaken on this property is considered an offence under Section 28 of the
Conservation Authorities Act, R.S.O., 1990, as amended. You should be aware that legal action
may be initiated against you, the company and the operators working on the property if the
matter is not resolved to the satisfaction of the Conservation Authority.

Section 28(16) of the Conservation Authorities Act states that every person who
contravenes a regulation made under subsection (1) is guilty of an offence and on
conviction is liable to a fine of not more than \$10,000 or a term of imprisonment of not
more than three months.

Section 28(17) in addition to any other remedy or penalty provided by law, the court,
upon making a conviction under subsection (16) may order the person convicted to (a)

remove, at that person's expense, any development within such reasonable time as the
court orders.

It is the RVCA's approach to work with landowners to resolve disputes such as this without court
action. **All work on the property is to be stopped until the appropriate approvals have
been obtained.** Additionally, appropriate sediment and erosion controls should be put in place
to prevent sediment migration from the site.

The application process is underway but not yet complete. Approval has not been issued by the
RVCA for this work. A meeting has been scheduled for 9am on Monday, September 18, 2023 at
the RVCA office.

For further consultation, please contact Laura Cummings at laura.cummings@rvca.ca or 613-
692-3571 ext. 1102 and Nick Fritzsche at nick.fritzsche@rvca.ca or 613-692-3571 ext. 1193.

Yours truly,

Laura Cummings
Regulations Officer
Rideau Valley Conservation Authority
laura.cummings@rvca.ca | 613-692-3571 x 1102

RIDEAU RIVER AND CANAL

(Under the Ownership, Administration and Control of the Crown in Right of Canada
as Confirmed by Order-in-Council 3067/93 dated December 8, 1993.)

FLOW

Concrete Retaining Wall

Interlock

Concrete Pile Retaining Wall

No. 6079 JAMES BELL DRIVE Sliding and brick Sided Dwelling

No. 6079 JAMES BELL DRIVE Sliding and brick Sided Dwelling

JAMES BELL DRIVE

Job Benchmark Nail & Washer Elevation=88.73

100 Year Contour Elevation = 86.86 Metres

SKETCH SHOWING REGULATED 100 YEAR FLOOD LEVEL BASED ON NOVEMBER 20, 2018 GROUND ELEVATIONS
6079 JAMES BELL DRIVE CITY OF OTTAWA
Prepared by Annis, O'Sullivan, Vollebakk Ltd.
September 25, 2023

Scale 1 : 150

Metric
DISTANCES SHOWN ON THIS PLAN ARE IN METRES AND CAN BE CONVERTED TO FEET BY DIVIDING BY 0.3048

Notes & Legend

TOS	"	Top of Slope
BOS	"	Bottom of Slope
+ 89.47	"	Location of Elevations
+ 89.47*	"	Location of Elevations (Top of Wall)
+ (89.47)	"	Location of Elevations Taken from Surveyor's Real Property Report Prepared by H.A.Ken Shipman Surveying Ltd. Dated November 20, 2018.

ELEVATION NOTES

- Elevations shown are geodetic and are referred to the CGVD28 geodetic datum.
- It is the responsibility of the user of this information to verify that the job benchmark has not been altered or disturbed and that its relative elevation and description agrees with the information shown on this drawing.

Caution

This is NOT a Plan of Survey and shall not be used except for the purpose indicated in the title block.

Boundary information compiled from survey records

© Annis, O'Sullivan, Vollebakk Ltd., 2023. "THIS SKETCH IS PROTECTED BY COPYRIGHT"

ANNIS, O'SULLIVAN, VOLLEBAKK LTD.
14 Concourse Gate, Suite 500
Nepean, Ont. K2E 7S6
Phone: (613) 727-0850 / Fax: (613) 727-1079
Email: Nepean@aosvld.com

Ontario Land Surveyors

**6079 JAMES BELL DRIVE
CITY OF OTTAWA**

ANNIS, O'SULLIVAN, VOLLEBEKK LTD.
14 Concourse Gate, Suite 500
Nepean, Ont. K2E 7S6
Phone: (613) 727-0850 / Fax: (613) 727-1079
Email: Nepean@avsdtd.com

Ontario
Lend Surveyors

Job No. 23681-23 SK 5079 Jotres Bell Di Di



Exhibit 14

6079 James Bell Drive –
October 5, 2023

Work observed without permit approval

2023/10/05

Exhibit 15 - Approved Site Plan – Approved October 12, 2023

RIDEAU RIVER AND CANAL

(Under the Ownership, Administration and Control of the Crown in Right of Canada
as Confirmed by Order-in-Council 8067/93 dated December 8, 1993.)

