

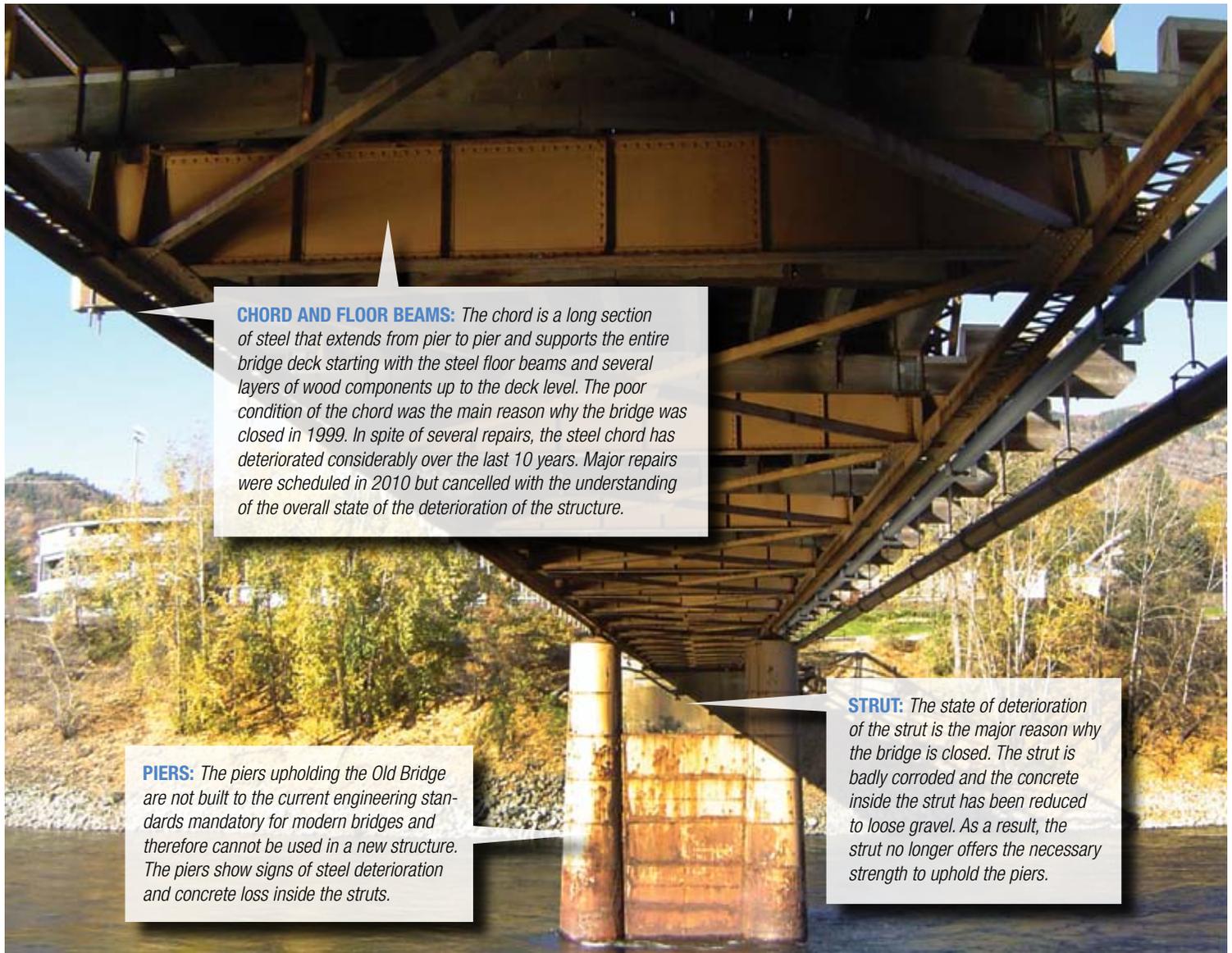
By way of professional guidance and advice from the engineering firm of Buckland & Taylor Ltd., offering 39 years experience in bridge design, independent checking, evaluation, retrofit, rehabilitation, and construction engineering for bridges of all types, the City of Trail has thoroughly examined the options relative to the use of the Old Trail Bridge.

Buckland & Taylor conducted its annual examination of the Old Bridge last fall and the results clearly indicate the structure cannot be used in any way, shape or form due to severe deterioration. Combined deficiencies to the strut, piers and chord make

use of the old bridge structure, for pedestrians or vehicles, dangerous. Due to the hazardous state of the bridge, the City of Trail is not willing to put residents or the municipality at risk.

COST IMPLICATIONS

The City is duly concerned that it invests community resources responsibly and effectively. Rehabilitation of the Old Bridge is estimated between in the range of \$6 -10 million and will extend the life of the bridge for 15 years. The question of whether or not this would be a prudent and responsible investment must be answered if this option is to be pursued.



CHORD AND FLOOR BEAMS: *The chord is a long section of steel that extends from pier to pier and supports the entire bridge deck starting with the steel floor beams and several layers of wood components up to the deck level. The poor condition of the chord was the main reason why the bridge was closed in 1999. In spite of several repairs, the steel chord has deteriorated considerably over the last 10 years. Major repairs were scheduled in 2010 but cancelled with the understanding of the overall state of the deterioration of the structure.*

PIERS: *The piers upholding the Old Bridge are not built to the current engineering standards mandatory for modern bridges and therefore cannot be used in a new structure. The piers show signs of steel deterioration and concrete loss inside the struts.*

STRUT: *The state of deterioration of the strut is the major reason why the bridge is closed. The strut is badly corroded and the concrete inside the strut has been reduced to loose gravel. As a result, the strut no longer offers the necessary strength to uphold the piers.*



- Steel separated and no longer tied together
- Severe scaling where steel thickness has deteriorated from age



- Exposed aggregate
- Non-existent cement binding
- Complete erosion of steel



- Extreme deterioration of steel illustrating gaping holes
- Aggregate and cement absent inside pier



- Severe scaling with detached steel