Rural Access Infrastructure Funding & Inventory Process

PROCESS IMPLEMENTATION GUIDANCE FOR SDCL § 31-34
JUNE 23, 2022
PREPARED BY DAVE HUFT, SDDOT

SD2021-03 Working Group Members

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Legislation & Funding

HB1259 (2021), HB1070 (2022)
- In SDCL § 31-34
- $3M in FY2022 for inventory
- $3M in FY2023
  - Construction
  - Rehabilitation
  - Replacement
  - Engineering
  - Planning
- Requirements and Process

HB1306 (2022)
- $25M appropriated
  - 3 equal annual amounts ($8.33M)
  - FY2023, FY2024, FY2025
  - Distribution by same method as $3M FY2023 distribution
First Funding Distribution to Counties

SDCL § 31-34-2 and § 31-34-3

- Each county must establish a rural access infrastructure fund (295) for the deposit of funds
- “By August 1, 2021, DOR shall distribute the sum of $3 million on a pro rata basis to each county for the purpose of planning and completing an inventory of small structures.”
- Pro rata based on:
  - miles of county secondary and township road
  - estimated number of stream crossings
  - a baseline amount to establish an inventory
- Distribution of funds was made by SDDOR mid-July 2021
In Proportion to Road Miles and Stream Crossings with $10K per County Minimum

$3 million total

Legislation & Funding
- Small Structure Inventory
- Small Structure Improvement Plans
- Project Funding Applications
- Calendar and Next Steps

Presentation Topics
Small Structure Inventory Handbook

- 8½” x 5½” spiral bound
- Item-by-item description
- Lists all allowable responses
- Graphics and photographs to guide selection
- Posted on SDACC and SDATAT websites August 4
- Hard copies to county auditors September 3
- More hard copies are available

Small Structure Inventory Common Elements

**LOCATION**
- Structure ID #
- County Name
- Township Name
- Structure Owner
- Latitude
- Longitude
- Location (roadway or approach)

**ROAD**
- Highway Number
- Roadway Maintenance Level
- Number of Residences Served
- Detour Length (if culvert fails)
- Surface Type
- Surface Condition
Culvert Inventory Elements

**ATTRIBUTES**
- Year Constructed
- Culvert Purpose
- Culvert Type
- Culvert Shape
- Material Type
- Lining
- End Types

**DIMENSIONS**
- Number of Cells
- Span
- Rise
- Length
- Skew Angle
- Length in Direction of Roadway
- Cover Height

**CONDITION**
- Crushing
- Infiltration
- Joint Separation
- Material Deterioration
- Plugging
- Load Posting
- Culvert Damage
- Overall Condition
- Inslope Cavities

**DRAINAGE**
- End Type
- Erosion Control
- Inlet Erosion
- Outlet Erosion
- Water Level
- Perching
- Overtopping Frequency
Small Bridge Inventory Elements

**ATTRIBUTES**
- Structure Status (open, posted, closed)
- Bridge Railing (yes/no)
- Approach Guardrail (yes/no)
- Design Type
- Material Type
- Condition

**DIMENSIONS**
- Structure Length
- Number of Spans
- Number of Lanes
- Deck Width
- Roadway Width
- Skew Angle

Small Structure Inventory Mobile App
- ESRI Collector app
- Tracks Inventory Handbook exactly
- Culvert and Small Bridge Protocols
- Embeds photograph images
- Feeds directly into Statewide Small Structure Database
Small Structure Inventory Spreadsheet

- Tracks Inventory Handbook exactly
- Culvert and Small Bridge Protocols
- Embeds photograph images
- Can be imported into Statewide Small Structure Database

Small Structure Inventory Paper Forms

- Tracks Inventory Handbook exactly
- Culvert and Small Bridge Protocols
- Identifies image filenames
- Information must be entered into the Spreadsheet tool for submission to the Statewide Small Structure Database
Data from Small Structure Inventory

- Interactive Web Site
- Data
- Images
- Export to Spreadsheet
- SDDOT will refine searches

https://sdgis.sd.gov/portal/apps/webappviewer/index.html?id=110201c952074157af8a57fed789a58

Inventory Progress 05/31/2022

- 14,279 culverts
- 558 bridges
- 65 counties
Rural Access Infrastructure Funding Process
Dave Huft, South Dakota Department of Transportation

Presentation Topics

- Legislation & Funding
- Small Structure Inventory
- Small Structure Improvement Plans
- Project Funding Applications
- Calendar and Next Steps

Small Structure Improvement Plan Guide

- Legislation & Process
- Agency, Roadway, Structure Eligibility
- Inventory Collection & Maintenance
- Small Structure Improvement Plan Guidance & Template
- Funding Application Guidance & Template
- Small Structure Replacement and Rehabilitation Options

Rural Access Infrastructure Funding Guide
A Guide for Counties and Townships
Published by the South Dakota Department of Transportation
June 2022

Publish online June 2022
### Improvement Eligibility

#### Eligible Agencies
- Townships with either:
  - 50¢ per thousand annual property tax
  - Tax levy opt-out
- Counties

#### Eligible Roads
- Township
- County Secondary
- Full Maintenance Only

#### Eligible Structures
- $\geq 16 \text{ ft}^2$ opening
- “Not a bridge as defined in SDCL § 31-14-1”

#### Eligible Activities
- Engineering, hydrological studies, planning, materials, and other costs necessary to plan for and complete the projects
- Construction, rehabilitation, or replacement of small structures

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### What is a Small Structure?

