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**TO:** GENERAL COMMITTEE

**SUBJECT:** ALLANDALE HISTORIC TRAIN - ENGINE 1531

**WARD:** ALL

**PREPARED BY AND KEY CONTACT:** O. GROVES, MANAGER OF CULTURE, EXT 4794

**SUBMITTED BY:** K. DUBEAU, DIRECTOR OF CREATIVE ECONOMY

**GENERAL MANAGER APPROVAL:** Z. LIFSHIZ, EXECUTIVE DIRECTOR OF INVEST BARRIE

**CHIEF ADMINISTRATIVE OFFICER APPROVAL:** M. PROWSE, CHIEF ADMINISTRATIVE OFFICER

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### **RECOMMENDED MOTION**

1. That staff in Creative Economy and Legal Services be directed to enter into exploratory negotiations with the Simcoe County Museum and "The Friends" organization regarding a potential donation of Engine 1531 to the Simcoe County Museum, to be included as part of the Museum's larger exhibit that aims to educate the public about local railway heritage and the role of railways in developing Simcoe County, with an emphasis on City of Barrie and the Allandale Station.
2. That should the gifting of the historic Engine be approved, staff in Creative Economy and Corporate Facilities report back to General Committee regarding options and associated costs for recognition of the significance of railways to the development of the City of Barrie in and around the Allandale Train station through community displays.
3. That staff in Creative Economy report back to General Committee updating the status of negotiations, and any resulting financial implications.

### **PURPOSE & BACKGROUND**

#### Report Overview

1. Motion 15-G-162, approved by City Council on June 29, 2015, directed the following:  
  
"That staff in the Department of Culture be authorized to work with the County of Simcoe to prepare a plan for the final restoration work, return and installation of Engine 1531 to the Allandale Station lands and report back to Council with the plan to include at a minimum estimated costs, potential sponsorship, and schedule".  
  
The purpose of this report is to follow up on the motion and to provide City Council with an update on the work that has been completed to date.
2. Barrie has an extensive and revered railway history. The Canadian National Railway's Allandale Station has been designated as a heritage station because of its historical, architectural and environmental significance.

3. Steam Engine 1531 is part of this history as it was built in Quebec in 1910 by the Montreal Locomotive Works and used by the CN Railway unit the late 1950's when it was stationed at Allandale. Donated to the City in 1960, the engine was originally placed on display on the lakeshore for the community to enjoy. This was followed in 1995 by CN Railway's donation of the caboose. Although these particular pieces were never used in Barrie, the Engine, Tender Box and Caboose are representative of railway equipment that was used here.
4. The Engine was exhibited on Barrie's waterfront for many years. At the time of the donation, it was the intention of the CN pensioners group to provide the volunteer labour to maintain the equipment, which was the case in early years. The volunteer base of the CN Pensioners declined over the years as their membership base aged and they were no longer able to assist in the maintenance of the equipment.
5. The original display was open to the public but consequently became a target of vandalism, which resulted in the installation of a chain link fence to provide it some protection from vandalism. However, due to time and weather factors, the equipment experienced significant deterioration.
6. In 2008 the waterfront began significant renovation and the Engine was located near a sewer that needed to be replaced. In an effort to avoid further damage to the Engine the City of Barrie moved the Engine from the City's waterfront to the Simcoe County Museum where it is currently stored. The cost to move the engine at that time was \$89,000. Staff were also asked to determine costs for the restoration and preservation of the Engine, in addition to undertaking a hazardous material abatement program, and to plan for a future return of the Engine to Allandale station (Motion 15-G-162).
7. The Engine is on loan to the County as per the executed Letter of Agreement, Appendix "A". The City of Barrie maintains sole ownership of the Engine and is responsible for any costs including insurance, removal of any hazardous materials, transportation to a new location, and/or restoration.
8. The Museum developed a static restoration plan for the City's consideration, attached as Appendix "B". The full restoration and preservation project costs were estimated to be \$435,000. Only the hazardous material abatement portion of the project was approved to proceed.
9. A hazardous material abatement project was completed by Decommissioning Consulting Services (DCS) in July of 2012, to remove all asbestos and lead paint from the Engine. At this time the boiler jacket and the back box was removed, thoroughly cleaned of asbestos and placed into containers for storage, tagged and mapped for future use. The intent is that these parts, although significantly decayed, would be used as the mold to reproduce the same parts in the future. The City of Barrie covered these expenses at a cost of approximately \$75,000.
10. Staff at the Simcoe County Museum worked with the Canadian Conservation Institute and conducted a free workshop in 2012 for conservators and museum technicians. This allowed volunteers the opportunity to participate in a hands-on restoration of industrial objects. Workshop participants cleaned out various portions of the Engine and Tender in preparation for asbestos and lead abatement, and painted some surfaces of the Engine – as per Appendix "C" – a report by County staff sent to the County's Performance Management Committee (Item PM 09-098).
11. The additional elements of the proposed static restoration and preservation program were not actioned.
12. In August of 2017, Culture Staff received an updated quote for the restoration and preservation of the Engine, Tender and Caboose. This would ensure the longevity of the historic engine, and the eventual transportation back to the Allandale station. The quote is estimated at \$316,000, as follows:

