NEBRASKA
Good Life. Great Journey.
DEPARTMENT OF TRANSPORTATION

County Bridge Match Program Selected Bridge Sites January 14, 2022

NACO District	Lead County	Bridge County	Structure Number	Location	Cost Estimate *	Estimated CBMP Funding
Southeast	Cass	Cass	C001304710	2.4N 5W OF MURRAY at STREAM	$0	$0
Southeast	Cass	Cass	C001313710P	.7SE OF WEEPING WATER at N BR WEEPING WATER CREEK	$1,649,784	$200,000
Southeast	Lancaster	Lancaster	C005501710	1W 1.7S of Sprague at Spring Branch	$390,000	$200,000
Southeast	Otoe	Otoe	C006602605	JCT N2/S-66A 7S .3W at STREAM	$179,760	$73,297
Southeast	Otoe	Otoe	C006611550	3W 3N UNADILLA at STREAM	$122,820	$50,080
Southeast	Otoe	Otoe	C006612110	3S UNADILLA at STREAM	$187,920	$76,624
Southeast	Pawnee	Johnson	C004912130	1.3S 6W OF COOK at SILVER CREEK	$373,593	$108,813
Southeast	Pawnee	Johnson	C004923045	2N 2.2E OF ELK CREEK at LONG BRANCH	$313,075	$91,187
Southeast	Pawnee	Nemaha	C006412225	2.9W 1S OF AUBURN at LONGS CREEK	$422,570	$181,421
Southeast	Pawnee	Pawnee	C006723015	1.2N 1.6E OF DUBOIS at STREAM	$288,300	$123,775
Southeast	Richardson	Richardson	C007402110	2.5W1.7S STE(640-716/717) at WHISKEY RUN	$1	$1
Southeast	Richardson	Richardson	C007425105	2.7N3.5E FC (655-709/710) at STREAM	$497,000	$199,999
Southeast	Saunders	Saunders	C007800305	1.7S 3W OF VALPARAISO at STREAM	$149,600	$46,841
Southeast	Saunders	Saunders	C007811165	.6S 2W OF MORSE BLUFF at STREAM	$189,960	$59,478
Southeast	Saunders	Saunders	C007811850	1.5N 2.5E OF COLON at STREAM	$149,600	$46,841
Southeast	Saunders	Saunders	C007811855	.5S 3W OF LESHARA at STREAM	$149,600	$46,841

NACO District	Lead County	Bridge County	Structure Number	Location	Cost Estimate *	Estimated CBMP Funding
Northeast	Cedar	Cedar	C001411910	5W OF COLERIDGE at STREAM	$397,011	$113,776
Northeast	Cedar	Cedar	C001423720P	5S ST JAMES at EAST BOW CREEK TRIB	$300,868	$86,224
Northeast	Cedar	Wayne	C009002905	4W 7.5S OF WAYNE at PLUM CREEK	$264,378	$98,860
Northeast	Cedar	Wayne	C009004330	2.5E 2.5S OF WAYNE at COON CREEK	$270,475	$101,140
Northeast	Knox	Cedar	C001413210	1.2E OF HARTINGTON at BOW CREEK	$884,650	$200,000
Northeast	Knox	Knox	C005430720	2.5W .5N OF VERDEL at PONCA CREEK	$1,226,664	$200,000
Northeast	Pierce	Pierce	C007001905	6.5S of Foster at Willow Creek	$500,000	$200,000
Northeast	Stanton	Stanton	C008411610	2.1W 3N OF STANTON at PLEASANT RUN CREEK	$755,390	$200,000
Northeast	Thurston	Thurston	C008704905	7.5E 1S OF ROSALIE at SOUTH BLACKBIRD CREEK	$650,000	$200,000
Central	Adams	Adams	C000101705	15140 S. PROSSER AVE. at LITTLE BLUE RIVER	$931,155	$200,000
Central	Adams	Nuckolls	C006500905P	IN BOSTWICK S EDGE at SUPERIOR CANAL	$0	$0
Central	Adams	Nuckolls	C006504205P	SJCT US136/N14 6.8W 2.5S at COTTONWOOD CREEK	$981,260	$200,000
Central	Greeley	Greeley	C003900905P	7W 1N OF GREELEY at WALLACE CREEK	$70,000	$32,285
Central	Greeley	Greeley	C003904810P	4.5S OF SCOTIA at DAVIS CREEK	$425,000	$167,715
Central	Nuckolls	Nuckolls	C006502620	1S .3W NELSON at STREAM	$266,400	$97,638
Central	Nuckolls	Nuckolls	C006504503	7S RUSKIN at STREAM	$154,000	$56,442
Central	Nuckolls	Nuckolls	C006514210P	S EDGE BOSTWICK at SUPERIOR CANAL	$0	$0
Central	Nuckolls	Nuckolls	C006524707	.3S 3.3E OAK at STREAM	$125,290	$45,920
West Central	Furnas	Furnas	C003320410	1.5W 2N OF HOLBROOK at DEER CREEK	$210,000	$115,500
West Central	Furnas	Furnas	C003350450	5N OXFORD at STREAM	$100,000	$55,000
West Central	Hayes	Hayes	C004306105	12.5E 7.5S HAYES CENTER at RED WILLOW CREEK	$401,142	$200,000
Panhandle	Scotts Bluff	Scotts Bluff	C007910920	2.2E 1.7N OF LYMAN at HORSE CREEK	$400,000	$200,000

* Some proposals included permanent removal at low or no cost.

APPLICATION FORM County Bridge Match Program 2022

90% percent complete

Applying County	Cass	Date of Application	12/1/2021
Agency Name	Cass County	Contact Person Title	Highway Superintendent
Contact Person Name	Lenny Thorne	Address Line 1	13860 12th
E-mail	lennyt@cassne.org	Address Line 2	Weeping Water, NE
Phone Number	(402) 296-9353	zip code	68463
NACO District	Southeast		

Proposal Name / Location	CBMP2021 - C001313710P, C001304710
Multi-County Proposal	No
Proposal Priority Number	1

Instructions
required input
changes allowed
locked - no input

Structure Information

NBI Structure Number	Local Name	Location	County	Existing Length (ft)	Existing Total Width (ft)	Existing Type	State Classification
C001313710P	S-7-NS-4700	.7SE OF WEEPING WATER at N BR WEEPING WATER CREEK	Cass	65.00	22.10	Steel Stringer/Multi-beam or Girder	Local
C001304710	L-1-2-3100	2.4N 5W OF MURRAY at STREAM	Cass	26.00	16.10	Steel Stringer/Multi-beam or Girder	Local

Eligibility

NBI Structure Number	Min. Maintenance Road (yes/no)	Advertised for Construction bids?	Average Daily Traffic
C001313710P	No	No	100
C001304710	No	No	15

Proposal Construction Details

NBI Structure Number	Proposed Action	Proposed Structure Type	Proposed Length (ft)*	Proposed Total Width (ft)*	Workforce	Total Estimated Bridge Cost	Anticipated Reimbursement from CBMP	Comment
C001313710P	Replace	Concrete Slab	180.00	28.00	Contract	$1,649,784	$200,000	5-Span Continuous Concrete Slab
C001304710	Remove	Not Applicable			County Forces	$0	$0	Remove from BrM
			* **Length and Width not required for Culverts.** **Please provide culvert size in comments.**		total	$1,649,784	$200,000	OK

Criteria 1 - Innovation (0-20 points)

Describe what is innovative about this proposal.

Continuous concrete slab bridges are a cost-effective alternative for the replacement of deficient bridges in the State of Nebraska. The design and construction process is streamlined with the utilization of standard plan and construction practices with typical bridge construction completed within 120 calendar days.
The experienced pool of contractors active in Nebraska results in a competitive environment, reducing replacement structure cost to counties. Contractor innovation of the construction process continues to reduce the required time and material expenditures, reducing overall cost to the owner.
Bridge submergence is acceptable and common on the rural county roadways of Nebraska. The structure is considered extremely durable and expected to require minimal maintenance over it's expected use-beyond 75 years.
In addition to the replacement projects, Cass County is proposing removal of Structure C001304710 from the traveled way and NBIS structurally deficient list.

Criteria 2 – Cost or time savings (0-5 points)

Identify aspects of this proposal that saves time and reduces costs.

Continuous concrete slab bridges are a cost effective and efficiently constructed alternative to other more expensive bridge replacement types. Standardized design and construction practices provide a significant cost and time savings to the owner.
Additional savings are realized throughout the bridges' anticipated life-span, expected beyond 75 years, in costs associated with general maintenance and repair.
The bridges are normally installed within 120 calendar days or less, which results in less impact to the traveling, agricultural, and commodity traffic of the area.
Removal of Structure C001304710 from the inventory will result in a considerable cost and time savings to the County and State. Replacement structure construction, maintenance, mowing, snow removal, rating and inspection activities will not be necessary.

Criteria 3 – Sustainability or transferability of innovation (0-10 points) **Describe how the innovation can be shared and used by other Counties.**
The continuous concrete slab bridge design and construction is a standardized process in the State of Nebraska, information regarding the process can easily be shared and repeated within other Counties.

Criteria 4 – Long Term Maintenance Savings (0-5 points)

Describe how this proposal promotes savings of long term maintenance costs.

The structure is considered extremely durable and expected to require minimal maintenance over it's expected use beyond 75 years. The County expends considerable resources to complete the required maintenance activities on deficient bridges including the replacement and repair of timber/concrete decks, abutment back-wall, pile, wing, stringer, and guardrail. Additional costs are associated with bank stabilization (scouring) and the backfill of roadway settlement. Replacement with this type of structure will eliminate many of these costs of time, material and labor. Removal of Structure C001304710 from the inventory will eliminate the maintenance requirements for the bridge, saving a considerable amount of expenditures in the long term.

Criteria 5 – Project Significance (0-20 points)

Describe what makes this proposal significant to your county.

In general, each stream crossing is significant to the local individuals, communities and agricultural related activities occurring in rural Nebraska. The width and weight restrictions of structurally deficient bridges may limit the required access to property and create an inconvenience to the residents of the area who utilize them daily, or during agriculturally related "heavy traffic" times of the year. Additionally, these rural roadways may function as a vital route for localized traffic between the smaller communities of the area. Specifically, this project provides the following functions to the local individuals, Cass County and the State of Nebraska:

C001313710P:
This structure/roadway is currently utilized as a bus and emergency services route.
The detour length for this structure is 6 miles and is considered excessive. The detour is limited due to restrictions on a railroad underpass on one of the routes.
The structure is utilized heavily by local businesses in the area and is a vital "farm to market" route.
The structure/roadway is the main route for commodities and local traffic to/from Weeping Water.
The structure/roadway is considered "necessary" to the public and local economy.

Criteria 6 – Needs (0-20 points)

Calculated by scoring committee based on the counties SD bridges.

Criteria 7 – Equity (0-20 points)

Determined by scoring committee based on the number of projects awarded to the county.

Submittal Instructions:

90% **percent complete**

When your application is complete and you are ready to submit it for review go to:
http://dot.nebraska.gov/projects/tia/bridge-match/
Follow the instructions on the website for uploading this application and supporting documentation.

If you have questions or difficulties please contact:
Jodi Gibson
402-479-4337
jodi.gibson@nebraska.gov

Thank you for your work on behalf of Nebraska's bridges!

APPLICATION FORM County Bridge Match Program 2022

100% percent complete

Applying County	Lancaster	Date of Application	12/2/2021
Agency Name	Engineering Department	Contact Person Title	County Engineer
Contact Person Name	Pamela Dingman	Address Line 1	444 Cherrycreek Rd Bldg C
E-mail	pdingman@lancaster.ne.gov	Address Line 2	Lincoln, NE
Phone Number	402-441-7681	zip code	68528
NACO District	Southeast		

Proposal Name / Location	W-50 Bridge
Multi-County Proposal	No
Proposal Priority Number	1

Instructions
required input
changes allowed
locked - no input

Structure Information

NBI Structure Number	Local Name	Location	County	Existing Length (ft)	Existing Total Width (ft)	Existing Type	State Classification
C005501710	W-50	1W 1.7S of Sprague at Spring Branch	Lancaster	41.00	25.00	Steel Stringer/Multi-beam or Girder	Local
<Enter SN here>							

Eligibility

NBI Structure Number	Min. Maintenance Road (yes/no)	Advertised for Construction bids?	Average Daily Traffic
C005501710	No	No	99

Proposal Construction Details

NBI Structure Number	Proposed Action	Proposed Structure Type	Proposed Length (ft)*	Proposed Total Width (ft)*	Workforce	Total Estimated Bridge Cost	Anticipated Reimbursement from CBMP	Comment
C005501710	Other	Other	39.00	24.00	Contract	$390,000	$200,000	"PBFTG" Girder & UIP Abutment Piles w/CIP Concrete Backwall
			* **Length and Width not required for Culverts. Please provide culvert size in comments.**		total	$390,000	$200,000	OK

Criteria 1 - Innovation (0-20 points)

Describe what is innovative about this proposal.

This proposed bridge replacement in Lancaster County is unique as it will utilize a new technology for replacement of short-span structurally deficient (SD) bridges. Press-Brake-Formed Tub Girder (PBFTG) bridges utilize accelerated bridge construction (ABC) techniques and are a "cost-effective short span steel bridge with modular components." This technology allows for the rapid fabrication and deployment of cost-effective superstructures tailored to the needs of individual sites.

This structure will further innovate by simultaneously using existing bridge abutment piling in place alongside new cast-in-place (CIP) concrete walls on footings for earth containment. Using the bridge abutment piles in place will minimize impacts to the environment and reduce costs associated with environmental permitting as all work will be completed above the Ordinary High-Water Mark. The deck will be poured beyond the girder ends to sit upon the backwall, thus reducing the superstructure deadload on the piles and enhancing the abutment capacity.

Criteria 2 – Cost or time savings (0-5 points)

Identify aspects of this proposal that saves time and reduces costs.

PBFTG bridges provide an economical alternative for short span construction; the cost of a PBFTG bridge is approximately 2/3 the cost of a similar concrete girder bridge (www.shortspansteelbridges.org). The cost for this proposed PBFTG bridge is approximately the same estimated for a concrete box culvert (CBC) but requires less environmental permitting, further reducing costs and saving time.

Utilizing the existing substructure will eliminate the need for piledrivers, resulting in lower construction costs and minimizing construction time. In turn, the reduced construction time minimize the duration of the closure and disruption to the travelling public.

Removing this SD and scour critical (SC) timber bridge from our inventory will reduce future costs by eliminating both the maintenance required to address deficiencies and the scour surveys required after heavy rain events.

Criteria 3 – Sustainability or transferability of innovation (0-10 points)

Describe how the innovation can be shared and used by other Counties.

PBFTG bridges are a cost-effective replacement for short span SD bridges and can be utilized by all counties in Nebraska. Information regarding the process can easily be shared and repeated within other counties, and Lancaster County will gladly share our experiences with any interested county.

The simplicity of the girder fabrication makes it highly manufacturable by any properly outfitted mill. This allows for a wider selection of possible fabricators and the potential to reduce the costs associated with shipping the girders. Moreover, the process for forming the girders means they can be fabricated rapidly, outpacing welded steel plate and prestressed concrete girders.

