NEBRASKA

Good Life. Great Journey.

DEPARTMENT OF TRANSPORTATION

County Bridge Match Program Selected Bridge Sites January 13, 2023

NACO District	Lead County	Bridge County	Structure Number	Local Bridge ID			Proposed Structure	Cost Estimate*	Estimated CBMP Funding
Southeast	Jefferson	Jefferson	C004813005P		JCT US136/N15 .5E .75S at BRAWNERS CREEK	Replace	Concrete Box Culvert	\$500,000	\$199,203
Southeast	Jefferson	Jefferson	C004821825		2.9N 2.1W OF HARBINE at STREAM	Replace	Concrete Box Culvert	\$230,000	\$100,797
Southeast	Jefferson	Saline	C007602615	G 5 N 3	4.2S 1.5W OF PLEASANTHILL at DRY CREEK	Replace	Concrete Box Culvert	\$258,000	\$141,241
Southeast	Jefferson	Saline	C007602625	G 2 N 3	NJCT N15/N41 1N 6.2E at BRUSH CREEK	Replace	Concrete Box Culvert	\$290,000	\$158,759
Southeast	Lancaster	Lancaster	C005510720P	N-114	.5S DENTON at STREAM (N 114)	Replace	Prestressed Concrete Girder	\$950,000	\$250,000
Southeast	Saline	Gage	C003401120	L-E-35-1	2W .5N OF BEATRICE at BOTTLE CREEK	Replace	Concrete Box Culvert	\$300,000	\$139,535
Southeast	Saline	Gage	C003401335	M-E-1-2	3W .5S OF BEATRICE CBD at STREAM	Replace	Concrete Box Culvert	\$345,000	\$160,465
Southeast	Saline	Saline	C007603005P	H 14 C 1	.1N 1.1E OF WILBER at STREAM	Replace	Concrete Box Culvert	\$265,000	\$143,243
Southeast	Saline	Saline	C007614815	B 33 N 1	1.5S .2W OF WESTERN at STREAM	Replace	Concrete Box Culvert	\$290,000	\$156,757
Southeast	Saunders	Saunders	C007803215		6S .1W OF PRAGUE at TRIB N FORK WAHOO CRK	Replace	Concrete Slab	\$624,102	\$250,000
Southeast	Saunders	Seward	C008001405	C-33-F-4	1.2SW OF STAPLEHURST at LINCOLN CREEK	Replace	Concrete Slab	\$624,102	\$250,000
Northeast	Boone	Boone	C000601410		1.5S 2.3W PETERSBURG at STREAM	Replace	Concrete Box Culvert	\$220,000	\$121,000
Northeast	Boone	Boone	C000611815		3.5S 5.3E PETERSBURG at ONEILL VALLEY	Replace	Concrete Box Culvert	\$250,000	\$137,500
Northeast	Holt	Garfield	C003612305		17.8N 6E BURWELL at BIG CEDAR CREEK	Replace	Precast Deck Panels	\$471,809	\$250,000
Northeast	Holt	Holt	C004509505	T25N R9W-S25-WL	9.8S 1E EWING at CLEARWATER CREEK	Replace	Precast Deck Panels	\$624,102	\$250,000
Northeast	Holt	Loup	C005802105P		5W 18.5N OF TAYLOR at CALAMUS RIVER	Replace	Precast Deck Panels	\$630,213	\$250,000
Northeast	Platte	Platte	C007104730	BB 2-3	Jct US81/N91 4E 2.2N at Tracy Creek	Replace	Precast Deck Panels	\$624,102	\$250,000
Northeast	Wayne	Madison	C005902305		8E OF NEWMAN GROVE at STREAM	Replace	Culvert Pipes	\$176,220	\$96,902
Northeast	Wayne	Madison	C005904505		.5S 2E OF MADISON at STREAM	Replace	Culvert Pipes	\$155,340	\$85,420
Northeast	Wayne	Madison	C005944425		JCT US81/N32 4E 3S at STREAM	Replace	Culvert Pipes	\$214,000	\$117,677
Northeast	Wayne	Wayne	C009002810		3.2N 1.8W OF HOSKINS at STREAM	Replace	Culvert Pipes	\$194,700	\$107,085
Northeast	Wayne	Wayne	C009012725		3.6E 2.7N OF CARROLL at STREAM	Replace	Culvert Pipes	\$209,400	\$115,170
Central	Dawson	Dawson	C002413705	7092202	3.5S OF DARR at STREAM	Replace	Concrete Box Culvert	\$194,350	\$89,853
Central	Dawson	Dawson	C002423415	27101901B	3.5E 5N OF OVERTON at ELM CREEK	Replace	Concrete Box Culvert	\$456,750	\$210,147
Central	Hall	Hall	C004003005	T10N R11W 21P9	3W 1.6S ALDA at WOOD RIVER	Remove	Not Applicable	\$50,000	\$27,500
Central	Hall	Hall	C004003205		WJCT US30/N11 .8N at WOOD RIVER	Replace	Prestressed Concrete Girder	\$866,000	\$250,000
West Central	Furnas	Furnas	C003300610		.5W 1N OF HOLBROOK at DEER CREEK	Replace	Culvert Pipes	\$210,710	\$115,891
West Central	Furnas	Furnas	C003321240		2.5E of Edison at Turkey Creek Trib	Replace	Culvert Pipes	\$169,859	\$93,422
West Central	Hitchcock	Hitchcock	C004404510		7.3S 5E OF TRENTON at DRIFTWOOD CREEK	Replace	Steel Girder	\$625,000	\$250,000
Panhandle	Scotts Bluff	Scotts Bluff	C007932410	L-31	2E 2N OF MINATARE at NINEMILE CREEK	Rehab	Concrete Slab	\$521,573	\$250,000

