



10. NEXT MEETING

11. ADJOURNMENT

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**NOTE: A copy of the full agenda package is available at the CVRD website [www.cvr.bc.ca](http://www.cvr.bc.ca)**

Director G. Giles, Chair  
Director P. Kent, Vice Chair

Director D. Haywood  
Director K. Cossey

Director B. Harrison

Minutes of the Kinsol Trestle Revitalization Committee Meeting held on Tuesday, March 9, 2010, at 3:30 p.m. in the Regional District Board Room, 175 Ingram Street, Duncan, BC

**PRESENT**

Director Gerry Giles, Chair  
Director Phil Kent, Vice-Chair  
Director Dave Haywood  
Director Ken Cossey  
Director Brian Harrison

**CVRD STAFF**

Brian Farquhar, Manager, Parks and Trails Division  
Warren Jones, Administrator  
Brian Dennison, General Manager, Engineering and Environmental Services  
Norm Olive, Manager Capital Project Management  
Mary Anne McAdam, Recording Secretary

**APPROVAL OF  
AGENDA**

It was Moved and Seconded  
That the agenda be approved as presented.

MOTION CARRIED

**M1 – MINUTES**

It was Moved and Seconded  
That the Minutes of the Kinsol Trestle Revitalization Committee Meeting of November 24, 2009, as presented, be accepted.

MOTION CARRIED

**CSM1 – CLOSED  
SESSION MINUTES**

It was Moved and Seconded  
That the Closed Session Minutes of the Kinsol Trestle Revitalization Committee Meeting of March 3, 2009, be accepted.

MOTION CARRIED

**STAFF REPORTS**

**R1 – Hiring of a  
Timber Conservative  
Specialist**

Staff report from Norm Olive, Manager, Capital Projects Management, regarding hiring of a Timber Conservation Specialist.

It was Moved and Seconded  
That a contract in the amount of \$344,879 (not including applicable taxes) be issued to Macdonald and Lawrence Timber Framing Ltd to undertake the scope of work detailed in their proposal dated the 3<sup>rd</sup> day of February 2010, submitted in response to the Request for Proposal ES-002-10 Kinsol Trestle Timber Conservation Specialist.

MOTION CARRIED

**R2 – Hiring of a Structural Engineer and Architect**

Staff report from Norm Olive, Manager, Capital Projects Management, regarding hiring of a Structural Engineer and Architect.

It was Moved and Seconded

That a contract in the amount of \$145,530 (not including applicable taxes) be issued to Stantec Consulting Ltd. to undertake the scope of work detailed in their proposal dated the 15<sup>th</sup> day of February 2010, submitted in response to the Request for Proposal ES-005-10 Kinsol Trestle Structural and Architectural Services.

MOTION CARRIED

**R3 – Cowichan Foundation Fundraising**

Brian Farquhar, Parks and Trails Manager, provided a verbal update on the status of the Cowichan Foundation Fundraising.

Received for information purposes.

**INFORMATION**

No additional information.

**NEW BUSINESS**

No new business.

**PUBLIC QUESTIONS**

There were no questions from the public.

**CLOSED SESSION**

It was Moved and Seconded

That the meeting be closed to the public in accordance with the *Community Charter* Part 4, Division 3, Section 90(1), subsections as noted in accordance with each agenda item.

MOTION CARRIED

The Committee moved into Closed Session at 3:50 p.m.

**RISE**

It was Moved and Seconded

That the Committee Rise without report

MOTION CARRIED

**ADJOURNMENT**

It was Moved and Seconded

That the meeting be adjourned.

MOTION CARRIED

The meeting adjourned at 4:55 p.m.

\_\_\_\_\_  
Chair

  
\_\_\_\_\_  
Recording Secretary



## STAFF REPORT

### KINSOL TRESTLE REVITALIZATION COMMITTEE MEETING OF JUNE 8, 2010

**DATE:** June 2, 2010  
**FROM:** Brian Farquhar, Parks and Trails Manager  
**SUBJECT:** Cowichan Foundation Kinsol Trestle Fundraising Campaign Update

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**Recommendation:**

That this report be received for information.

**Purpose:**

To provide background information in support of a Kinsol Trestle Fundraising Campaign update presentation by Clayton Consulting.

**Financial Implications:**

The Cowichan Foundation has taken on the fundraising target of \$2 million for the rehabilitation of the historic Kinsol Trestle, with over \$1 million already raised through the efforts of the Foundation's Kinsol Trestle Capital Campaign team.

**Interdepartmental/Agency Implications:**

The fundraising efforts of the Cowichan Foundation support the requirements for matching funding from the local community for major grant funds received from the Island Coastal Economic Trust, Provincial LocalMotion and Provincial/Federal Stimulus granting funding for the historic Kinsol Trestle Rehabilitation Project.

**Background:**

The Cowichan Foundation is continuing with the active fundraising campaign to raise the remaining funds of the \$2 million target set by the Society in support of the Kinsol Trestle rehabilitation project. Part of the campaign efforts are now being broadened into the local community with a number of specific fundraising activities, as well as heightening public and local business awareness of the active campaign. The attached "Update on the historic Kinsol Trestle Capital Campaign" was recently circulated to local supporters and businesses, which provides details on upcoming fundraising activities, events and status of the rehabilitation project. John Kaye and Signy Madden from Clayton Consulting will be at the Kinsol Trestle Rehabilitation Committee meeting to provide additional updates and details. Media coverage of the campaign has also been increased, with the Cowichan Citizen, Cowichan News Leader Pictorial and Sun FM sponsoring ad space in their papers and radio spots on the campaign. Attached are two ads recently run in the local papers with their support. At the project site new

signs on the fundraising campaign will be installed shortly on both sides (copy of the sign attached). A recent news release by the Campaign Chair is also attached for information.

Submitted by,

A handwritten signature in black ink, appearing to read "Brian Farquhar", with a large, sweeping flourish extending to the right.

Brian Farquhar  
Parks and Trails Manager  
Parks, Recreation and Culture Department

BTF/mca  
Attachments

***An Update on the historic Kinsol Trestle Capital Campaign – DONORS NEWSLETTER***

Your donation to Save the Historic Kinsol Trestle is greatly appreciated. Thanks for making a gift early in the campaign and inspiring others to give. Look for your name on the donor list in the campaign ad that is coming out soon in the Cowichan News Leader Pictorial and on our website at [www.kinsol.ca](http://www.kinsol.ca).

**You are probably wondering where we are at with the Campaign and where the CVRD is at with the actual rehabilitation project. This newsletter is to get you up to speed on both topics.**

We have raised just over \$1.1 million in the Campaign and we are working hard to secure the last half of the target.

**Join Us at the Open House on Tuesday May 25<sup>th</sup>, 2010**

Join us on Tuesday, May 25<sup>th</sup> at a public Open House during which details about the current status and plans of the rehabilitation of the historic Kinsol Trestle project will be presented. **The event will run from 6 to 8 pm at the BC Forestry Discovery Centre, 2892 Drinkwater Road in Duncan.** The Centre is a big supporter of the Kinsol Trestle Project and has donated its facilities for this meeting which will feature speakers from the CVRD, the contractors and local historians as well as from our Campaign team. We are hoping for a lot of local residents to turn up and find out more about how this project is proceeding. Please tell your friends about the event and invite them all to come and join us.

**Media Sponsors come on Board!**

Three local media sponsors have joined the Campaign in recent weeks. We are excited that the Cowichan Valley Citizen, the Cowichan News Leader Pictorial and Sun FM are all donating time and space to the campaign. You can expect to see editorials and advertisements in both newspapers, along with stories about the Campaign, donors and construction work. As well, Sun FM has begun airing public service spots encouraging people to donate to the Kinsol Campaign.



### **Glen Harper Makes another Great Donation**

Lifelong Cowichan Valley community supporter, Glen Harper, has helped the Kinsol Trestle Campaign move one step closer to its fundraising goal with a donation of \$5,000. This second gift brings his total donations to Save the Historic Kinsol Trestle to \$6,000.

Harper says, "Egypt has the pyramids; Canada has the Kinsol Trestle. When completed, it's going to be a huge tourist attraction! Thousands will come to walk across the Trestle each year and this will provide a significant economic boost to the Cowichan Valley." Thank you Glen!

### **Ross and Roger working with Service Clubs**

Campaign Cabinet members Ross Tenant and Roger Painter have been making presentations to service clubs in the Valley for the last few months. Thanks Roger and Ross for your efforts. We are working with the various clubs to finalize how they can lend their help in-kind and through cash gifts to the campaign and to the work of completing the rehabilitation. If you would like a presentation of the Campaign PowerPoint at your club or group please call Diane at 250-709-1087.

### **Donations 'In Memoriam' or as Gifts**

Some donors are making gifts to the Kinsol Campaign instead of buying presents for friends or families. Or, you can make a gift in memory of a friend or relative.

We feel it is important to thoroughly and appropriately acknowledge donors and so all gifts will be recognized in newspaper ads and on the virtual Donor Wall located on [www.kinsol.ca](http://www.kinsol.ca). **Those who donate \$100 or more will have their name included on a permanent Donor Wall to be erected at the Kinsol Trestle site.**

### **Making Merry at Merridale for the Trestle**

If you like great cider and food then you need to go out to visit Merridale Ciderworks. They have a lovely restaurant in their orchards. Merridale Ciderworks has already donated to the Campaign. To further promote the project they will be holding several events in the coming months. **On June 12<sup>th</sup> Merridale will host a special fundraiser for the Trestle.** The evening will include drinks and pizza while you groove to the sounds of 'Da Band' from Brentwood Bay. Admission is by donation. Check their website for more details at [www.merridalecider.com](http://www.merridalecider.com)

**If you know of any other businesses that might host an event or do some fundraising for the Save the Historic Kinsol Trestle campaign, please give us a call or drop us an e-mail.** We are hoping that a number of other businesses, including local bike shops and other recreation-based businesses, will undertake special promotion of the Kinsol project and its funding during the summer.