Criteria 4 – Long Term Maintenance Savings (0-5 points)

Describe how this proposal promotes savings of long term maintenance costs.

PBFTG are an Accelerated Bridge Construction (ABC) technology, allowing for the rapid fabrication and erection of structural components. Employing ABC for the girders of this bridge will reduce the lead times between ordering the girders and erecting them, ultimately shortening the project. This will reduce the time-cost to the community by opening the bridge earlier than with another technology. The girders are galvanized to extend their life and provide at least 60 years of protection.

Additionally, this bridge has several deficiencies that will be eliminated in this project. W-50(C005501710) was constructed in 1962 with timber wings and backwalls, which have since deteriorated. Moreover, timber wings have additional costs associated with backfill of roadway settlement. This is typical of timber bridges, which have significant annual maintenance costs. The bridge is also scour critical, incurring additional inspection costs after every heavy rain event (3.5"- 4" of rainfall in a 24-hour period or "bank full" flow events of 4 hours or more).

Partial replacement of the substructure will mitigate these issues. Prior to the placement of the girders, the timber elements will be removed and replaced with CIP concrete backwalls, wingwalls, and a footing to be used in tandem with the existing abutment pile. This will eliminate the service issues associated with timber and allow for removing the bridge from the scour critical inspections.

The new deck will eliminate the additional maintenance required to address structural deficiencies in the existing slab. This bridge replacement has a similar initial cost to a concrete box culvert and has a similar useful service life. In total, the structure is estimated to have a service life of 100 years.

Criteria 5 – Project Significance (0-20 points)

Describe what makes this proposal significant to your county.

In general, any stream crossing is significant to the local residents, communities, and agriculture-related activities occurring in rural Nebraska. The width and weight restrictions of structurally deficient bridges may limit access to property, force heavy farm traffic to detour, and inhibit localized traffic between smaller communities. These inconveniences add up in terms of lost productivity for the community and lower quality of life for residents. This proposal will remove one bridge that is Structurally Deficient and Scour Critical from our inventory and provides the following functions to the local individuals, Lancaster County, and the State of Nebraska:

Lancaster County C005501710 (W-50):
This bridge/roadway is closed and is not being utilized as a mail and school bus route.
This closure also results in an adverse effect on emergency services as it causes some minor out-of-the-way travel.
When in service, this structure is also utilized for rural local, residential and agricultural operation/equipment traffic; once replaced, it will be returned to service.
The detour route for this structure is 3.99 miles.

Criteria 6 – Needs (0-20 points)

Calculated by scoring committee based on the counties SD bridges.

Criteria 7 – Equity (0-20 points)

Determined by scoring committee based on the number of projects awarded to the county.

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100% **percent complete**

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Thank you for your work on behalf of Nebraska's bridges!

APPLICATION FORM County Bridge Match Program 2022

86% percent complete

Applying County	**Otoe**	**Date of Application**	**12/1/2021**
Agency Name	Otoe County	**Contact Person Title**	Highway Superintendent
Contact Person Name	Jon Brinkman	**Address Line 1**	6150 Hwy 75
E-mail	jbrinkman@otoecountyne.gov	**Address Line 2**	Nebraska City, NE
Phone Number	(402) 873-9585	**zip code**	68410
NACO District	Southeast		

Proposal Name / Location	CBMP2021 - C006602605, C006611550, C006612110
Multi-County Proposal	No
Proposal Priority Number	2

Instructions
required input
changes allowed
locked - no input

Structure Information

NBI Structure Number	Local Name	Location	County	Existing Length (ft)	Existing Total Width (ft)	Existing Type	State Classification
C006602605	0.00	JCT N2/S-66A 7S .3W at STREAM	Otoe	32.00	15.90	Steel Stringer/Multi-beam or Girder	Other Arterial
C006611550	0.00	3W 3N UNADILLA at STREAM	Otoe	32.00	15.80	Steel Stringer/Multi-beam or Girder	Local
C006612110	0.00	3S UNADILLA at STREAM	Otoe	32.00	15.70	Steel Stringer/Multi-beam or Girder	Local

Eligibility

NBI Structure Number	Min. Maintenance Road (yes/no)	Advertised for Construction bids?	Average Daily Traffic
C006602605	No	No	65
C006611550	No	No	30
C006612110	No	No	25

Proposal Construction Details

NBI Structure Number	Proposed Action	Proposed Structure Type	Proposed Length (ft)*	Proposed Total Width (ft)*	Workforce	Total Estimated Bridge Cost	Anticipated Reimbursement from CBMP	Comment
C006602605	Replace	Culvert Pipes			County Forces	$179,760	$73,297	3-108"x44' CMPs
C006611550	Replace	Culvert Pipes			County Forces	$122,820	$50,080	3-72"x58' CMPs
C006612110	Replace	Culvert Pipes			County Forces	$187,920	$76,624	3-108"x48' CMPs
			* **Length and Width not required for Culverts.**		total	$490,500	$200,001	OK
			Please provide culvert size in comments.					

Criteria 1 - Innovation (0-20 points)

Describe what is innovative about this proposal.

Corrugated metal culvert pipes are a cost-effective replacement alternative for deficient bridges in the State of Nebraska.
The design and construction process is streamlined with the utilization of standard plan and construction practices.
Local culvert suppliers are available and competitive, often resulting in cheaper material prices to the County.
Culvert construction will be completed by County forces, an innovative approach that reduces cost and utilizes the local County assets.
Typical culvert pipe construction can be completed within 1-2 weeks which minimizes the impact to local resident, agricultural and commercial traffic.
Corrugated metal culvert pipe's primary innovation is the simplicity of their design and construction. Metal culvert pipes, with prefabricated headwall & turndowns are quickly and easily installed by most experienced road crews. Additional innovations include; the use of standardized sheet pile and cable tie-back retaining systems, relative ease of transporting and off-loading materials, utilization of 3 x 1 and 5 x 1 corrugation (resulting in stronger culverts and a reduction in wall thickness) and inlet and outlet aprons (scour reduction.)
Historically, culvert maintenance activities and costs are minor in comparison to other replacement structures. Load and/or equipment restricting guardrail is typically not required which is particularly beneficial to regional agricultural and commodity transportation.
A considerable number of streams in the eastern part of Nebraska are significantly degraded. Proper culvert design is often utilized to stabilize the streambed and adjacent banks upstream of the structure.
The replacement's required size may remove the structure from the bridge inventory.

Criteria 2 – Cost or time savings (0-5 points)

Identify aspects of this proposal that saves time and reduces costs.

Corrugated metal culvert pipes are a cost effective and efficiently constructed alternative to an expensive bridge replacement.
Standardized design and construction practices provide a significant cost and time savings to the owner.
Culvert construction will be completed by County forces resulting in a considerable cost and time savings.
Guardrail is typically not required, therefore no material, construction, or maintenance costs for guardrail are associated with the project.
Additional savings are realized throughout the culvert's anticipated life-span (50-75 years) in costs associated with general maintenance and repair.
Culvert pipe replacement structures are generally simpler and relatively inexpensive when compared to box culverts or bridges. Typical culvert pipe construction (including removal of the existing structure) can be completed within 1-2 weeks resulting in lower direct project costs (overall) and minimizes the impact to local resident, agricultural and commercial traffic.
Removal of a structure from the bridge inventory would save time and costs associated with general management and inspection.
Design fees for a standard culvert crossing is significantly less costly than a traditional bridge or concrete box culvert. The bidding of a "materials, only" bundled project reduces the monetary and time costs associated with the contracting process.

Criteria 3 – Sustainability or transferability of innovation (0-10 points) **Describe how the innovation can be shared and used by other Counties.**
Corrugated metal culvert pipe standardization of design and construction can be utilized by all Counties in Nebraska. The process of collaboration between Counties can easily be shared and is available to all Counties. A derivative of the cooperation between counties will likely be education, through the exchange of ideas that will occur throughout the process. The engaged entities will discuss and implement what has/hasn't been efficient or successful and incorporate those "lessons learned" into future replacement projects. Successful results are easily conveyed to other Counties, culvert pipes provide a time-saving, quality product at low cost.

Criteria 4 – Long Term Maintenance Savings (0-5 points)

Describe how this proposal promotes savings of long term maintenance costs.

The use of corrugated metal culvert replacement structures provides significant long-term maintenance cost savings.
Properly sized corrugated metal culvert pipes are considered durable and expected to require minimal maintenance over their expected service life of 50-75 years.
The lack of guardrail facilitates the ease of mowing and snow plow operations. There are no costs associated with guardrail maintenance, if damaged.
Maintenance activities and costs associated with deck repair are non-existent over the life of the culvert.
If the culvert is utilized to control a degraded stream, there are significant benefits to upstream structures in the basin. Maintenance and/or replacement of these structures can be minimized or eliminated due to the positive effects of stream stabilization.
Removal of a structure from the bridge inventory would save time and costs associated with general management and inspection.
The County expends considerable resources to complete the required maintenance activities on deficient bridges. Normal operations include the replacement and repair of timber/concrete decks, abutment back-wall, pile, wing, stringer, and guardrail. Additional costs are associated with bank stabilization (scouring) and the backfill of roadway settlement. Replacement with this type of structure will eliminate many of these costs' of time, material and labor.

Criteria 5 – Project Significance (0-20 points)

Describe what makes this proposal significant to your county.

In general, each stream crossing is significant to the local individuals, communities and agricultural related activities occurring in rural Nebraska. The width and weight restrictions of structurally deficient bridges may limit the required access to property and create an inconvenience to the residents of the area who utilize them daily, or during agriculturally related "heavy traffic" times of the year. Additionally, these rural roadways may function as a vital route for localized traffic between the smaller communities of the area. Specifically, this project provides the following functions to the local individuals, Otoe County, and the State of Nebraska:

C006602605:
The structure/roadway is currently utilized as a mail and emergency services route, and is a bus route for three schools.
The structure/roadway is the only access to the area, without a lengthy detour.
The current detour for this structure is 5.75 miles to restricted traffic, and is considered excessive for the area.
Local commercial and agricultural businesses, and public entities rely heavily on this structure/roadway for reliable access to the vicinity.
The roadway is currently classified as an "Other Arterial", and structure replacement would provided continued continuity from NE Highways 43 to 50.
The roadway also provides needed continuity between the Villages of Palmyra and Douglas.

C006611550:
The structure/roadway is currently utilized as a mail and emergency services route.
The structure/roadway is currently the only access to the local area.
The current detour for this structure is a minimum maintence roadway, and may be un-passable at times and would be considered excessive.
This roadway is critical for 2 local residents, as it is currently the only access to their properties, except for a minimum mainentence roadway.

C006612110:
The structure/roadway is currently utilized as a mail and emergency services route.

Criteria 6 – Needs (0-20 points)

Calculated by scoring committee based on the counties SD bridges.

Criteria 7 – Equity (0-20 points)

Determined by scoring committee based on the number of projects awarded to the county.

Submittal Instructions:

86% **percent complete**

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If you have questions or difficulties please contact:
Jodi Gibson
402-479-4337
jodi.gibson@nebraska.gov

Thank you for your work on behalf of Nebraska's bridges!

APPLICATION FORM County Bridge Match Program 2022

85% percent complete

Applying County	**Pawnee**	**Date of Application**	**12/3/2021**
Agency Name	**Pawnee County**	**Contact Person Title**	**Highway Superintendent**
Contact Person Name	**Chris Rauner**	**Address Line 1**	**PO Box 65**
E-mail	**chrisrpawneeroads@yahoo.com**	**Address Line 2**	**Pawnee, NE**
Phone Number	**(402) 852-2981**	**zip code**	**68420**
NACO District	**Southeast**		

Proposal Name / Location	CBMP2021 - C006723015, C004923045, C004912130, C006412225
Multi-County Proposal	Yes
Proposal Priority Number	2

Instructions
required input
changes allowed
locked - no input

Structure Information

NBI Structure Number	Local Name	Location	County	Existing Length (ft)	Existing Total Width (ft)	Existing Type	State Classification
C006723015	T1N R12E S12S	1.2N 1.6E OF DUBOIS at STREAM	Pawnee	32.00	15.80	Steel Stringer/Multi-beam or Girder	Local
C004923045	0.00	2N 2.2E OF ELK CREEK at LONG BRANCH	Johnson	38.00	15.90	Steel Stringer/Multi-beam or Girder	Local
C004912130	0.00	1.3S 6W OF COOK at SILVER CREEK	Johnson	52.00	14.20	Steel Truss - Thru	Local
C006412225	0.00	2.9W 1S OF AUBURN at LONGS CREEK	Nemaha	32.00	20.00	Steel Stringer/Multi-beam or Girder	Local

Eligibility

NBI Structure Number	Min. Maintenance Road (yes/no)	Advertised for Construction bids?	Average Daily Traffic
C006723015	No	No	20
C004923045	No	No	40
C004912130	No	No	30
C006412225	No	No	30

Proposal Construction Details

NBI Structure Number	Proposed Action	Proposed Structure Type	Proposed Length (ft)*	Proposed Total Width (ft)*	Workforce	Total Estimated Bridge Cost	Anticipated Reimbursement from CBMP	Comment
C006723015	Replace	Concrete Box Culvert			Contract	$288,300	$123,775	3-12'x9'x44'
C004923045	Replace	Concrete Box Culvert			Contract	$313,075	$91,187	3-12'x12'x44'
C004912130	Replace	Concrete Box Culvert			Contract	$373,593	$108,813	3-12'x12'x54'
C006412225	Replace	Concrete Box Culvert			Contract	$422,570	$181,421	3-14'x14'x44'
			* **Length and Width not required for Culverts.**		total	$1,397,538	$505,196	OK
			Please provide culvert size in comments.					

Criteria 1 - Innovation (0-20 points)

Describe what is innovative about this proposal.

Concrete box culverts are a cost-effective alternative for the replacement of deficient bridges in the State of Nebraska.
The design and construction process is streamlined with the utilization of standard plan and construction practices. An experienced pool of contractors active in Nebraska results in a competitive environment, reducing replacement structure construction cost to counties.
Typical concrete box culvert construction is completed within 60 calendar days which minimizes the impact to local resident, agricultural and commercial traffic.
Historically, concrete box culvert maintenance activities and costs are minor in comparison to other replacement structures.
Load and/or equipment restricting guardrail is typically not required which is particularly beneficial to local and regional agricultural and commodity transportation. A considerable number of streams in the eastern part of Nebraska are significantly degraded. Proper box culvert design is often utilized to stabilize the streambed and adjacent banks upstream of the structure.
This proposal is being submitted by multiple counties, in a cooperative effort to streamline the design, bid, and build process through project bundling. Innovative, because counties have not actively reached across established map lines in the name of cooperation and efficiency. Additionally, it is presumed that bundled project bids will result in lower pricing due to their regional nature.

