



PUBLIC WORKS MEMORANDUM

City of Jackson

TO: Mayor and Board of Aldermen

CC: Jim Roach, City Administrator

FROM: Anna Bergmark, City Engineer

DATE: April 27, 2022

RE: Task Order Request – Sunset Bridge Replacement Alternative Analysis

Attached to this memo is a proposal from Koehler Engineering for an Alternative Analysis for the Sunset Bridge Replacement. The proposal includes a scope of services for analyzing 4 alternatives. These alternatives include two locations (existing and a location in line with Francis Drive) as well as two bridge types. The level of engineering provided will be sufficient for Koehler Engineering and City Staff to make a recommendation to the Board as to what alternative the design should proceed with. As stated in the proposal, approximately 50-60% of the fee for this analysis will be recovered as a reduction in the final design fee.



KOEHLER ENGINEERING & LAND SURVEYING, INC.

194 Coker Lane
CAPE GIRARDEAU, MO 63701
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April 14, 2022

Ms. Anna Bergmark, PE
City Engineer
City of Jackson, Missouri
101 Court Street
Jackson, Missouri 63755
Via email @ abergmark@jacksonmo.org

RE: Alternatives Analysis for Bridge into Sunset Hills Subdivision over North Hubble Creek

Ms. Bergmark,

In accordance with your request for a proposal to replace the existing bridge entrance into Sunset Hills Subdivision on North High Street (Highway '61'), I have reviewed existing information, site conditions, and have prepared this proposal.

Our scope of services for preliminary design / an alternatives analysis include the following four scenarios:

- 1) Alt 1 - Full replacement in the current location
- 2) Alt 2 - Full replacement in a location in line with Francis Drive
- 3) Alt 3 – GRS-IBS Bridge in the current location
- 4) Alt 4 – GRS-IBS Bridge in a location in line with Francis Drive

For each alternative, we would develop a concept design and cost estimate. We would present a report of findings and a recommendation for the best location and most cost effective solution.