 $\,^*\,$ Some proposals included permanent removal at low or no cost.

	APPLICA1	ION FORM	County Bridge	e Match Program 2	2023	100%
Applying County	Jefferson	Date of Application	12/8/2022]	Proposal Name / Location	Jefferson & Saline
Agency Name	Jefferson County	Contact Person Title	Highway Superintendent		Multi-County Proposal	Yes
Contact Person Name	Tim Farmer	Address Line 1	906 S 26th St.		Proposal Priority Number	1
E-mail	tfarmer@speecelewis.com	Address Line 2	Lincoln			
Phone Number	402-326-1295	zip code	68510			
NACO District	Southeast					
	Structure Information					
NBI Structure Number	Local Name	Location	County	Existing Length (ft)	Existing Total Width (ft)	Existing Type
C007602615	G 5 N 3	4.2S 1.5W OF PLEASANTHILL at DRY CREEK	Saline	30.00	19.00	Wood or Timber Stringer/Multi-beam or Girder
C007602625	G 2 N 3	NJCT N15/N41 1N 6.2E at BRUSH CREEK	Saline	25.00	20.20	Steel Stringer/Multi- beam or Girder
C004821825		2.9N 2.1W OF HARBINE at STREAM	Jefferson	24.00	20.30	Steel Stringer/Multi- beam or Girder
C004813005P		JCT US136/N15 .5E .75S at BRAWNERS CREEK	Jefferson	50.00	20.00	Steel Stringer/Multi- beam or Girder
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	Eligibility			ו		
NBI Structure Number	Min. Maintenance Road (yes/no)	Advertised for Construction bids?	Average Daily Traffic			

Eligibility									
NBI Structure Number	Min. Maintenance Road (yes/no)	Advertised for Construction bids?	Average Daily Traffic						
C007602615	No	No	30						
C007602625	No	No	30						
C004821825	No	No	30						
C004813005P	No	No	80						

APPLICATION FORM County Bridge Match Program 2023

100% percent complete

State Classification

Other Arterial

Local

Local

Instructions

required input

changes allowed

locked - no input

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		
C007602615	Replace	Concrete Box Culvert	45.00	27.00	Contract	\$258,000	\$141,241	2-12'x8'x45'		
C007602625	Replace	Concrete Box Culvert	42.00	23.00	Contract	\$290,000	\$158,759	2-10'x5'x42'		
C004821825	Replace	Concrete Box Culvert	34.00	27.00	Contract	\$230,000	\$100,797	2-12'x10'x34'		
C004813005P	Replace	Concrete Box Culvert	40.00	46.00	Contract	\$500,000	\$199,203	3-14'x10'x40'		
			* Length and Width no	t required for Culverts.	total	\$1,278,000	\$600,000	ОК		
			Please provide culver	•	totai	\$1,278,000	\$000,000	UK		

Criteria 1 - Innovation (0-20 points)

Describe what is innovative about this proposal.