### **Follow us on Twitter and Facebook**

You can join us on Twitter and Facebook by going to our website at [www.kinsol.ca](http://www.kinsol.ca). Just click on the Twitter and Facebook icons and join in our Tweets and stay up to date on Kinsol activity through our Facebook site.

### **“Toonies for the Trestle” Needs Locations for Coin Boxes**

Do you have a business or an office that can host a “Toonies for the Trestle” coin box for a couple of months? If the answer is ‘yes’, we want to hear from you ASAP. Call Diane at **250-709-1087**. Businesses that help collect coins for the Trestle Campaign will be promoted through our media sponsorships, on our website and through a press release launching the campaign.

### **Know a good Trestle Story?**

**Have you got a great story about the Trestle?** We would love to hear from you to include the story on our website and at our events. Were you proposed to at the Trestle site, had your first kiss there, found a piece of timber or an old spike that fell off it or have any interesting Trestle photos, we would love to hear from you. Call Diane at the campaign office at 250-709-1087 or e-mail at [kinsol@cfcowichan.ca](mailto:kinsol@cfcowichan.ca).

## ***An Update on the historic Kinsol Trestle Rehabilitation Project***

Interested in all the details on who is going to do the work on the Trestle and what stage will come first? Here is what we know to date:

The Kinsol project is in the midst of the final detailed design phase prior to actual rehabilitation work commencing shortly. The project is being overseen by a CVRD team working with a project manager (MMM Group Ltd.) who has been setting the specs for the various contracts needed to complete the project.

A number of consultants have been engaged to date for their specialist expertise, including:

- Stantec – An engineering firm that will be designing the underslung truss and deck configuration for the new public walkway across the top of the historic trestle.
- Quoin Projects – They did the costing at the conceptual stage of design and are engaged again as CVRD's Quantity Surveyor to keep the project within budget.
- Madrone Environmental – A Duncan-based firm specializing in environmental work is addressing key environmental regulatory monitoring requirements.
- Chris Ryzuk & Assoc. – responsible for geotechnical engineering matters.
- Cascade Engineering – an engineering firm working under the direction of the timber specialists Macdonald and Lawrence Timber Framing Ltd. to design the trestle rehabilitation works.

The CVRD has also hired Jonathan Yardley Architect Inc. as its heritage consultant. One of the main motivations of the project is to preserve the Kinsol as a heritage site and it is the intention of the CVRD to eventually apply for standing as a National Historic Site. This consultant will ensure that all elements of the trestle are rehabilitated in a manner that preserves historical integrity.

At the moment, the main work underway is being conducted by Macdonald & Lawrence Timber Framing Ltd. They were involved in the earlier studies on the viability of the Trestle rehabilitation and are recognized for their heavy timber projects world-wide. Their contract as Timber Specialist involves two key stages:

1. Detailed examination of the trestle structure to determine the scope of the rehab work. Non-bearing timbers will be replaced as necessary and some of this work may be deferred to a long term maintenance program. The core work will secure the structural integrity of major load-bearing bents and foundations.
2. Determination of an upset price for the full timber component of the rehab job, including non-structural timbers and a guarantee of work for five years into the maintenance period.

A General Contractor will be hired to undertake all aspects of the project and integrate that with the work of the Timber Specialist. Landscape work involving trails and viewing platforms as well as a visitor and donor recognition kiosk which will be done separately under the direction of CVRD Parks and Trails.

### **Schedule of Rehabilitation Project**

The project is currently on schedule. Consulting engineering design work is currently nearing completion; a general contractor will be sought through May

and a full start to construction is expected to be contracted by mid-June by the Timber Specialist on-site.

The General Contractor and Timber Specialist will set the schedule from then until substantial completion, which must be reached by the end of March 2011. The opening of the Trestle to the public is still set for early summer of 2011.

**Contact Us**

Your call or input is welcome. Please contact Diane Myrden at Kinsol Campaign central at: 250-709-1087, [kinsol@cfcowichan.ca](mailto:kinsol@cfcowichan.ca), or visit our website at [www.kinsol.ca](http://www.kinsol.ca)

Thanks Again for Supporting the “Save the Kinsol Trestle Campaign”

## **Kinsol Trestle: past and future**

**BY JACK PEAKE, CHAIR, KINSOL TRESTLE CAPITAL CAMPAIGN, SPECIAL TO THE CITIZEN  
MAY 21, 2010**

*Editor's Note: The push is on to save the Cowichan Valley's magnificent Kinsol Trestle. Every month the Citizen will bring you a special feature on the Trestle. Watch for updates, history and contests.*

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When I was asked to Chair the Cowichan Foundation campaign to raise \$2 million to save the spectacular Kinsol Trestle, I replied with an unhesitating, resounding YES. There are so many compelling reasons why saving the Trestle makes sense. I have made my gift to support rehabilitation of the Trestle. I hope, after reading this information, you will join me and do the same.

There aren't many opportunities in a lifetime to make a difference for generations to come. Saving the Trestle for its rich history is a powerful reason to support this campaign. I imagine school children walking across the Trestle in the years ahead. I can see them staring down at the Koksilah River through the graceful curve and weathered beams and being told of the industry, skills, audacity and sheer tenacity of those who built this engineering marvel in the wilderness. I also imagine myself going back in time, travelling by steam-powered train across the Trestle with the crews and passengers of a bygone era.

Seeing the Trestle brings history to life in such a powerful way. The Trestle is one of the few accessible and visible reminders of the early mining and logging industries on Southern Vancouver Island.

At the end of the 19th century, the race was on to build railways so that lumber and minerals could be more easily shipped nationally and internationally. Construction of the Kinsol Trestle started in 1911 when forestry had gained some ground on Vancouver Island and a more efficient way to transport the region's huge, old-growth timber was needed. The Trestle was completed by Canadian National Railways in 1920 as part of the "Galloping Goose" rail line.

Designed by engineers but built by local farmers and loggers, the Kinsol Trestle is one of the tallest free-standing and most spectacular timber rail trestle structures in the world. At 614 feet in length and standing 145 feet above the salmon bearing Koksilah River, the Kinsol is an incredible structure worth preserving.

Equally important to me is that rehabilitating the Trestle will help our economy.

Supporting the Kinsol rehabilitation is a positive way to invest short term in an infrastructure project and long term in our tourism industry both of which support small businesses in the region.

One of the most exciting economic and recreational benefits of rehabilitating the Trestle is that it will complete the "missing link" in the section of the Trans Canada Trail between Shawnigan Lake and the Town of Lake Cowichan.

In the 19th and early 20th centuries, the transcontinental railroad connected all Canadian provinces. Today, the 21,500-kilometre Trans Canada Trail route links every province and territory, from the Atlantic to the Pacific to the Arctic oceans.

When completed, the Trans Canada Trail will be the world's longest recreational trail, connecting close to 1,000 communities and over 33 million Canadians. The Kinsol Trestle will be part of that national link.

The Kinsol Trestle is the only missing link in the section of the Cowichan Valley Trail route. Successful completion of this capital campaign and the rehabilitation of the Kinsol will allow bikers, hikers and equestrians to experience the full Trans Canada Trail in the Cowichan Region. Eventually this trail will connect to the Galloping Goose Trail in the Capital Region and the Nanaimo trail system.

No trains have crossed the Trestle since 1979 and it has been closed to foot passengers for decades. Last maintained and repaired over 30 years ago, the Trestle has deteriorated to the point where major rehabilitation is required.

In 2008, Commonwealth Historic Resource Management Limited, heritage structure experts, brought a team together consisting of timber construction experts, structural engineers, quantity surveyors and an environmental consultant to examine the Trestle. They determined that the Trestle could be rehabilitated at a cost of \$5.7 million.

The rehabilitation work will replace unsound timbers, reinforce eight structural piers and build a new 614-foot walkway atop the structure for hikers, runners, cyclists and equestrians.

The rehabilitation will ensure that the historic characteristics -- the span, height and timbered design qualities -- of this wonderful structure are preserved as the original timbers get replaced due to age and deterioration; not unlike the ongoing maintenance requirements of any active wooden trestle serving a railway line.

Included in the rehabilitation project are landscaping improvements on both ends of the Trestle, a walkway going down into the Koksilah gorge from which the true visual impact of the Trestle will be appreciated, and information kiosks that will display the proud story of the Trestle as well as the contributions of the donors.

I am excited to be working with a great group of capable, community-minded people who have joined me on the Kinsol Campaign Cabinet. They too believe that we must save the Trestle.

Together, we are asking you to donate to rehabilitate the historic Kinsol Trestle. Your gift matters. Help save history for generations to come and support our Valley economy.

