



Timber Coating Maintenance

Pedestrian Bridges BG-24 and BG-31 Timber Coating Maintenance Specification

Spring Creek Mountain Village – Bridges BG-24 and BG-31
Canmore, Alberta

ISL Project No.: 62316

Issued for Construction: July 28, 2025

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1. GENERAL

1.1 SUMMARY

- .1 This specification applies to the maintenance of the coatings for the timber bridges BG-24 and BG-31 surrounding Spring Creek Mountain Village (SCMV), Canmore as indicated below:

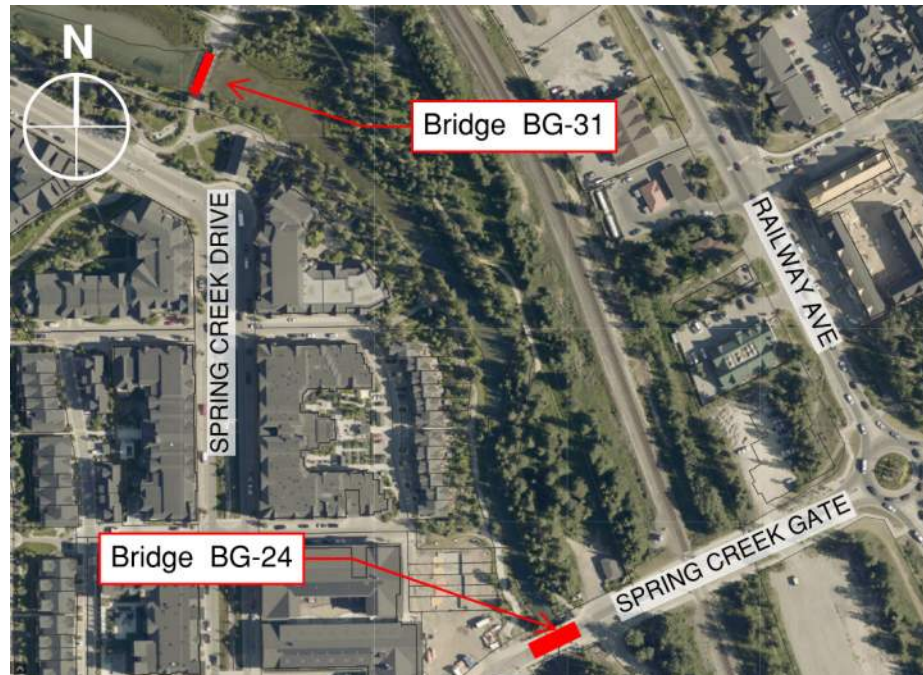


Figure 1 – Aerial View Showing Bridge Locations

- .2 The scope of work within this specification is limited to the maintenance of the protective coatings applied to the timber elements of the above bridges. It does not include any information pertaining to structural repairs or coating maintenance for any structural steel.
- .3 This work does not apply to areas where wood deterioration is advanced and replacement or repair is required.

1.2 REFERENCES

- .1 Applicable Building Code / Building By-Law, most recent edition.
- .2 CAN/CSA 080 Series Wood Preservation.

1.3 ENVIRONMENTAL REGULATORY REQUIREMENTS

- .1 Submit a Code of Practice (COP) notice through Alberta's Digital Regulatory Assurance System (DRAS) prior to the commencement of the Work. Share notice of submission with the Owner.

1.4 DELIVERY, STORAGE AND HANDLING

- .1 Protect materials from freezing, moisture, water, UV exposure, and damage.



- .2 Guard against spillage. Store materials in spill-containment areas. Provide a site plan showing proposed storage areas and site lay down area to the Owner for review prior to commencement of the Work.

- .3 Complete preparation works only when the underlying creeks are dry or frozen.

1.5 **WASTE MANAGEMENT AND DISPOSAL**

- .1 Do not burn, bury or throw away toxic waste.
- .2 Dispose of waste in manner approved by local regulations. Comply with applicable hazardous waste disposal regulations.
- .3 Protect the underlying creek areas from exposure to existing coatings during removal and sanding as well as from exposure to new coatings during application. Install protective tarps/drop sheets directly below the work areas to contain waste materials and new coatings.