FLOW
←

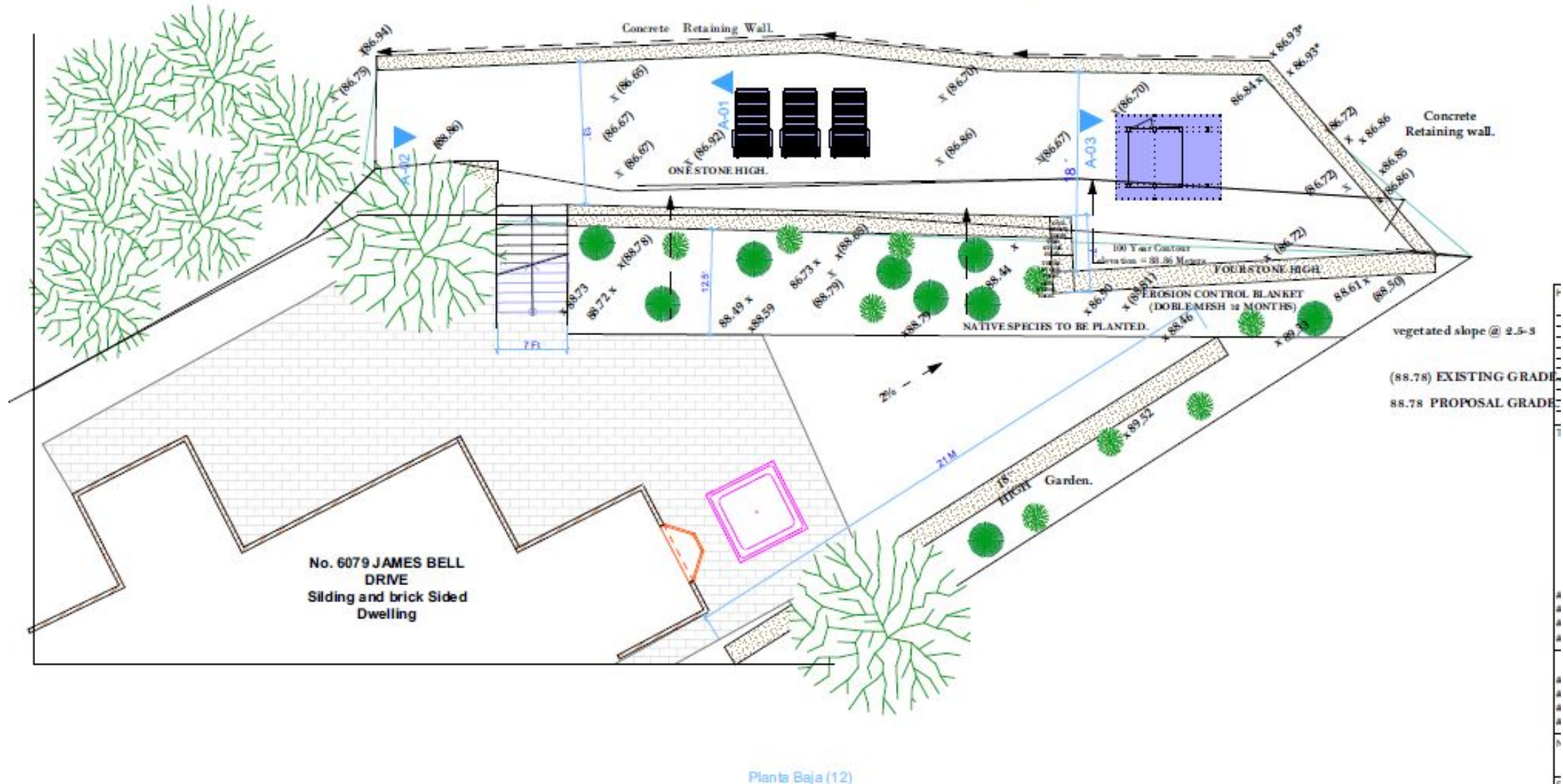


Exhibit 16 -Approved Cross Section – Approved October 12, 2023

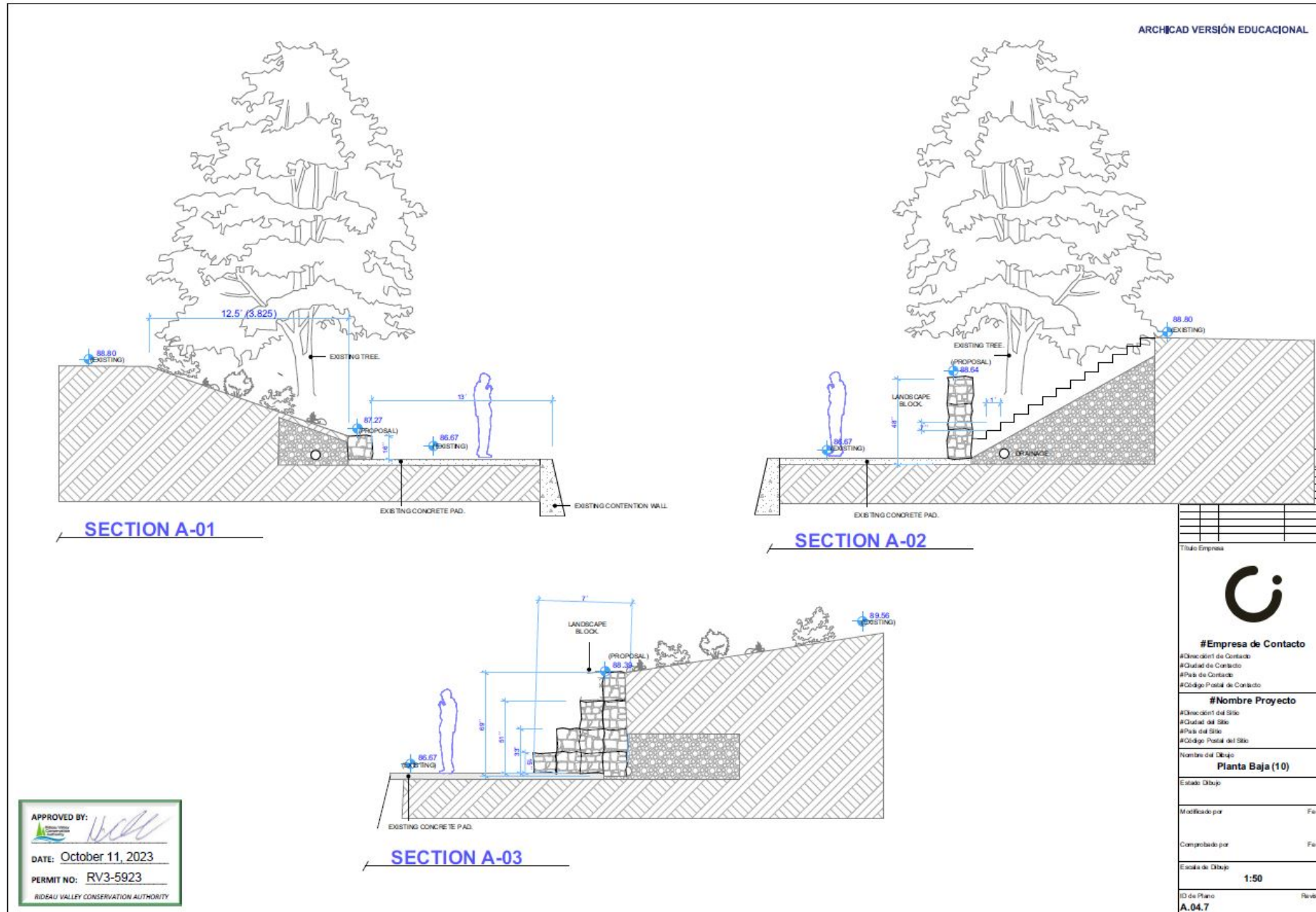


Exhibit 17 - Letter of Permission – Issued October 12, 2023

RVCA Letter of Permission —

Ont. Reg. 174/06, S. 28 *Conservation Authorities Act*
1990, As Amended.

Date: October 11, 2023
File: RV3-5923
Contact: Nick Fritzsche

Karen Sergeant
6079 James Bell Drive
Manotick, ON K4M 1B3



Permit for: Development under Section 28 of the Conservation Authorities Act at 6079 James Bell Drive, Lot 11, Concession A, former Township of Rideau, now in the City of Ottawa.
Roll Number: 06141828200210000000

Dear Karen Sergeant,

The Rideau Valley Conservation Authority has reviewed the application and understands the proposal to be for:

- The repair of the damaged foundation of an existing single-family dwelling within the regulated area of the Rideau River.
- The installation of an approximately 30-metre-long armour stone retaining wall of 15" (single block) to 69" (4 blocks) in height to stabilize the slope adjacent to the Rideau River.
- Install 7' x 1' access stairs and relocate to opposite side of tree. The relocated stairs are approximately 2.13 metres in height.
- Approximately 19 metres of existing slope behind proposed wall to be cut back to a 2.5:1 - 3:1 slope ratio. Slope to planted with natural vegetation and covered with appropriate erosion control blanket.

This proposal was reviewed under Ontario Regulation 174/06, the "Development, Interference with Wetlands, and Alteration to Watercourse and Shorelines" regulation and the RVCA Development Policies, specifically Sections 1.3 Reconstruction/Relocation/Repairs and Renovations, 3.0 Policies Regarding Alterations to Waterways Applications.

The proposal is not expected to impact the control of flooding, pollution, erosion or conservation of land providing conditions are followed.