#### KINSOL TRESTLE HISTORICAL TIMELINE:

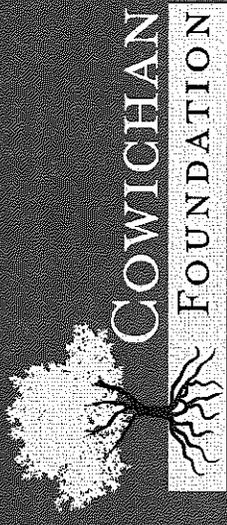
- 1911 Canadian Northern Pacific Railway (CNPR) begins 250-mile line through southern interior of Vancouver Island linking Victoria to Port Alberni.
- 1918 Construction resumed by federal government, who took control of Canadian Northern Railway (and subsidiary, CNPR) in 1917. Downgraded to logging railway with wood trestles, rather than steel bridges.
- 1920 Construction of Trestle completed by Canadian National Railways (CNR), successor to CNPR. Featured high-level Howe Truss. Officially named Koksilah River Trestle; popular name Kinsol Trestle refers to nearby King Solomon copper mine.
- 1921 CNR ceased work, ending at south end of Cowichan Lake, half its intended length.
- 1922 Daily passenger and freight service began on main line.
- 1925 CNR builds Tidewater Subdivision to Cowichan Bay and main line extended north to Youbou and Kissinger at head of Lake Cowichan (completed 1928). Freight mainly logs and sawn lumber.
- 1931 Koksilah River floods cause extensive damage to Trestle, which is repaired by CNR.
- 1934-36 CNR repairs/rebuilds Trestle with low-level Howe Truss.
- 1950s Trucks begin to supplant railways for hauling logs on Vancouver Island.
- 1958 Major repairs to Trestle.
- 1973-74 CNR repairs Trestle for last time.
- 1979 Last train passes over Kinsol Trestle on May 30. Trestle abandoned one year later.

- 1984 Province of B.C. acquires CNR right-of-way, including Kinsol Trestle. Structural assessment and feasibility study for preservation and/or reuse undertaken.
- 1988 Fire burns portion of Trestle.
- 1999-2008 CVRD conducts several studies to see if Kinsol Trestle can be saved and to measure the economic impact of the investment. In 2008, CVRD receives final report and decides to rehabilitate Kinsol Trestle.
- June 2009 Launch of Cowichan Foundation fundraising campaign for the Kinsol Trestle rehabilitation project.



# Kinsol Trestle Rehabilitation Project

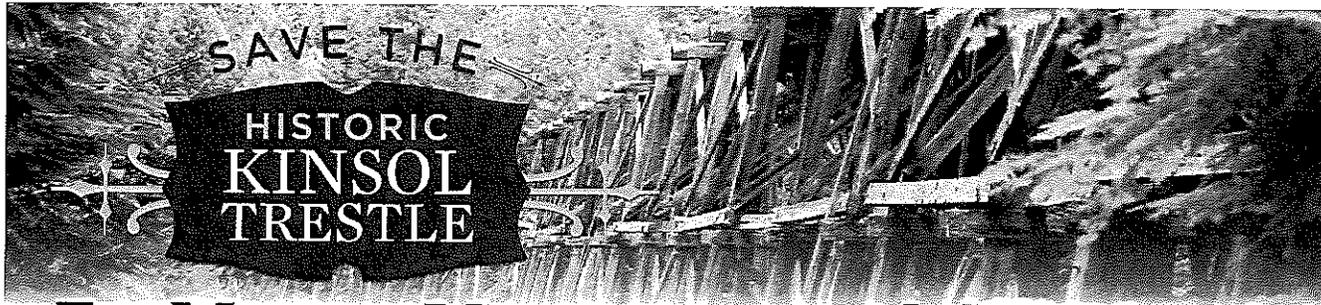
Start Date: June 2010  
Completion: March 2011  
Estimated Budget \$7.5 million



The Kinsol Trestle rehabilitation project still needs your help. Your gift is vital to help preserve and maintain this historic landmark. To donate, please visit [www.kinsol.ca](http://www.kinsol.ca) or call 250-709-1087.

This rehabilitation project is made possible by the generous support of:





# Is Your Name on this List?

## Donate today to The Kinsol Trestle Campaign



The Cowichan Foundation's campaign has enjoyed great support from the community. Our campaign to raise \$2 million as the local contribution to the Kinsol Trestle Rehabilitation still needs your help. Donate today at [www.kinsol.ca](http://www.kinsol.ca) or call **250-709-1087**. Every donation over \$100 will be acknowledged on the permanent donor wall at the Trestle site. All donations are listed on the virtual donor wall at [www.kinsol.ca](http://www.kinsol.ca).

### Our supporters to date:

#### TRESTLE ENGINEERS

(\$1,000 - \$9,999)

Chaster, Geoffrey & Patricia  
Chaster, Ruth  
GrootWassink, Jan and Annie  
Harper, Glen  
Kerr, Charles  
Merridale Ciderworks Corp.  
Scott, Graham  
Thorne, Ken & Freda  
TimberWest Forest Corp.  
Varga Family, Daniel, Florie, Mikayla & Amella  
Whittome Family

#### TRESTLE FRIENDS

(\$100 - \$999)

Aikenhead, Heather  
Anderson, Sharon  
Anderson, Tom and Yvonne  
Annis, Robert and Mary  
Arbuckle, Robyn D.  
on behalf of Delmere & Ann Kitt  
Arbutus Ridge Ramblers  
Barry, Joe  
Blessman, William & Betty  
Boehmer, Milton  
Cadorette, Ray and Tricia  
Carma Developers LP  
Carr, Evelyn M  
Cee Vacs Roadrunners Club  
Chaster, Karen A  
Coleman, Michael  
Community Futures Cowichan  
Conway, Rob  
in memory of Joy Henry

Cross, Stephen  
Dashwood, Jillian  
Dorby, Ken  
Dunae, Patrick  
Erickson, Manuel  
Farquhar, Brian  
Farquhar, Charles & Alexander  
Filgate, John  
Foster, Patricia  
Friedrich, Richard  
Garrick, Shirley  
Gibson, Peter and Jane  
Gilles, Gerry  
Green, John  
Hamilton, Brian and Lorainne  
Haslam, Marshall  
Heywood, Stephen and Linda  
Hunter, Tom  
Iannidinardo, Lori  
on behalf of Mario Iannidinardo & Family  
Ivensen, Kvinn  
Jackson, James R.  
James, Bob and Marcia  
Jones, Warren  
Kaye, John  
Kidd's Bed & Breakfast  
Lagrove, Suzan M  
Leighton Family  
Madden, Signy  
Maier, Jim and Gail  
Marshall, K.E. & D.K.  
Mayer Family, Daniel, Janet, Anika & Evan  
McClinchey, Karen  
McDonald, Robert and Lara  
Mitchell, Maggie  
Morgan, David

Morris, Jim  
Moulton, Louise A  
Myrden, Diane  
Orchard & Company  
Pacholko, Ron  
Pagett Family, The  
Painter, Roger  
Palmer, John  
Peake, Jack  
Pease, Eric  
Phillip, Alan  
in memory of Bobbie Seeds  
Roper, Barbara J  
in honour of Doris Roper  
Ross, Clarence & May  
Rothe, Paul  
Russel, Robert  
Schleining, M  
Seeds, Glen  
Service, Sheila  
Seymour, George W  
Shawnigan Trails  
Smith, Peggy  
Street, David and Nancy  
Symon, Elizabeth  
in honour of Gavin Ritchie  
Tennant, Ross  
Trapler, Waltraud  
Trithart, Wilfred  
Van Bruggen, Kim  
Van Dam, Elsie  
Varty, Thomas  
Venables, Louis  
Vernon, Joy H  
Volkers, Barry and Lou  
Wakelham, Jim  
Wale, Norman and Joan  
Watts, Sydney

Wells, Richard E  
in memory of Thomas Cable  
Wheatley, John  
Wilson, Cindy  
Wisnia, Jim & Lyn  
in memory of Ralph Worsley  
Woodford, E. Jean

#### TRESTLE SUPPORTERS

(up to \$99)

Abbott, Naomi  
Abbot, Tony  
Alexander, Maureen  
Allen, Cathy  
Bamford, Margot  
Beddis, Louise  
Bell, Harold & Shirley  
Boyce, Helen D  
Bridge, James  
Bumphrey, Deb  
Coates, Donald B  
Craig, Mike  
Crockett, Bradley  
CVRD Planning Dept.  
Admin Support  
Fletcher, Tony and Fran  
Fownes, Ron & Anita  
Fuller, Eleanor  
G. Lianne  
Gale, Laura  
Gibson, John S T  
Goodbrand, Jennifer  
Halre, Elsie  
Hardman, Paul  
Hughes, Jennifer  
Hyde, Georgeane  
Irvine, William J  
Jeffs, Gerry  
Knippshild, Sonja

Koury, John  
Lee, E H.  
Lee, Laura  
Leigh, Christopher  
Low, John  
Maclean, Donald M  
Maendel, Lorian  
Mall, Ruth  
Mann, Lana  
Martin, Kim  
McAdani, Mary Anne  
McEwan, Thomas & Ellen  
McFadden, Devon  
McLean, Patrick  
Millar, Geoff  
Mills, Judy  
Minlato, Paul M  
Moffat, Penny  
Owens, Mary  
Phillips, Jane  
Plyk, Sally J  
Pink, Lisa  
Powell, Dorothy  
Roma Croy, J  
Seal, Meghan  
Sabar, Sharron  
Scott, Veronica  
Scoones, Anny  
Shooling, Dee  
Taylor, Ernest C  
Taylor, Gail  
Velazquez, Ricardo  
Watson, Bruce  
Weber, Karley M  
White, J  
Wiens, Yurie  
Wilkinson, Bruce G  
Zellermeier, Deb  
Zimmer, Lisa

## Don't miss the Kinsol Trestle Open House

Tuesday, May 25th, 6pm - 8pm  
BC Forest Discovery Centre  
2892 Drinkwater Road, Duncan, BC

Listen to an update on the rehabilitation project and upcoming Trestle News.