Jefferson and Saline County are working hand in hand in replacing four existing deficient bridge Structures No. C004821825, C004813005P, C007602615, and C007602625 with Concrete Box Culverts (CBC's).

•According to the data on NBI, the current structures are deficient, making it a priority to ensure our community's safety through accessibility.

•CBC's require less maintenance over a long period of time.

•Stream stability to reduce the amount of scouring, sediment, and erosion depositions.

A concrete box culvert will not require as many deep foundations, either pile footing or spread footing will provide adequate stability. A CBC depends on soil structure interaction for stability.
 Not vulnerable to corrosion.

•Typically completed with 60 calendar days, allowing residents to utilize it within a short amount of time.

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

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

•CBC's are cost-efficient and require less time to build than bridge structures.

•Life expectancy is anticipated to be greater than 100 years, which reduces the amount of maintenance and repair costs.

•Bundled projects saves time on the engineering and construction aspect.

•Since it is four projects within the same geographic vicinity, contractor can plan accordingly when and where equipment shall be used to complete in a timely manner.

•Nebraska has plenty of contractors with vast experience in building CBC's, which will result in multiple experienced bidders, and builders.

•No guardrails are needed, reducing materials/costs linked to the project.

•Operational vehicles, farmers, and locals will also be saving time and money as they won't have to detour to arrive at their desired destination.

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

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

•Jefferson and Saline have a significant history of bundling projects.

These four innovations are of use to not only Jefferson and Saline County but surrounding counties as well. Designs and building process can be provided and accessed by Nebraska counties
 These roads provide access to healthcare, education, employment, as well as economic and social benefits. They provide access to transport goods, making the process expedient and efficient to our economy. CBC's will allow our community to travel with minimal restrictions.

•Replacing with CBC's reduces cost of bridge replacement/rehab, concrete box materials are easier to access, can be purchased from localities, and less in cost.

•CBC's depend on soil structure interaction for stability.

•Removal of deficient bridges saves time on constant bridge inspections due to deficiency, maintenance, and snow removals.

•Structures are heavily used by locals, farmers, and industrialists. With the existing structures, they limit vehicles due to bridge widths, maximum loads allowed, and guardrail.

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

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

•Concrete box culverts are known to have an outstanding history of low maintenance costs, durability, and a life span beyond 100 years.

•Eliminating future bridge inspection costs.

•Built within a timely efficient manner with experienced contractors to grant accessibility to travelers, localities, businesses, farms, schools, and mail distributors.

• Since structures No. C004821825, C004813005P, C007602615, and C007602625 will be removed from the deficient bridge inventory for lower maintenance requirements are needed for any of the structures, which leads to the elimination of those costs in the long term.

•Structure No. C004813005P is a timber bridge, which has high maintenance costs in the long run-in comparison to the other existing structures.

•No guardrail is required, saving costs, allowing de-icing, mowing, and plowing to maneuver in a timely efficient manner.

Criteria 5 – Project Significance (0-20 points)

Describe what makes this proposal significant to your county.

The locations of all four roads are significant to the county's accessibility to highways, schools, markets, and farms. The project addresses the following for local individuals in Fillmore and Saline Counties:

•All four projects are identified by both counties on their one-and -six-year plan to be replaced as soon as their budget allows.

•The routes are utilized by emergency services.

•The existing structures No. C004821825, and C004813005P, face severe deficiency problems. Problems such as substructure and superstructure have poor quality salvaged steel beams, rusted beams, timber lagging back walls, and wings are rotten. Both structure bridge rails are in poor condition

•Structure No. C004813005P faces erosion and steepness in channel bank, lost bank at the west of abutment, and broken concrete under the bridge.