PERMISSION AND CONDITIONS

By this letter the Rideau Valley Conservation Authority hereby grants you approval to undertake this project as outlined in your permit application but subject to the following conditions:

- Approval is subject to the understanding of the project as described above and outlined in the application and submitted plans:

- Titled Cross Sections, completed by Antonio Nava – 3996697 Canada Inc, Numbered Section A-01, A-02, A-03, dated October 11, 2023.
- Titled Site Plan, completed by Antonio Nava – 3996697 Canada Inc, Numbered Section A.04.9, dated October 11, 2023.
- Titled Foundation Plan, completed by Ian Watson – 3996697 Canada Inc, received August 31, 2023.
- Titled Foundation Cross Section, completed by Ian Watson – 3996697 Canada Inc, received August 31, 2023.

- Any changes to the proposed work must be submitted in writing to the Conservation Authority for review and approval prior to implementation. No conditions are subject to change/revision by the on-site contractor(s).
- All excavated material not utilized for the purposes of the approved development (if appropriate material) must be removed from the site to a suitable disposal site outside of any 1:100-year floodplain, wetland, and regulated area.
- Only clean non-contaminated fill material will be used.
- No grade changes are permitted other than those explicitly permitted by approved drawings identified in Condition 1.
- A finished grading plan completed by a P.Eng or Ontario Land Surveyor will be submitted as soon as the work is complete to confirm the as built final grades on the property. A refundable deposit of \$1720 is required to be submitted prior to commencement of the work. Satisfactory review of the finished grading plan and compliance with other conditions of approval will result in the return of the deposit (less 10% administrative fee).
- There will be no in-water works.
- Best management practices are implemented when working in proximity to slopes. These include, but not limited to:
 - Do not direct uncontrolled water towards the slope (drainage, gutter, etc.)
 - Do not overload the top of slope (backfill, fill, grass cuttings, branches, etc.)
 - Do not excavate at the base of the slope
 - Maintain healthy native vegetation cover
 - Use proper erosion and sediment control during construction work
- The applicant must notify the RVCA two business days prior to project commencement and within two business days of project completion.
- A vegetated buffer consisting of a mixture of native vegetation and non-manicured grasses must be established along the entire length of the slope. Please review the included native vegetation species document I have attached with the permit package.
- The applicant agrees that Authority staff may visit the subject property before, during and after project completion to ensure compliance with the conditions as set out in this letter of permission.

12. Sediment control will be established to ensure no sediment migration from the site. All grubbing and equipment storage and operation will be limited to the development envelope. All areas located outside the development envelope will be left untouched. No fill including topsoil, sand, etc. will be placed outside the development envelope for any reason. No equipment will be permitted to disturb area outside the development envelope.

13. Sediment barriers should be used on site in an appropriate method according to the Ontario Provincial Standard Specifications (OPSS) for silt barriers as a minimum. In-water work will require the use of a properly secured silt curtain. Soil type, slope of land, drainage area, weather, predicted sediment load and deposition should be considered when selecting the type of sediment/erosion control.

14. A new application must be submitted should any work as specified in this letter be ongoing or planned for or after October 11, 2025.

By this letter the Rideau Valley Conservation Authority assumes no responsibility or liability for any flood, erosion, or slope failure damage which may occur either to your property or the structures on it or if any activity undertaken by you adversely affects the property or interests of adjacent landowners. All other approvals as might be required from the Municipality, and/or other Provincial or Federal Agencies must be obtained prior to initiation of work. This includes but is not limited to the Drainage Act, the Endangered Species Act, the Ontario Water Resources Act, Environmental Protection Act, Public Lands Act, or the Fisheries Act.

This permit is not transferable to subsequent property owners.

Should you have any questions regarding this letter, please contact Nick Fritzsche at nick.fritzsche@rvca.ca or 613-692-3571 ext. 1193.

A handwritten signature in black ink that reads "Terry K. Davidson".

Terry K. Davidson P.Eng
Conservation Authority S. 28 Signing delegate
O. Reg. 174/06

Exhibit 18 - October 19, 2023, Site Visit

- RVCA staff confirm that works completed on site have gone beyond the scope of the design approved in RV3-5923 Letter of Permission issued on October 12, 2023.
 - Stairs do not conform to approved design.
 - Armour stone wall does not conform to approved design.
 - Armour stone around tree does not conform to approved design.
 - Gravel and interlock placed on concrete pad.
- Revised proposal drawings were requested



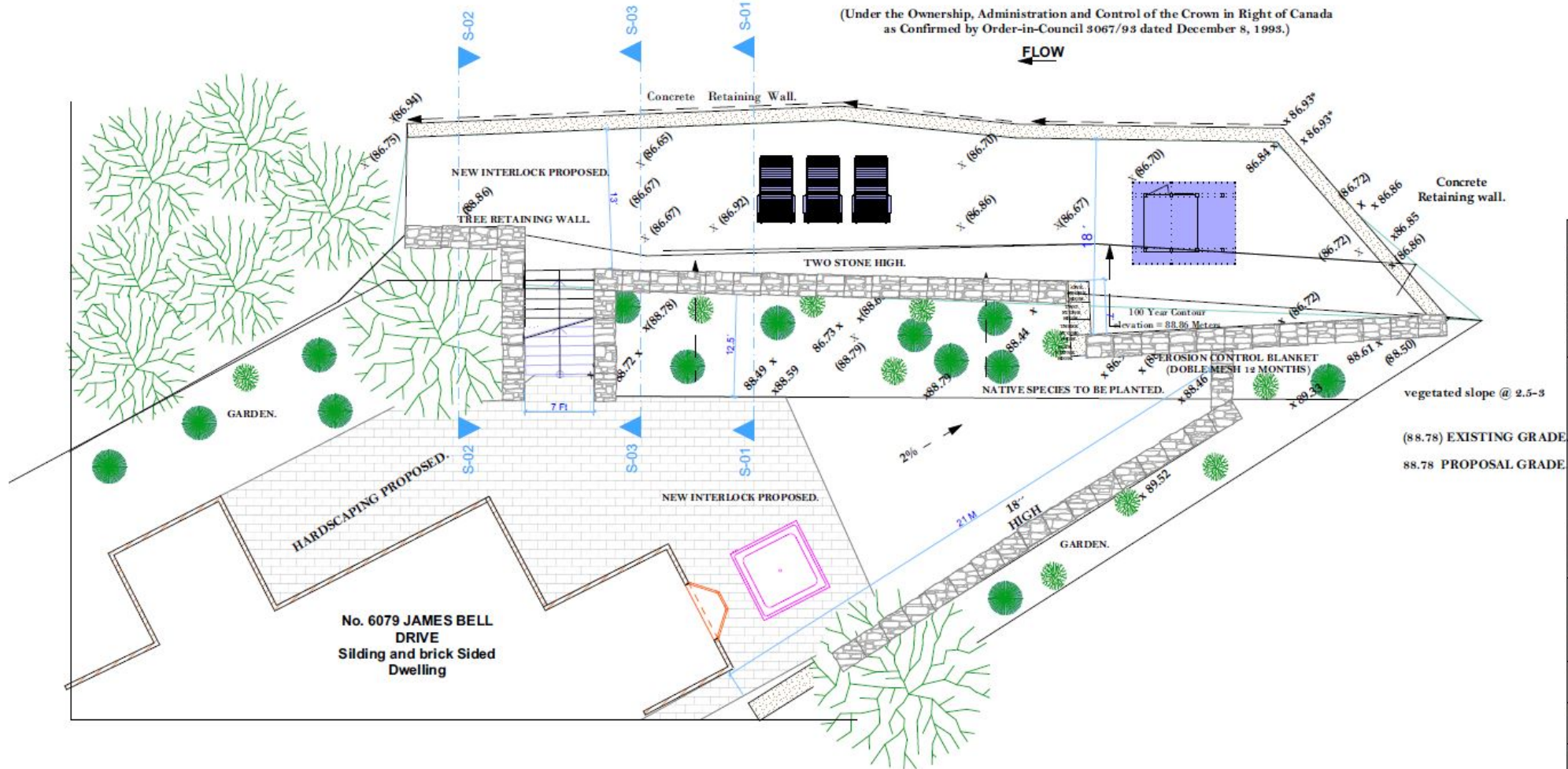
October 19, 2023 - 6079 James Bell Drive

Exhibit 19 – Submitted Retroactive Revised Site Plan

RIDEAU RIVER AND CANAL

(Under the Ownership, Administration and Control of the Crown in Right of Canada as Confirmed by Order-in-Council 3067/93 dated December 8, 1993.)