Everyone welcome

## Thank You Glen Harper!

Cowichan Valley business owner Glen Harper says, "Egypt has the pyramids...Canada has the Kinsol Trestle. When completed, it's going to be a huge tourist attraction!" Here he's shown presenting a cheque for \$5,000 to Diane Myrden from the Kinsol Campaign. In total Glen has donated \$6,000 to the Kinsol Trestle Project. Thank you Glen.



THANKS TO  
OUR PARTNERS  
AND  
MAJOR SPONSORS



Canada



Island Coastal

ECONOMIC TRUST



Trans Canada Trail  
Sentier Transcanadien



# Is Your Name on this List?



## Donate to The Kinsol Trestle Campaign



**COWICHAN FOUNDATION**

The Cowichan Foundation's campaign has enjoyed great support from the community. Our campaign to raise \$2 million as the local contribution to the Kinsol Trestle Rehabilitation still needs your help. Donate today at [www.kinsol.ca](http://www.kinsol.ca) or call **250-709-1087**. Every donation over \$100 will be acknowledged on the permanent donor wall at the Trestle site. All donations are listed on the virtual donor wall at [www.kinsol.ca](http://www.kinsol.ca).

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 Harper, Glen  
 Kerr, Charles  
 Meridale Ciderworks Corp.  
 Scott, Graham  
 Thorne, Ken & Freda  
 TimberWest Forest Corp.  
 Varga Family, Daniel, Florie,  
 Mikayla & Amelia  
 Whitome Family

#### TRESTLE FRIENDS

(\$100 - \$999)  
 Aikenhead, Heather  
 Anderson, Sharon  
 Anderson, Tom and Yvonne  
 Annis, Robert and Mary  
 Arbuckle, Robyn D.  
 on behalf of Delmere & Ann Kitt  
 Arbutus Ridge Ramblers  
 Barry, Joe  
 Blessman, William & Betty  
 Boehmer, Milton  
 Cadoretts, Ray and Tricia  
 Carma Developers LP  
 Carr, Evelyn M  
 Cee Vacs Roadrunners Club  
 Chaster, Karen A  
 Coleman, Michael  
 Community Futures Cowichan  
 Conway, Rob  
 in memory of Joy Henry  
 Cross, Stephen  
 Dashwood, Jillian  
 Dorby, Ken  
 Dunae, Patrick  
 Erickson, Manuel  
 Farquhar, Brian  
 Farquhar, Charles & Alexander  
 Filgate, John  
 Foster, Patricia  
 Friedrich, Richard  
 Garrick, Shilley  
 Gibson, Peter and Jane  
 Giles, Gerry  
 Green, John  
 Hamilton, Brian and Lorainne  
 Haslam, Marshall  
 Heywood, Stephen and Linda  
 Hunter, Tom  
 Iannidnardo, Lori  
 on behalf of Mario Iannidnardo  
 & Family  
 Iversen, Kivinn  
 Jackson, James R.

James, Bob and Marcia  
 Jones, Warren  
 Kaye, John  
 Kidd's Bed & Breakfast  
 Lagrove, Suzan M  
 Leighton Family  
 Madden, Signy  
 Maier, Jim and Gail  
 Marshall, K.E. & D.K.  
 Mayer Family, Daniel, Janet,  
 Anika & Evan  
 McClinchey, Karen  
 McDonald, Robert and Lara  
 Mitchell, Maggie  
 Morgan, David  
 Morris, Jim  
 Moulton, Louise A  
 Myrden, Diane  
 Orchard & Company  
 Pacholko, Ron  
 Pagett Family, The  
 Painter, Roger  
 Palmer, John  
 Peake, Jack  
 Pease, Eric  
 Phillip, Alan  
 in memory of Bobbie Seeds  
 Roper, Barbara J  
 in honour of Doris Roper  
 Ross, Clarence & May  
 Rothe, Paul  
 Russel, Robert  
 Schleining, M  
 Seeds, Glen  
 Service, Sheila  
 Seymour, George W  
 Shawnigan Trails  
 Smith, Peggy  
 Street, David and Nancy  
 Symon, Elizabeth  
 in honour of Gavin Ritchie  
 Tennant, Ross  
 Trapler, Waltraud  
 Trihart, Wilfred  
 Van Bruggen, Kim  
 Van Dam, Elsie  
 Varty, Thomas  
 Venables, Louis  
 Vernon, Joy H  
 Volkers, Barry and Lou  
 Wakeham, Jim  
 Wale, Norman and Joan  
 Waits, Sydney  
 Wells, Richard E  
 in memory of Thomas Cable  
 Wheatley, John  
 Wilson, Cindy  
 Wisnia, Jim & Lyn  
 in memory of Ralph Worsley  
 Woodford, E. Jean

Alexander, Maureen  
 Allen, Cathy  
 Bamford, Margot  
 Beddis, Louise  
 Bell, Harold & Shirley  
 Boyce, Helen D  
 Bridge, James  
 Bumphrey, Deb  
 Coates, Donald B  
 Craig, Mike  
 Crockett, Bradley  
 CVRD Planning Dept.  
 Admin Support  
 Fletcher, Tony and Fran  
 Fownes, Ron & Anita  
 Fuller, Eleanor  
 G. Lianne  
 Gale, Laura  
 Gibson, John S T  
 Goodbrand, Jennifer  
 Hair, Eisle  
 Hardman, Paul  
 Hughes, Jennifer  
 Hyde, Georgeanne  
 Irvine, William J  
 Jeffs, Gerry  
 Knippshild, Sonia  
 Koury, John  
 Lee, E H.  
 Lee, Laura  
 Leigh, Christopher  
 Low, John  
 Maclean, Donald M  
 Maendel, Lorian  
 Malli, Ruth  
 Mann, Lana  
 Martini, Kim  
 McAdam, Mary Anne  
 McEwan, Thomas & Ellen  
 McFadden, Devon  
 McLean, Patrick  
 Miller, Geoff  
 Mills, Judy  
 Miniato, Paul M  
 Moffat, Penny  
 Owens, Mary  
 Phillips, Jane  
 Pilyk, Sally J  
 Pirik, Lisa  
 Powell, Dorothy  
 Roma Croy, J  
 Seal, Meghan  
 Sabar, Sharron  
 Scott, Veronica  
 Scoones, Anny  
 Shoellingin, Dea  
 Taylor, Ernest C  
 Taylor, Gail  
 Velazquez, Ricardo  
 Watson, Bruce  
 Weber, Karley M  
 White, J  
 Wiens, Yurie  
 Wilkinson, Bruce G  
 Zellermeier, Deb  
 Zimmer, Lisa

#### TRESTLE SUPPORTERS

(up to \$99)  
 Abbott, Naomi  
 Abbott, Tony

### Don't miss the Kinsol Trestle Open House

Tuesday, May 25th,  
 6pm - 8pm

BC Forest Discovery Centre  
 2892 Drinkwater Road, Duncan, BC

Listen to an update on the rehabilitation project and upcoming Trestle News.

Everyone welcome

#### THANKS TO OUR PARTNERS AND MAJOR SPONSORS



# KINSOL TRESTLE COMMITTEE MEETING

OF JUNE 8, 2010

DATE: June 2, 2010

FILE NO: 6180-20-Tra-08-Kin

FROM: Norm Olive, P.Eng., Manager, Capital Projects

SUBJECT: Timber Conservation Specialist Contract Award

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## **Recommendation:**

That this report be received for background information.

## **Purpose:**

To present the background information concerning the preparation of a Guaranteed Maximum Price (GMP) by MacDonald and Lawrence Timber Framing for award of the Phase II timber rehabilitation work on the historic Kinsol Trestle which will be distributed as a Supplemental Report to the Committee at the June 6<sup>th</sup> meeting.

## **Financial Implications:**

The Board has previously approved expenditure of \$6.5 million on the rehabilitation of the historic Kinsol based on grant funding and donations secured to date.

## **Interdepartmental/Agency Implications:**

The Ministry of Transportation and Infrastructure owns the historic Kinsol Trestle and former railway corridor.

## **Background.**

The Kinsol Trestle Rehabilitation Committee has previously received the scope of work for the Kinsol Trestle Timber Conservation Specialist work, covered under three phases as follows (with each Phase requiring Board approval to proceed).

### **Phase 1**

- Carry out a site investigate of the trestle.
- Develop a detailed design and methodology of the rehabilitation work.
- Develop a preservation design strategy.
- Develop a maintenance program.
- Carry out a structural design.
- Prepare construction drawings and documentation.
- Prepare and agree with the CVRD's Quantity Surveyor a Guaranteed Maximum Price (GMP) for the trestle rehabilitation work to be completed in Phase 2.
- Prepare a strategy for the Phase 3 section of this work.

### **Phase 2**

- Undertake the timber rehabilitation work scope of work on the Kinsol Trestle based the Guaranteed Maximum Price submitted and approved by the Cowichan Valley Regional District.

**Phase 3**

- Carry out a maintenance program for five years based on an agreed program and cost outlined in Phase 1.