•Structure No. C004813005P in Jefferson County is a timber structure that has high maintenance costs.

•Structures No. C007602615, and C007602625 face abutment deficiencies, concrete spalling, collision damage, and flowline at the abutment. Abutments play a vital role, their jobs are to ensure embankment transferability of loads horizontally and vertically from the superstructure to the foundation.

•The routes allow access to the highway.

•The detour length for thes structures is currently 4-6 miles.

•The routes are heavily utilized by locals and farmers who need to be able to use the routes for bringing commodities to market.

In addition, there is an environmental impact: all four of these proposed innovations have a stream crossing. These stream crossings serve our community, whether it is for agricultural operations, business operations, local individuals, or surrounding counties. Our goal is to not only replace structures, but also ensure stream stability to reduce the amount of scouring, sediment, and erosion depositions.

Criteria	6 – Needs	(0-20 po	ints)
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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:

When your application is complete and you are ready to submit it for review go to:
http://doi.nebraska.gov/projects/ila/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!

	APPLICAT	ION FORM	County Bridge	Match Program 2	2023	100%	percent complete
Applying County	Lancaster	Date of Application	12/8/2022		Location	Bridge N-114]
Agency Name	Engineering Department	Contact Person Title	County Engineer		Multi-County Proposal	No	
Contact Person Name	Pamela Dingman	Address Line 1	444 Cherrycreek Rd Bldg C		Proposal Priority Number	2	
E-mail	pdingman@lancaster.ne.gov	Address Line 2	Lincoln, NE				
Phone Number	402-441-7681	zip code	68528				
NACO District	Southeast						
	Structure Information						
NBI Structure Number	Local Name	Location	County	Existing Length (ft)	Existing Total Width (ft)	Existing Type	State Classification
C005510720P	N-114	.5S DENTON at STREAM (N 114)	Lancaster	53.00	24.00	Wood or Timber Stringer/Multi-beam or Girder	Local
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	Eligibility						
NBI Structure Number	Min. Maintenance Road (yes/no)	Advertised for Construction bids?	Average Daily Traffic				
C005510720P	No	No	15				

Instructions required input changes allowed locked - no input

P	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		
C005510720P	Replace	Prestressed Concrete Girder	56.00	27.00	Contract	\$950,000	\$250,000	repurposed precast concrete girders		
			* Length and Width no	ot required for Culverts.	total	\$950,000	\$250,000	ОК		
			Please provide culver	t size in comments.						

Criteria 1 - Innovation (0-20 points)

Describe what is innovative about this proposal.

This proposal is unique in two ways. The first is that it utilizes repurposed precast concrete girders as a prefabricated element which reduces the cost of the superstructure and reduces waste by recycling. The second is that it offers a rare opportunity for three governmental agencies (Lancaster County, City of Lincoln Parks and Recreation, and the Village of Denton) to partner and cooperate in a project mutually beneficial to the specific community interests each serves while benefitting Lancaster County as a whole. The replacement of this bridge will only be possible if these three stakeholders work together to acquire the necessary funding and coordinate the project.

This project will replace a structurally deficient (SD) timber bridge that is the only means of access to the Village of Denton's water supply; the existing timber bridge will be replaced with a bridge constructed of repurposed concrete bridge girders that Lancaster County obtained from NDOT. Negotiations are underway with our partners in this project to close this one-half mile of road to traffic and remove C005510720P from the County's inventory when construction is completed; at that time, road and bridge maintenance would be shared by City of Lincoln Parks and Recreation and the Village of Denton.

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

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

Partnering with other government entities will reduce the cost of construction by utilizing bridge girders that are immediately available. Building bridges with precast concrete girders is a strategy employed in accelerated bridge construction (ABC) to reduce construction time and weather-related delays, thereby minimizing the duration of the site closure. The design will also utilize steel framed abutments with sheet pile for a quick, economical alternative to a reinforced concrete abutment. The steel elements will also reduce construction time and weather-related delays.