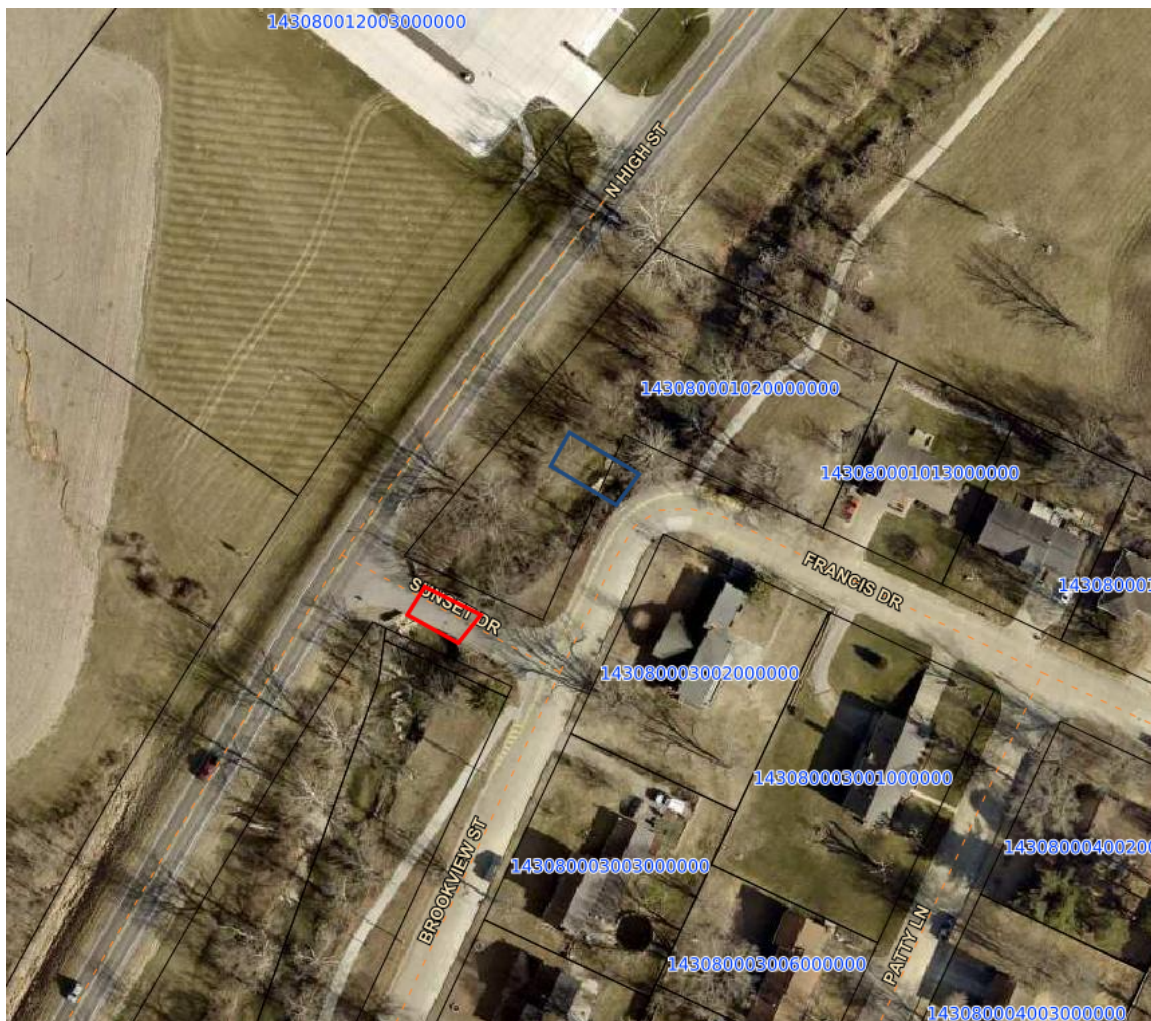
For either location, we would be considering a 25' wide deck bridge with concrete barrier curbs and an attached walk. The walk would be behind the barrier curb, and would be protected by a fence or similar barrier. The present span length would be reviewed and recommendations made as to appropriateness.

We would review with City staff prior to beginning the analysis to ensure that we have proper parameters for each scenario. Based on my field review, it would appear that the northern location may be limited to a steel bridge super-structure, as the turning radius for left hand movements from northbound Brookview would be entering nearly or on the bridge deck. A steel "wing" section would likely be required at this point.

The northern alternate aligned with Francis Drive would also require a new connection with Highway '61'. As part of our alternatives analysis, we would consult with MoDOT and determine what, if any, roadway modifications may be required for a connection at this location.

We would acquire topographic data at both locations, but would defer any geotechnical investigation until after an alternate was selected. At that point, drilling and rock cores could be obtained at the final bridge location. Based upon field review of the creek channel, conditions are anticipated to be similar at both locations, and bedrock appears to be acceptable with minor excavation at either location for either type of bridge foundation to bear upon.

The figure one shows the project location, with the present bridge location in red and the alternate new location in blue.



We would propose to complete this work for the a lump sum fee of 18,860.00.

Approximately 50% ~60% of this fee would be recovered as a reduction in the final design fee.

We would propose to fully complete the alternatives analysis and submit to Staff for review within no more than 60 days from a notice to proceed. After review with staff, we would also anticipate presenting our findings to the City Council at a study session or full meeting.



Thank you for the opportunity to provide this proposal to the City of Jackson for this project. If you need any further information, have any questions, or I can be of any further assistance in any capacity, please contact me at your earliest convenience.

Best Regards,

KOEHLER ENGINEERING &
LAND SURVEYING, INC.

A handwritten signature in blue ink, appearing to read 'Chris Koehler', with a large, stylized initial 'C'.

Chris Koehler, PE, PLS