• Restore and reassemble the locomotive	\$ 95,000
• Create and install a new foundation	\$ 30,000
• Relocate the Engine	\$126,000
• Sandblasting and Fabrication of missing parts	<u>\$ 65,000</u>
	\$316,000

13. After the Engine was installed at the Simcoe County Museum, the Allandale Train Station underwent a renovation and restoration. This project is currently on hold, as there was a discovery made that incited a Stage 4 archeological investigation of the site. There is no completion date available for the site at this time.

### ANALYSIS

14. Engine 1531 has been at the Simcoe County Museum since 2008 and other than the asbestos abatement and minor paint work, there has not been any maintenance or restoration work completed on it. The Engine is in poor condition and the longer it remains this way, the greater will be the effort and cost required to restore and preserve it.
15. The Engine cannot be returned to the Allandale Station Lands until the archeological questions are resolved. The timeline on this is not yet determined.
16. The display of Engine 1531 at the Simcoe County Museum is a good fit with the Museum's theme of Barrie and Simcoe County in the early 20<sup>th</sup> century, covering the period of late 1800's to early 1900's. Additional displays reflecting that period in Barrie's history include the Barrie Street Exhibit, The Barrie Bell automobile and a 1905 replica of the Allandale Railway station.
17. The City of Barrie has a long association with the Simcoe County Museum, beginning in 1928 when the original museum was located in Barrie. It is estimated that 60% of annual visitors to the Simcoe County Museum are residents of Barrie. Over the years, the City of Barrie has contributed to the Museum, including \$324,000 in 2008 towards a capital expansion campaign for the facility.
18. Given the direct linkages between the Engine with the existing historic exhibits at the Simcoe County Museum, and the extensive community partnerships in place with the Museum, it is a natural home for the Engine, Tender and Caboose. The Museum would serve as an ideal location for the Engine to be shared with the community in the long term, and the reason staff are recommending City Council consider donating the Engine to the Museum.
19. The Simcoe County Museum is a vibrant and active facility that attracts over 30,000 visitors annually, largely comprised of families with 1/3 of those visits allocated to school group visits.
20. The staff at the Museum are better able to provide the maintenance and oversight that the Engine requires over the long term as they employ a curator, a registrar and a collections technician that are trained in the proper care and management of exhibits.
21. The Simcoe County Museum has an Advisory Committee comprised of the following members: David Snedden, Ian Chadwick, and Sheila Craig, as well as Barry Burton (Deputy Mayor of Clearview), Mayor Jeff Lehman (City of Barrie), Gary Marshall (Warden of Simcoe County) and Mike Ross (Deputy Mayor of Midland).
22. In the event that Council decides to pursue the option of gifting the Engine to the Museum, the City of Barrie would likely need to contribute funding towards a campaign for the restoration and preservation of the historic engine. The Museum and supportive not-for-profit organizations (such as "The Friends" - a not-for-profit organization that supports the Simcoe County Museum through

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fundraising efforts, research projects and volunteer efforts) may be able to leverage other funding sources to supplement the financial resources needed to complete the work.