Criteria 2 – Cost or time savings (0-5 points) **Identify aspects of this proposal that saves time and reduces costs.**
Concrete box culverts are cost effective and an efficiently constructed alternative to an expensive bridge replacement. Standardized design and construction practices provide a significant cost and time savings to the owner. Guardrail is typically not required, therefore no material, construction, or maintenance costs for guardrail are associated with the project. Additional savings are realized throughout the culvert's anticipated life-span, expected beyond 100 years, in costs associated with general maintenance and repair. It is anticipated that each county in the bundling package will recognize savings in engineering and construction costs by awarding the contract to a single contractor with one set of contract documents. Flexibility is gained by the contractor by having multiple sites in the same geographic area to allocate time, equipment, and other resources.

Criteria 3 – Sustainability or transferability of innovation (0-10 points) **Describe how the innovation can be shared and used by other Counties.**
Box culvert standardization of design and construction can be utilized by all Counties in Nebraska. The process of collaboration can easily be shared and is available to all Counties. A derivative of the cooperation between counties will likely be education, through the exchange of ideas that will occur throughout the process. The engaged entities will discuss and implement what has/hasn't been efficient or successful and incorporate those "lessons learned" into future replacement projects.

Criteria 4 – Long Term Maintenance Savings (0-5 points)

Describe how this proposal promotes savings of long term maintenance costs.

The use of concrete box culvert replacement structures provides significant long-term maintenance cost savings.
The structure is considered extremely durable and expected to require minimal maintenance over its expected use, beyond 100 years.
The lack of guardrail facilitates the ease of mowing and snow plow operations. There are no costs associated with guardrail maintenance, if damaged. Maintenance activities and costs associated with deck repair are non-existent over the life of the culvert.
If the concrete box culvert is utilized to control a degraded stream, there are significant benefits to upstream structures in the basin. Maintenance and/or replacement of these structures can be minimized or eliminated due to the positive effects of stream stabilization.
The County expends considerable resources to complete the required maintenance activities on deficient bridges. Normal operations include the replacement and repair of timber/concrete decks, abutment back-wall, pile, wing, stringer, and guardrail. Additional costs are associated with bank stabilization (scouring) and the backfill of roadway settlement. Replacement with this type of structure will eliminate many of these costs of time, material and labor.

Criteria 5 – Project Significance (0-20 points)

Describe what makes this proposal significant to your county.

In general, each stream crossing is significant to the local individuals, communities, agricultural and commerce related activities occurring in rural Nebraska.
The width and weight restrictions of structurally deficient bridges may limit the required access to property and create an inconvenience to the residents of the area who utilize them daily, or during agriculturally related "heavy traffic" times of the year.
Additionally, these rural roadways may function as a vital route for localized traffic between the smaller communities of the area. Specifically, this project provides the following functions to the local individuals, Pawnee/Johnson/Nemaha Counties, and the State of Nebraska:

C006723015:
The structure/roadway is utilized as a mail route.
The detour route length is 2 miles with no restrictions.
The project provides access to a property across the creek that the structure spans.
There is significant agricultural/economic activity in the general area that utilizes the roadway/structure for a "farm to market" route.

C004923045:
The structure/roadway is utilized as a bus route.
The detour route length is 7 miles, it is considered excessive for the area.
This bridge replacement project is very important to the local residents and economic success of the area. A significant number of the roads in the area are un-improved, local agricultural activities depend on the all-weather roadway provided by the bridge/roadway.
Currently, most commercial and agricultural traffic is restricted because of an inadequate weight limit (posting) and narrow width.

C004912130:
The detour for this structure is 6 miles to un-restricted traffic. This is considered excessive for the area.

Criteria 6 – Needs (0-20 points)

Calculated by scoring committee based on the counties SD bridges.

Criteria 7 – Equity (0-20 points)

Determined by scoring committee based on the number of projects awarded to the county.

Submittal Instructions:

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If you have questions or difficulties please contact:
Jodi Gibson
402-479-4337
jodi.gibson@nebraska.gov

Thank you for your work on behalf of Nebraska's bridges!

APPLICATION FORM County Bridge Match Program 2022

100% percent complete

Applying County	Richardson	Date of Application	12/3/2021
Agency Name	Richardson County	Contact Person Title	Hwy. Supt.
Contact Person Name	Steve Darveau, Jr.	Address Line 1	65087 706 Trail
E-mail	rchighway@sentco.net	Address Line 2	Falls City, NE
Phone Number	402-245-2614	zip code	68355
NACO District	Southeast		

Proposal Name / Location	CBMP 2021 - C007425105, C007402110
Multi-County Proposal	No
Proposal Priority Number	1

Instructions
required input
changes allowed
locked - no input

Structure Information

NBI Structure Number	Local Name	Location	County	Existing Length (ft)	Existing Total Width (ft)	Existing Type	State Classification
C007425105	30-2-17K-168	2.7N3.5E FC (655-709/710) at STREAM	Richardson	57.00	17.60	Steel Truss - Thru	Local
C007402110	22-3-14 T-42	2.5W1.7S STE(640-716/717) at WHISKEY RUN	Richardson	102.00	14.10	Steel Truss - Thru	Local
<Enter SN here>							

Eligibility

NBI Structure Number	Min. Maintenance Road (yes/no)	Advertised for Construction bids?	Average Daily Traffic
C007425105	No	No	49
C007402110	Yes	No	1

Proposal Construction Details

NBI Structure Number	Proposed Action	Proposed Structure Type	Proposed Length (ft)*	Proposed Total Width (ft)*	Workforce	Total Estimated Bridge Cost	Anticipated Reimbursement from CBMP	Comment
C007425105	Replace	Concrete Box Culvert	43.00	28.00	Contract	$497,000	$199,999	Trip. 14'x14'x43'
C007402110	Remove	Not Applicable	0.00	0.00	County Forces	$1	$1	Remove from Inventory
			* **Length and Width not required for Culverts. Please provide culvert size in comments.**		total	$497,001	$200,000	OK

Criteria 1 - Innovation (0-20 points)

Describe what is innovative about this proposal.

Concrete box culverts have been used to replace structurally deficient bridges in the State of Nebraska for years. Standardized design and construction processes make box culverts an economical option for bridge replacements. Concrete box culvert construction is typically shorter in duration (45 to 60 calendar days) when compared to traditional bridge construction (90+ days). A shorter closure time minimizes disruption to traffic and the impacts to road users.

Traditional bridge design includes guardrail, as well as approach rail and end treatments. The addition of guardrail also presents a need for additional grading in both roadway width and length. With a typical box culvert, guardrail is eliminated, and may allow for a shorter project limits and associated grading, less required right-of-way acquisition, less overall ground disturbance and seeding, and on-going guardrail maintenance. Width restrictions caused by guardrail is also a concern for agricultural traffic on structures located on the local system. Elimination of the guardrail and associated width restrictions make those concerns non-existent.

Box culverts also have other advantages inlcuding, but not limited to: low maintenance costs over the life of the structure; mitigation of streambed degradation and stabilization of upstream channel banks; and improved hydraulic performance.

Additionally, Richardson County is proposing to permanently remove Structure No. C007402110 from the inventory for no additional reimbursement.

Criteria 2 – Cost or time savings (0-5 points)

Identify aspects of this proposal that saves time and reduces costs.

C007425105:
At locations where the streambed is degraded, a traditional bridge design will be governed by the depth of the channel. Often times it results in a longer bridge than is hydraulically required to allow for the banks to shaped to a stable slope and provide an adequate berm width. In this particular location, preliminary engineering estimated that a bridge would need to be approximately 90' long, as opposed to a triple 14' span box, which equates to approximately 50' in roadway length. This allows for a smaller structure footprint, and results time and cost savings.

As mentioned above, typical concrete box culvert construction is faster than traditional bridge construction. A shorter construction time results in shorter road closure time and lesser impact to traffic. These time savings translate into cost savings, not only for the County, but also Contractors and road users.

C007402110:
This structure is located on a minimum maintenance road and has been closed since 1992. The County proposes to remove the structure from the inventory without reimbursement.

Criteria 3 – Sustainability or transferability of innovation (0-10 points) **Describe how the innovation can be shared and used by other Counties.**
Concrete box culverts have and continue to be utilized by multiple counties throughout Nebraska. Standardization of design and construction methods benefit all local public agencies when it comes to constructing box culverts. Engineering firms designing box culverts can maintain a library of box culvert designs that can be drawn upon for reference when designing similar sized box culverts on future projects, regardless of the County. Similarly, counties can share experiences with each other with regard to project execution and construction. Experiences may include ideas that worked, or did not work, time saving measures, and/or cost saving measures.

Criteria 4 – Long Term Maintenance Savings (0-5 points)

Describe how this proposal promotes savings of long term maintenance costs.

C007425105:
Concrete box culverts typically require little maintenance over their life span. They are very durable and have an estimated useful life of over 100 years. With the absence of guardrail, the long term maintenance associated with guardrail, like repair/replacement if damaged, mowing around guardrail and posts and maintaining proper fill behind guardrail posts, are eliminated.

Other maintenance costs, typically associated with traditional bridges, are also minimized and/or eliminated. These inlcude things like deck maintenance/repair, abutment repairs and wingwal repairs.

Additionally, concrete box culverts serve as a grade control structure. They have the ability to prevent additional headcutting and degredation from traveling further upstream. They eliminate the presence of abutment scour and associated costs of maintaining a structure susceptible to scour such as streambed/streambank stabilization measures, backwall repairs, rebuilding berms, etc. They also allow for a more stable stream, potentially allowing for replacement projects upstream to be sized without the threat of future degradation (i.e. smaller proposed structures). All these things result in long term savings for the County in time, material and labor.

C007402110:
Removal from the inventory will provide a long term savings as the structure will be no longer require inspection and maintenance of closure barricades. The roadway will likely be abandoned, further eliminating road maintenance costs.

Criteria 5 – Project Significance (0-20 points)

Describe what makes this proposal significant to your county.

C007425105:
This structure is located on a major farm to market route. It is important to local residents as well as the local ag industry. This structure is load posted, and as of the most recent inspection, has been placed on the special inspection list. If this structure were to be closed, it would result in a detour length of over 6 miles. Replacement of this structure and eliminating weight and width restrictions would greatly benefit local users, as well as heavy and wide agriculture related traffic, as this is the only restricted structure on a 5 mile stretch.

C007402110:
Removal of the structure from the inventory, and abandonement of the roadway will allow the existing County Right-of-way to be turned into productive ag land. This will benefit the ag producers with more useable acres, and also increase tax revenue to the County.

Criteria 6 – Needs (0-20 points)

Calculated by scoring committee based on the counties SD bridges.

Criteria 7 – Equity (0-20 points)

Determined by scoring committee based on the number of projects awarded to the county.

Submittal Instructions:

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402-479-4337
jodi.gibson@nebraska.gov

Thank you for your work on behalf of Nebraska's bridges!

APPLICATION FORM County Bridge Match Program 2022

85% percent complete

Applying County	**Saunders**	**Date of Application**	**12/3/2021**
Agency Name	Saunders County	**Contact Person Title**	Highway Superintendent
Contact Person Name	Andy Nordstrom	**Address Line 1**	426 N Broadway
E-mail	anordstrom@co.saunders.ne.us	**Address Line 2**	Wahoo, NE
Phone Number	(402) 443-8124	**zip code**	68066
NACO District	**Southeast**		

Proposal Name / Location	CBMP2021 - C007811165, C007800305, C007811850, C007811855
Multi-County Proposal	No
Proposal Priority Number	2

Instructions
required input
changes allowed
locked - no input

Structure Information

NBI Structure Number	Local Name	Location	County	Existing Length (ft)	Existing Total Width (ft)	Existing Type	State Classification
C007811165	COO7811165	.6S 2W OF MORSE BLUFF at STREAM	Saunders	32.00	20.00	Wood or Timber Stringer/Multi-beam or Girder	Collector
C007800305	0.00	1.7S 3W OF VALPARAISO at STREAM	Saunders	33.00	20.00	Wood or Timber Stringer/Multi-beam or Girder	Collector
C007811850	0.00	1.5N 2.5E OF COLON at STREAM	Saunders	24.00	20.00	Wood or Timber Stringer/Multi-beam or Girder	Local
C007811855	0.00	.5S 3W OF LESHARA at STREAM	Saunders	24.00	18.70	Wood or Timber Stringer/Multi-beam or Girder	Local

Eligibility

NBI Structure Number	Min. Maintenance Road (yes/no)	Advertised for Construction bids?	Average Daily Traffic
C007811165	No	No	85
C007800305	No	No	100
C007811850	No	No	40
C007811855	No	No	50

Proposal Construction Details

NBI Structure Number	Proposed Action	Proposed Structure Type	Proposed Length (ft)*	Proposed Total Width (ft)*	Workforce	Total Estimated Bridge Cost	Anticipated Reimbursement from CBMP	Comment
C007811165	Replace	Culvert Pipes			County Forces	$189,960	$59,478	3-108"x49' CMPs
C007800305	Replace	Culvert Pipes			County Forces	$149,600	$46,841	3-96"x40' CMPs
C007811850	Replace	Culvert Pipes			County Forces	$149,600	$46,841	3-96"x40' CMPs
C007811855	Replace	Culvert Pipes			County Forces	$149,600	$46,841	3-96"x40' CMPs
			* Length and Width not required for Culverts. Please provide culvert size in comments.		total	$638,760	$200,001	OK

Criteria 1 - Innovation (0-20 points)

Describe what is innovative about this proposal.

Corrugated metal culvert pipes are a cost-effective replacement alternative for deficient bridges in the State of Nebraska.
The design and construction process is streamlined with the utilization of standard plan and construction practices.
Local culvert suppliers are available and competitive, often resulting in cheaper material prices to the County.
Culvert construction will be completed by County forces, an innovative approach that reduces cost and utilizes the local County assets.
Typical culvert pipe construction can be completed within 1-2 weeks which minimizes the impact to local resident, agricultural and commercial traffic.
Corrugated metal culvert pipe's primary innovation is the simplicity of their design and construction. Metal culvert pipes, with prefabricated headwall & turndowns are quickly and easily installed by most experienced road crews. Additional innovations include; the use of standardized sheet pile and cable tie-back retaining systems, relative ease of transporting and off-loading materials, utilization of 3 x 1 and 5 x 1 corrugation (resulting in stronger culverts and a reduction in wall thickness) and inlet and outlet aprons (scour reduction.)
Historically, culvert maintenance activities and costs are minor in comparison to other replacement structures. Load and/or equipment restricting guardrail is typically not required which is particularly beneficial to regional agricultural and commodity transportation.
A considerable number of streams in the eastern part of Nebraska are significantly degraded. Proper culvert design is often utilized to stabilize the streambed and adjacent banks upstream of the structure.
The replacement's required size may remove the structure from the bridge inventory.

Criteria 2 – Cost or time savings (0-5 points)

Identify aspects of this proposal that saves time and reduces costs.

Corrugated metal culvert pipes are a cost effective and efficiently constructed alternative to an expensive bridge replacement.
Standardized design and construction practices provide a significant cost and time savings to the owner.
Culvert construction will be completed by County forces resulting in a considerable cost and time savings.
Guardrail is typically not required, therefore no material, construction, or maintenance costs for guardrail are associated with the project.
Additional savings are realized throughout the culvert's anticipated life-span (50-75 years) in costs associated with general maintenance and repair.
Culvert pipe replacement structures are generally simpler and relatively inexpensive when compared to box culverts or bridges. Typical culvert pipe construction (including removal of the existing structure) can be completed within 1-2 weeks resulting in lower direct project costs (overall) and minimizes the impact to local resident, agricultural and commercial traffic.
Removal of a structure from the bridge inventory would save time and costs associated with general management and inspection.
Design fees for a standard culvert crossing is significantly less costly than a traditional bridge or concrete box culvert. The bidding of a "materials, only" bundled project reduces the monetary and time costs associated with the contracting process.