FLOW



Historial de Revisión			
ID Rev	Ch-ID	Nombre del Cambio	Fecha

Título Empresa



#Empresa de Contacto

#Dirección1 de Contacto
#Ciudad de Contacto
#País de Contacto
#Código Postal de Contacto

#Nombre Proyecto

#Dirección1 del Sitio
#Ciudad del Sitio
#País del Sitio
#Código Postal del Sitio

Nombre del Dibujo
Planta Baja (15)

Estado Dibujo

Modificado por Fecha

Comprobado por Fecha

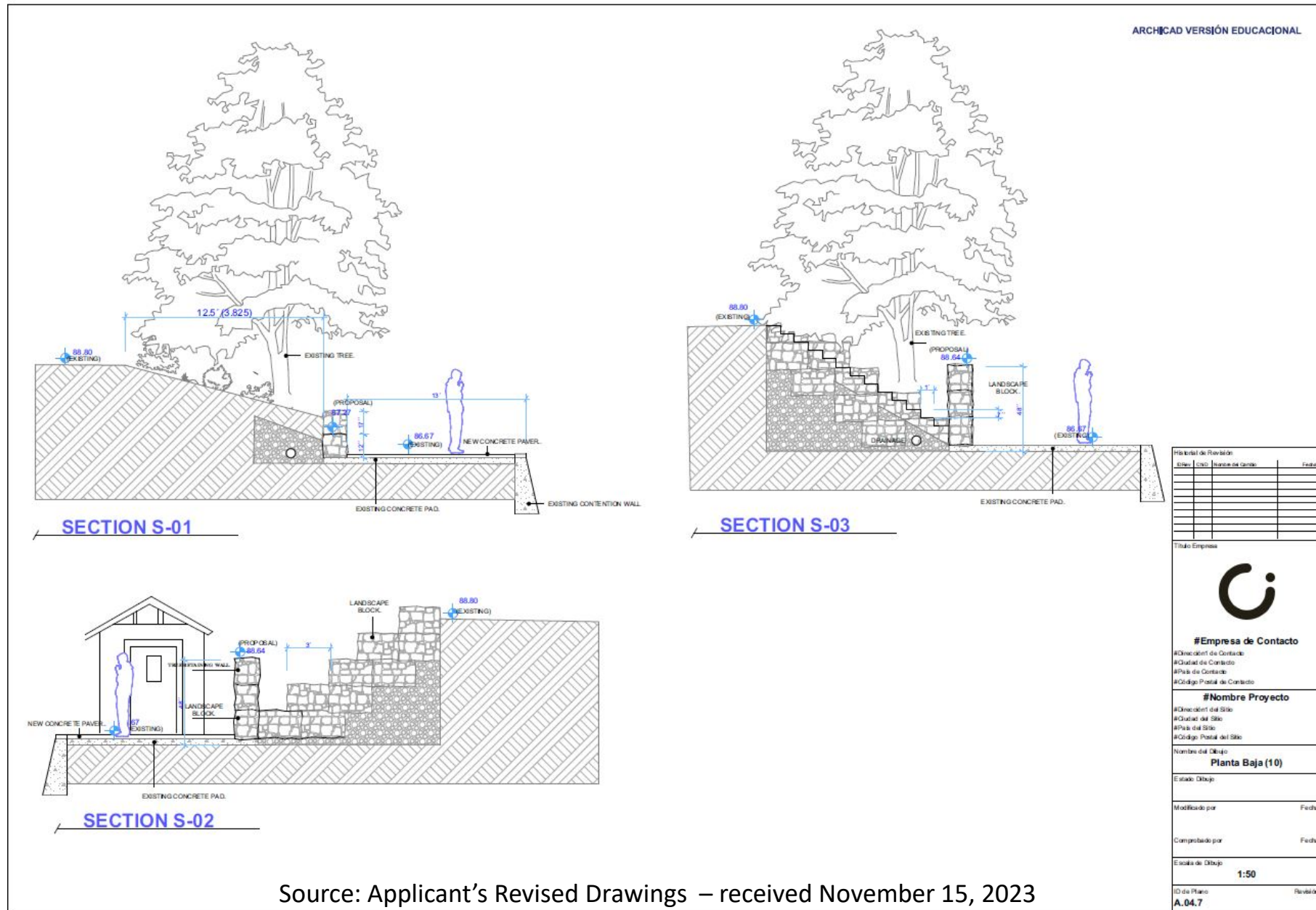
Escala de Dibujo
1:100

ID de Plano
A.04.8 Revisión

Planta Baja (15)

Source: Applicant's Revised Drawings – received November 15, 2023

Exhibit 20 – Submitted Retroactive Revised Cross-Sections



Source: Applicant's Revised Drawings – received November 15, 2023

Exhibit 21 – Retroactive Revised Project Description

- The installation of an approximately 62' feet long armour stone retaining wall of 29" to 48" (2 blocks – 3 blocks) in height at toe of slope adjacent to the Rideau River.
- Install 7' wide, 13' deep access stairs and relocate to opposite side of tree. The relocated stairs are approximately 6' 11 ¾" (2.13 metres) in height.
- Install armour stone adjacent to the relocated stairs.
- Install armour stone wall surrounding mature tree.
- Approximately 62' (19 metres) of existing slope behind proposed wall to be cut back to a 2.5:1 - 3:1 slope ratio. Slope to be planted with natural vegetation and covered with appropriate erosion control blanket.
- The existing interlock surrounding dwelling on table land to be expanded around the eastern side of the dwelling with additional interlock.
- Leveling out of existing concrete pad with new gravel and interlock installed on concrete pad.