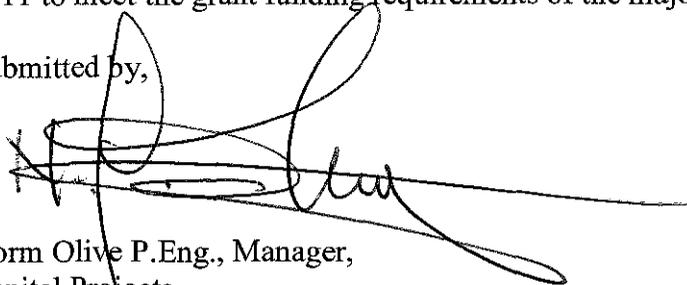
The Phase I work was awarded by the Regional Board to MacDonald & Lawrence Timber Framing in March 2010. The contractor has been working to complete the components of the Phase I work and will be presenting to the CVRD a Guaranteed Maximum Price (GMP) for the Phase 2 scope of work for consideration of contract award by the Kinsol Trestle Revitalization Committee and the Board. The GMP will be provided as an addendum to this report at the June 6<sup>th</sup> Committee meeting.

Several factors in deriving this GMP have arisen since the Kinsol Trestle Committee and Board awarded the Phase I work to MacDonald and Lawrence Timber Framing which are anticipated to influence the GMP from what was previously estimated, as follows:

- The number of “active bents” (rebuilt with new wood for all load-bearing members) required throughout the structure has increased from an estimated 6 bents to 17 bents.
  - This change has reduced the extent of steelwork within the superstructure, as the first four to five smaller bents at both ends of the trestle will be of new material and will not require the steel support system above these bents to support the new deck system.
  - The Design Criteria approved by the Ministry of Transportation requires that the superstructure deck system be fully supported by “active” bents and independent from the rest of the existing structure. This has required “pairing” of active bents to support the new superstructure deck system.
- The Timber Specialist work will be commencing prior to the contract award and start of the General Contractor (responsible for the superstructure decking system and other site improvements), so site mobilization costs that were anticipated to be part of the General Contractor’s costs need to be included in the Timber Specialist’s contract (referred to as “General Condition” costs).

As the original estimate for the GMP was in the range of \$1.2 million based on the Phase II Kinsol Trestle Restoration Feasibility design approach, the revised GMP will be higher given the extent of this additional work; however the overall project costs are not expected to increase due to the reduction in the steel work to support the decking system and the reduction in general condition costs of the General Contractor that will be covered under the Timber Specialist’s contract. In essence, the proportions of the Timber Conservation Specialist and General Contractor work have changed from the original estimated values. Award of the Phase II work at this time is critical to the overall project remaining on schedule to be completed by March 31, 2011 to meet the grant funding requirements of the major funders for this project.

Submitted by,

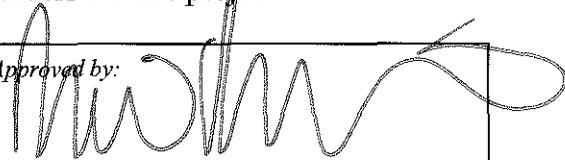


Norm Olive P.Eng., Manager,  
Capital Projects

NJO/jlb

Bath: Z:\PROJECTS\KinsolTrestle\Staff report-June2-2010.doc

Approved by:



Brian Dennison, General Manager,  
Engineering and Environmental Services

Project: Kinsol Trestle Heritage Conservation Project	
Document: Project Requirements Document	Doc. No:
Revision: 2	Date: 2010- May-14

**ATTACHMENT 1  
KINSOL TRESTLE HERITAGE CONSERVATION PROJECT  
PROJECT REQUIREMENTS DOCUMENT**

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**ATTACHMENT 1 – HANDRAIL DESIGN REQUIREMENTS**

Project: Kinsol Trestle Heritage Conservation Project	
Document: Project Requirements Document	Doc. No:
Revision: 0	Date: 2010-January-26

## 1.0 KINSOL TRESTLE HERITAGE CONSERVATION PROJECT

### 1.1 Project Overview

The Kinsol Trestle, which crosses the Koksilah River near Shawnigan Lake, was built by the Canadian National Railways (CNR) in 1920 and renewed in stages until 1958. The bridge was constructed using heavy timbers and carried both passenger and freight traffic, primarily logs and forest products. CNR discontinued rail service in 1979. The trestle has been unused since then, and now stands in deteriorated condition.

The crossing of the Koksilah River is the only missing link in the Cowichan Valley Trail between Shawnigan Lake and the Town of Lake Cowichan. This recreational pedestrian, equestrian, and bicycle path, much of which follows the CNR right of way, forms a part of the Trans Canada Trail. The Cowichan Valley Regional District (CVRD) has determined that the Trail will cross the Koksilah River at the site of the Kinsol Trestle, whether by restoring the historic trestle or by removing it and building a new crossing.

Based on a two phase study, the CVRD has decided to rehabilitate and preserve the existing timber structure using best heritage conservation practices and by installing a new Superstructure that will be supported by new timber to provide a pedestrian, equestrian, and bicycle crossing of the Koksilah River.

## 2.0 EXISTING CONDITIONS

### 2.1 Obstacles Crossed

Koksilah River

### 2.2 Existing Configuration

The existing trestle is a multispan, timber trestle structure built in plan to a 7° curve (R = 248.48m). The structure has a total length of 187.15m and consists of 46 bents including the two abutment bents. Bents consist of 30' (9.14m) high stories constructed using braced 12"x12" posts and a 12"x12" sill timber between stories. Longitudinal and diagonal bracing was originally provided between bents. Bent heights vary between 0m at the abutments to about 41m at the river.

The river crossing consists of a Howe Truss with a clear span of 29.06m and a structural depth of approximately 9m. There are 6 truss lines in the Howe Truss that support 9 bents across the river.

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### 3.0 SCOPE OF TRESTLE CONSERVATION PROJECT

The scope of the Trestle Conservation Project has three parts. These are:

#### 3.1.1 New Superstructure

A new Superstructure will be provided and supported by two new abutments and by Active bents that shall consist of new timbers. The new Superstructure will be a deck truss consisting of atmospheric steel with a timber deck.

The new Superstructure will provide a 3 m clear distance between handrails. Handrails that are suitable for pedestrian, cyclist and equestrian use will be provided.

#### 3.1.2 Active Bents

Load will be transferred from the new Superstructure to foundations through a structural load path constructed using 100% new timber. This load path is defined as an Active bent. Appropriate foundation work will be carried out to ensure loads are transferred safely into the ground. New abutments will be provided to be compatible with the proposed articulation of the structure.

Appropriate bracing will be provided to resist all loads specified under Section 4 – Design Criteria. New longitudinal bracing will be minimized by making the Superstructure continuous.

Foundations will be provided for the Active Bents as required to meet the requirements of Section 4 of this document.

#### 3.1.3 Preservation of Inactive Bents and Howe Trusses

Bents that are not used to carry loads from the new Superstructure are labeled as Inactive Bents. These as well as the Howe Trusses will be Preserved. There will be no structural connection between the Active and Inactive Bents/Howe Trusses or between the new Superstructure and the Inactive Bents/Howe Trusses. Inactive Bents and the Howe Trusses shall be Preserved such that they remain structurally safe and will not endanger the safety of the public or the integrity of the Active Bents

### 4.0 DESIGN CRITERIA

#### 4.1 Design Codes and Standards

The following codes apply in the given order of precedence to the Trestle Conservation Project:

1. BC MoT Manual of Bridge Standards and Procedures August 2007.
2. CAN/CSA S6-06 – Canadian Highway Bridge Design Code (S6)
3. CSA 086.1-01 – Engineering Design in Wood (Limit States Design)

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4. Standards and Guidelines for the Conservation of Historic Places in Canada (Parks Canada, 2003).
5. BC MoT Standard Specifications for Highway Construction, 2009.
6. CSA 080 Preservative Treatment of Wood

## 4.2 Loading and Clearances

### 4.2.1 CSA S6-06 Live Load

The structure shall be designed to carry pedestrian and maintenance vehicle loads in accordance with S6. The natural frequency of the structure will be appropriate for pedestrian use.

### 4.2.3 Wind and Earthquake Loads

The structure shall be designed for wind and earthquake loading in accordance with S6. Earthquake design shall be for a new structure of category "Other". Inactive Bents shall be Preserved such that they do not reduce the seismic safety of the Active Bents. A Seismic Strategy Report shall be produced for submission to the BC Ministry of Transportation.

### 4.2.3 Snow Loads

The structure shall be designed for snow loading in accordance with BC Building Code.

## 4.3 Clearances

- Navigational Clearance - not applicable.
- Highway Clearances – not applicable
- Rail Clearances - not applicable.

## 4.4 Geometry

### 4.4.1 Deck Width

The clear distance between hand rails shall be 3.0 m.

### 4.4.2 Barriers and Handrails

Barriers and handrails shall be suitable for pedestrian, cyclist and equestrian users. Handrails will be designed to meet or exceed the requirements provided in Attachment 1.

## 4.5 Durability and Maintenance

Active bents shall be provided, and Inactive bents and the Howe Trusses shall be Preserved such that no maintenance will be required for at least 10 years.

## 5.0 MATERIALS

Appropriate materials shall be specified during design. The following provides an outline of minimum material requirements for the project. Refinement of these requirements will occur during detailed design in consultation with the CVRD and its representatives.