Criteria 3 – Sustainability or transferability of innovation (0-10 points) **Describe how the innovation can be shared and used by other Counties.**
Corrugated metal culvert pipe standardization of design and construction can be utilized by all Counties in Nebraska. The process of collaboration between Counties can easily be shared and is available to all Counties. A derivative of the cooperation between counties will likely be education, through the exchange of ideas that will occur throughout the process. The engaged entities will discuss and implement what has/hasn't been efficient or successful and incorporate those "lessons learned" into future replacement projects. Successful results are easily conveyed to other Counties, culvert pipes provide a time-saving, quality product at low cost.

Criteria 4 – Long Term Maintenance Savings (0-5 points)

Describe how this proposal promotes savings of long term maintenance costs.

The use of corrugated metal culvert replacement structures provides significant long-term maintenance cost savings.
Properly sized corrugated metal culvert pipes are considered durable and expected to require minimal maintenance over their expected service life of 50-75 years.
The lack of guardrail facilitates the ease of mowing and snow plow operations. There are no costs associated with guardrail maintenance, if damaged.
Maintenance activities and costs associated with deck repair are non-existent over the life of the culvert.
If the culvert is utilized to control a degraded stream, there are significant benefits to upstream structures in the basin. Maintenance and/or replacement of these structures can be minimized or eliminated due to the positive effects of stream stabilization.
Removal of a structure from the bridge inventory would save time and costs associated with general management and inspection.
The County expends considerable resources to complete the required maintenance activities on deficient bridges. Normal operations include the replacement and repair of timber/concrete decks, abutment back-wall, pile, wing, stringer, and guardrail. Additional costs are associated with bank stabilization (scouring) and the backfill of roadway settlement. Replacement with this type of structure will eliminate many of these costs' of time, material and labor.

Criteria 5 – Project Significance (0-20 points)

Describe what makes this proposal significant to your county.

In general, each stream crossing is significant to the local individuals, communities and agricultural related activities occurring in rural Nebraska. The width and weight restrictions of structurally deficient bridges may limit the required access to property and create an inconvenience to the residents of the area who utilize them daily, or during agriculturally related "heavy traffic" times of the year. Additionally, these rural roadways may function as a vital route for localized traffic between the smaller communities of the area. Specifically, this project provides the following functions to the local individuals, Saunders County, and the State of Nebraska:

C00781165:
The structure/roadway is currently utilized as a bus and emergency services route.
The current detour for this structure is 4 miles to un-restricted traffic.
Local agricultural operations rely on this structure as a "farm to market" route.

C007800305:
The structure/roadway is currently utilized as a bus and emergency services route.
The current detour for this structure is 4 miles to un-restricted traffic.
The structure is relied upon by local agricultural operations in the vicinity.
Replacement of this structure would provide continuity through the county, as a way to access nearby Nebraska Highway 66.

C007811850:
The structure/roadway is currently used as a bus and emergency services route.
The current detour for this structure is 4 miles to un-restricted traffic.
The structure/roadway is utilized by multiple agricultural operations in the area.
This structure provides needed continuity through the county, connects to other recently replaced structures, and provides safe travel to nearby Nebraska Highways 77 and 109.

Criteria 6 – Needs (0-20 points)

Calculated by scoring committee based on the counties SD bridges.

Criteria 7 – Equity (0-20 points)

Determined by scoring committee based on the number of projects awarded to the county.

Submittal Instructions:

85% **percent complete**

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Thank you for your work on behalf of Nebraska's bridges!

APPLICATION FORM County Bridge Match Program 2022

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Applying County	**Cedar**	**Date of Application**	**12/2/2021**
Agency Name	Cedar County	**Contact Person Title**	Highway Superintendent
Contact Person Name	Carla Schmidt	**Address Line 1**	PO Box 816
E-mail	ccroads@hartel.net	**Address Line 2**	Hartington, NE
Phone Number	(402) 254-7309	**zip code**	68739
NACO District	**Northeast**		

Proposal Name / Location	CBMP2021 - C001423720P, C001411910, C009004330, C009002905
Multi-County Proposal	Yes
Proposal Priority Number	2

Instructions
required input
changes allowed
locked - no input

Structure Information

NBI Structure Number	Local Name	Location	County	Existing Length (ft)	Existing Total Width (ft)	Existing Type	State Classification
C001423720P	0.00	5S ST JAMES at EAST BOW CREEK TRIB	Cedar	40.00	20.00	Steel Stringer/Multi-beam or Girder	Local
C001411910	0.00	5W OF COLERIDGE at STREAM	Cedar	41.00	20.00	Steel Girder and Floorbeam System	Local
C009004330	0.00	2.5E 2.5S OF WAYNE at COON CREEK	Wayne	30.00	20.20	Steel Girder and Floorbeam System	Local
C009002905	0.00	4W 7.5S OF WAYNE at PLUM CREEK	Wayne	50.00	15.60	Steel Girder and Floorbeam System	Collector
<Enter SN here>							

Eligibility

NBI Structure Number	Min. Maintenance Road (yes/no)	Advertised for Construction bids?	Average Daily Traffic
C001423720P	No	No	50
C001411910	No	No	25
C009004330	No	No	40
C009002905	No	No	30

Proposal Construction Details								
NBI Structure Number	**Proposed Action**	**Proposed Structure Type**	**Proposed Length (ft)***	**Proposed Total Width (ft)***	**Workforce**	**Total Estimated Bridge Cost**	**Anticipated Reimbursement from CBMP**	**Comment**
C001423720P	Replace	Concrete Box Culvert			Contract	$300,868	$86,224	3-10'x12'x48'
C001411910	Replace	Concrete Box Culvert			Contract	$397,011	$113,776	3-12'x12'x60'
C009004330	Replace	Concrete Box Culvert			Contract	$270,475	$101,140	3-12'x8'x41'
C009002905	Replace	Concrete Box Culvert			Contract	$264,378	$98,860	3-12'x8'x40'
			* **Length and Width not required for Culverts. Please provide culvert size in comments.**		total	$1,232,731	$400,000	OK

Criteria 1 - Innovation (0-20 points)

Describe what is innovative about this proposal.

Concrete box culverts are a cost-effective alternative for the replacement of deficient bridges in the State of Nebraska.
The design and construction process is streamlined with the utilization of standard plan and construction practices. An experienced pool of contractors active in Nebraska results in a competitive environment, reducing replacement structure construction cost to counties.
Typical concrete box culvert construction is completed within 60 calendar days which minimizes the impact to local resident, agricultural and commercial traffic.
Historically, concrete box culvert maintenance activities and costs are minor in comparison to other replacement structures.
Load and/or equipment restricting guardrail is typically not required which is particularly beneficial to local and regional agricultural and commodity transportation. A considerable number of streams in the eastern part of Nebraska are significantly degraded. Proper box culvert design is often utilized to stabilize the streambed and adjacent banks upstream of the structure.
This proposal is being submitted by multiple counties, in a cooperative effort to streamline the design, bid, and build process through project bundling. Innovative, because counties have not actively reached across established map lines in the name of cooperation and efficiency. Additionally, it is presumed that bundled project bids will result in lower pricing due to their regional nature.

Criteria 2 – Cost or time savings (0-5 points) **Identify aspects of this proposal that saves time and reduces costs.**
Concrete box culverts are cost effective and an efficiently constructed alternative to an expensive bridge replacement. Standardized design and construction practices provide a significant cost and time savings to the owner. Guardrail is typically not required, therefore no material, construction, or maintenance costs for guardrail are associated with the project. Additional savings are realized throughout the culvert's anticipated life-span, expected beyond 100 years, in costs associated with general maintenance and repair. It is anticipated that each county in the bundling package will recognize savings in engineering and construction costs by awarding the contract to a single contractor with one set of contract documents. Flexibility is gained by the contractor by having multiple sites in the same geographic area to allocate time, equipment, and other resources.

Criteria 3 – Sustainability or transferability of innovation (0-10 points) **Describe how the innovation can be shared and used by other Counties.**
Box culvert standardization of design and construction can be utilized by all Counties in Nebraska. The process of collaboration can easily be shared and is available to all Counties. A derivative of the cooperation between counties will likely be education, through the exchange of ideas that will occur throughout the process. The engaged entities will discuss and implement what has/hasn't been efficient or successful and incorporate those "lessons learned" into future replacement projects.

Criteria 4 – Long Term Maintenance Savings (0-5 points)

Describe how this proposal promotes savings of long term maintenance costs.

The use of concrete box culvert replacement structures provides significant long-term maintenance cost savings.
The structure is considered extremely durable and expected to require minimal maintenance over its expected use, beyond 100 years.
The lack of guardrail facilitates the ease of mowing and snow plow operations. There are no costs associated with guardrail maintenance, if damaged. Maintenance activities and costs associated with deck repair are non-existent over the life of the culvert.
If the concrete box culvert is utilized to control a degraded stream, there are significant benefits to upstream structures in the basin. Maintenance and/or replacement of these structures can be minimized or eliminated due to the positive effects of stream stabilization.
The County expends considerable resources to complete the required maintenance activities on deficient bridges. Normal operations include the replacement and repair of timber/concrete decks, abutment back-wall, pile, wing, stringer, and guardrail. Additional costs are associated with bank stabilization (scouring) and the backfill of roadway settlement. Replacement with this type of structure will eliminate many of these costs of time, material and labor.

Criteria 5 – Project Significance (0-20 points)

Describe what makes this proposal significant to your county.

In general, each stream crossing is significant to the local individuals, communities, agricultural and commerce related activities occurring in rural Nebraska. The width and weight restrictions of structurally deficient bridges may limit the required access to property and create an inconvenience to the residents of the area who utilize them daily, or during agriculturally related "heavy traffic" times of the year. Additionally, these rural roadways may function as a vital route for localized traffic between the smaller communities of the area. Specifically, this project provides the following functions to the local individuals, Cedar/Wayne Counties and the State of Nebraska:

C001423720P:
The structure/roadway is currently utilized as a bus and mail route.
The structure/roadway is utilized by emergency services to the area.
The detour for this structure is 3-4 miles to un-restricted traffic.
This structure is utilized heavily by a local construction/excavation company for hauling materials and moving equipment.
The structure/roadway is a main route that provides continuity for local agricultural operations to State Highways 15 and 12.
The replacement of the structure would enhance the local agricultural community and provide an adequate, safe roadway for the residents of Cedar County.

C0014011910:
The structure/roadway is currently utilized as a bus and mail route.
The structure/roadway is currently used by emergency services.
The detour for this structure is currently 4 miles to un-restricted traffic.
The structure is heavily utilized by local agricultural operations as a "Farm to Market" route throughout the year.
The structure/roadway provides access to other main throughfares that are vital to multiple agricultral operations.

C009004330:

Criteria 6 – Needs (0-20 points)

Calculated by scoring committee based on the counties SD bridges.

Criteria 7 – Equity (0-20 points)

Determined by scoring committee based on the number of projects awarded to the county.

Submittal Instructions:

85% **percent complete**

When your application is complete and you are ready to submit it for review go to:
http://dot.nebraska.gov/projects/tia/bridge-match/
Follow the instructions on the website for uploading this application and supporting documentation.

If you have questions or difficulties please contact:
Jodi Gibson
402-479-4337
jodi.gibson@nebraska.gov

Thank you for your work on behalf of Nebraska's bridges!

APPLICATION FORM County Bridge Match Program 2022

100% percent complete

Applying County	Knox	Date of Application	12/2/2021
Agency Name	Knox County	Contact Person Title	Highway Superintendent
Contact Person Name	Kevin Barta	Address Line 1	PO Box 85
E-mail	hwysupt@knoxcountyne.org	Address Line 2	Center, NE
Phone Number	(402) 288-5610	zip code	68724
NACO District	Northeast		

Proposal Name / Location	CBMP2021 - C005430720, C001413210
Multi-County Proposal	Yes
Proposal Priority Number	1

Instructions
required input
changes allowed
locked - no input

Structure Information

NBI Structure Number	Local Name	Location	County	Existing Length (ft)	Existing Total Width (ft)	Existing Type	State Classification
C005430720	38-21N4	2.5W .5N OF VERDEL at PONCA CREEK	Knox	101.00	20.00	Steel Truss - Thru	Local
C001413210	0.00	1.2E OF HARTINGTON at BOW CREEK	Cedar	102.00	28.00	Steel Truss - Thru	Local

Eligibility

NBI Structure Number	Min. Maintenance Road (yes/no)	Advertised for Construction bids?	Average Daily Traffic
C005430720	No	No	10
C001413210	No	No	100

Proposal Construction Details

NBI Structure Number	Proposed Action	Proposed Structure Type	Proposed Length (ft)*	Proposed Total Width (ft)*	Workforce	Total Estimated Bridge Cost	Anticipated Reimbursement from CBMP	Comment
C005430720	Replace	Concrete Slab	150.00	28.00	Contract	$1,226,664	$200,000	3-Span Continuous Concrete Slab
C001413210	Replace	Concrete Slab	130.00	28.00	Contract	$884,650	$200,000	3-Span Continuous Concrete Slab
			* Length and Width not required for Culverts. Please provide culvert size in comments.		total	$2,111,314	$400,000	OK

Criteria 1 - Innovation (0-20 points)

Describe what is innovative about this proposal.

Continuous concrete slab bridges are a cost-effective alternative for the replacement of deficient bridges in the State of Nebraska. The design and construction process is streamlined with the utilization of standard plan and construction practices with typical bridge construction completed within 120 calendar days.
The experienced pool of contractors active in Nebraska results in a competitive environment, reducing replacement structure cost to counties. Contractor innovation of the construction process continues to reduce the required time and material expenditures, reducing overall cost to the owner.
Bridge submergence is acceptable and common on the rural county roadways of Nebraska. The structure is considered extremely durable and expected to require minimal maintenance over its expected use-beyond 75 years.
This proposal is being submitted by multiple counties, in a cooperative effort to streamline the design, bid, and build process through project bundling. Innovative, because counties have not actively reached across established map lines in the name of cooperation and efficiency. Additionally, it is presumed that bundled project bids will result in lower pricing due to their regional nature.

Criteria 2 – Cost or time savings (0-5 points) **Identify aspects of this proposal that saves time and reduces costs.**
Continuous concrete slab bridges are a cost effective and efficiently constructed alternative to other more expensive bridge replacement types. Standardized design and construction practices provide a significant cost and time savings to the owner. Additional savings are realized throughout the bridges' anticipated life-span, expected beyond 75 years, in costs associated with general maintenance and repair. The bridges are normally installed within 120 calendar days or less, which results in less impact to the traveling, agricultural, and commodity traffic of the area. It is anticipated that each county in the bundling package will recognize savings in engineering and construction costs by awarding the contract to a single contractor with one set of contract documents. Flexiblity is gained by the contractor by having multiple sites in the same geographic area to allocate time, equipment, and other resources.