Exhibit 22 - Current Condition

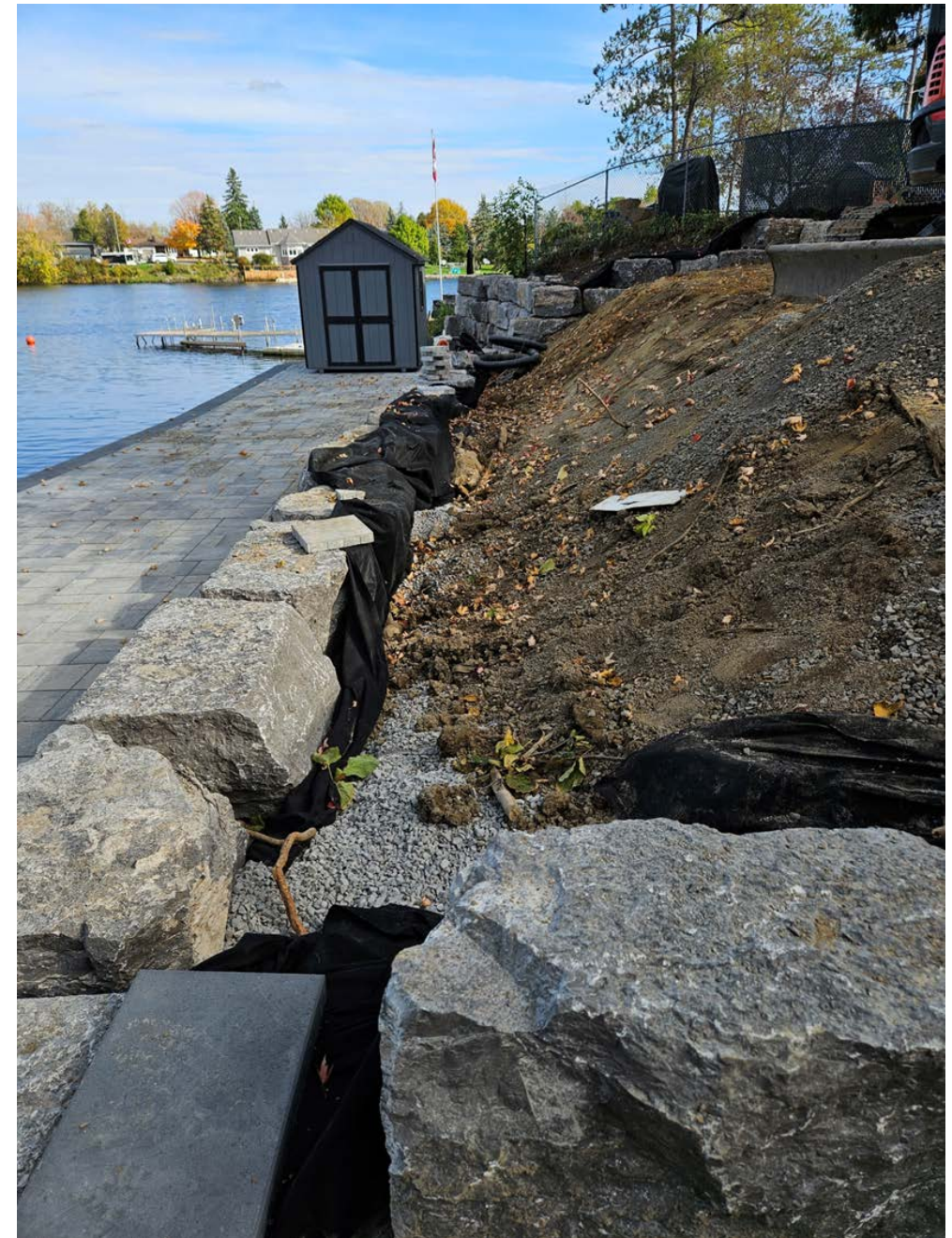


November 30, 2023 - 6079 James Bell Drive

RV3-5923 - Previously Approved Application Oct. 12, 2023	RV3-5923 - Revised Application Nov. 15, 2023
Armour stone retaining wall (single block) 15" in height, 62' in length along the toe of the shoreline slope	Additional armour stone 17" in height, 62' in length – total height of wall is now 29" – 32"
	Additional fill added to slope to backfill higher armour stone wall
Armour stone wall tapering to 69" (4 blocks) high to stabilize slope on eastern side of property	Same
Armour stone wall 48" (3 blocks) high to replace existing brick crib around tree on west side of shoreline	Armour stone wall up to 5 blocks in height larger than previous brick crib structure
Install 7' wide by 6' 11 ³ / ₄ " high access stairs (location of stairs changed to opposite side of tree)	Armour stone abutting stairs.
62' of slope behind armour stone wall to be cut back at a 2.5:1 – 3:1 slope, planted with natural vegetation and covered with erosion control blanket	Area to be planted has been reduced due to height of wall and hardscaping on the tableland, including approximately 85 square metres of interlock
	Extension of 18" high, 69' long armour stone retaining wall to connect with shoreline retaining wall which splits the table land into two parts
	4" to 6" gravel and interlock has been installed on the concrete pad (7.4 cubic metres of fill)

Exhibit 23 - Issues with Revised Proposal 1/3

- Conservation of Land
 - **A net environmental gain** should be achieved in matters associated with on-site natural heritage features, such as riparian zones.
 - More sustainable erosion mitigation techniques are feasible at the site.
- Conservation of Land
 - is the protection, management or restoration of lands within the watershed ecosystem for the ***purpose of maintaining or enhancing the natural features*** and ecological functions and hydrological functions, within the watershed.



October 19, 2023 - 6079 James Bell Drive

Exhibit 23 - Issues with Revised Proposal 2/3

- Existing conditions on site with respect to erosion do not warrant the type/size of retaining wall that has been constructed.
 - Based on preliminary evaluation of the slope stability and erosion hazards at the site from a geotechnical perspective, staff concluded that the use of hardscape retaining wall was not required.
- Precedent set for development on the Rideau River for unnecessary hardscaping when natural solutions are available.
 - Such as naturalization, regrading, or bio-engineering erosion mitigation techniques.



October 19, 2023 - 6079 James Bell Drive

Exhibit 23 - Issues with Revised Proposal 3/3

Location of Proposed Development

- Additional hardscaping proposed located entirely within 30-metres of the Rideau River.
- Fill proposed within 1:100-year floodplain.
 - Precedence set by this development has significant cumulative impact potential on floodplain storage along the Rideau River.



October 19, 2023 - 6079 James Bell Drive



October 19, 2023 - 6079 James Bell Drive

Pollution

- Proposed additional hardscaping increases sheet runoff volume and may cause increased erosion.
 - Increased sheet runoff can bring additional nutrient loading into the river.

Exhibit 24 – Geotechnical Memo 1/3

Technical Review Memorandum



To Nick Fritzsche, B. Sc., Regulations Inspector
Department of Engineering and Regulations

From Isabelle Maltais, P. Eng., Natural Hazard Water Resources Engineer,
Department of Engineering and Regulations

Date December 4, 2023

File RV3-5923, Proposed Armor Stone Retaining Wall & Landscaping, 6079 James
Bell, Manotick, ON

Type Application for "Development, Interference with Wetlands and Alterations to
Shorelines and Watercourses" Ont. Reg. 174/06

Subject Review of retaining wall in regard to slope stability and erosion hazards

Submission Applicant Site Plan A.04.8, undated, unsigned (attached)
Applicant Cross-Section Plan A.04.7, undated, unsigned (attached)

Introduction

The purpose of this technical review document is to analyze and provide feedback on the installation of a hardscape retaining wall. Our primary objective is to assess whether the construction of the retaining wall was necessary for addressing the specific concerns of structural stability and erosion of the slope it is built from a geotechnical engineering perspective.

