## 2023 APPLICATION FOR BRIDGE IMPROVEMENT GRANT (BIG) PE FUNDS or LOCAL FEDERAL BRIDGE REPLACEMENT or REMOVAL FUNDS

South Dakota Department of Transportation

**SUBMIT APPLICATION TO:** Colton.Stahl@state.sd.us

### Identification

<table>
<thead>
<tr>
<th>Bridge ID #</th>
<th>52-378-315</th>
</tr>
</thead>
<tbody>
<tr>
<td>Owner</td>
<td>City of Rapid City</td>
</tr>
<tr>
<td>Location</td>
<td>Chapel Lane 0.2 mi south if its intersection with SD44</td>
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</tbody>
</table>

| Fed Functional Classification: | 19 |
| Over: | Rapid Creek |
| Road/Street/Avenue Name: | Chapel Lane |
| BIG Score: | 24/100  Mod. BIG Score: 22/70 |

### Program

Application for (check only one):
- [ ] Federal Removal Project (Design & Construction)
- [x] Federal Replacement Project (Design & Construction)
- [ ] Bridge Improvement Preliminary Engineering Grant (Survey & Hydraulics)
- [ ] Both Federal Replacement Project & Bridge Improvement Preliminary Engineering Grant

### Grant (BIGs Only)

Total Project Amount $________ = Requested Grant Amount $_________ + Local Match $__________ (20% minimum)

If Higher Percent Used Show Here___________%

### Eligibility (BIGs Only)

All Projects: (Attach separate sheet with explanation if any of the following are False)
- Structure serves multiple residences, farms, ranches or a multi-lot development? [ ] True [ ] False
- Structure is located on a Full Maintenance Road? [ ] True [ ] False
- Roadway does not terminate into a field entrance, driveway, single residence, farm, or ranch? [ ] True [ ] False
- Local Public Agency (LPA) is in full compliance with Federal and State NBIS requirements? [ ] True [ ] False

County Applicant:
- Amount of County Wheel Tax per wheel for >6000 lb classification: ________________
- Is the structure listed in the Approved County 5-Year Plan or Revised Plan (Attach with signed standard resolution)? [ ] Yes [ ] No
- Has general maintenance been performed on the structure? (Must attach maintenance records.) [ ] Yes [ ] No

Preliminary Engineering: Attach cost proposal (DOT cost plus fixed fee format for the requested work; maximum allowable fixed fee = 13%)

### Prioritization

Describe the economic importance of evaluating/replacing this bridge (attach additional sheets as needed):

Please see attached sheet.

### LPA Authorization

Sara Odden

LPA Contact (print) sara.odden@rcgov.org / 605.394.4154

Attach resolution from Commission/Council authorizing application for grant(s).
**Economic Importance**

Structure number 52-378-315 is located in Rapid City, on Chapel Lane over Rapid Creek. The structure is a 182’ steel girder bridge that was constructed in 1974. Chapel Lane is classified as a “Collector Street” per the Rapid City Infrastructure Design Criteria Manual (IDCM). The IDCM defines a Collector Street as “A street, which collects traffic from other minor streets and channels it into the arterial street system. Collectors provide for land access and traffic circulation within and between residential neighborhoods and commercial and industrial areas. They distribute traffic movements from these areas to the arterial streets…” The bridge has an average daily traffic (ADT) count of 4,700, which includes local, commercial and school bus traffic.

This structure is located on the west edge of Canyon Lake and serves as the solitary access for over 500 parcels, that are comprised of single-family homes, multi-family homes and businesses located in the Chapel Valley neighborhood, including the tourist destinations of the distinctive Stavkirke Chapel, better known as the Chapel in the Hills, which sees 20,000 to 25,000 visitors a year, and the recreational rental site and boat ramp for Canyon Lake. Tourists from around the world visit the Chapel in the Hills annually and this structure is the only access point to this unique building. In addition to the structure serving as the single vehicular access point for the neighborhood, it also provides the neighborhoods only connection to the City’s bicycle path which runs both beneath the bridge and to the north, adjacent to Jackson Boulevard (SD HWY 44).

Should this structure fail or be closed during construction, the economic impact and potential life safety impacts would be significant. In the event of a catastrophic emergency, such as a wildfire or flooding event, this bridge provides the only access to the area, for both residences needing to leave the area and emergency personnel to enter the area. Maintenance of this structure is critical to protect homes, businesses and infrastructure. Any closure of this bridge would not only impact the numerous families who would be forced to relocate out of their homes for the duration of the closure, at a significant cost to them, but there would also be significant impacts to the school bus routes. Several local businesses and attractions would be cut off from the sole source of tourist traffic that supports their livelihood. For example, admission to Chapel in the Hills is at no cost, however, it is self-supported through free-will donations, gift shop purchases and weddings held onsite, therefore, should access be removed this attraction may be forced to close. The City of Rapid City also owns and operates the City View Trolley as a narrated tour of Rapid City (Trolley fare is $2.00 per adult, $1.00 per child 12 and under, and $1.00 per honored citizen – 60 years and older, disabled citizen and Medicare card holders). Many of the unique points-of-interest found throughout are on the route which operates June 1st through August 31, Monday through Friday. One of the 16 stops on the trolley route is the Chapel in the Hills, therefore the route is impacted by any modifications to the structure.

Previously, the City of Rapid City was awarded a BIG PE grant to determine if rehabilitation or replacement was the best option for this structure. While the BIG PE is nearing completion, a final report is not yet available. Preliminary assessments show that the rehabilitation costs are more than 60% of the replacement cost, therefore replacement of the structure is the City’s intent. Construction will be phased in order to accommodate one lane of traffic throughout construction.