23. Should City Council consider restoring the Engine independently from the decision to either gift the Engine to the Museum or to move it back to the Allandale Station, the costs for restoring, preserving and moving the locomotive will continue to increase with time. If City Council were to consider restoring the Engine, it would be prudent to embark upon this initiative in the near future. The restoration and preservation costs would be \$160,000 based on the 2017 estimates.
24. The City of Barrie has made existing expenditures of approximately \$200,000 to place fencing around the Engine when it was at Allandale Station, to move it to the Simcoe County Museum and to remove the hazardous materials from the Engine and Tender Box.
25. There are several local groups, such as the CN Pensioners and the Allandale Historic Association that have demonstrated some interest in financially contributing to a project to restore and re-locate the Engine, but it is difficult to measure the dollar value of their interest without engaging them in a fundraising campaign. In addition, an organization such as "The Friends" as a not-for-profit, may have access to funding programs for historic and educational initiatives, which could include the restoration and preservation of the Engine, Tender and Caboose.

#### **ENVIRONMENTAL MATTERS**

26. There are no environmental matters related to the recommendation.

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## **ALTERNATIVES**

27. The following alternatives are available for consideration by General Committee:

### **Alternative #1**

General Committee could decide to maintain ownership of the Engine, and to direct staff to discuss with Simcoe County Museum options for the engine to remain at the museum until such time that the Engine can be restored and returned to the Allandale Station lands.

This alternative is not recommended as it may be a long period of time until the assessments on the Allandale Station lands are completed. This could mean that the Engine would further decay and the costs for restoration and transportation would then increase further.

### **Alternative #2**

General Committee could alter the proposed recommendation by maintaining the ownership of the Engine and restoring it, with a new agreement with the County that will ensure it is maintained by the County until a time when it can be moved to the Allandale Station lands.

Although this alternative is a possibility it would require City Council creating a plan for raising the necessary funds for the restoration and preservation of the Engine, in addition to eventual costs for moving and installing the Engine. This project is not currently allocated within City budgets.

### **Alternative #3**

The City of Barrie could decide to cover the costs of renovating the Engine and decide to move it to a different location.

This alternative is not recommended, as there is no other location in Barrie that speaks to the history of the railway, as much as the Allandale Train Station does. The Simcoe County Museum has more expertise on exhibiting historical items properly.

## **FINANCIAL**

28. There are no financial implications for the Corporation resulting from the proposed recommendation.

## **LINKAGE TO 2014-2018 STRATEGIC PLAN**

29. The recommendations included in this Staff Report support the following goals identified in the 2014-2018 Strategic Plan:

Responsible Spending

30. Given the costs of restoring, preserving and moving the Engine, the option of donating or gifting the Engine to the Museum is a more cost effective solution to ensuring that the historic Engine is maintained in a venue that is widely accessible to the public and reinforces public education regarding the importance of the railway to the Barrie area.

Appendices: Appendix "A" – Letter of Agreement  
Appendix "B" – Restoration Plan  
Appendix "C" - County Performance Management Committee Report

**LETTER OF AGREEMENT**

Between

**THE CORPORATION OF THE CITY OF BARRIE**

(hereinafter referred to as “the City”)

OF THE FIRST PART

And

**THE CORPORATION OF THE COUNTY OF SIMCOE**

(hereinafter referred to as “the County”)

OF THE SECOND PART

NOW THEREFORE the City and the County agree as follows:

1. That this Agreement shall be effective as of \_\_\_\_\_, 2008 and shall remain in force and effect until either of the parties give 90 days written notice to the other to terminate the agreement.
2. The County will hold on site and display at the Simcoe County Museum Locomotive 1531, its Tender and CN Caboose 79374 (hereinafter referred to as “the Train”) for the purposes of educating the public regarding local railway heritage.
3. The Train will be delivered to the County’s Museum premises by a qualified business designated by the City, only when such person is fully protected by the existing insurance coverage of the City. The City will forward a copy of this insurance coverage to the County. Notwithstanding this provision, the County’s Museum personnel may move the Train small distances within the grounds of the Museum.
4. The City will ensure that adequate insurance is in place to fully protect the County from any possible liability howsoever arising from the County’s Museum display of the Train, and further that comprehensive coverage for any and all possible damage to the Train arising through the County’s Museum’s display of the Train is in place and in force at all times. A copy of the policy or certificate of insurance and a signed letter of insurance shall be provided to the Clerk of the Corporation of the County of Simcoe upon delivery of the Train to the County’s Museum.
5. The County’s Museum will exercise the same care in respect to the Train as it does for the safekeeping of its own property.