We understand that the applicant has implemented the hardscape retaining wall to mitigate erosion issues present on the slope. However, it is important to evaluate whether these actions were indeed necessary in terms of structural and erosion control, considering the preservation of shoreline biodiversity and the function of limiting erosion hazards, taking into account long-term impacts.

The assessment will focus on two key aspects. The first aspect examines whether the retaining wall is necessary to provide slope stability and/or structural support for any habitable structures on the site. The second aspect will discuss the use of hardscape retaining walls for erosion mitigation.

The technical review aims to provide an objective review based on established geotechnical principles and best practices. The following guidelines have been used in the preparation of this report:

- Canadian Geotechnical Society. 2006 . Canadian Foundation Engineering Manual (CFEM).

Proudly working in partnership
with our 18 watershed municipalities
Albany, Argenteuil, Brockville, Central Frontenac, Clarence-Rockland,
Drummond/North Elmdale, Elizabethtown-Kitley, Merrickville-Wolford, Montague,
North Dundas, North Grenville, Ottawa, Perth, Rideau Lakes, Smiths Falls, South Frontenac, Tay Valley, Westport



Technical Review • Memorandum Review of Slope Stability & Erosion Hazards December 4, 2023

Page 2 of 7

- Ontario Ministry of Natural Resources. 2002. River & Stream Systems: Erosion Hazard Limit Technical Guide
- Terraprobe Limited and Aqua Solutions. 1998. Geotechnical Principles of Stable Slopes.
- PEO. 1993. Professional Engineers Providing Geotechnical Engineering Services Guidelines.

Site and Project Description

The property is situated at 6079 James Bell Drive in Manotick, Ontario, on the southern side of Rideau River, with no setback from the river. The site is surrounded by similar single-family dwelling units on both sides, as shown in Figure 1. The site itself slopes towards the northeast, leading down to the river. There is already a dwelling present on the property, and we understand that the foundation was recently repaired.



Exhibit 24 – Geotechnical Memo 2/3



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F 613-692-0831 | www.rvca.ca

Technical Review • Memorandum Review of Slope Stability & Erosion Hazards December 4, 2023

Page 4 of 7

interlocked paver is also proposed at the top of the slope in between the rear of the residence and crest of slope.



Figure 3. Armor stone retaining wall placed.

The armor stone wall is located above the concrete pad and vary in size between 2 to 4 block high.

Evaluation of Structural & Slope Stability

Based on the available information provided and a review of local geotechnical conditions, we concluded based on our professional experience, that the slope in question does not require an armor wall for structural support. Several factors contribute to this assessment and are presented below:

- The slope has an overall (toe to top starting at concrete wall) inclination of about 18 degrees, with localized steeper sections.



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Technical Review • Memorandum Review of Slope Stability & Erosion Hazards December 4, 2023

Page 5 of 7

- The height of the slope is below 5 meters, further reducing the risk of instability.
- Minor surficial erosion and weathering caused by runoff water have been observed, but they are not indicative of significant slope instability.
- The site itself can accommodate measures such as regrading, renaturalization, or bio-engineering erosion mitigation, which can effectively address these minor issues and limit the risk of instability.
- The current residence foundations are not reliant on the retaining structure and are sufficiently setback, ensuring that they would not be compromised by any instability or failure of the slope or retaining wall. This eliminates any significant risk to public safety that would warrant structural remediation (in this case a hardscape retaining wall).

Considering these factors, it appears that the retaining wall primarily serves a landscaping purpose, and its role in providing structural support to the slope is not necessary.

Evaluation of Erosion

Evaluating the effect of toe erosion at the site has proven challenging due to the lack of a professional report and the site alteration that has modified the previous geomorphological landscape. However, based on a review of available photos before the site alteration from a geotechnical perspective, it appears that the degradation of the wooden retaining walls is the main cause of damage rather than toe erosion. Runoff water originating from the upper part of the slope also appears to be the primary factor contributing to these damages.

According to the applicant's provided drawings, the concrete pad level is at an elevation of 86.67 m (assuming it is a geodetic elevation, although this is not confirmed on the plan). The high water mark (HWM) is at 85.5 m, and the 100-year flood elevation is at 86.86 m. Consequently, only a minor amount of water would exceed the concrete pad elevation during a 100-year flood event. For further context a 100-year flood event has never been recorded on the Rideau River. This suggests that toe erosion is an unlikely cause for the site's past conditions, as the lower concrete structure provides the majority of the erosion protection. The observed minor erosion on the slope is most likely the result of natural degradation of the wooden retaining walls and runoff from precipitation. Considering the channel configuration, flow, operational water elevation, and projected 100-year flood event, constructing a hardscape wall at the site to protect against toe or runoff surface erosion is not assessed to be necessary.

Erosion is a natural process that involves the mobilization of sediments. These processes are integral to the geomorphological dynamics of river ecosystems and should be considered as a characteristic when residing near a watercourse. Given that the site is predominantly composed of clay sediment, which is generally resistant to erosion, measures such as resloping, naturalizing, or implementing bio-engineering techniques from a geotechnical perspective would likely be sufficient to mitigate observed surface erosion. The use of hardscaping methods is

Exhibit 24 – Geotechnical Memo 3/3



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Technical Review • Memorandum Review of Slope Stability & Erosion Hazards

December 4, 2023

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typically reserved for high-energy river systems or coastal environments exposed to high flow, storm surges and waves.

Furthermore, the use of interlocked pavers at the top of the slope may limit infiltration and induce uncontrolled runoff water from precipitation. It is recommended to implement stormwater control measures and reconsider their use to reduce the volume of runoff.

Long-Term Impacts Evaluation

The use of hardscape retaining walls can have long-term negative effects on the environment. While they offer benefits such as erosion resistance, durability, and low maintenance, it is important to consider their potential impact on biodiversity and ecosystem habitats. One of the long-term effects is the alteration of the natural water flow, which can lead to changes in shoreline erosion patterns.

- Upstream scour is one potential consequence of hardscape retaining walls. When water encounters a solid barrier, it increases in velocity and turbulence, eroding the soil or sediment upstream of the wall. This can disrupt the natural balance of sediment transport and affect both the area adjacent to the wall and areas further upstream.
- Downstream scour is another concern. Altered water flow patterns caused by retaining walls can lead to changes in sediment deposition and erosion downstream. The redirected water gains velocity and energy, intensifying erosion in certain areas and potentially affecting adjacent properties, habitats, and ecosystems.

Moreover, it is crucial to consider the cumulative effect of multiple properties implementing hardscape. The negative impacts can extend beyond a single property and affect the entire river geomorphological process. Therefore, it's important to carefully evaluate the potential consequences before deciding to implement hardscape retaining walls, considering both the short-term benefits and the long-term implications on the surrounding environment.

Recommendations

Based on the preliminary evaluation of the slope stability and erosion hazards at the site from a geotechnical perspective, we conclude that the use of a hardscape retaining wall was not required. The foundation to support our recommendations are summarized below:

- More sustainable erosion mitigation techniques are feasible to be implemented at the site such as regrading, naturalization, or bio-engineering erosion mitigation techniques. These measures can help stabilize the slope and limit erosion risks without the need for a hardscape retaining wall.
 - Naturalizing the shoreline with appropriate vegetation can help control erosion and enhance the resilience of the slope.



