



LR27-0.1-32C (Masonville Bridge) over the Buckhorn Creek  
Looking East

Larimer County Engineering is inviting the public to provide feedback or ask any questions regarding the upcoming project, replacement of the Masonville Bridge on CR 27 over the Buckhorn Creek (Bridge No. LR27-0.1-32C). Construction is scheduled to start in January 2021 and expected to be complete by June 2021.

The current structure was built in 1935 and is in fair condition with a narrow roadway platform. Poor functionality and deteriorating concrete have put this bridge high on the replacement list. A single-lane on-site detour will be provided to the north of the bridge to allow traffic through the site. Only short delays are expected. Changes to traffic patterns and project updates can be found on our Road Event Status System (RESS): <https://www.larimer.org/roads/closures>.

The proposed bridge width is 43-ft out-to-out with a roadway width of 40-ft, which is made up of two, 12-ft travel lanes and two, 8-ft shoulders. The existing bridge width is 23-ft out-to-out with a roadway width of 20-ft at the bridge. The new bridge will encompass the existing footprint and the roadway alignment will not change. Based on the structure selection process, a prestressed, precast concrete adjacent slab girder bridge with driven steel H-pile foundation will be used for the replacement configuration. An adjacent slab girder bridge has the shortest depth which minimizes additional costs

related to having to raise the roadway platform, and because of the small depth, the proposed structure will not cause a rise to the water surface elevations within the floodplain.

A PDF of the preliminary proposed plans (30% design plans) are provided for your review. Some additional items to note:

- Page 2: Temporary Shoofly Plan – Steel sheet piles will be used to safely shore the bridge excavation from the single-lane detour. Access to the post office will be maintained and appropriate signage will help direct traffic. The shoofly will be utilized until the new bridge has been placed, the concrete deck has been poured, and the asphalt paving, signing, and striping is complete. The area in yellow on Page 2 shows the existing bridge footprint.
- Page 3: Plan and Profile Grade – The roadway alignment will stay the same between the existing and proposed bridges. The roadway platform will only be raised up a few inches; any more than this and there would be potential impacts to the floodplain as well as driveway accesses.
- Pages 4-6: Access Plan and Profile (Driveway Tie-Ins) – These sheets show driveway tie-ins to make smooth transitions from each access point onto CR 27.
- Page 7: Guardrail Layout – This sheet shows the new guardrail and bridge rail layout.
- Page 8: Channel Plan and Profile Grade – In order to not cause a rise in the floodplain elevation, some sediment build-up within the channel (Buckhorn Creek) will have to be removed. This is limited to the channel bottom, but some clearing and grubbing of dense shrubs and trees or debris around the mouth of the bridge will be required. Rock riprap will be placed around the bridge to protect against erosion in higher flows.
- Page 9: General Layout – The general layout shows three primary views: the plan view of the new bridge, its profile, and a cross-sectional view of the new bridge (Typical Section). This layout sheet helps show the difference in size between the existing bridge and the new footprint.
- Page 10: Wetland Impacts – A 145 sq. ft area has been identified as wetlands and an environmental study has been conducted to identify this and other potential impacts to sensitive species, birds of prey, and cultural and historic resources. As the 145 sq. ft. is under the ½ acre impact threshold for the Army Corps Nationwide Permit 14, guidelines set forth under this permit will be followed prior to, during, and post-construction. If any footprint changes during the remainder of the design process, the environmental reports will be updated to reflect the new footprint or changes to project scope. There are currently no adverse impacts to birds of prey, sensitive species, or historic or cultural features.
- Page 11: ROW Exhibit – Temporary Construction and Permanent Easements are required in order to construct the bridge. Larimer County has already been working with the adjacent landowners as well as other entities to discuss options for areas where our contractor may be able to stage equipment and stockpile materials. This will keep the roadway clear and ensure better access through the site. Temporary construction easements (areas in yellow) expire after 1-year and are restored to pre-construction conditions. Permanent easements enable Larimer County to perform future maintenance such as bridge curb cleaning, guardrail repairs or painting, and placement of riprap within the channel (areas in pink).

Please do not hesitate to reach out to us if you have any questions or comments. Please contact Morgan Fay, P.E., Project Manager ([mfay@larimer.org](mailto:mfay@larimer.org)) or Rusty McDaniel, P.E., Assistant County Engineer ([rmcdaniel@larimer.org](mailto:rmcdaniel@larimer.org)).