Criteria 3 – Sustainability or transferability of innovation (0-10 points) **Describe how the innovation can be shared and used by other Counties.**
The continuous concrete slab bridge design and construction is a standardized process in the State of Nebraska, information regarding the process can easily be shared and repeated within other Counties. A derivative of the cooperation between counties will likely be education, through the exchange of ideas that will occur througout the process. The engaged entities will discuss and implement what has/hasn't been efficient or sucessful and incorporate those "lessons learned" into future replacement projects.

Criteria 4 – Long Term Maintenance Savings (0-5 points)
Describe how this proposal promotes savings of long term maintenance costs.
The structure is considered extremely durable and expected to require minimal maintenance over its expected use beyond 75 years. The County expends considerable resources to complete the required maintenance activities on deficient bridges including the replacement and repair of timber/concrete decks, abutment back-wall, pile, wing, stringer, and guardrail. Additional costs are associated with bank stabilization (scouring) and the backfill of roadway settlement. Replacement with this type of structure will eliminate many of these costs of time, material and labor.

Criteria 5 – Project Significance (0-20 points)

Describe what makes this proposal significant to your county.

In general, each stream crossing is significant to the local individuals, communities and agricultural related activities occurring in rural Nebraska. The width and weight restrictions of structurally deficient bridges may limit the required access to property and create an inconvenience to the residents of the area who utilize them daily, or during agriculturally related "heavy traffic" times of the year. Additionally, these rural roadways may function as a vital route for localized traffic between the smaller communities of the area.
Specifically, this project provides the following functions to the local individuals, Cedar/Knox Counties and the State of Nebraska:

C005430720:
The structure/roadway is not currently used as a bus route, but has been previously and may be again.
The structure/roadway is utilized as an emergency service route.
The current detour for this structure is 6-7 miles, depending on the route, to un-restricted traffic.
The structure/roadway is utilized heavily by local agricultural operations throughout the year.
The structure provides a vital crossing of Ponca Creek for local landowners and farmers. It is classified as Fracture Critical, and its replacement would greatly benefit the traveling public.

C001413210:
The structure/roadway is currently utilized as a bus and mail route.
The structure/roadway is currently used by emergency services for rural landowners.
The detour for this structure is 4-5 miles for un-restricted traffic.
The structure/roadway is heavily utilized by local residents for access to the county fairgrounds every year, and also serves as direct access to the City of Hartington.
Local agricultural operations rely heavily on this structure as a direct "farm to market" route. The current weight restriction on the structure limits agricultural equipment and business traffic.

These structures are considered "necessary" to the local area surrounding them. Local residential and agricultural traffic rely on these structures significantly.

Criteria 6 – Needs (0-20 points)

Calculated by scoring committee based on the counties SD bridges.

Criteria 7 – Equity (0-20 points)

Determined by scoring committee based on the number of projects awarded to the county.

Submittal Instructions:

100% **percent complete**

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402-479-4337
jodi.gibson@nebraska.gov

Thank you for your work on behalf of Nebraska's bridges!

APPLICATION FORM County Bridge Match Program 2022

100% percent complete

Applying County	Pierce	Date of Application	12/2/2021
Agency Name	Pierce County	Contact Person Title	Highway Superintendent
Contact Person Name	Brian McDonald	Address Line 1	803 West Norfolk Ave
E-mail	bmcdonald@jeo.com	Address Line 2	Norfolk, NE
Phone Number	(402)371-6416	zip code	68701
NACO District	Northeast		

Proposal Name / Location	Pierce Southwest
Multi-County Proposal	No
Proposal Priority Number	1

Instructions
required input
changes allowed
locked - no input

Structure Information

NBI Structure Number	Local Name	Location	County	Existing Length (ft)	Existing Total Width (ft)	Existing Type	State Classification
C007001905	0.00	6.5S of Foster at Willow Creek	Pierce	51.00	16.00	Steel Truss - Thru	Collector
<Enter SN here>							

Eligibility

NBI Structure Number	Min. Maintenance Road (yes/no)	Advertised for Construction bids?	Average Daily Traffic
C007001905	No	No	60

Proposal Construction Details

NBI Structure Number	Proposed Action	Proposed Structure Type	Proposed Length (ft)*	Proposed Total Width (ft)*	Workforce	Total Estimated Bridge Cost	Anticipated Reimbursement from CBMP	Comment
C007001905	Replace	Precast Deck Panels	90.00	28.00	Contract	$500,000	$200,000	add optional information
			* Length and Width not required for Culverts. Please provide culvert size in comments.		total	$500,000	$200,000	OK

Criteria 1 - Innovation (0-20 points)
Describe what is innovative about this proposal.
The county intends to replace the structure using precast concrete plank deck pannels with steel sheet piling abutments. Using steel abutments and concrete pannels cast indoors, the construction season is extended as no concrete is poured in an uncontrolled environment. The planks also keep the superstructure depth at approximately 1 foot thick. This minimizes grade raises of the road approaches and therefore minimizes the construction site foot print. This all leads to savings in earthwork, environmental inpacts, and ROW needs.

Criteria 2 – Cost or time savings (0-5 points) **Identify aspects of this proposal that saves time and reduces costs.**
Steel abutments can be constructed in conditions that concrete would be difficult to pour and also do not require time for the concrete to set before continuing construction. The concrete plank are generally poured indoors in climate controlled conditions off site and delivered to the site finished. Both of these features extend the construction season for the contractor and minimize weather delays. There is also a time and cost savings as the planks are modular allowing the contractor to build more of structures in a season than other types of bridges. The simple construction opens up the number of contractors that can construct these and therefore increases competition which lowers costs.

Criteria 3 – Sustainability or transferability of innovation (0-10 points) **Describe how the innovation can be shared and used by other Counties.**
There are a number of manufactures producing concrete plank. There is also an experienced pool of contractors able to build the structures and the design process is fairly standardized. All of these features have lead to a sustainable alternative for bridge replacement. The innovation is readily transferable to other counties as the design and construction process is already in place. Other counties benefit from the larger pool of contractors that can build these bridges which increases competition.

Criteria 4 – Long Term Maintenance Savings (0-5 points) **Describe how this proposal promotes savings of long term maintenance costs.**
Our experience with the precast plank bridges on low volume roads has shown minimal maintenance needs. Pierce county installed their first precast plank bridge approximately 25 years ago on the main road to a gravel pit and to date has done no maintenance to the structure beyond inspection. The bridge is in great condition and the only maintenance spent on the structure was for NBIS inspections.

Criteria 5 – Project Significance (0-20 points) **Describe what makes this proposal significant to your county.**
This bridge is located on a roadway designated as Collector and in the 2019 flood had the south approach washed out. After the flooding, areas south of Willow Creek were cut off from access to Emergency services located in Pierce. Improvements to this bridge would minimize this risk of occurring again and also allows for movement of grain toward Highway 13.

Criteria 6 – Needs (0-20 points)

Calculated by scoring committee based on the counties SD bridges.

Criteria 7 – Equity (0-20 points)

Determined by scoring committee based on the number of projects awarded to the county.

Submittal Instructions:

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Jodi Gibson
402-479-4337
jodi.gibson@nebraska.gov

Thank you for your work on behalf of Nebraska's bridges!

APPLICATION FORM County Bridge Match Program 2022

100% percent complete

Applying County	Stanton	Date of Application	12/3/2021
Agency Name	Stanton County	Contact Person Title	County Clerk
Contact Person Name	Wanda Heermann	Address Line 1	804 Ivy Street
E-mail	clerk@stantoncountyne.org	Address Line 2	Stanton, NE
Phone Number	(402) 421-1717	zip code	68779
NACO District	Northeast		

Proposal Name / Location	CBMP2021 - C008411610
Multi-County Proposal	No
Proposal Priority Number	1

Instructions
required input
changes allowed
locked - no input

Structure Information

NBI Structure Number	Local Name	Location	County	Existing Length (ft)	Existing Total Width (ft)	Existing Type	State Classification
C008411610	0.00	2.1W 3N OF STANTON at PLEASANT RUN CREEK	Stanton	51.00	16.10	Steel Girder and Floorbeam System	Local

Eligibility

NBI Structure Number	Min. Maintenance Road (yes/no)	Advertised for Construction bids?	Average Daily Traffic
C008411610	No	No	35

Proposal Construction Details

NBI Structure Number	Proposed Action	Proposed Structure Type	Proposed Length (ft)*	Proposed Total Width (ft)*	Workforce	Total Estimated Bridge Cost	Anticipated Reimbursement from CBMP	Comment
C008411610	Replace	Other	92.00	28.00	Contract	$755,390	$200,000	3-Span Steel Tub Girder Bridge
			* Length and Width not required for Culverts. Please provide culvert size in comments.		total	$755,390	$200,000	OK

Criteria 1 - Innovation (0-20 points)

Describe what is innovative about this proposal.

The innovations are 2-fold. Galvanized Steel Press-Brake-Formed Tub Girder (PBFTG) bridges with a cast in place deck on steel substructure can be a quickly constructed, cost-effective replacement alternative. The substructure design will include sheet pile backwalls and steel caps. The driving surface will be cast in place concrete on conform decking. Hot-dip galvanized girders provide corrosion protection and reduce required maintenance for the life of the bridge. The tub girder is expected to have a 60-year service life, utilizing environmentally friendly components. This bridge type meets all AASHTO LRFD requirements.

Additionally, an innovation will include the design and bidding of an alternate pre-cast deck slab bridge design. The design/bidding of both alternatives will ensure the most economical replacement option can be chosen by the owner.

The use of PBFTG bridges provide additional benefits regarding permitting and design. Low superstructure height reduces the road grading requirements and environmental impacts are minimized by reducing or eliminating significant channel modification. Permitting requirements are minimized, accordingly.

Criteria 2 – Cost or time savings (0-5 points)

Identify aspects of this proposal that saves time and reduces costs.

Galvanized Steel Press-Brake-Formed Tub Girder (PBFTG) bridges are readily available at a time when rolled beam girders are expensive and difficult to obtain.
The counties of Nebraska rarely use de-icing agents therefore steel sheet pile abutments are often utilized as a quick, economical alternative to reinforced concrete.
In general, heavy equipment requirements are minimized, as most construction can be performed with smaller equipment.
The installation of the structure should be fairly quick, this results in lower overall cost and a reduction of impacts to the traveling, agricultural, and commodity community.
Additional savings are realized throughout the bridges' anticipated life-span, expected to 60 years, in costs associated with general maintenance and repair.

Criteria 3 – Sustainability or transferability of innovation (0-10 points) **Describe how the innovation can be shared and used by other Counties.**
The Galvanized Steel Press-Brake-Formed Tub Girder (PBFTG) bridge design and construction process can easily be shared and repeated within other Counties. A derivative of the cooperation between counties will likely be education, through the exchange of ideas that occurs throughout the process. The engaged entities will discuss and implement what has/hasn't been efficient or successful and incorporate those "lessons learned" into future replacement projects.

Criteria 4 – Long Term Maintenance Savings (0-5 points) **Describe how this proposal promotes savings of long term maintenance costs.**
The structure is considered extremely durable and expected to require minimal maintenance during its use. The County expends considerable resources to complete the required maintenance activities on deficient bridges including the replacement and repair of timber/concrete decks, abutment back-wall, pile, wing, stringer, and guardrail. Additional costs are associated with bank stabilization (scouring) and the backfill of roadway settlement. Replacement with this type of structure will reduce or eliminate many of these costs of time, material and labor.

Criteria 5 – Project Significance (0-20 points)

Describe what makes this proposal significant to your county.

In general, each stream crossing is significant to the local individuals, communities and agricultural related activities occurring in rural Nebraska. The width and weight restrictions of structurally deficient bridges may limit the required access to property and create an inconvenience to the residents of the area who utilize them daily, or during agriculturally related "heavy traffic" times of the year. Additionally, these rural roadways may function as a vital route for localized traffic between the smaller communities of the area. Specifically, this project provides the following functions to the local individuals, Stanton County and the State of Nebraska:

C008411610:
This structure/roadway is currently utilized as an emergency services route as needed.
The current detour for this structure is 3 miles to restricted traffic.
Local agricultural operations rely on this structure for daily access and transportation of goods during harvest season.
This structure/roadway provides direct access to Pleasant Run Cemetery for the traveling public, as well as multiple field entrances for local farmers.
This structure is considered "necessary" to local residents and commercial businesses as a safe means of travel through the county.

Criteria 6 – Needs (0-20 points)

Calculated by scoring committee based on the counties SD bridges.

Criteria 7 – Equity (0-20 points)

Determined by scoring committee based on the number of projects awarded to the county.

Submittal Instructions:

100% **percent complete**

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Jodi Gibson
402-479-4337
jodi.gibson@nebraska.gov

Thank you for your work on behalf of Nebraska's bridges!

APPLICATION FORM County Bridge Match Program 2022

100% percent complete

Applying County	Thurston	Date of Application	12/3/2021
Agency Name	Thurston County	Contact Person Title	County Highway Superintendent
Contact Person Name	Dan Alexander, PE	Address Line 1	5320 N. 148th Street
E-mail	dalexander@midweste.com	Address Line 2	Lincoln, NE
Phone Number	402-786-2203	zip code	68527
NACO District	Northeast		

Proposal Name / Location	Thurston CBMP 1
Multi-County Proposal	No
Proposal Priority Number	1

Instructions
required input
changes allowed
locked - no input

Structure Information

NBI Structure Number	Local Name	Location	County	Existing Length (ft)	Existing Total Width (ft)	Existing Type	State Classification
C008704905	0.00	7.5E 1S OF ROSALIE at SOUTH BLACKBIRD CREEK	Thurston	61.00	16.00	Steel Truss - Thru	Local
<Enter SN here>							

Eligibility

NBI Structure Number	Min. Maintenance Road (yes/no)	Advertised for Construction bids?	Average Daily Traffic
C008704905	No	No	25

Proposal Construction Details

NBI Structure Number	Proposed Action	Proposed Structure Type	Proposed Length (ft)*	Proposed Total Width (ft)*	Workforce	Total Estimated Bridge Cost	Anticipated Reimbursement from CBMP	Comment
C008704905	Replace	Steel Girder	110.00	28.00	Contract	$650,000	$200,000	Modular Bridge Alternate
			* Length and Width not required for Culverts. Please provide culvert size in comments.		total	$650,000	$200,000	OK

Criteria 1 - Innovation (0-20 points)

Describe what is innovative about this proposal.

This proposed project would be innovative in two potential areas: Construction and Funding.

Construction:
Thurston County (as well as other Counties) has an interest in pursuing modular superstructures as a viable option with this project as well as other future projects. With the current rise in steel prices it is hopeful that there will be labor savings in a modular superstructure being shipped in to the site. The County would pursue the modular build as an alternate to typical construction methods for a steel girder bridge to keep both the modular supplier as well as the contractor in check. County forces would be utilized to remove the existing structure, complete backfilling efforts, and complete final grading and seeding. Modular construction and potential savings would be shared with other Counties throughout the state that are also interested in the construction method.