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Technical Review • Memorandum Review of Slope Stability & Erosion Hazards

December 4, 2023

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- Bio-engineering techniques, such as using erosion control blankets or green retaining wall, can also be considered to mitigate erosion and promote slope stability (if required)
- Implementing and managing runoff water originating from the upper part of the slope, which appears to be the primary factor contributing to some of the surficial erosion observed damages.
- Implementing stormwater management techniques, such as installing permeable surfaces or rain gardens, can help capture and slow down runoff water, reducing its erosive potential. This would involve potentially reducing or revisiting the use of interlocked paver as this would increase the volume of runoff water originating from the top of the slope.
- The use of riparian buffers with appropriate native plants along the shoreline can help absorb and filter runoff water, preventing further erosion.

Conclusion

In conclusion, based on our geotechnical evaluation, we find that the installation of a hardscape retaining wall was not necessary for addressing the specific concerns of structural stability and erosion at the site. The slope has been shown to have adequate stability and can be effectively managed through alternative measures like regrading, naturalization, and bio-engineering. Furthermore, the observed erosion issues appear to be primarily a result of the degradation of the previous wooden retaining walls and runoff water from the slope.

We trust, this is suitable for your purposes at the present. Please call if you have any questions.

Best Regards,

Department of Engineering and Regulation

Isabelle Maltais, P. Eng.

Natural Hazard Water Resources Engineer

Exhibit 25 – Notification Letter November 17, 2023 1/2

RVCA — Notice of Application Review
Ont. Reg. 174/06, S. 28 *Conservation Authorities Act*
1990, As Amended.

Date: November 17, 2023
File: RV3-5923
Contact: Nick Fritzsche

Karen Sergeant
6079 James Bell Drive
Manotick, ON K4M 1B3



Subject: Alteration to a Shoreline Under Section 28 of the Conservation Authorities Act for at 6079 James Bell Drive, Lot 11, Concession A, former Township of Rideau, now in the City of Ottawa.

Roll Number: 06141828200210000000

Dear Mrs. Karen Sergeant,

The Rideau Valley Conservation Authority has reviewed the application and understands the proposal to be for:

- The installation of an approximately 30 metre metre-long armour stone retaining wall of 29" to 48" (2 blocks – 3 blocks) in height to on the slope adjacent to the Rideau River.
- Install 7' x 13' access stairs and relocate to opposite side of tree. The relocated stairs are approximately 2.13 metres in height.
- Approximately 19 metres of existing slope behind proposed wall to be cut back to a 2.5:1 - 3:1 slope ratio. Slope to be planted with natural vegetation and covered with appropriate erosion control blanket.
- The existing interlock surrounding dwelling on table land to be expanded around the eastern side of the dwelling with additional interlock.
- Leveling out of existing concrete pad with new gravel and interlock on concrete pad.

The information received in the application was reviewed under Ontario Regulation 174/06 (Development Regulation) which the Conservation Authority administers under Section 28 of the Conservation Authorities Act, R.S.O., 1990 as amended and the approved "Policies Regarding the Construction of Buildings and Structures, Placing of Fill and Alteration to Waterways" (Adopted by Executive Committee, and last revised February 22, 2018). Specifically, the application was reviewed under Section 1.1 General Principles, 2.0 Policies Regarding the Placing of Fill and Section 3.0 Policies Regarding Alteration to Waterways Applications.

Section 28 of the Conservation Authorities Act R.S.O. 1990 states:

28.1 (1) An authority may issue a permit to a person to engage in an activity specified in the permit that would otherwise be prohibited by section 28, if, in the opinion of the authority,

- The activity is not likely to affect the control of flooding, erosion, dynamic beaches or pollution or the conservation of land.

Section 1.1 General Principles of the Local Development Policies states:

1.1 The Authority's consideration of all applications for permission to construct buildings and structures and to place fill or undertake site grading or to alter a waterway will be guided by the following principles of flood plain and watershed management:

- New development must not, in the opinion of the Authority, have the result of polluting or contributing to the pollution of the abutting watercourse nor will new development be permitted which will adversely affect the Authority's interest in terms of the conservation of land.
- Development is to be set back a minimum distance of 30 metres from the normal high-water mark of a water course. Additionally, where there is a defined bank, development shall be no closer than 15 metres from the top of the bank.

Section 2.0 Policies Regarding the Placing of Fill of the Local Development Policy states:

2.7 General Provisions

- Matters related to the conservation of land shall be addressed such that a net environmental gain shall be achieved associated with on-site natural heritage features (wooded areas, riparian zones, wildlife habitat, etc.)

Section 3.0 & 3.1 of RVCA's Local Development Policies states:

The Conservation Authority's primary interest is the preservation of natural channels which perform natural functions and the restoration of such natural functions where degradation has occurred. Altering, straightening, changing, diverting or interfering with the channel of any natural watercourse in the Authority's area of jurisdiction must meet the following requirements.

- Shoreline alteration and disturbance related to the provision of water access or viewing points including docks, boathouses, boat launch ramps, boat lifts, mooring points, decks, gazebos etc. must not result in a cumulative disturbance of more than 25% of the width (river frontage) of the property to a maximum of 50 feet (15.24 metres) whichever is less. The balance of the lot frontage will be left undisturbed in a state of nature.

RVCA's Strategic Plan, updated in 2020, states:

Our Vision: A thriving watershed with clean abundant water, natural shorelines, rich forests and wetlands, diverse habitat and sustainable land use that is valued and protected by all.

Site Specific Review:

Based on previous site visit on August 29, 2023, it appeared there was minimal erosion occurring along the slope adjacent to the concrete pad. There was evidence of a previous retaining wall constructed with wooden railway ties, however there was opportunity to re-

naturalize the slope by cutting back, applying an erosion control blanket and planting a selection of native plants. Some work had begun without a permit, excavation around the home's foundation and re-grading of table land was observed. A concrete stone lip/border of approximately 4" inches in height had been installed along the edge of the concrete pad.

Following the site visit on August 29, 2023, Site Plan and Cross Section Drawings are submitted based on a design discussed with RVCA staff during pre-consultation meetings. The submitted application is reviewed based on RVCA Local Development Policy and approved on October 12, 2023.

On October 17, 2023, you and your agent initiated a request for a hearing with the Executive Committee. RVCA staff met with you and your agent on site on October 19, 2023. During the site visit it was observed by RVCA staff that works completed at 6079 James Bell had gone beyond the scope of the design approved in the RVCA Letter of Permission, approved on October 12, 2023.

The revised application submitted on November 15, 2023, was reviewed against the policy sections as described above. The current proposal as described on the submitted site plan indicates a 29" to 48" inch approximately 30-metre-long vertical armour stone wall approximately 13'-18' feet from the shoreline. An additional 18" inch 21-metre-long armour stone retaining wall is proposed along the southern edge of the property.

The submission also includes a cross-section diagram. The cross-section drawing indicates the proposal to place the armour stone on the existing concrete pad. And to taper the armour stone wall up to 4 stones high.

Additional interlock hardscaping is proposed on the table land, including up to the crest of the slope in some places. The proposal indicates removal of existing stairs, and replacement with new stairs in a new location. The stairs are abutted with tapered armour stone walls 2 to 5 stones high, a height of 2.13 metres.