6. The County acknowledges and agrees that continuously throughout the County's Museum's display of the Train, the Train shall be cared for in the most appropriate manner, in accordance with standard museological and conservation practices.
7. The City will be responsible for all costs associated with the relocation of the Train to the County's Museum, and the removal of hazardous materials, including asbestos and lead paint from the Locomotive, Tender, and Caboose. The removal of hazardous materials will be completed in a manner that complies with all County of Simcoe health and safety requirements and policies.
8. The City will be responsible for all costs associated with the relocation of the Train from the County's Museum site, should the City choose to give notice and remove the Train from the County Museum site.
9. The County's Museum staff will develop a restoration plan and include a budget for the City's consideration during the 2009 budget process. It is agreed that this plan will include long term requirements to house and restore the Train at the County's Museum site.
10. The City will be responsible for all costs associated with the restoration of the Locomotive, Tender and Caboose. The County agrees to supply staff and volunteer labour, as resources permit, to assist in the restoration process.
11. The County acknowledges and agrees that throughout the County's Museum display of the Train, sufficient security and arrangements will be in place at all times to ensure the safety of the Train. The County's Museum shall take all necessary measures to ensure that the Train is not accessible to the public in such a manner that it can be physically damaged.
12. Prior to accepting possession of the Train, the County's Museum staff, in the company of the City's employee, will perform a visual inspection of the Train and will note in writing, as well as document with photographs, any damage to the Train with both parties executing such written damage report. Prior to accepting back possession of the Train, the City's employee, in the company of the County's Museum staff, will perform a visual inspection of the Train and will note in writing any damage found occasioned through the display of the Train by the County's Museum and will leave with the County's Museum a copy of any such notation.
13. All parties agree that the Train is unique and to retain such character, it cannot be repaired by any conventional commercial institution. Any and all damage occasioned to the Train will be repaired as directed by the City in a manner as







# Recommendations for the Restoration of Engine 1531 and CN Caboose

July 23, 2009

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## **Recommendations for the Restoration of Engine 1531 and CN Caboose**

Prepared by the Simcoe County Museum for the City of Barrie, July 2009

### **Background**

The purpose of this report is to outline the next steps and associated costs for the restoration of Engine 1531 and caboose 79374.

### **Overview of Recommendations by Museum Staff**

- Restore the engine and caboose cosmetically for static display to their periods of last use (1958 and 1995 respectively)
- Have asbestos abatement completed by a qualified contractor.
- Have a structure built to protect the engine and caboose.

### **Background of Investigation by CCI**

Following relocation of the engine and caboose to Simcoe County Museum in August 2008, Museum staff began to assess the condition and scope of work involved in the preservation of these important historic artifacts. To assist with this process, the Museum commissioned George Prytulak, Conservator of Industrial Objects and Public Art, Canadian Conservation Institute (CCI), to prepare a report outlining the current condition of the engine and caboose with recommendations for long term care and preservation.

A thorough assessment of the condition of all visible and accessible components of the engine, tender, and caboose was undertaken. The resultant report consisted of a 51 page written report, as well as hundreds of digital images. While the report did not detail the steps and procedures to be followed in restoring the engine, it did provide us with a thorough condition report and recommendations for remedial processes which would help preserve these artifacts over the long-term. A summation of recommendations from the report can be viewed in Appendix 3.

### **Nature of Display**

It is recommended (and to a certain extent assumed) that Engine 1531 be prepared for static display. At this point in time it would seem frivolous to investigate the possibility of returning the Engine to operating condition due to the absence of a line on which to run. The nature of the cosmetic restoration should not however disable or cause further damage to the engine and its many components. While a cosmetic restoration of the Engine will greatly enhance its



aesthetic appearance, more importantly it will encompass many preservation issues. Ideally existing damage will be corrected and further deterioration would be slowed if not halted altogether.