Funding:
Thurston County is hoping to utilize three sources of funding for this project which are FEMA funds, County Bridge Match Program funds, and County funds. FEMA has previously approved repairs on a deteriorating abutment. A request for an improved project will be submitted to FEMA in order to reallocate repair funds to use in the replacement of the structure.

Criteria 2 – Cost or time savings (0-5 points)

Identify aspects of this proposal that saves time and reduces costs.

Thurston County has had recent success utilizing a combination of forces to replace structures on the County system. County forces will remove the existing structure prior to the Heavy Civil Contractor arriving on site. This will reduce Contractor costs in the area of Mobilization and Site Preparation and provide more efficient use of time throughout the project. The Heavy Civil Contractor will be able to get started directly at accomplishing construction objectives within their strengths, which is installation of steel bearing pile, steel sheet pile, and the modular steel superstructure. County forces will be prepared to mobilize quickly after the Contractor is finished in order to backfill, finish grading, seeding, and surfacing. Utilizing the strengths of the County forces, and a Heavy Civil Contractor will reduce project costs, as services provided outside of a Contractors strength are typically subcontracted, heavily margined, or both.

Other time savings include installation of steel sheet pile, which are a cheaper and faster alternative to reinforced concrete. This can be done as little to no de-icing agents are used on rural county roads. There will be minimal field cast concrete (if any) aside from the concrete bridge deck, which will decrease installation times relating to concrete curing standards and winter weather delays.

Steel girder bridge structures are one of the most common structure types in today's county road systems. Materials and skilled contractors are readily available, and the competitive market will reduce supplier costs and expedite construction timelines. Properly sized steel structures will ensure long-term cost savings in general maintenance and repair throughout the bridges' anticipated lifespan, which would be expected to exceed 75 years.

Criteria 3 – Sustainability or transferability of innovation (0-10 points) **Describe how the innovation can be shared and used by other Counties.**
Thurston County will look to share any and all knowledge gained by utilizing Contract and County forces as well as modular superstructure construction. Construction methods, timelines, machinery needs, and human resource requirements will be easily networked to other counties looking to make their projects feasible by utilizing County forces. Modular steel girder structures are relatively simple to construct, with no strenuous or tedious concrete forming or placing labor. Stay-in-place deck forming will be utilized. Aggregate wearing surface may be installed to futher reduce the cost of the project, with the structure designed with the capacity to perform with a Cast-in-place concrete deck at a later date. Modular steel girder structures can be utilized at any small to moderate sized crossing, and reduce labor efforts and permitting requirements within the channel by allowing a customized sizing for the location.

Criteria 4 – Long Term Maintenance Savings (0-5 points)

Describe how this proposal promotes savings of long term maintenance costs.

Repair of the North approach and abutment of C008704905 with FEMA funds is at best a temporary solution to the more permanent problem of the dated, inadequate truss structure prone to further and repeated damage of the same nature in high water events. The County burns considerable resources to complete required maintenance on deficient bridges. Replacement of this structurally deficient bridge (sufficiency rating of 26.2) with a new structure, which is longer and wider to accommodate modern traffic, and to better span the existing channel will save considerable future maintenance and repair cost and time, as well as reduce inconvenience to the public.

Lastly, inspection costs for Fracture Critical structures are now fully funded by the County. These detailed inspections require large costs which are incurred on a 24-month basis, or at times 12-month basis. Replacement of this structure with a redundant design meeting today's standards would allow county forces to inspect the structure, further reducing the structures cost over time.

Criteria 5 – Project Significance (0-20 points)

Describe what makes this proposal significant to your county.

The Morrow Bridge, C008704905, spanning Blackbird Creek is located five miles South of Macy, Nebraska. The structure provides an important link in the neighborhood, considering that a detour route avoiding minimum maintenance roads and weight-restricted bridges involves a detour of over 14 miles in length for local residents, mail carriers, and access to Omaha Tribal, trust and privately owned farmland. The bridge was recently closed and in need of approach and abutment repairs. However, considering the age of the structure (estimate 1930's), the obsolete steel pony-truss bridge is 16 feet in width and is weight restricted at 16 tons, the County could significantly improve the flow of traffic and traffic safety in the neighborhood by replacing the Fracture Critical structure. In order to move forward, several funding sources will need to be used as previously stated, and total cost must be reduced by leaning on the experienced Thurston County labor forces.

This structure is considered "necessary" to local traffic. Currently, most agricultural traffic is restricted because of the structures narrow width or posting. Replacement of this structure would provide continuity across this portion of Thurston County by connecting to other recent projects, and roads and channel crossings of higher quality.

Criteria 6 – Needs (0-20 points)

Calculated by scoring committee based on the counties SD bridges.

Criteria 7 – Equity (0-20 points)

Determined by scoring committee based on the number of projects awarded to the county.

Submittal Instructions:

100% **percent complete**

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If you have questions or difficulties please contact:
Jodi Gibson
402-479-4337
jodi.gibson@nebraska.gov

Thank you for your work on behalf of Nebraska's bridges!

APPLICATION FORM County Bridge Match Program 2022

100% percent complete

Applying County	**Adams**	**Date of Application**	**12/2/2021**
Agency Name	Adams County	**Contact Person Title**	Highway Superintendent
Contact Person Name	Dawn Miller	**Address Line 1**	415 N Adams Central Ave
E-mail	dmiller@adamscounty.org	**Address Line 2**	Juniata, NE
Phone Number	(402) 461-7172	**zip code**	68955
NACO District	**Central**		

Proposal Name / Location	CBMP2021 - C000101705, C006504205P, C006500905P
Multi-County Proposal	Yes
Proposal Priority Number	1

Instructions
required input
changes allowed
locked - no input

Structure Information

NBI Structure Number	Local Name	Location	County	Existing Length (ft)	Existing Total Width (ft)	Existing Type	State Classification
C000101705	O17-2	15140 S. PROSSER AVE. at LITTLE BLUE RIVER	Adams	92.00	14.50	Steel Truss - Thru	Local
C006504205P	0.00	SJCT US136/N14 6.8W 2.5S at COTTONWOOD CREEK	Nuckolls	110.00	26.30	Wood or Timber Stringer/Multi-beam or Girder	Other Arterial
C006500905P	0.00	IN BOSTWICK S EDGE at SUPERIOR CANAL	Nuckolls	29.00	19.70	Wood or Timber Stringer/Multi-beam or Girder	Local

Eligibility

NBI Structure Number	Min. Maintenance Road (yes/no)	Advertised for Construction bids?	Average Daily Traffic
C000101705	No	No	30
C006504205P	No	No	100
C006500905P	No	No	75

Proposal Construction Details

NBI Structure Number	Proposed Action	Proposed Structure Type	Proposed Length (ft)*	Proposed Total Width (ft)*	Workforce	Total Estimated Bridge Cost	Anticipated Reimbursement from CBMP	Comment
C000101705	Replace	Concrete Slab	140.00	28.00	Contract	$931,155	$200,000	3-Span Continuious
C006504205P	Replace	Concrete Slab	140.00	28.00	Contract	$981,260	$200,000	3-Span Continuious
C006500905P	Remove	Not Applicable	0.00	0.00	County Forces	$0	$0	Remove from BrM
			* **Length and Width not required for Culverts.**		total	$1,912,415	$400,000	OK
			Please provide culvert size in comments.					

Criteria 1 - Innovation (0-20 points)

Describe what is innovative about this proposal.

Continuous concrete slab bridges are a cost-effective alternative for the replacement of deficient bridges in the State of Nebraska. The design and construction process is streamlined with the utilization of standard plan and construction practices with typical bridge construction completed within 120 calendar days.
The experienced pool of contractors active in Nebraska results in a competitive environment, reducing replacement structure cost to counties. Contractor innovation of the construction process continues to reduce the required time and material expenditures, reducing overall cost to the owner.
Bridge submergence is acceptable and common on the rural county roadways of Nebraska. The structure is considered extremely durable and expected to require minimal maintenance over its expected use-beyond 75 years.

In addition to the replacement projects, Nuckolls County is proposing the removal of C006500905P from the traveled way and NBIS structurally deficient list.

Criteria 2 – Cost or time savings (0-5 points)

Identify aspects of this proposal that saves time and reduces costs.

Continuous concrete slab bridges are a cost effective and efficiently constructed alternative to other more expensive bridge replacement types. Standardized design and construction practices provide a significant cost and time savings to the owner.
Additional savings are realized throughout the bridges' anticipated life-span, expected beyond 75 years, in costs associated with general maintenance and repair.
The bridges are normally installed within 120 calendar days or less, which results in less impact to the traveling, agricultural, and commodity traffic of the area.
Removal of structure C006500905P from the inventory will result in a considerable cost and time savings to the County and State. Replacement structure construction, maintenance, mowing, snow removal, rating and inspection activities will not be necessary.

Criteria 3 – Sustainability or transferability of innovation (0-10 points) **Describe how the innovation can be shared and used by other Counties.**
The continuous concrete slab bridge design and construction is a standardized process in the State of Nebraska, information regarding the process can easily be shared and repeated within other Counties.

Criteria 4 – Long Term Maintenance Savings (0-5 points)

Describe how this proposal promotes savings of long term maintenance costs.

The structure is considered extremely durable and expected to require minimal maintenance over its expected use beyond 75 years. The County expends considerable resources to complete the required maintenance activities on deficient bridges including the replacement and repair of timber/concrete decks, abutment back-wall, pile, wing, stringer, and guardrail. Additional costs are associated with bank stabilization (scouring) and the backfill of roadway settlement. Replacement with this type of structure will eliminate many of these costs of time, material and labor. Removal of structure C006500905P from the inventory will eliminate the maintenance requirement for the bridge, saving a considerable amount of expenditures in the long term.

Criteria 5 – Project Significance (0-20 points)

Describe what makes this proposal significant to your county.

In general, each stream crossing is significant to the local individuals, communities and agricultural related activities occurring in rural Nebraska. The width and weight restrictions of structurally deficient bridges may limit the required access to property and create an inconvenience to the residents of the area who utilize them daily, or during agriculturally related "heavy traffic" times of the year. Additionally, these rural roadways may function as a vital route for localized traffic between the smaller communities of the area. Specifically, this project provides the following functions to the local individuals, Adams/Nuckolls Counties, and the State of Nebraska:

C000101705:
The structure/roadway is currently used as a bus route.
The structure/roadway is not currently used as an emergency services route due to weight and width restrictions. This structure provides the only access to local residents within the immediate vicinity of the bridge, and its replacement would greatly increase response time during an emergency.
The current detour for this structure is greatly restricted due to minimum maintenance roadways and a fracture critical structure that are used to access the area. This is considered excessive.
Local agricultural and livestock operations in the area rely on this structure/roadway for access to fields and pastures in the vicinity.
This structure provides continuity through the county as part of a 24 mile continuous route for traffic.

C006504205P:
The structure/roadway is currently used as a bus route.
Emergency services use this structure/roadway for access to the area.
The current detour length for this structure is 5 miles to un-restricted traffic.
The structure is used heavily by local agricultural operations during the harvest season as a "farm to market" route.

These structures are considered "necessary" to the local vicinity, and their replacement will ensure the continued safety of the traveling public throughout the County.

Criteria 6 – Needs (0-20 points)

Calculated by scoring committee based on the counties SD bridges.

Criteria 7 – Equity (0-20 points)

Determined by scoring committee based on the number of projects awarded to the county.

Submittal Instructions:

100% **percent complete**

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If you have questions or difficulties please contact:
Jodi Gibson
402-479-4337
jodi.gibson@nebraska.gov

Thank you for your work on behalf of Nebraska's bridges!

APPLICATION FORM County Bridge Match Program 2022

94% percent complete

Applying County	**Greeley**	**Date of Application**	**12/2/2021**
Agency Name	Greeley County	**Contact Person Title**	Highway Superintendent
Contact Person Name	Lance Harter	**Address Line 1**	P.O. Box 1209
E-mail	lharter@oakcreekengineering.com	**Address Line 2**	Kearney, NE
Phone Number	(308) 455-1152	**zip code**	68848
NACO District	Central		

Proposal Name / Location	Greeley County 2021 CBMP
Multi-County Proposal	No
Proposal Priority Number	1

Instructions
required input
changes allowed
locked - no input

Structure Information

NBI Structure Number	Local Name	Location	County	Existing Length (ft)	Existing Total Width (ft)	Existing Type	State Classification
C003900905P	0.00	7W 1N OF GREELEY at WALLACE CREEK	Greeley	23.00	21.50	Wood or Timber Stringer/Multi-beam or Girder	Local
C003904810P	0.00	4.5S OF SCOTIA at DAVIS CREEK	Greeley	61.00	15.80	Steel Truss - Thru	Collector

Eligibility

NBI Structure Number	Min. Maintenance Road (yes/no)	Advertised for Construction bids?	Average Daily Traffic
C003900905P	No	No	65
C003904810P	No	No	40

Proposal Construction Details

NBI Structure Number	Proposed Action	Proposed Structure Type	Proposed Length (ft)*	Proposed Total Width (ft)*	Workforce	Total Estimated Bridge Cost	Anticipated Reimbursement from CBMP	Comment
C003900905P	Replace	Culvert Pipes			County Forces	$70,000	$25,000	Multiple 96" Arch CMP
C003904810P	Replace	Steel Girder	60.00	28.50	Contract	$425,000	$175,000	
			* **Length and Width not required for Culverts.**		total	$495,000	$200,000	OK
			Please provide culvert size in comments.					

Criteria 1 - Innovation (0-20 points)

Describe what is innovative about this proposal.

This proposal includes two (2) structurally deficient bridges, one being bridge replacement with steel girder bridge and the other being replaced with a corrugated metal culvert pipe structure.

Both bridges are narrow, on a poor alignment with the road, and restrict legally loaded vehicles, so replacing these bridges with structures that meet minimum design standards will greatly improve the sites and accommodate all legally loaded vehicles.

For 00905P, the culvert structure with headwalls and toewalls effectively eliminate scour potential. Headwalls also reduce the footprint of the structure by reducing required pipe lengths. The proposed structure will be designed to eliminate obstacles within the horizontal clear zone and meet adequate return flow periods for road overtopping.

USACE Nationwide 14 Corp Permits are anticipated; no wetland mitigation will be required.

Criteria 2 – Cost or time savings (0-5 points)

Identify aspects of this proposal that saves time and reduces costs.

00905P

Culvert pipe with manufactured headwalls have been used by Greeley County for several other bridge replacement projects. These structure types have been designed to effectively meet roadway overtop expectations and have not required any routine maintenance. County Forces have successfully installed these structures with current crew and without needing to purchase specialized equipment. This further reduces project cost by eliminating contractor mark-up cost. Several suppliers are readily available and have previous experience with fabrication of these structures. By constructing a culvert pipe structure instead of a bridge, significant cost savings will occur since materials are generally less expensive and more readily available. The culvert pipe construction timeline is also favorable when compared to bridge construction. Additionally, this structure can be constructed almost any time of the year and not see an increase in projec cost or timeline due to constructability issues. The length of the culvert structure will also accommodate the design standards for the road cross section while eliminating the need for guardrail and approach guardrail; therefore, costs savings are experienced with both the initial cost of the guardrail and any future guardrail maintenance that may be required.