The existing deteriorated brick crib containing a tree has been removed and replaced with a larger armour stone crib. The vertical wall facing the shoreline is 48" inches tall and 13' feet from the shoreline. The wall tapers up to 5 stone high where it meets table land at 88.80 metres geodetic (approximately 2.13 metres tall).

Gravel topped with interlock will result in the placement of approximately 7.4 cubic meters of fill within the 1:100-year floodplain on the existing concrete pad. The concrete pad is beyond the property limit and extends over the bed of the Rideau River which is Federal Crown Land.

Summary:

In summary, the application does not meet the current Local Policy respecting alterations to waterways applications, and at a staff level a recommendation for approval cannot be made for the following reasons:

- The granting of permission will be inconsistent with the approved Development Policies approved by the RVCA Board of Directors February 22, 2012 and will have consequences for floodplain storage capacity and conservation of land issues.
- The granting of permission will be inconsistent with RVCA's [Strategic Plan](#), updated in 2020.

Exhibit 25 – Notification Letter November 17, 2023 2/2

3. Existing conditions on site with respect to erosion do not warrant the type/size of retaining wall proposed.
4. The granting of permission will set a precedent for shoreline development on the Rideau River.

It is understood that you wish to pursue the matter to the Executive Committee for a hearing of the application. Therefore, by this letter you are advised that pursuant to Section 28, subsection 12 of the *Conservation Authorities Act*, R.S.O. 1990, as amended, the Executive Committee of the Rideau Valley Conservation Authority will be meeting to review your application on **Thursday December 14, 2023**.

The meeting will commence at 19:00 hours in the Boardroom at the RVCA Office located at 3889 Rideau Valley Drive North, Manotick. Any technical or legal counsel who might wish to accompany you may also attend at this time.

Please be advised that if you or a representative does not attend the meeting, or reschedule the meeting date, the Executive Committee may proceed with the hearing in your absence and you may not be entitled to any further notice in the proceedings.

Should you have any questions please contact our office.

Yours truly,

A handwritten signature in blue ink, appearing to read 'Nick Fritzsche', is written over a horizontal line.

Nick Fritzsche, S28 Regulations Inspector

Policy Implications

- The information received in the application was reviewed under RVCA's Development Policies which the Conservation Authority administers under Section 28 of the Conservation Authorities Act.
- Specifically, this application was reviewed under:
 - Section 1.1 *General Principles*
 - Section 2.0 *Policies Regarding Placing of Fill*
 - *Section 2.7*
 - Section 3.0 *Policies Regarding Alterations to Waterways Applications*
 - *Section 3.1*
- Certain aspects of the retroactive revised development proposal **do not meet** criteria outlined in RVCA's development policy.

Conservation Authorities Act – Section 28

28.1 (1) An authority may issue a permit to a person to engage in an activity specified in the permit that would otherwise be prohibited by section 28, if, in the opinion of the authority,

a) The activity is not likely to affect the control of flooding, erosion, dynamic beaches or pollution or the conservation of land.

Ontario Regulation 174/06, Development Prohibited

- 2. (1) Subject to section 3, no person shall undertake development or permit another person to undertake development in or on the areas within the jurisdiction of the Authority that are,*
- b) river or stream valleys that have depressional features associated with a river or stream, whether or not they contain a watercourse, the limits of which are determined in accordance with the following rules:*
 - i. where the river or stream valley is apparent and has stable slopes, the valley extends from the stable top of bank, plus 15 metres, to a similar point on the opposite side*
- 3. (1) The Authority may grant permission for development in or on the areas described in subsection 2 (1) if, in its opinion, the control of flooding, erosion, dynamic beaches, pollution or the conservation of land will not be affected by the development. O. Reg. 174/06, s. 3 (1).*

RVCA Local Development Policy 1/4

Section 1.1 General Principles

- *1.1 The Authority's consideration of all applications for permission to construct buildings and structures and to place fill or undertake site grading or to alter a waterway will be guided by the following principles of flood plain and watershed management:*
 - a) New development must not, in the opinion of the Authority, have the result of polluting or contributing to the pollution of the abutting watercourse nor will new development be permitted which will adversely affect the Authority's interest in terms of the conservation of land.*
 - b) Development is to be set back a minimum distance of 30 metres from the normal high-water mark of a water course. Additionally, where there is a defined bank, development shall be no closer than 15 metres from the top of the bank.*

RVCA Local Development Policy 2/4

Section 2.0 Policies Regarding the Placing of Fill

- *2.0 Within the allowance of the regulatory floodplain described in Section 1.6 site grading or fill placement or removal may be permitted provided it will not have an adverse effect on the control of flooding, erosion, pollution, or the conservation of land.*
- *2.7 General Provisions*
 - a) *Matters related to the conservation of land shall be addressed such that a **net environmental gain** shall be achieved associated with on-site natural heritage features (wooded areas, riparian zones, wildlife habitat, etc.)*

RVCA Local Development Policy 3/4

Section 3.0 Policies Regarding Alterations to Waterways Applications

- *The Conservation Authority's primary interest is the **preservation of natural channels which perform natural functions and the restoration of such natural functions where degradation has occurred**. Altering, straightening, changing, diverting or interfering with the channel of any natural watercourse in the Authority's area of jurisdiction must meet the following requirements.*

RVCA Local Development Policy 4/4

Section 3.1

(i) Shoreline protection/improvement projects must meet the following criteria:

*b. Transitions from **proposed protection to adjacent shorelines must be designed so that local erosion, debris accumulation or undesirable changes in local currents will not occur.***

(ii) Shoreline alteration and disturbance related to the provision of water access or viewing points including docks, boathouses, boat launch ramps, boat lifts, mooring points, decks, gazebos etc. must not result in a cumulative disturbance of more than 25% of the width (river frontage) of the property to a maximum of 50 feet (15.24 metres) whichever is less. The balance of the lot frontage will be left undisturbed in a state of nature.

RVCA Strategic Plan

- *Our Vision: A thriving watershed with clean abundant water, **natural shorelines**, rich forests and wetlands, diverse habitat and sustainable land use that is valued and protected by all.*

Summary

The development proposal cannot be approved at a staff level due to the following reasons:

1. The granting of permission will be inconsistent with the approved Development Policies, Sections 1.1, 2.0, 2.7, 3.0 and 3.1, as amended and approved by the RVCA Board of Directors, February 2018; specifically:
 - a. Development entirely within the 30-metre setback of the Rideau River without any net environmental gain for the riparian zone.
 - b. Fill within the 1:100-year floodplain resulting in adverse impact for flood control due to cumulative loss of floodplain storage capacity.
 - c. Adverse impact with the respect to pollution control due to reduced infiltration and increased runoff from hardened surfaces.
 - d. Increased erosion potential due to sheet runoff and on adjacent shorelines.
2. The granting of permission will set a precedent for shoreline development and hardening on the Rideau River.
3. The project is inconsistent with the principles of conservation of land because it removes natural shoreline functions.

**Document submitted to the Hearing Board by applicant Karen
Sergeant**

File number: RV3-59/23

December 14, 2023



6079 James bell Aug 29, 2023