SDCL § 31-34-1 defines a small structure as “any small bridge or culvert with an opening of sixteen square feet or more located on a township road or county secondary road, excluding bridges as defined in § 31-14-1.”

SDCL § 31-14-1 defines a bridge as “a structure, including supports, erected over a depression or an obstruction, as water, highway, or railway, the structure having a length measured along the center of the roadway of more than twenty feet between undercopings of abutments or extreme ends of openings for multiple boxes and pipes where the clear distance between openings is less than half of the smaller contiguous opening.”

<table>
<thead>
<tr>
<th>Small Structure</th>
<th>Not Small Structure</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1" alt="Diagram" /></td>
<td><img src="image2" alt="Diagram" /></td>
</tr>
</tbody>
</table>

- **Area** < 16 ft²
- **Length** > 20 ft, **Spacing** < ½ of opening width
- **Length** > 20 ft
- **Length** > 20 ft
Small Structure Improvement Plan
Required Content

- Agency Resolution
- Map(s) of all small structures in jurisdiction
- Data for all structures
  - Location
  - Width
  - Length
  - Condition
  - Load Posting
- 5-year Improvement Project List
  - Location
  - Type
  - Funding Source(s)
  - Estimated Cost
  - Year of Completion
- Financial Report (townships only)
- Other items prescribed by SDDOT (none identified so far)

Resolution Adopting a Small Structure Improvement Plan

The __________________, Township Board hereby approves the attached 5-Year Small Structure Improvement Plan and acknowledges that it complies with South Dakota Codified Law § 31-34-7.

Approved this _____ day of ____________, 202__

By: __________________________________
Township Board Chairperson

Attest:
_______________________________________
Township Clerk

Township Contact Person: _________________________
Phone Number: _________________________________
Email Address: __________________________________

Received by _________________________ County on _________________________
Small Structure Improvement Plan Content

- Map(s) of all small structures in the jurisdiction
  - Create from GIS database, or
  - Custom maps by agency

Small Structure Improvement Plan Content

- Data for all structures
  - Small Structure Report from inventory data
  - One structure/page
  - Required items
  - Other inventory information
  - Custom reports by agency
### Small Structure Improvement Plan Content

- **Financial Report**
  - Townships only
  - Most recently filed with SD Legislative Audit per SDCL § 8-10-30

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### Financial Report

<table>
<thead>
<tr>
<th>COUNTY:</th>
<th>Township:</th>
<th>FOR THE YEAR</th>
<th>[ State Aid ]</th>
<th>[ Local Funds ]</th>
<th>[ Total ]</th>
</tr>
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### 5-Year List of Proposed Improvements

- Project Year
- Locations
- Project Types
- Estimated Costs
- Funding Sources

<table>
<thead>
<tr>
<th>Year</th>
<th>Project Year</th>
<th>Locations</th>
<th>Project Types</th>
<th>Estimated Costs</th>
<th>Funding Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>2021</td>
<td>1</td>
<td>1</td>
<td>1</td>
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<tr>
<td>2022</td>
<td>2</td>
<td>2</td>
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<tr>
<td>2023</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
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<tr>
<td>2024</td>
<td>4</td>
<td>4</td>
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<td>4</td>
<td>4</td>
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<tr>
<td>2025</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
<td>5</td>
</tr>
</tbody>
</table>
RAIF Funding Application

- Improvement Application
  - One structure per application
  - Addresses required items
  - Includes inventory information
County Commissions Must Consider

- Traffic use of the highway
- Public safety
- Residential, commercial, recreational, and other uses of the highway
- Cost of the project
- Length of detour if the project is not completed
- Number of residences, farms, and ranches served by the project
- Financial contribution from township or others to the project
- Ability of township to fund the project without the rural access infrastructure fund
- Confirmation the project is not located on a no maintenance or minimum maintenance road
- Hydrological impact
- Whether the highway terminates into a field entrance, driveway, single residence, farm, or ranch
- The application or group of applications that best serves the citizens of South Dakota

Counties and townships will have to establish funding agreements & procedures
## Rural Access Infrastructure Funding Process

Dave Huft, South Dakota Department of Transportation

### Rural Infrastructure Access Annual Calendar

<table>
<thead>
<tr>
<th>Task or Milestone</th>
<th>2021</th>
<th>2022</th>
<th>2023</th>
</tr>
</thead>
<tbody>
<tr>
<td>Calculate funding distribution</td>
<td></td>
<td></td>
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<tr>
<td>Distribute RAIF to counties ($M)</td>
<td></td>
<td>3</td>
<td>Aug</td>
</tr>
<tr>
<td>Establish inventory database</td>
<td></td>
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<td></td>
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<tr>
<td>Publish inventory handbook and tools</td>
<td></td>
<td></td>
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<tr>
<td>Inventory small structures</td>
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<tr>
<td>Publish guidance for improvement plans</td>
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<tr>
<td>Develop small structure improvement plans</td>
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<tr>
<td>Develop grant applications</td>
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<td></td>
<td></td>
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<tr>
<td>Award grants</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Make structure improvements</td>
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<tr>
<td>Calculate and issue the FY2023 funding distribution</td>
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</tbody>
</table>

### Immediate Next Steps
- Publish Improvement Plan Guide and apparent inventory errors **by May 15**
- Complete initial Small Structure Inventory **by May 31**
- Complete review and correction of inventory data **by May 31**
- Calculate and issue the FY2023 funding distribution **by August 1**
Questions?

- Contact:
  - Dave Huft
  - SDDOT Intelligent Transportation Systems Program Manager
  - dave.huft@state.sd.us
  - 605.773.3358