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## 5.1 Timber

New timber shall conform to CSA Standard 0141-91 and NLGA Standard Grading Rules for Lumber. In addition the following shall apply:

### 5.1.1 Deck

No. 1 Structural Joist and Plank Grade (S-P-F or H-F)

### 5.1.2 Active Bent Posts

No. 1 Structural Post and Timber Grade (Douglas Fir-Larch)

### 5.1.3 Active Bent Bracing and Miscellaneous Timber

No. 2 Structural Joist and Plank Grade (Douglas Fir-Larch)

### 5.1.4 Inactive Bents

Where existing lumber from other parts of the bridge cannot be used, consideration shall be given to appropriate new timber. Considerations shall include availability from donations in kind, cost and durability.

### 5.1.4 Fasteners

All fasteners shall be galvanized.

### 5.1.5 Preservative Treatment

New timber shall be preservative treated in accordance with CSA 080.

## 5.2 Steel

Grade 350 A steel shall be used for the new Superstructure

## 5.3 Concrete

Concrete shall be in accordance with the most recent version of CAN3-A23.1 in addition to the requirements of 4.1 above.

## 6.0 HERITAGE CONSERVATION REQUIREMENTS

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The Kinsol Trestle Rehabilitation project has been defined from the start as combining best engineering practices with best heritage Conservation practices. It is because of heritage Conservation considerations that the project exists at all. The project will follow the Standards and Guidelines for the Conservation of Historic Places in Canada (Parks Canada, 2003) (the Heritage Standards).

The Standards and Guidelines are explicit about when to replace old materials with new ones.

Heritage Standards 1, 3, 8 and 10 shall apply. The following relate to these Heritage Standards:

- a) **Heritage Standard 1.** The heritage value of the Kinsol Trestle and its surroundings shall be Conserved. Do not remove, replace, or substantially alter its intact or repairable character-defining elements. The timber bents are character-defining elements, and so intact or repairable components should not be removed or replaced. Character defining elements are fully defined in the Reference Documents.
- b) **Heritage Standard 3.** Heritage value shall be Conserved by adopting an approach calling for minimal intervention.
- c) **Heritage Standard 8.** Character-defining elements shall be maintained on an ongoing basis. Character-defining elements shall be repaired by reinforcing their materials using recognized Conservation methods. Any extensively deteriorated or missing parts of character-defining elements shall be replaced in-kind, where there are surviving prototypes. Historic materials may be reinforced. They should be replaced in kind only when they are extensively deteriorated or missing.
- d) **Heritage Standard 10.** Character-defining elements shall be repaired rather than replaced. Where character-defining elements are too severely deteriorated to repair, and where sufficient physical evidence exists, character-defining elements shall be replaced with new elements that match the forms, materials and detailing of sound versions of the same elements.

The Heritage Standards also provide guidelines that are more specific and detailed than the high-level standards. The guidelines contrast what is recommended with what is not recommended. One section of the manual provides Guidelines for Engineering Works.

The following shall apply:

- a) Engineering work shall be analyzed and evaluated in sufficient detail to fully understand its structural complexity and behaviour. This shall include determining its load history, applied loads and load paths; measuring the actual strength of its materials and any deflections; monitoring its movements and rate of deterioration over time to understand the actual behaviour of the engineering work; and undertaking mathematical modelling that replicates the actual characteristics of and thus the potential risk to the engineering work.
- b) The new work shall match the old in form and detailing, and have adequate strength. This could include replacing in kind extensively deteriorated or missing parts of engineering works where there are surviving prototypes.

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- c) Engineering works or their components shall be Rehabilitated/Preserved by patching, piecing-in, splicing, consolidating or otherwise augmenting them using recognized preservation methods. For example, weakened structural members in a truss could be paired with new members, braced, spliced or otherwise consolidated. Repairs may also include the limited replacement in kind – or with a compatible substitute material – of those extensively deteriorated or missing parts of elements when there are surviving prototypes.

The following is not permitted:

- a) Replacing an entire element of an engineering work when limited replacement of deteriorated and missing components is appropriate.
- b) Use of replacement material that does not match the historic engineering work.
- c) Replacing an entire component or an engineering work such as a truss when repair and limited replacement or deteriorated or missing parts are feasible.

## 7.0 DEFINITIONS

*Conservation* – all actions or processes that are aimed at safeguarding the character-defining elements of a cultural resource so as to retain its heritage value and extends its physical life. This may involve Preservation, Rehabilitation, Restoration or a combination of these actions/processes.

*Preservation* – the action or process of protecting, maintaining and/or stabilizing the existing materials form and integrity of a historic place or of an individual component while protecting its heritage value.

*Rehabilitation* – the action or process of making possible a continuing or compatible contemporary use of a historic place or of an individual component through repair, alterations and/or additions while protecting its heritage value.

*Active Bent* – A bent that is loaded by the new pedestrian/cyclist/equestrian walkway.

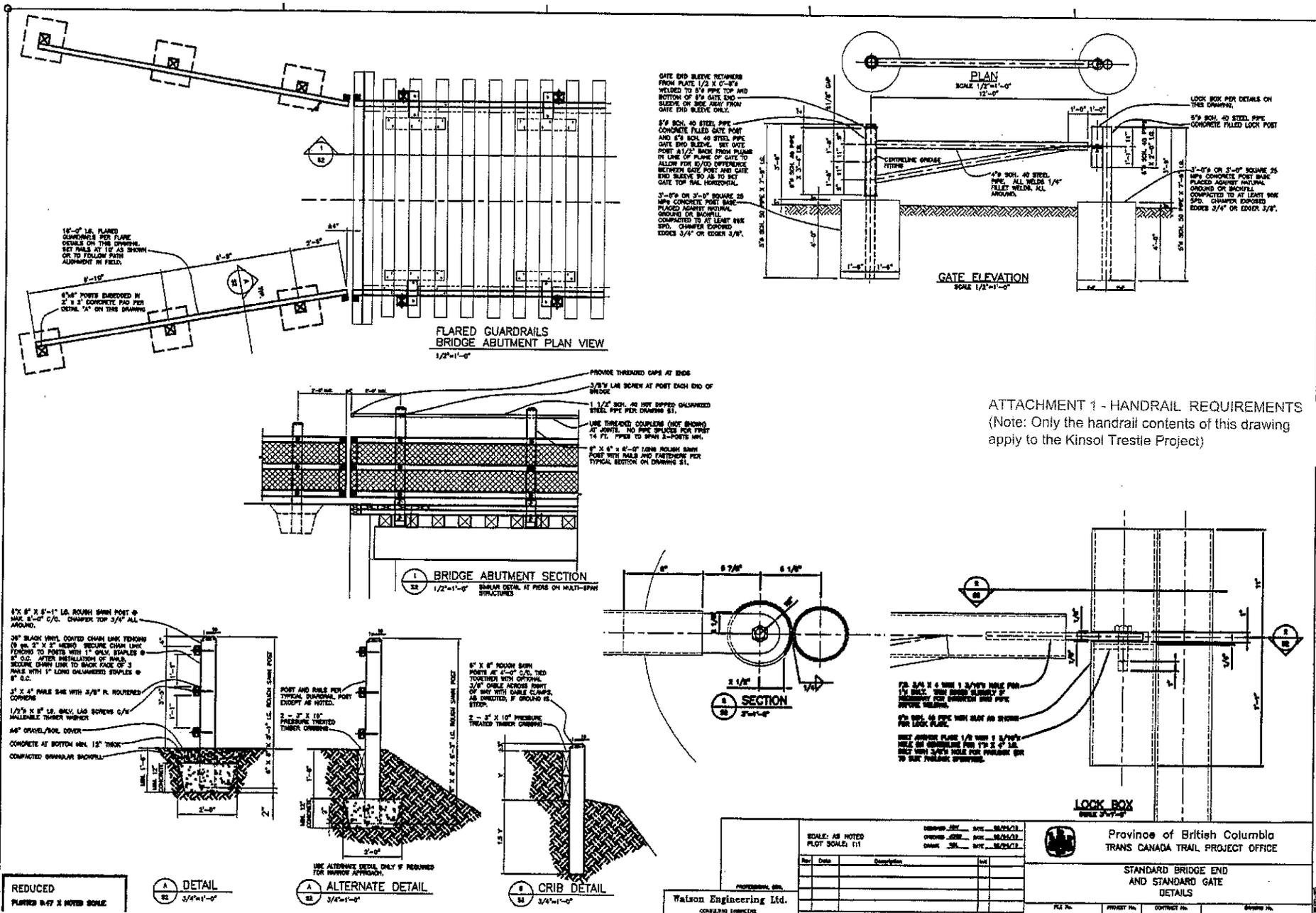
*Inactive Bent* – A bent that does not participate in carrying loads from the new pedestrian/cyclist/equestrian Walkway and all bents that are not defined as Active Bents.

*Superstructure* – New deck truss, timber deck and handrails required to carry cyclist/pedestrian/equestrian traffic over the rehabilitated bridge and supported by the Active Bents.

## 8.0 ENGINEER OF RECORD AND AND FIELD REVIEW

Engineer of record and field review procedures will be carried out in accordance with the BC Ministry of Transportation Technical Circular T-06/09 (July 30, 2009).

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GATE END SLEEVE RETAINED FROM PLATE 1/2 X 0'-8" WELDED TO 5/8" PIPE TOP AND BOTTOM OF 5/8" GATE END SLEEVE ON JOE AWAY FROM GATE END SLEEVE ONLY.

5/8" SCH. 40 STEEL PIPE CONCRETE FILLED GATE POST AND 5/8" SCH. 40 STEEL PIPE GATE END SLEEVE. SET GATE POST 3 1/2" BACK FROM PALMERS TO LINE OF PLANE OF GATE TO ALLOW FOR 0/100 DIFFERENCE BETWEEN GATE POST AND GATE END SLEEVE SO AS TO SET GATE TOP 1/4" HORIZONTAL.