2. **PRODUCTS**

2.1 **MATERIALS**

- .1 Site-Applied Timber Coating: CETOL 01 and CETOL 23 (Subject to Compatibility Test Results).
- .2 Colour: To be confirmed by the Owner.
- .3 Application Tools: Bristle brush.
- .4 Preparation Tools: Scraper, Orbital Sander, Sandpaper: 80-120 grit.

3. **EXECUTION**

3.1 **EXAMINATION**

- .1 Carefully examine all wood surfaces prior to commencement of the coating removal and any areas exposed during the Work.
- .2 Investigate structure for problems related to safe execution of Work and report unsatisfactory conditions to Owner before beginning work.
- .3 If any areas of timber are noted to be affected by rot or excessive moisture, report to Owner prior to continuing with the Work.

3.2 **SITE PROTECTION**

- .1 **Complete timber preparation work (scraping and sanding) only when the creeks are DRY or FROZEN.**



- .2 Install drop sheets or similar below the bridges to contain any dropped materials.
- .3 Use vacuums when sanding existing surfaces to contain dust.
- .4 Protect adjacent surfaces from intentional or accidental contact with the new coating.
- .5 Follow manufacturers' safety requirements.

3.3 **COMPATIBILITY TEST – BG-31**

- .1 Refer to the attached photos showing the location of three test areas for the new coating. The tests shall be completed as follows:
 - .1 **Test Area 1 – Existing Coating – Light Sand**
Lightly sand (hand sand) the existing coating with 120 Grit sandpaper. Do not remove the existing coating. Apply two (2) coats of Cetol 23.
 - .2 **Test Area 2 – Existing Coating – Heavy Sand**
Scrape off any loose coating and heavily sand the existing coating using 80 Grit sandpaper with an orbital sander. Apply two (2) coats of Cetol 23.
 - .3 **Test Area 3 – Bare Wood**
Scrape off any loose coatings. Heavy sand down to bare wood, removing all existing coatings. Apply one (1) coat of Cetol 23. Apply two (2) coats of Cetol 23.
- .2 Photograph each of the test areas at the following stages:
 - .1 Prior to preparation.
 - .2 Following preparation, prior to coating application.
 - .3 At completion of each coat.
- .3 Provide photos of test areas to the Owner and Consultant for review.
- .4 The Owner shall assess the results and advise on the final scope of work for this bridge.

3.4 **PREPARATION**

The below information does not apply to the decking boards of the bridges.

- .1 BG-24 – Full Coating Removal and Re-coat:
 - .1 Scrape off all existing coating where it is loose, flaking or delaminating.
 - .2 Perform a heavy sand using 80-grit sandpaper. Sand down to bare wood to remove all traces of the existing coating.
 - .3 Following heavy sand, complete a light sand of all areas with 120-grit sandpaper.
 - .4 For all guard top rails, smooth off any sharp edges or splintered pieces of wood.
 - .5 Thoroughly remove all dust at completion of preparation works.
- .2 BG-31
 - .1 Scrape off existing coating where it is loose, flaking or delaminating.
 - .2 Allow to heavy sand all existing coating down to bare wood. Final extent of the removal of the existing coating will be determined following assessment of the compatibility test results.
 - .3 Following heavy sand, complete a light sand of all areas with 120-grit sandpaper.
 - .4 For all guard top rails, smooth off any sharp edges or splintered pieces of wood.
 - .5 Thoroughly remove all dust at completion of preparation works.



3.5 **COATING SELECTION**

- .1 The below coatings are to be applied to the following items:
 - .1 BG-24
 - .1 Guard rails, posts and diagonals;
 - .2 Guard post struts;
 - .3 Floor beams where they extend beyond the edge of the bridge; and
 - .4 Exposed ends of floor beams along the bridge and at abutments.
 - .2 BG-31 – All wood elements **excluding** the decking boards.
- .2 The final coating sequence will be determined following the completion of the compatibility tests. Allow to apply:
 - .1 One (1) coat of Cetol 01
 - .2 Two (2) coats of Cetol 23
- .3 Refer to and follow the manufacturers instructions for detailed information regarding minimum drying time and recoat time.
- .4 DO NOT COAT THE DECKING BOARDS.