04810P

Site geometrics along with the high flows of Davis Creek warrant a clear span, steel grider bridge. Several similar structures have been constructed in Greeley County, and competitive bidding occurs due to the simple design that is familiar to contractors which makes this project attractive to several bidders. These structures have been designed to require little to no maintenance. Life expectancy of the structure will be maximized due to the utilization of weathering steel and other modern bridge materials, therefore, Greeley County will save both time and money on expensive repairs that will continue to be necessary with the existing structure.

Criteria 3 – Sustainability or transferability of innovation (0-10 points)

Describe how the innovation can be shared and used by other Counties.

00905P
Culvert pipe structures with headwalls and wingwalls are becoming more popular due to their simple design, availabilty of material suppliers and fabricatiors, and ease of construction. It is often difficult to improve a roadway overtop return with culverts when the existing structure is of significant size, however, when hydraulics will allow a culvert pipe structure, substantial cost savings occur. These structures are an economical choice in all rural areas of Nebraska due to the simplicity of the structure and ability to safely carry traffic in an efficient manner. Several suppliers are readily available and have previous experience with fabrication of culvert pipe structures. County Forces generally have the equipment needed to install these structures with current crew since large bridge construction machines like cranes and pile drivers are not required. If needed, repairs would be quick, cheap, and simple since culvert structures are much less complex than bridges and the materials are high in availability.

04810P
In all rural areas of Nebraska, concrete deck, steel girder bridges have proved to be long lasting structures and stand up to high flows. Steel girders will be weathering steel, which will not require painting. This will further reduce potential future maintenance and increase the structures lifespan. Readily available materials, local construction experience and favorable bidding market make these structure types attractive to local agencies.

Criteria 4 – Long Term Maintenance Savings (0-5 points)

Describe how this proposal promotes savings of long term maintenance costs.

Both of the proposed structure types will have a lifespan requiring little to no maintenance.

Current condition of bridges will require bridge repairs to maintain passenger car traffic, but even significant repairs would not accommodate agricultural equipment. Replacing these bridges with steel and concrete would eliminate the several issues these structures are currently facing which inconvenience the traveling public.

00905P: Culvert type structures require little to no maintenance throughout material lifespan. Culvert materials will meet NDOT Specifications for thickness and lifespan will be maximized. Headwall and toewall materials will be the same gauge as the culvert pipe material in order to extend the lifespan of the structure. With fewer parts than a bridge, the chance of pieces breaking and needing repaired is less.

04810P: This bridge is fracture critical, requiring more detailed inspections and significantly more cost than routine inspections of redundant structures. Inspection cost savings will occur with the replacement of of this structure. Proposed structure type is concrete deck, steel girder bridge which will have a lifespan requiring little to no maintenance.

Criteria 5 – Project Significance (0-20 points)

Describe what makes this proposal significant to your county.

Greeley County is mostly rural with significant agricultural traffic, and the equipment is getting larger in size and weight. The structures in this proposal are undersized for today's agricultural traffic demand. Detouring of agricultural equipment occurs due to the reduced load carrying capacity of the existing bridges. The detouring is inconvenient and adds to the cost of traveling for the public, and safety is concerning. Both sites with proposed new structures are on the County 1 & 6 Year Road Plan for replacement.

00905P: Original construction predates 1935; Current load posting is 10 ton; Severe timber pile decay and abutment scour; Sufficiency rating is 32.9.
04810P: Original construction is 1920; Current load posting is 9 ton; Bridge is fracture critical, has a severe 45 degree flow angle of attack; Bridge is on a Collector and has a sufficiency rating of 27.8.

This proposal is significant to Greeley County because it will allow the agricultural traffic to take the shortest route possible to their destination with the effort being to replace major farm to market routes, fracture critical and structurally deficient bridges. As shown above in year of construction, defects and sufficiency rating for each, these structures are in desperate need of replacement. Greeley County budget has been severely stretched due to 2019 flooding events, and the county is still financially recovering, so selection by the program will allow each county to advance their structure replacement programs.

Criteria 6 – Needs (0-20 points)

Calculated by scoring committee based on the counties SD bridges.

Criteria 7 – Equity (0-20 points)

Determined by scoring committee based on the number of projects awarded to the county.

Submittal Instructions:

94% **percent complete**

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Jodi Gibson
402-479-4337
jodi.gibson@nebraska.gov

Thank you for your work on behalf of Nebraska's bridges!

APPLICATION FORM County Bridge Match Program 2022

83% percent complete

Applying County	**Nuckolls**	**Date of Application**	**12/2/2021**
Agency Name	Nuckolls County	**Contact Person Title**	Executive Secretary
Contact Person Name	Cindy Buescher	**Address Line 1**	251 S Park
E-mail	nuckollscoroads@windstream.net	**Address Line 2**	Nelson, NE
Phone Number	(402) 225-4121	**zip code**	68961
NACO District	**Central**		

Proposal Name / Location	CBMP2021 - C006502620, C006504503, C006524707, C006514210P
Multi-County Proposal	No
Proposal Priority Number	2

Instructions
required input
changes allowed
locked - no input

Structure Information

NBI Structure Number	Local Name	Location	County	Existing Length (ft)	Existing Total Width (ft)	Existing Type	State Classification
C006502620	0.00	1S .3W NELSON at STREAM	Nuckolls	52.00	16.00	Wood or Timber Stringer/Multi-beam or Girder	Local
C006504503	0.00	7S RUSKIN at STREAM	Nuckolls	28.00	28.00	Wood or Timber Stringer/Multi-beam or Girder	Local
C006524707	0.00	.3S 3.3E OAK at STREAM	Nuckolls	25.00	20.00	Wood or Timber Stringer/Multi-beam or Girder	Local
C006514210P	0.00	S EDGE BOSTWICK at SUPERIOR CANAL	Nuckolls	28.00	19.20	Wood or Timber Stringer/Multi-beam or Girder	Local
<Enter SN here>							

Eligibility

NBI Structure Number	Min. Maintenance Road (yes/no)	Advertised for Construction bids?	Average Daily Traffic
C006502620	No	No	10
C006504503	No	No	25
C006524707	No	No	5
C006514210P	No	No	50

Proposal Construction Details

NBI Structure Number	Proposed Action	Proposed Structure Type	Proposed Length (ft)*	Proposed Total Width (ft)*	Workforce	Total Estimated Bridge Cost	Anticipated Reimbursement from CBMP	Comment
C006502620	Replace	Culvert Pipes			County Forces	$266,400	$97,638	4-108"x47' CMPs
C006504503	Replace	Culvert Pipes			County Forces	$154,000	$56,442	3-96"x40' CMPs
C006524707	Replace	Culvert Pipes			County Forces	$125,290	$45,920	3-84"x43' CMPs
C006514210P	Remove	Not Applicable			County Forces	$0	$0	Remove from BrM
			* Length and Width not required for Culverts. Please provide culvert size in comments.		total	$545,690	$200,000	OK

Criteria 1 - Innovation (0-20 points)

Describe what is innovative about this proposal.

Corrugated metal culvert pipes are a cost-effective replacement alternative for deficient bridges in the State of Nebraska.
The design and construction process is streamlined with the utilization of standard plan and construction practices.
Local culvert suppliers are available and competitive, often resulting in cheaper material prices to the County.
Culvert construction will be completed by County forces, an innovative approach that reduces cost and utilizes the local County assets.
Typical culvert pipe construction can be completed within 1-2 weeks which minimizes the impact to local resident, agricultural and commercial traffic.
Corrugated metal culvert pipe's primary innovation is the simplicity of their design and construction. Metal culvert pipes, with prefabricated headwall & turndowns are quickly and easily installed by most experienced road crews. Additional innovations include; the use of standardized sheet pile and cable tie-back retaining systems, relative ease of transporting and off-loading materials, utilization of 3 x 1 and 5 x 1 corrugation (resulting in stronger culverts and a reduction in wall thickness) and inlet and outlet aprons (scour reduction.)
Historically, culvert maintenance activities and costs are minor in comparison to other replacement structures. Load and/or equipment restricting guardrail is typically not required which is particularly beneficial to regional agricultural and commodity transportation.
A considerable number of streams in the eastern part of Nebraska are significantly degraded. Proper culvert design is often utilized to stabilize the streambed and adjacent banks upstream of the structure.
The replacement's required size may remove the structure from the bridge inventory.
In addition to the replacement projects, Nuckolls County is proposing the removal of C006514210P from the traveled way and NBIS structurally deficient list.

Criteria 2 – Cost or time savings (0-5 points)

Identify aspects of this proposal that saves time and reduces costs.

Corrugated metal culvert pipes are a cost effective and efficiently constructed alternative to an expensive bridge replacement.
Standardized design and construction practices provide a significant cost and time savings to the owner.
Culvert construction will be completed by County forces resulting in a considerable cost and time savings.
Guardrail is typically not required, therefore no material, construction, or maintenance costs for guardrail are associated with the project.
Additional savings are realized throughout the culvert's anticipated life-span (50-75 years) in costs associated with general maintenance and repair.
Culvert pipe replacement structures are generally simpler and relatively inexpensive when compared to box culverts or bridges. Typical culvert pipe construction (including removal of the existing structure) can be completed within 1-2 weeks resulting in lower direct project costs (overall) and minimizes the impact to local resident, agricultural and commercial traffic.
Removal of a structure from the bridge inventory would save time and costs associated with general management and inspection.
It is anticipated that each county in the bundling package will recognize savings in engineering and construction costs. Design fees for a standard culvert crossing are significantly less costly than a traditional bridge or concrete box culvert. The bidding of a "materials, only" bundled project reduces the monetary and time costs associated with the contracting process.
Removal of structure C006514210P from the inventory will result in a considerable cost and time savings to the County and State. Replacement structure construction, maintenance, mowing, snow removal, rating and inspection activities will not be necessary.

Criteria 3 – Sustainability or transferability of innovation (0-10 points) **Describe how the innovation can be shared and used by other Counties.**
Corrugated metal culvert pipe standardization of design and construction can be utilized by all Counties in Nebraska. The process of collaboration between Counties can easily be shared and is available to all Counties. A derivative of the cooperation between counties will likely be education, through the exchange of ideas that will occur throughout the process. The engaged entities will discuss and implement what has/hasn't been efficient or successful and incorporate those "lessons learned" into future replacement projects. Successful results are easily conveyed to other Counties, culvert pipes provide a time-saving, quality product at low cost.

Criteria 4 – Long Term Maintenance Savings (0-5 points)

Describe how this proposal promotes savings of long term maintenance costs.

The use of corrugated metal culvert replacement structures provides significant long-term maintenance cost savings.
Properly sized corrugated metal culvert pipes are considered durable and expected to require minimal maintenance over their expected service life of 50-75 years.
The lack of guardrail facilitates the ease of mowing and snow plow operations. There are no costs associated with guardrail maintenance, if damaged.
Maintenance activities and costs associated with deck repair are non-existent over the life of the culvert.
If the culvert is utilized to control a degraded stream, there are significant benefits to upstream structures in the basin. Maintenance and/or replacement of these structures can be minimized or eliminated due to the positive effects of stream stabilization.
Removal of a structure from the bridge inventory would save time and costs associated with general management and inspection.
The County expends considerable resources to complete the required maintenance activities on deficient bridges. Normal operations include the replacement and repair of timber/concrete decks, abutment back-wall, pile, wing, stringer, and guardrail. Additional costs are associated with bank stabilization (scouring) and the backfill of roadway settlement. Replacement with this type of structure will eliminate many of these costs' of time, material and labor.
Removal of structure C006514210P from the inventory will eliminate the maintenance requirement for the bridge, saving a considerable amount of expenditures in the long term.

Criteria 5 – Project Significance (0-20 points)

Describe what makes this proposal significant to your county.

In general, each stream crossing is significant to the local individuals, communities, agricultural and commerce related activities occurring in rural Nebraska.
The width and weight restrictions of structurally deficient bridges may limit the required access to property and create an inconvenience to the residents of the area who utilize them daily, or during agriculturally related "heavy traffic" times of the year.
Additionally, these rural roadways may function as a vital route for localized traffic between the smaller communities of the area. Specifically, this project provides the following functions to the local individuals, Nuckolls County, and the State of Nebraska:

C006502620:
This structure/roadway is utilized by emergency services to access to the area.
The current detour length for this structure is 2 miles to un-restricted traffic.
Local agricultural operations rely on this structure to provided a safe "Farm to Market" route during harvest season.
Replacement of this structure will help provide continuity in the county, as there is a project planned for a nearby structure.

C006504503:
The structure/roadway is currently utilized as an emergency services route for the local area.
The current detour for this structure is 5.5 miles to un-restricted traffic.
The structure/roadway is heavily utilized by local agricultral operations as a "Farm to Market" route.
The structure provides continuity to other recently repalced structures in the local area, which would create a safer route for the traveling public.

C006524707:
The structure is not currently used as a bus, or emergency services route.
The structure/roadway is used by local residents and agricultral operations to provide a safe means of travel throughout the vicintiy.

Criteria 6 – Needs (0-20 points)

Calculated by scoring committee based on the counties SD bridges.

Criteria 7 – Equity (0-20 points)

Determined by scoring committee based on the number of projects awarded to the county.

Submittal Instructions:

83% **percent complete**

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402-479-4337
jodi.gibson@nebraska.gov

Thank you for your work on behalf of Nebraska's bridges!

APPLICATION FORM County Bridge Match Program 2022

87% percent complete

Applying County	Furnas	Date of Application	12/3/2021
Agency Name	Furnas County	Contact Person Title	Highway Superintendent
Contact Person Name	Lance Harter	Address Line 1	P.O. Box 1209
E-mail	lharter@oakcreekengineering.com	Address Line 2	Kearney, NE
Phone Number	(308) 455-1152	zip code	68848
NACO District	West Central		

Proposal Name / Location	2021 Furnas County CBMP Proposal
Multi-County Proposal	No
Proposal Priority Number	1

Instructions
required input
changes allowed
locked - no input

Structure Information

NBI Structure Number	Local Name	Location	County	Existing Length (ft)	Existing Total Width (ft)	Existing Type	State Classification
C003320410	0.00	1.5W 2N OF HOLBROOK at DEER CREEK	Furnas	31.00	16.00	Steel Stringer/Multi-beam or Girder	Local
C003350450	0.00	5N OXFORD at STREAM	Furnas	32.00	16.20	Steel Stringer/Multi-beam or Girder	Local
<Enter SN here>							

Eligibility

NBI Structure Number	Min. Maintenance Road (yes/no)	Advertised for Construction bids?	Average Daily Traffic
C003320410	No	No	42
C003350450	No	No	32

Proposal Construction Details

NBI Structure Number	Proposed Action	Proposed Structure Type	Proposed Length (ft)*	Proposed Total Width (ft)*	Workforce	Total Estimated Bridge Cost	Anticipated Reimbursement from CBMP	Comment
C003320410	Replace	Culvert Pipes			County Forces	$210,000	$115,500	Multiple 144" Ø CMP
C003350450	Replace	Culvert Pipes			County Forces	$100,000	$55,000	Multiple 108" Ø CMP
			* Length and Width not required for Culverts. Please provide culvert size in comments.		total	$310,000	$170,500	OK

Criteria 1 - Innovation (0-20 points)

Describe what is innovative about this proposal.