3"-6" OR 3'-0" SQUARE IS MPA CONCRETE POST BASE PLACED ASBESTY INTONAL GRADING OR BACKFILL COMPACTED TO AT LEAST 90% CHAMBER SPONGED EDGES 3/4" OR EDGER 3/4".

15'-0" L.E. FLARED GUARDRAILS PER PLUMB DETAILS ON THIS DRAWING. SET PAIS AT 10' AS SHOWN OR TO FOLLOW PATH ALIGNMENT IN FIELD.

5/8" POSTS EMBEDDED IN 2' X 2' CONCRETE PAD PER DETAIL "A" ON THIS DRAWING.

PROVIDE THICKER CAPS AT EDGE

3/8" LAG SCREW AT POST EACH END OF BRIDGE

1 1/2" SCH. 40 HOT DIPPED GALVANIZED STEEL PIPE PER DRAWING S1.

LINE THREADED COLUMN (NOT SHOWN) AT JOINTS. NO PIPE SPACERS FOR FIRST 14 FT. PIPES TO SPAN 3-POSTS MAX.

8" X 6" X 6" LIME POLISH SANDY PORT WITH NAILS AND FASTENERS PER TYPICAL SECTION ON DRAWING S1.

1 1/2" X 5/8" L.E. ROUND SHIM POST @ MAX 5'-0" C/C. CHAMFER TOP 3/4" ALL AROUND.

3/4" BLACK VINYL COATED CHAIN LINK TENDING (8 IN. 2" X 2" MESH) SECURE CHAIN LINK TENDING TO POSTS WITH 1" GALV. STAPLES @ 8" O.C. AFTER INSTALLATION OF RAILS. SECURE DOWN LINK TO BACK FACE OF 3" PAIS WITH 1" LONG GALVANIZED STAPLES @ 8" O.C.

3/2" X 1/2" PAIS SAE WITH 5/8" R. ROUNDED CORNERS

1 1/2" X 1/2" IS. ONLY LAG SCREWS C/A MALLEABLE THUNDER WASHER

46" DRIVEL/ROOL COVER

CONCRETE AT BOTTOM MIN. 12" THICK COMPACTED GRANULAR BACKFILL

POST AND RAIL PER TYPICAL GUARDRAIL PORT EXCEPT AS NOTED.

2 - 2" X 12" PRESSURE TREATED TIMBER CHAIRS

1.5" X 6" X 6" L.E. ROUND SHIM POST

5' X 6" ROUND SHIM POSTS AT 4'-0" C/C. TIED TOGETHER WITH OPTIONAL 3/4" CABLE ACROSS FRONT OF SHIM WITH CABLE CLAMPS, AS DIRECTED, & GROUND @ STOP.

2 - 2" X 10" PRESSURE TREATED TIMBER CHAIRS

7/8" 3/4" X 6" WIRE 1/2" W/3" HOLE FOR 1 1/2" BOLT. THIS BOLT SLIDELY IF INDICATED FOR CHAMFER END PIPE DRIVE WELDER.

5/8" WEL. 46 PIPE WITH SLAT AS SHOWN FOR LOCK PLATE.

ONLY APPROX PLATE 1/2" WITH 1 1/2" W/3" HOLE OR APPROX 1/2" FOR 1 1/2" X 2" IS. BUT WITH 3/4" HOLE FOR PULLING OR TO SET PULLING OPERATOR.

ATTACHMENT 1 - HANDRAIL REQUIREMENTS  
(Note: Only the handrail contents of this drawing apply to the Kinsol Trestle Project)

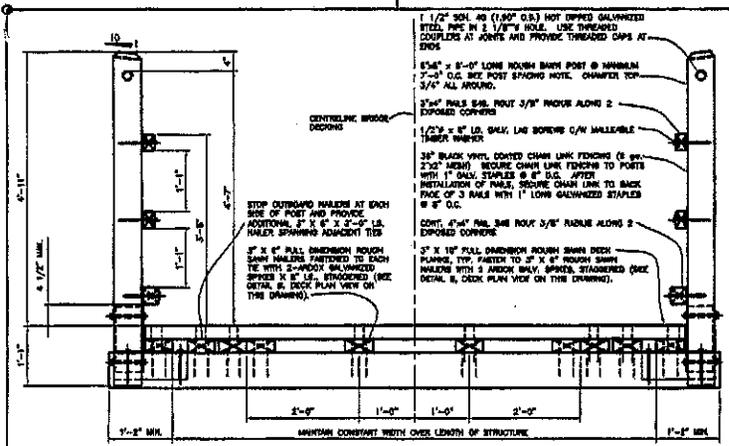
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DATE: [ ]	DESCRIPTION: [ ]	NO: [ ]

Province of British Columbia  
TRANS CANADA TRAIL PROJECT OFFICE

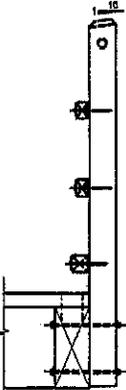
STANDARD BRIDGE END  
AND STANDARD GATE  
DETAILS

FILE NO. PROJECT NO. CONTRACT NO. DRAWING NO.

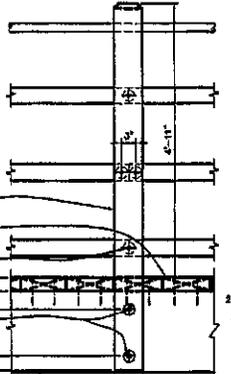
Watson Engineering Ltd.  
CONSULTING ENGINEERS



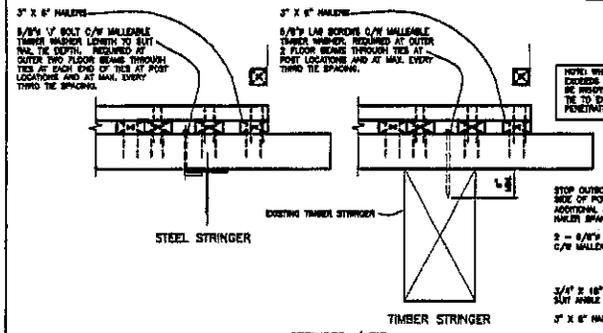
**DECK SECTION**  
1 1/2" x 1'-0"



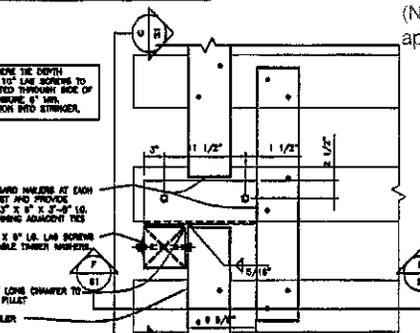
**POST CONNECTION TO EXTERNAL TIMBER STRINGER**  
1 1/2" x 1'-0"



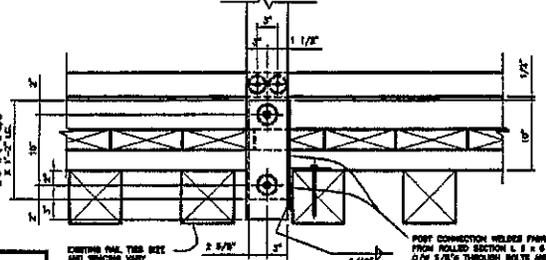
**DECK PLAN VIEW**  
3/8" x 1'-0"



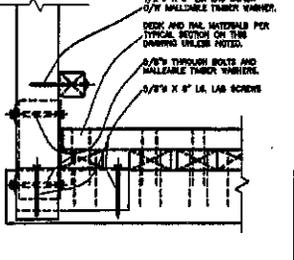
**STRINGER / TIE CONNECTION DETAILS**  
1 1/2" x 1'-0"



**POST CONNECTION PLAN VIEW**  
1 1/2" x 1'-0"



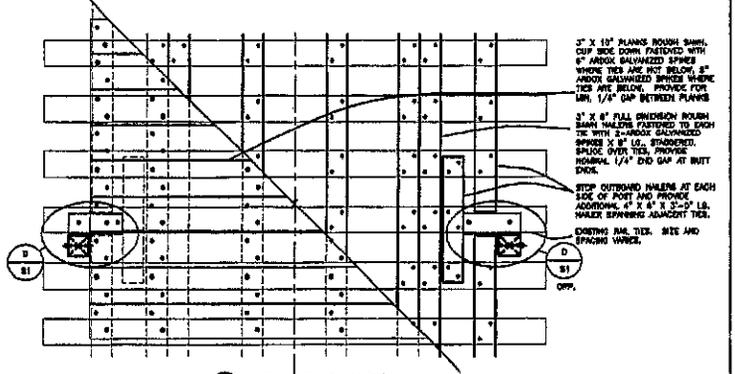
**POST CONNECTION ELEVATION**  
1 1/2" x 1'-0"



**POST CONNECTION SECTION**  
1 1/2" x 1'-0"

**ATTACHMENT 1 - HANDRAIL REQUIREMENTS**  
(Note: Only the handrail contents of this drawing apply to the Kinsol Trestle Project)