## **Hazardous Materials Abatement**

While it is always desirable to maintain as much of an artifact's original fabric as possible, it would appear in this instance that the best course of action would be to remove the asbestos lagging from around the boiler of Engine 1531. Maintaining the lagging would involve extensive repair and consolidation of the existing jacket to satisfy the provincial regulations governing asbestos. Additionally, extensive maintenance would be required to ensure the jacket remained watertight, structurally sound, and able to contain the asbestos lagging (insulation). An additional concern is the fact that it is difficult to monitor the extent of moisture infiltration and resultant damage to the boiler and fittings that would be caused from the lagging retaining moisture.

In planning for the abatement process, it is recommended that the following steps be completed:

- In order to facilitate removal of the jacket, any components that need to be removed must be handled carefully, tagged, and stored in a secure location out of the elements. To ensure consistency and accuracy, the individuals involved in removing the components should also be the ones who reinstall them.
- The existing jacket must be mapped/tagged in such a manner that it can be reconstructed and used as a pattern to replicate a new one for display purposes.
- The abatement contractor should be chosen based on their experience in working on heritage projects and familiarity with railway equipment. A hasty job by inexperienced personnel could cause loss or damage to valuable materials and components, resulting in increased restoration time and costs.
- Budget should be allocated for the reproduction and installation of a new jacket for display purposes.

## **Preservation/Restoration Initiatives**

The long term preservation and display of 1531 is dependent upon a number of remedial and restorative measures being implemented in a timely fashion. It is likely that a host of



individuals will be involved in these processes, including volunteers experienced in working with heavy equipment, volunteer researchers, as well as skilled contractors and trades people.

The following list provides an overview of the main steps in the restoration process.

- 1) Remedial measures – clean, coat, and seal interior of smokebox, tool cribs, water tank, and firebox.
- 2) Prepare for Hazardous Materials Abatement – remove, document, and store in a secure location all fittings and attachments from boiler proper (skyline, compressors, tanks, walkways, handrails, piping, etc.) to enable removal of jacket.
- 3) Carefully map/label the boiler jacket to help preserve a pattern for replication of a new jacket.
- 4) Removal of boiler jacket and Hazardous Materials Abatement carried out by a qualified contractor.
- 5) Repair and/or replace damaged metal work as required. Problem areas include, but are not limited to, the tender body and locomotive cab.
- 6) Prepare the bare engine and tender for cleaning (media blasting), priming, and painting.
- 7) Install and paint reproduction boiler jacket.
- 8) Repair, reproduce, recoat, and reinstall all fittings and attachments as required.
- 9) Clean and coat bright-work (brass fittings, unpainted machined surfaces, etc.)
- 10) Finish detailing, including reapplication of heralds to tender body.
- 11) Construct protective structure or enclosure. Incorporate interpretive materials.

### Financial Implications and Timelines

While no quotations have as yet been requested for work pertaining specifically to the restoration of 1531, the following figures were recently prepared regarding the ongoing restoration of CNR 6167 at Guelph.

Action	Associated Cost
Removal of boiler fittings and attachments. Hazardous materials abatement. Fabrication and installation of new boiler jacket. Reinstallation of boiler fittings and attachments.	\$185,000



Media blasting, priming, painting	\$53,000
Mechanical and metal work	\$37,000
Equipment rental, consumables	\$40,000
Interpretive Material (signage, etc.)	\$20,000
Erection of protective structure	\$100,000

Total requirements for static restoration of locomotive and tender = <b>\$435,000</b>
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In examining the above figures it should be noted that CNR 6167 is a much larger engine than 1531. The above figures also do not take into account volunteer labour, or donations of time or materials of any kind.

Timelines for the completion of the cosmetic restoration of 1531 will be largely dependent upon the availability of funds and labour.

### **CN Caboose no. 79374**

Built in October 1970, the caboose was in service for twenty-five years prior to decommissioning in 1995. Although some would not consider it “old”, it is significant for the fact that it is representative of the end of the caboose era in rail transportation. It is recommended that the caboose be preserved as it was last used, particularly as it appears to have undergone few physical alterations in its service life.

It has been noted that the exterior paint finish is quite high in lead content. Fortunately the finish is relatively sound except in a few small concentrated areas. It would be ideal to maintain the existing finish “as is” with minor touch up, however if this treatment does not yield an appropriate aesthetic the existing finish would make a sound base coat over which to apply a fresh coating.