3.6 **SITE APPLICATION**

- .1 Apply mixture by Long-haired Natural Bristle Brush.
- .2 Apply in temperatures between 10°C and 35°C.
- .3 Mix different batches/cans to ensure color consistency.
- .4 Saturate all end grains, nail holes, and cracks.
- .5 Maintain a wet edge during application.
- .6 Apply in the direction of the wood grain.
- .7 Stir thoroughly before and during application.

3.7 **FIELD QUALITY CONTROL**

- .1 Record coating times and product consumption in a daily log. Daily log to include:
 - .1 Weather conditions, including air temperature at time of application;
 - .2 Timber elements treated and amount of product used; and
 - .3 Time of application.
- .2 Confirmation: At randomly selected locations and at random intervals, Owner or Consultant to conduct field reviews.

END OF SECTION

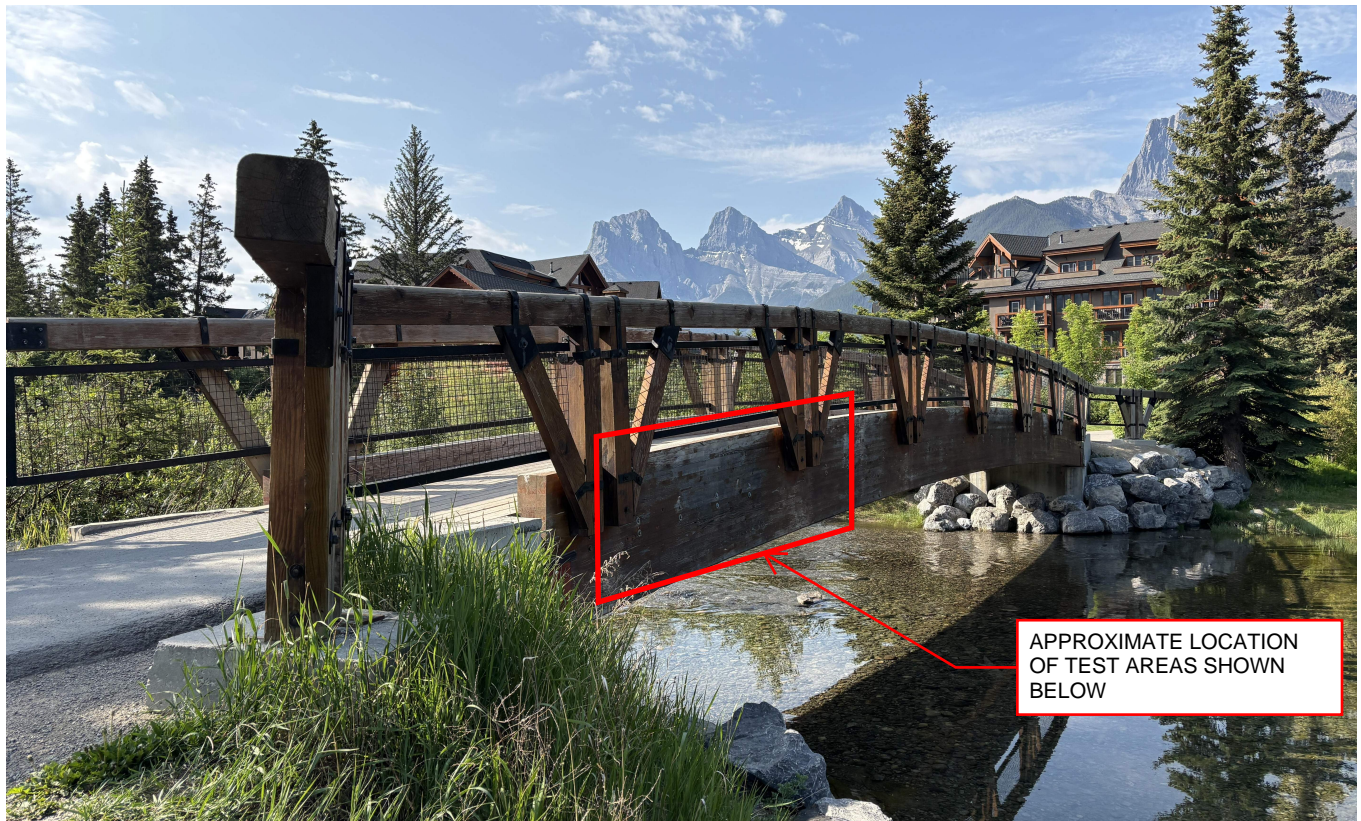


FIGURE 2: VIEW OF BG-31 AS VIEWED FROM THE NORTH-WEST

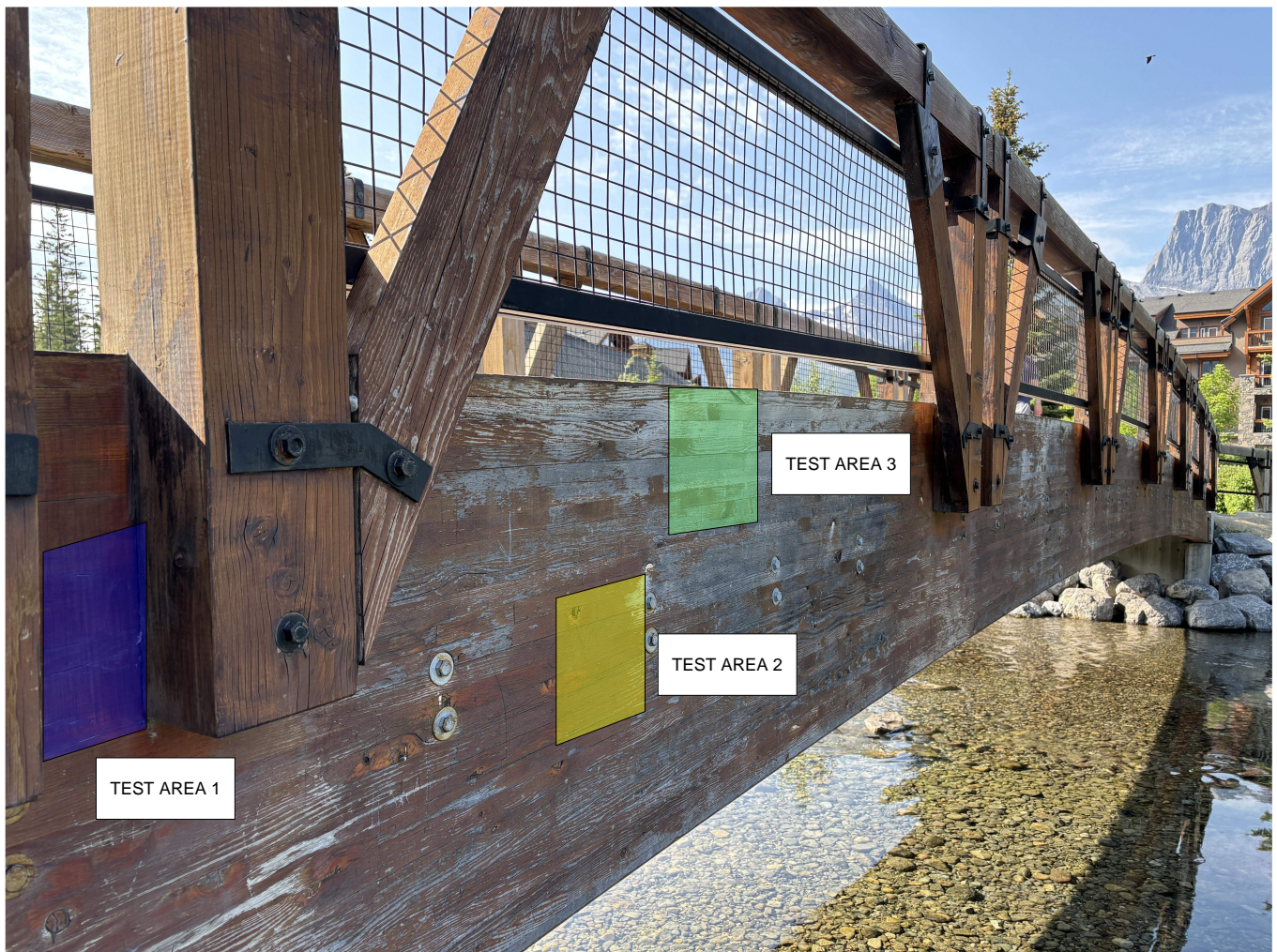


FIGURE 3: CLOSE-UP VIEW SHOWING THE TEST AREAS ON BRIDGE BG-31

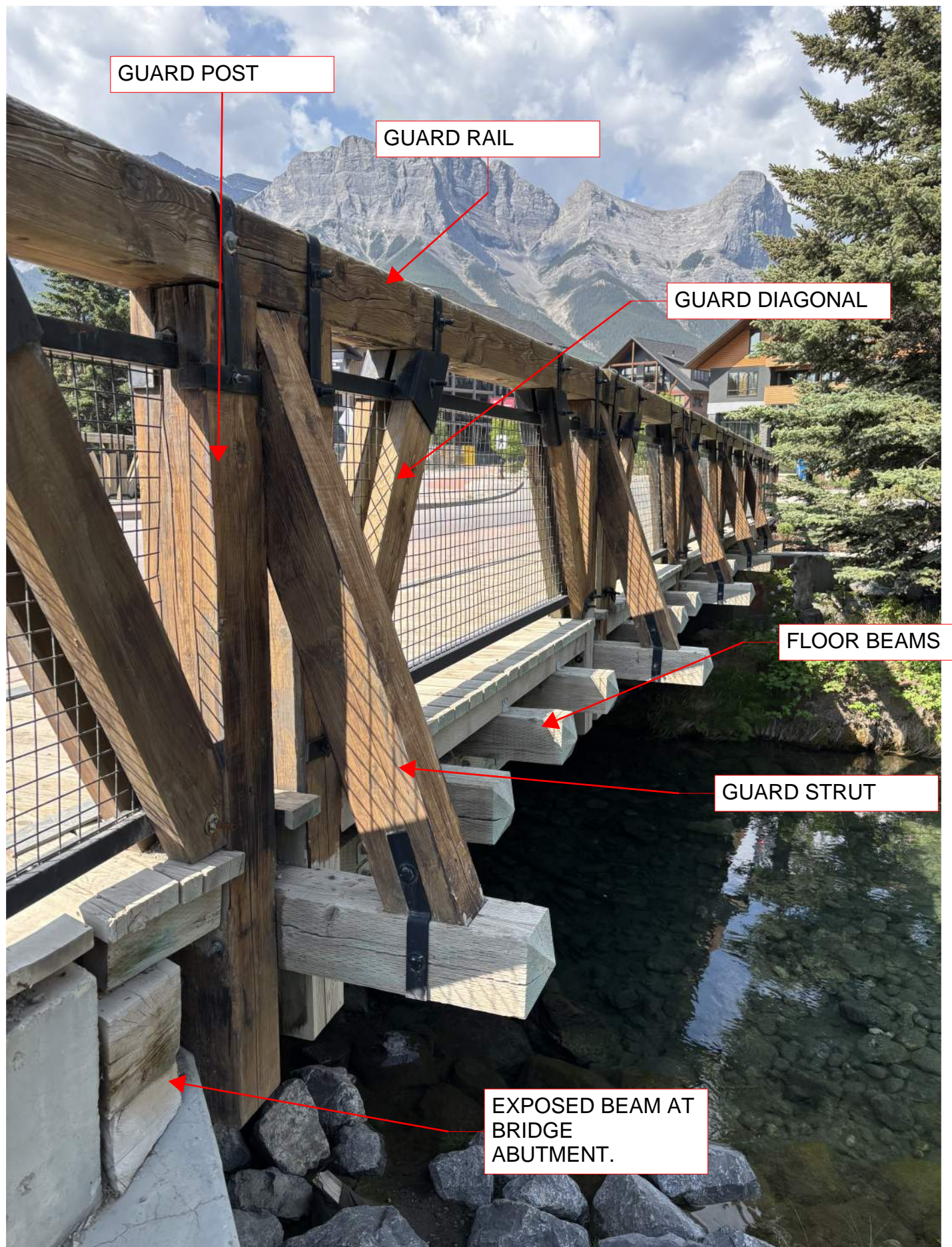


FIGURE 4: GENERAL VIEW OF THE SCOPE OF WORK ON NORTHERN SIDE OF BRIDGE BG-24. SIMILAR SCOPE AND LAYOUT ON SOUTH SIDE OF BRIDGE