- 1. GENERAL**
- 1.1 GENERAL NOTES:
    - NORMAL TRAIL USE: 4.8 MPa
    - STRONG PORTS: 7,000 kg
    - QUANTITIES: TO B.C. BRIDGE CODE 1988, PART 4.
    - LATERAL LOADS: OF 0.75 kN/m ON A CONCENTRATED LOAD OF 1.8 kN APPLIED AT ANY POINT WITHIN OVERLAP.
    - VERTICAL LOAD AT TOP RAIL: 1.0 kN/m
  - 1.2 READ STRUCTURAL DRAWINGS IN CONJUNCTION WITH ALL OTHER CONTRACT DRAWINGS AND DOCUMENTS. REPORT ANY CONFLICTS TO THE ENGINEER BEFORE COMMENCING WORK.
  - 1.3 VERIFY ALL DIMENSIONS PRIOR TO CONSTRUCTION.
  - 1.4 NOTIFY ENGINEER 48 HOURS IN ADVANCE FOR INSPECTION OF STRUCTURAL CONNECTIONS BEFORE COVERING UP.
  - 1.5 DIMENSIONED RESPONSIBILITY: THESE DRAWINGS SHOW COMPLETED STRUCTURAL COMPONENTS OF THE BRIDGE AND SUBGRADE. THE REQUIRED TEMPORARY BRACING AND SHORING TO PERFORM THE WORK SAFELY IS THE RESPONSIBILITY OF THE CONTRACTOR.
  - 1.6 ENVIRONMENTAL WORK PROCEDURES, TIMES AND SPECIAL PRECAUTIONS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS AND LIMITATIONS OF FEDERAL AND PROVINCIAL ENVIRONMENTAL REGULATORY AGENCIES.
  - 1.7 QUALITY ASSURANCE: QUALIFICATION OF CONTRACTOR AND SUBCONTRACTORS: ONLY SUBCONTRACTORS WITH BRIDGE CONSTRUCTION EXPERIENCE SHALL BE USED ON THIS PROJECT, AND THE CONTRACTOR SHALL HAVE A PROVEN HISTORY OF SUCCESSFUL WORK ON SIMILAR PROJECTS. THE CONTRACTOR SHALL BE FULLY CONVERSANT WITH ALL SAFETY PROCEDURES AND REGULATIONS RELATIVE TO BRIDGE CONSTRUCTION AND SHALL EMPLOY STAINING AND OTHER SAFETY PROCEDURES AS SPECIFIED ELSEWHERE AND REQUIRED BY THE WORKING CONFORMATION BRIDGE REGULATIONS.
- 2. DIMENSIONED MATERIALS**
- 2.1 ALL DIMENSIONS TO CONFORM TO CSA-G141-91 "SOFTWOOD LUMBER".
  - 2.2 ALL TIMBER MEMBERS DOUBLE FOR END, END GRADE PORTS, DECORING AND HAILETS FULL PROVISION FOR END CUT, HANDRAIL UNDERDRIVE, CUT (NOTE FOR DECORING, CUT SIDE=1/3 OF DECK).
  - 2.3 ALL TIMBER CONSTRUCTION DETAILS AND FASTENERS SHALL CONFORM FULLY TO CSA CAN, CURRENT EDITION.
  - 2.4 ALL MATERIAL TO BE CUT TO LENGTH AND GRINDED, CHAMFERED AND ROUTED EDGES TO BE FACTORY MILLED AND ALL HOLES THROUGH PORTS (FOR PIPE RAIL AND THROUGH BOLTS) TO BE PRE-DRILLED PRIOR TO PRESURE TREATMENT.
  - 2.5 PRE-DRILL ALL BOLT AND LAG SCREW SHANK HOLES (BUT NOT END HOLES) PRIOR TO PRESURE TREATMENT. BOLT HOLES SHOULD BE FULL LENGTH AND SIZE FOR MACHINE BOLTS. DRILL ALL HOLES MANUALLY WITH PRESURE TREATMENT FLUID. LEAD HOLES FOR LAG SCREWS DO NOT REQUIRE TREATMENT, BUT MUST BE PRE-DRILLED 1/2" LESS THAN NOMINAL SCREW DIAMETER.
- 3. PRESURE TREATMENT**
- ALL DIMENSIONED MATERIAL SHALL BE TREATED TO CSA 080.14 IN AN APPROVED WOOD PRESURE TREATMENT PLANT, UNDER ACID TREATMENT PLUS. THE AVERAGE NET RETENTION OF FLUID SHALL BE 4 kg/m<sup>3</sup> AS DETERMINED BY ANALY. SEE NOTE 2.3 FOR MEMBER PREPARATION, SORTING & MILDING TO BE DONE PRIOR TO PRESURE TREATMENT.
- 4. WELDING**
- 4.1 ALL WELDS AND INSPECTION OF FABRICATION TO CONFORM TO CSA W88. STEEL FABRICATORS SHALL BE QUALIFIED TO CSA W47-1, DIVISION 1 OR DIVISION 2.



REDUCED  
PLOTting 1:47 X HIGHER SCALE

Watson Engineering Ltd.  
CONSULTING ENGINEERS

Rev	Date	Description	By

Province of British Columbia  
TRANS CANADA TRAIL PROJECT OFFICE  
STANDARD BRIDGE-DECK AND GUARDRAIL  
GENERAL NOTES AND SECTIONS



C·V·R·D

## STAFF REPORT

### KINSOL TRESTLE COMMITTEE MEETING

OF JUNE 8, 2010

**DATE:** June 3, 2010

**FILE NO:** 6180-20-Tra-08-Kin

**FROM:** Norm Olive, P.Eng. Manager, Capital Projects

**SUBJECT:** Kinsol Trestle Rehabilitation Project Progress and Design Criteria

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#### **Recommendation:**

That this report be received for information.

#### **Purpose:**

To update the Committee on the status of the Kinsol Trestle rehabilitation project and Design Criteria requirements of the Ministry of Transportation.

#### **Financial Implications:**

The Board has previously approved expenditure of \$6.5 million on the rehabilitation of the historic Kinsol based on grant funding and donations secured to date.

#### **Interdepartmental/Agency Implications:**

The Ministry of Transportation and Infrastructure owns the historic Kinsol Trestle and former railway corridor and is requiring their approval of the design criteria which will be used to establish the scope of work to rehabilitate the historic trestle.

#### **Background**

##### **Project Status**

In addition to the Conservation Timber Specialist and General Contractor work components for the project covered under separate reports in this agenda, the following provides an update on other key elements of the project:

- The underslung steel truss and deck design work is being finalized by Stantec Consultants. The specifications for the decking and handrail heights follows the standards approved by the Province for the other trestles converted for rail trail use on the Cowichan Valley Trail (trestles within Cowichan River Provincial Park) – see attachment. This work will be tendered to qualified general contractors to bid on.
- An environmental and best management plan for the project has been prepared by Madrone Environmental and approved by the DOE and DFO. The contractors working on the trestle will be required to comply with this plan to ensure the protection of the Koksilah River.

- Geotechnical assessment work is being done to confirm stabilization requirements of the slope areas beneath the structure on the north and south sides of the Koksilah River. It is expected some slope stability work (i.e. rock anchoring) will be required and included in the scope of work for the general contractor.
- A temporary bypass trail is planned for construction to route Cowichan Valley Trail users around the construction site at the north end of the trestle, as well as provide public vantage points to observe the rehabilitation work.
- A contract has been awarded to a local contractor to construct two heavy equipment crossings over Terasen's main distribution pipeline located within the rail corridor so as to allow construction access to both ends of the trestle.
- The heritage assessment work during the project has been re-assigned from Commonwealth Historic Resource Management to Jonathan Yardley Architecture, due to unforeseen circumstances. Jonathan Yardley Architecture is well familiar with the project, having been involved as part of the project team with the Phase I and II work on the Kinsol Trestle Restoration Feasibility Studies.
- The Ministry of Transportation has been kept apprised of progress on the project and provided information as requested on the Kinsol Trestle Design Criteria established for the project. The Ministry is preparing and will be issuing the Regional District a permit to proceed with the works and ongoing maintenance. It is expected this permit will valid for a minimum 10 years, with the understanding it is to be ultimately replaced by a long term (i.e. 20 year plus) License Agreement covering the trestle and portions of the Cowichan Valley Trail within the rail corridor that have been approved by the Board for CVRD to manage/operate.

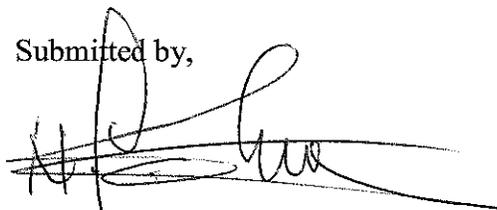
### Design Criteria.

- The Design Criteria submitted to the MOTI for approval is attached as addendum 1.

### Conclusion:

The Kinsol Trestle project is on schedule and on budget for the estimate cost for substantial completion of \$6.5M by the 31<sup>st</sup> March 2011.

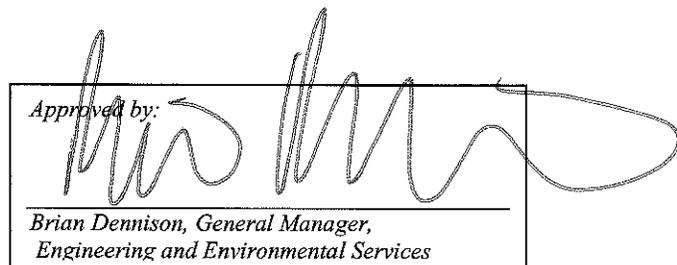
Submitted by,



Norm Olive P.Eng., Manager,  
Capital Projects

NJO/jlb

Approved by:



Brian Dennison, General Manager,  
Engineering and Environmental Services