### **Preservation/Restoration Initiatives**

While the caboose is in good condition, there are a couple of immediate preventive measures that should be implemented to prevent further deterioration and increased costs of maintenance in the future.

The following list provides a brief overview of the immediate concerns.



- 1) Prep, caulk, and paint roof. The sheet metal roof is the first line of defense from the elements, and must be maintained in top condition.
- 2) Replace missing/broken glazing and renew weather stripping as required.
- 3) Prep and inpaint failures in exterior coatings.
- 4) Clean interior, including the removal of hazardous wastes and materials.

The full extent of restoration may be largely dependent upon intended use and interpretation. The above procedures will however go a long way toward preserving the caboose until further actions are planned.

### Contacts

<p>Exporail          Canadian Railway Museum          110, rue Saint-Pierre          Saint-Constant (Québec)          Canada J5A 1G7          450 632-2410: General Information          450 638-1522: Office          450 638-1563: Fax</p>	<p>George Prytulak          Conservator – Industrial Objects          Canadian Conservation Institute          1030 Innes Road          Ottawa, ON K1A 0M5          613-998-3721 ext. 230  <a href="mailto:george_prytulak@pch.gc.ca">george_prytulak@pch.gc.ca</a></p>
<p>Katherine McCracken          Director          Guelph Civic Museum (Guelph Museums)          6 Dublin St. S.          Guelph, ON N1H 4L5          519-836-1221 ext. 2775  <a href="mailto:katherine.mccracken@guelph.ca">katherine.mccracken@guelph.ca</a></p>	<p>Eric Smith          President, Operations Manager &amp; Master          Mechanic, Eric Smith:          South Simcoe Railway Heritage Corp.          P.O. Box 186,          Tottenham, ON L0G 1W0  <a href="mailto:smith@southsimcoerailway.ca">smith@southsimcoerailway.ca</a></p>



## **Appendix 1 Interpretation**

Built by Montreal Locomotive Works in 1910, the Engine we know as CN 1531 began its service life as Canadian Northern 261. When CNR acquired the engine around 1920 it was renumbered CN 1322. In March of 1958 the Engine was once again renumbered as 1531.

Although this engine was known as 1531 for the last few months of its almost fifty year career in active service, it seems most logical that it be restored to its period of last use. In approaching any restoration there are usually many options for period of interpretation. In some cases one may choose to restore to “as new” condition. Another option may be to conserve “as is”.

In the case of 1531 an “as new” approach would prove somewhat counter productive and much more expensive as many of the existing components had been updated over the course of its service life. This means that several components would not suit an “as new” restoration and would have to be replaced altogether, provided appropriate replacements could even be sourced.

Museum staff recommend cosmetically restoring 1531 to its period of last use (1958). In doing so, the maximum amount of existing material can be preserved. This gives us an interesting look at the manner in which these engines were maintained and adapted to provide service over an extended period of time. Restoration to this time period also provides a more accurate interpretation of the engine during its service life on the Allandale line. A certain reduction in restoration costs would also occur, as certain fixtures (such as the cab numerals) could be retained, as compared to having new components fabricated or sourced.

In order to educate a wide audience it will be necessary to augment the artifact display with a number of learning and presentation aids, including but not necessarily limited to interpretive signage. Some possible topics which could be interpreted are listed below.

- Acknowledgement of volunteers, donors, partners, supporters
- The physics of steam power.
- The role of railways in the development of Simcoe County with a strong emphasis on Barrie/Allandale.
- History of CNR 1531
- History of Montreal Locomotive Works
- Overview of the relocation and restoration process



## Appendix 2 Research Initiatives

While a considerable amount of historic and technical information has come to light, there are still many gaps in our understanding of the history of use and maintenance of 1531 and caboose 79374. In order to effectively interpret the history and significance of these artifacts to the general public, as well as gather enough information to carry out accurate cosmetic restorations, a number of avenues for research should be explored.