This proposal combines replacement of two (2) structurally deficient bridges. Structure No. C003320410 (20410) and C003350450 (50450).

Both structures are on roads classified as Local. The proposed structures will be designed to eliminate obstacles within the horizontal clear zone and meet adequate return flow periods for road overtopping.

Both sites will be culvert pipe type structures with toe walls and sheet pile wings. By fabricating this culvert structure with headwalls and toewalls, scour potential has effectively been eliminated. Headwalls also reduce the footprint of the structure by reducing required pipe length. This generally eliminates the need for right-of-way acquisition and accommodates existing fence lines. The proposed structure will be constructed within existing right-of-way.

Significant cost savings will be realized by bundling both sites in to one bid for suppliers. Bid documents will provide for a phased delivery schedule over one year so the material order would not overload the market.

Criteria 2 – Cost or time savings (0-5 points)

Identify aspects of this proposal that saves time and reduces costs.

Culvert pipe manufactured headwalls have been used by Furnas County for several other bridge replacement projects. These structure types have been designed to effectively meet roadway overtop expectations and have not required any routine maintenance. Several suppliers are readily available and have previous experience with fabrication of these structures. County Forces have successfully installed these structures with current crew. Specialized equipment (crane and/or long reach backhoe) is only needed for a few days during construction, but is readily available locally.

Headwall installation reduces the footprint of the structure and allows for construction within existing right-of-way, resulting in cost and significant time savings since acquisition will not be needed.

By constructing a culvert structure instead of a bridge, significant cost savings will occur since materials are generally less expensive and more readily available. The culvert construction timeline is also favorable when compared to bridge construction. Additionally, this structure can be constructed almost any time of the year and not see an increase in project cost or timeline due to constructability issues.

The length of the structure will accommodate the design standards for the road cross section while eliminating the need for guardrail and approach guardrail; therefore, costs savings are experienced with both the initial cost of the guardrail and any future guardrail maintenance that may be required.

By bundling both sites together, material cost will be reduced by competitive bidding.

Criteria 3 – Sustainability or transferability of innovation (0-10 points) **Describe how the innovation can be shared and used by other Counties.**
Culvert pipe structures with headwalls and wingwalls are becoming more popular due to their simple design, availabilty of material suppliers and fabricatiors, and ease of construction. It is often difficult to improve a roadway overtop return with culverts when the existing structure is of significant size, however, when hydraulics will allow a culvert pipe structure, substantial cost savings occur. These structures are an economical choice in all rural areas of Nebraska due to the simplicity of the structure and ability to safely carry traffic in an efficient manner. Several suppliers are readily available and have previous experience with fabrication of bridge materials and culvert pipe structures. County Forces generally have the equipment needed to remove existing bridges and install culvert pipe structures with current crew. Culvert structures can be properly designed to eliminate the need for approach guardrail, which eliminates guardrail maintenance needs and the large expense for installation.

Criteria 4 – Long Term Maintenance Savings (0-5 points) **Describe how this proposal promotes savings of long term maintenance costs.**
Culvert type structures require little to no maintenance throughout material lifespan. Culvert materials will meet NDOT Specifications for thickness and lifespan will be maximized. Approach guardrail is not needed therefore maintenance costs are eliminated.

Criteria 5 – Project Significance (0-20 points)

Describe what makes this proposal significant to your county.

Furnas County is mostly rural with significant agricultural traffic, and the equipment is getting larger in size and weight. 20410 and 50450 are both undersized for today's agricultural traffic demand. Significant detouring of agricultural equipment occurs due to the reduced load carrying capacity of the existing bridges. The detouring is inconvenient and adds to the cost of traveling for the public, and safety is concerning if someone is unwilling to detour the bridge with a load higher than what is posted on the structures.

20410: Original construction predates 1935; Current load posting is 17 ton, 25 ton, 37 ton; Bridge is on a local route and has a sufficiency rating of 31.7.
50450: Original construction predates 1935; Current load posting is 10 ton; Bridge is on a local route and has a sufficiency rating of 25.4.

This proposal is significant to Furnas County because it will allow the agricultural traffic to take the shortest route possible to their destination with the effort being to replace major farm to market route, fracture critical and structurally deficient bridges. As shown above in year of construction, defects and sufficiency rating, these structures are in desperate need of replacement. Selection by the program will allow the county to advance their structure replacement program in which they have been unable to keep up with because it has a small tax base. Funding needs must be sought in order to improve the roadway system and keep safe travel for the public.

Criteria 6 – Needs (0-20 points)

Calculated by scoring committee based on the counties SD bridges.

Criteria 7 – Equity (0-20 points)

Determined by scoring committee based on the number of projects awarded to the county.

Submittal Instructions:

87% **percent complete**

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402-479-4337
jodi.gibson@nebraska.gov

Thank you for your work on behalf of Nebraska's bridges!

APPLICATION FORM County Bridge Match Program 2022

90% percent complete

Applying County	Hayes	Date of Application	11/30/2021
Agency Name	Hayes County, NE & Frontier County, NE	Contact Person Title	Hayes County Highway Superintendent
Contact Person Name	Phillip Dixon	Address Line 1	31085 280th Rd
E-mail	dixonphillip11@gmail.com	Address Line 2	Pleasanton, NE
Phone Number	(308) 388-3471	zip code	68866
NACO District	West Central		

Proposal Name / Location	C004306105 / Hayes County & Frontier County
Multi-County Proposal	Yes
Proposal Priority Number	1

Instructions
required input
changes allowed
locked - no input

Structure Information

NBI Structure Number	Local Name	Location	County	Existing Length (ft)	Existing Total Width (ft)	Existing Type	State Classification
C004306105	0.00	12.5E 7.5S HAYES CENTER at RED WILLOW CREEK	Hayes	78.00	20.50	Wood or Timber Stringer/Multi-beam or Girder	Local

Eligibility

NBI Structure Number	Min. Maintenance Road (yes/no)	Advertised for Construction bids?	Average Daily Traffic
C004306105	No	No	42

Proposal Construction Details

NBI Structure Number	Proposed Action	Proposed Structure Type	Proposed Length (ft)*	Proposed Total Width (ft)*	Workforce	Total Estimated Bridge Cost	Anticipated Reimbursement from CBMP	Comment
C004306105	Replace	Concrete Box Culvert			Contract	$401,142	$200,000	Multi Barrel - 12' x 12' x 70'
			* Length and Width not required for Culverts. Please provide culvert size in comments.		total	$401,142	$200,000	OK

Criteria 1 - Innovation (0-20 points)

Describe what is innovative about this proposal.

Structure No. C004306105 (06105) spans Red Willow Creek and would be reconstructed to a reinforced concrete box culvert structure. Red Willow Creek Q100 flows are estimated at approximately 12,000 cubic feet per second. Hydraulic Assessment was completed in 2015 for the three bridges immediatley upstream from this structure. Background work for that Hydraulic Assessment will be used in design of this structure and reduce engineering costs.

The site at 06105 is a great candidate for a concrete box culvert. The flow capacity will be reduced from the existing bridge, but all hydraulic requirements can still be satisfied while retaining an acceptable roadway overtop return. Upstream and downstream land use is agricultural with wooded/pasture adjacent to the structure, so in the event of an overtopping flood, minimal damage will be experienced.

The proposed box culvert would significantly reduce scour potential due to the long, flared concrete wings and footing turndowns.

Criteria 2 – Cost or time savings (0-5 points)

Identify aspects of this proposal that saves time and reduces costs.

Concrete box culverts have been used by Hayes County for several other bridge replacement projects. These structure types have been designed to effectively meet roadway overtop expectations and have not required any routine maintenance. Recent project bidding in this area has resulted in competitive bids and would be expected to occur with this project. Reinforcing steel is essentially the only material that needs ordered to build these structures, so the material acquisition process is simple for contractors due to the number of suppliers available to supply the reinforcing steel. The rebar arrives at the bridge site cut and bent to the dimensions per plan and labeled for ease of installation by the contractor which saves time during construction.

By constructing a concrete box culvert instead of a bridge, significant cost savings will occur since materials are generally less expensive and more readily available. The box culvert construction timeline is also favorable when compared to bridge construction. Additionally, this structure can be constructed almost any time of the year and not see an increase in project cost or timeline due to constructability issues.

The length of the structure will accommodate the design standards for the road cross section while eliminating the need for guardrail and approach guardrail; therefore, costs savings are experienced with both the initial cost of the guardrail and any future guardrail maintenance that may be required.

Criteria 3 – Sustainability or transferability of innovation (0-10 points) **Describe how the innovation can be shared and used by other Counties.**
Concrete box culvert structures have been popular due to their simple design, availabilty of contractors, and ease of construction. It is often difficult to improve a roadway overtop return with box culverts when the existing structure is of significant size, however, when hydraulics will allow a box culvert, substantial cost savings occur. These structures are an economical choice in all rural areas of Nebraska due to the simplicity of the structure and ability to safely carry traffic in an efficient manner.

Criteria 4 – Long Term Maintenance Savings (0-5 points)

Describe how this proposal promotes savings of long term maintenance costs.

06105 will be a concrete box culvert, requiring little to no maintenance throughout material lifespan. The structural design of the box culvert will be supplied by NDOT, so all Specifications will be met and the structure will be designed to maximize the lifespan.

06105 is an old timber structure and currently has a low load posting that only allows light traffic, due to several structural defects. Repairing and updating the existing bridge to meet minimum design standards and carry legally loaded vehicles is not feasible when compared to the construction of a modern, low maintenance box culvert. The repaired timber bridge would continue to require frequent repairs while the box culvert would need minimal maintenance.

Criteria 5 – Project Significance (0-20 points)

Describe what makes this proposal significant to your county.

06105 is on a Local Route with an agricultural surrounding that serves residents in both Hayes County and Frontier County. This bridge is in poor to serious condition and will likely require closure in the near future. Significant detouring of agricultural equipment occurs today due to the reduced load carrying capacity of the existing bridge. Complete closure would cause a 15 mile detour for residents that use the bridge daily. Legally loaded vehicles will remain restricted from crossing until a new structure is constructed.

This route is significant to residents in two counties who currently travel lengthy detours. Replacing this bridge with a structure that can accommodate all legally loaded vehicles is of considerable importance to the traveling public.

Criteria 6 – Needs (0-20 points)

Calculated by scoring committee based on the counties SD bridges.

Criteria 7 – Equity (0-20 points)

Determined by scoring committee based on the number of projects awarded to the county.

Submittal Instructions:

90% **percent complete**

When your application is complete and you are ready to submit it for review go to:
http://dot.nebraska.gov/projects/tia/bridge-match/
Follow the instructions on the website for uploading this application and supporting documentation.

If you have questions or difficulties please contact:
Jodi Gibson
402-479-4337
jodi.gibson@nebraska.gov

Thank you for your work on behalf of Nebraska's bridges!

APPLICATION FORM County Bridge Match Program 2022

100% percent complete

Applying County	Scotts Bluff	Date of Application	11/19/2021
Agency Name	Scotts Bluff County Roads	Contact Person Title	Highway Superintendent
Contact Person Name	Linda Grummert	Address Line 1	785 Rundell Rd
E-mail	lgrummert@scottsbluffcounty.org	Address Line 2	Gering, NE
Phone Number	308-436-6700	zip code	69341
NACO District	Panhandle		

Proposal Name / Location	C-79 (420)
Multi-County Proposal	No
Proposal Priority Number	1

Instructions
required input
changes allowed
locked - no input

Structure Information

NBI Structure Number	Local Name	Location	County	Existing Length (ft)	Existing Total Width (ft)	Existing Type	State Classification
C007910920	5-E	2.2E 1.7N OF LYMAN at HORSE CREEK	Scotts Bluff	67.00	24.50	Wood or Timber Stringer/Multi-beam or Girder	Local
<Enter SN here>							

Eligibility

NBI Structure Number	Min. Maintenance Road (yes/no)	Advertised for Construction bids?	Average Daily Traffic
C007910920	No	No	35

Proposal Construction Details

NBI Structure Number	Proposed Action	Proposed Structure Type	Proposed Length (ft)*	Proposed Total Width (ft)*	Workforce	Total Estimated Bridge Cost	Anticipated Reimbursement from CBMP	Comment
C007910920	Replace	Steel Girder	70.00	30.00	Contract	$400,000	$200,000	add optional information
			* Length and Width not required for Culverts. Please provide culvert size in comments.		total	$400,000	$200,000	OK

Criteria 1 - Innovation (0-20 points)

Describe what is innovative about this proposal.

The proposed structure is a single span bridge which would avoid having any piers in the channel. The existing timber piers have proven to be problematic over the years according the inspection history of the structure. Horse Creek has a history of high flows and inspections indicate debris accumulation at the timber piers. A steel and concrete structure is being proposed in place of current timber structure to ensure a long life for the replacement structure. By constructing the proposed single span Decked Steel bridge, All construction can be done outside the main channel, normal water way and any possible wet lands, thus reducing the criteria for the COE and EPA/State Game and Parks Commission permitting. While this may be a lower volumn roadway there is a considerable amount of agricultural products which are produced in this area and depend of this structure to insure they have a farm to market route.

Criteria 2 – Cost or time savings (0-5 points) **Identify aspects of this proposal that saves time and reduces costs.**
The proposed structure design is the typical county bridge design. Large girders will be used to span the channel in order to avoid having piers in the creek with a concrete deck. This design will allow the project to proceed with limited set backs or change orders. Construction of this type will minimize the design costs as well as the overall construction cost by eliminating the cost to design and construct piers in the water way. It will also reduce the pre-design engineering costs of and also the construction costs by performing the work outside the floodway and potential wetlands areas. In this area of the county there is a high percentage of agricultural traffic. The current deck material required constant monitoring and maintenance of the deck planks. The concrete deck will withstand the demands of agricultural equipment.

Criteria 3 – Sustainability or transferability of innovation (0-10 points) **Describe how the innovation can be shared and used by other Counties.**
A single span bridge of this size is not a design typically used in the panhandle area of Nebraska. Other counties will be able to see how the use of large girders eliminated the need for additional piers in the channel.

Criteria 4 – Long Term Maintenance Savings (0-5 points)

Describe how this proposal promotes savings of long term maintenance costs.

This structure is currently closed due to deficiencies in the superstructure and substructure. Scotts Bluff County is seeking outside funding to replace this structure. Landowners have expressed the significance of the project for their farming and livestock operations. The detour length for landowners in the area is 8.5 miles. This has been a hardship on livestock owners who winter their cattle on the north side of the structure, while their primary operation, and feed source for their cattle, is on the south side of the structure. Scotts Bluff county is is a Livestock Friendly County, and relies primarily on agriculture for their economic livelihood. A structure with a sufficient load rating will allow for all agricultural activities in all seasons.

Criteria 5 – Project Significance (0-20 points)

Describe what makes this proposal significant to your county.

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Criteria 6 – Needs (0-20 points)

Calculated by scoring committee based on the counties SD bridges.

Criteria 7 – Equity (0-20 points)

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Thank you for your work on behalf of Nebraska's bridges!