- The Canadian Railway Museum has archival documents in their holdings that pertain to 1531. These documents include a spec sheet, order book, and several drawings. Copies of this material should be acquired to assist in the cosmetic restoration and interpretation of 1531. Ideally these materials would be received in digital format as high quality scans. Alternately, photocopies would suffice.
- Source as many photos as possible from all time periods, particularly during service as 1531. Photographs will help us track some of the mechanical and cosmetic changes that were made over the course of the Engines service life. This will give us a better understanding of the Engines history of use, as well as assist in the completion of a more accurate cosmetic restoration. While there may be images in the holdings of various Museums, Archives, and railway preservation societies, Ian Wilson's books *Steam at Allandale* and *Steam Scenes of Allandale* are excellent starting points, particularly as they pertain to the last few years of active service.
- A considerable amount of maintenance and restorative work was undertaken in the course of 1531's display on Lakeshore Drive. It would be beneficial to document the nature and extent of work carried out. This would give us a clearer picture of which materials and components have been replaced, repaired, or modified, and assist in guiding some of the work to be undertaken during the process of cosmetic restoration.
- At the request of Simcoe County Museum a report has been compiled by George Prytulak of the Canadian Conservation Institute outlining recommendations for the preservation of Engine 1531 and CN Caboose 79374. The report contains some historical background information and a detailed assessment of cosmetic condition, as well as recommendations regarding many preservation and cosmetic restoration tasks and approaches.
- The City of Guelph is in the midst of performing a cosmetic restoration of CN 6167 with assistance from a number of groups including but not limited to Guelph Museums, Guelph Historical Railway Association, Guelph Arts Council, and a host of volunteers. A request has been put forth to obtain a copy of the restoration plan for CN 6167. While the two engines are somewhat different in time period and construction, there is much for us to learn from the restoration process currently underway on 6167.



**Appendix 3  
Summation of Recommendations from Canadian Conservation Institute Report**

**Priority – Urgent**

<b>Grouping</b>	<b>Action</b>
Cab	<ol style="list-style-type: none"> <li>1. derust and repaint roof and exterior walls</li> <li>2. weatherproof all holes, crevices and seams</li> <li>3. prime, paint and caulk edges of all wood around window sashes</li> <li>4. prime, repaint and weatherproof window sashes</li> <li>5. clean, derust, prime and paint cab running boards; drill drainage holes if necessary</li> </ol>
Boiler	<ol style="list-style-type: none"> <li>1. recaulk and repaint all jacketing seams (not necessary if abatement is proceeding)</li> <li>2. repaint all exterior surfaces</li> <li>3. seal cracks in smokebox door</li> </ol>
Boiler Attachments	<ol style="list-style-type: none"> <li>1. clean and repaint exterior surfaces</li> <li>2. recaulk all seams and openings</li> </ol>
Engine & Driving Gear	<ol style="list-style-type: none"> <li>1. repaint and weatherproof metal jackets on cylinders and air compressors</li> </ol>
Operational Attachments	<ol style="list-style-type: none"> <li>1. install new rubber gaskets on headlight access doors</li> </ol>

**Priority – High**

<b>Grouping</b>	<b>Action</b>
Cab	<ol style="list-style-type: none"> <li>1. improve operation and appearance of rear doorway</li> <li>2. fabricate and install replica windows on right side</li> <li>3. repaint and weatherproof front doors and windows</li> <li>4. collect and catalog all loose parts</li> </ol>
Boiler	<ol style="list-style-type: none"> <li>1. open and clean out firebox</li> <li>2. open and clean out smokebox</li> </ol>
Engine & Driving Gear	<ol style="list-style-type: none"> <li>1. derust and repaint all exterior surfaces</li> <li>2. coat interior surfaces of journal boxes with heavy-duty rust preventive compound</li> </ol>
Tender	<ol style="list-style-type: none"> <li>1. repair holes in side walls of water tank</li> </ol>

	<ol style="list-style-type: none"> <li>2. clean out tool cribs; catalog and save worthwhile finds</li> <li>3. repair and paint floor of coal hopper</li> <li>4. derust and repaint exterior of water tank</li> <li>5. clean, paint and weatherproof rear light</li> <li>6. clean out water tank</li> </ol>
Caboose	<ol style="list-style-type: none"> <li>1. derust, prime and paint roof (or install EPDM membrane); caulk all seams and fittings with urethane sealant</li> <li>2. replace glazing on proper left side of cupola</li> <li>3. determine source of water leak in galley dining area; make necessary repairs</li> <li>4. replace all window and signal lamp gaskets with new material</li> <li>5. replace caulking around all windows</li> <li>6. fill breaks in exterior paint layers of side walls and bumper beams; inpaint repairs to match surroundings</li> <li>7. clean interior; catalog and dispose of hazardous materials; remove, catalog and store paper documents and other loose items</li> </ol>

**Priority – Medium**

<b>Grouping</b>	<b>Action</b>
Cab	<ol style="list-style-type: none"> <li>1. clean cab interior; remove interpretive material</li> <li>2. repair ventilator hatch hinges</li> <li>3. fabricate new forward roof ventilator hatch</li> <li>4. repaint both sides of interior masonite panels</li> <li>5. remove buckled rear panels; remove corrosion, repair and reinstall</li> </ol>
Operational Attachments	<ol style="list-style-type: none"> <li>1. replace connections to bell and whistle with more appropriate hardware</li> <li>2. fabricate replica number plate (bronze)</li> <li>3. fabricate replica number boards (glass)</li> </ol>
Tender	<ol style="list-style-type: none"> <li>1. install replica glass number board at back of tender</li> <li>2. install new wooden planking below water tank</li> <li>3. install new replica rubberized canvas hoses between tank and engine</li> <li>4. derust and repaint under frame, trucks and wheels</li> </ol>
Caboose	<ol style="list-style-type: none"> <li>1. install new replica wind deflectors</li> <li>2. replace windshield wiper blades (6)</li> </ol>



**Priority – Optional**

<b>Grouping</b>	<b>Action</b>
Cab	<ol style="list-style-type: none"><li>1. repaint interior lining with appropriate CN color</li><li>2. fabricate and install replica wind deflectors</li><li>3. fabricate and install replica awnings</li><li>4. replace Plexiglas window panes with safety glass</li><li>5. repaint exterior lettering</li><li>6. fabricate and install replica crew seats and armrests</li></ol>
Operational Attachments	<ol style="list-style-type: none"><li>1. repair break in drawbar</li></ol>
Tender	<ol style="list-style-type: none"><li>1. repaint exterior lettering and CN logos</li></ol>
Caboose	<ol style="list-style-type: none"><li>1. repaint exterior lettering and CN logos</li></ol>

# COUNTY OF SIMCOE

**ITEM FOR:** PERFORMANCE MANAGEMENT COMMITTEE  
**SECTION:** Museum  
**ITEM NO.** PM 08-104  
**MEETING DATE:** September 11, 2008  
**SUBJECT:** Engine 1531 Loan Agreement

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## **RECOMMENDATION:**

THAT the necessary by-law be presented to County Council to authorize the Warden and Clerk to execute a Loan Agreement with the City of Barrie substantively in the form attached as Schedule 1 of this Item to house and display the 1910 Steam Locomotive Engine 1531, Tender and Caboose at the Simcoe County Museum.

## **BACKGROUND:**

As a result of the recommendation of Performance Management Committee Report NO. PM 08-067, dated June 12, 2008, County Council approved the relocation of Engine 1531, its' Tender and CN Caboose from the City of Barrie's Lakeshore to the Simcoe County Museum. The relocation of these pieces was completed on August 20<sup>th</sup>, 2008.

Using the existing loan document for the Barrie Bell Car as a model, City of Barrie and County of Simcoe staff have drafted a Loan Agreement for the Engine, Tender and Caboose to satisfy the requirements of both parties.

The loan agreement outlines responsibilities for costs and resources associated with restoration, relocation and housing of the engine, tender and caboose. This Loan Agreement is attached as Schedule 1.

## **FINANCIAL ANALYSIS:**

There are no financial implications to this Item.

**SCHEDULES:** The following schedule is attached and forms part of this Item.

Schedule 1 - Loan Agreement between the City of Barrie and County of Simcoe.



Schedule 1 Loan Agreement

**PREPARED BY:** Kelley Swift Jones, Museum Curator

## **APPROVALS:**

Jane Sinclair, General Manager, Health & Cultural Services  
Craig Elliott, General Manager, Finance & Administration  
Mark Aitken, Chief Administrative Officer

September 2, 2008