Additionally, removing this SD timber bridge and adjacent roadway from our inventory will reduce future maintenance and inspection costs. Timber bridges have significant annual maintenance costs. N-114 (C005510720P) was constructed in 1979 with timber wings and backwalls, which have since deteriorated. Moreover, timber wings have additional costs associated with backfill of roadway settlement. The new structure will have greater long-term reliability and serviceability than the existing timber bridge, be easier to maintain, and thus result in substantially lower long-term costs.

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

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

Employing precast concrete girders as a prefabricated element along with the construction of sheetpile abutments lends itself to ABC projects, which is a highly transferable construction methodology. The repurposing of existing assets among intergovernmental agencies is a concept that can be readily adopted by any County, Urban, or Municipal entity to help remove structurally deficient structures from Nebraska's bridge inventory.

Interagency collaboration to reduce engineering and construction costs is a strategy readily available to any government entity, as is the ability to exchange goods or services. Such collaborations can make it possible to fund projects that would otherwise not be viable economically. The use of forums such as LTAP newsletters and message boards are an excellent way for local communities to network and cross-reference their specific resources and needs.

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

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

Timber bridges have significant annual maintenance costs. This bridge which is rated SD and Poor currently consists of timber beams with a timber deck and timber backwalls all supported on timber piling. By replacing this structure with a prestressed concrete beam bridge on structural steel abutments, we will be eliminating these costs. The existing bridge has a high potential for trapping debris; replacing a multi-span bridge with a single span will reduce those long-term maintenance costs. Further, the new structure will not be susceptible to fire damage, which in recent years is a hazard that has occurred with increasing frequency.

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Criteria 5 – Project Significance (0-20 points)
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Describe what makes this proposal significant to your county.

This bridge is the Village of Denton's only means of accessing the well field substation that services their entire community and it is essential to maintain Denton's water supply; there is no alternative route. The bridge continues to deteriorate over time, increasing the risk of cutting off the Village's access to their water supply, for which there is currently no recourse. It is imperative that the structure be replaced before that occurs.

Further, replacing N-114 (C005510720P) will remove a structurally deficient timber bridge from Lancaster County's inventory and will greatly reduce maintenance costs, resulting in savings for Lancaster County that can be used to maintain other structures. As part of the partnership between Lancaster County, the Village of Denton, and the City of Lincoln Parks and Recreation, this bridge proposal will add miles and connectivity to the City of Lincoln's trail system as a service to all the County's residents. The sum of these benefits occurring jointly among all three project stake holders contribute to making this a significant proposal to the citizens of Lancaster County.

Criteria 6 – Needs	s (0-20 poi	nts)
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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:

When your application is complete and you are ready to submit it for review go to:
http://doi.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!

			County Bridge		.020	
Applying County	Saline	Date of Application	12/8/2022		Proposal Name / Location	Saline ar
Agency Name	Saline County	Contact Person Title	Highway Superintendent		Multi-County Proposal	
Contact Person Name	Bruce Filipi	Address Line 1	PO Box 865		Proposal Priority Number	
E-mail	scoads@diodecoom.net	Address Line 2	Wilber, NE			
Phone Number	(402)821-2737	zip code	68465			
NACO District	Southeast			-		
	Structure Information					
NBI Structure Number	Local Name	Location	County	Existing Length (ft)	Existing Total Width (ft)	Exis
C003401120	E-35 Blakely-1	2W .5N OF BEATRICE at BOTTLE CREEK	Gage	37.00	15.90	Steel
C003401335	E-1 Lincoln-2	3W .5S OF BEATRICE CBD at STREAM	Gage	37.00	19.80	Steel
C007603005P	H 14 C 1	.1N 1.1E OF WILBER at STREAM	Saline	24.00	24.00	Woo Stringe
C007614815	B 33 N 1	1.5S .2W OF WESTERN at STREAM	Saline	29.00	16.00	Steel bea
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	Eligibility			ן		
NBI Structure Number	Min. Maintenance Road (yes/no)	Advertised for Construction bids?	Average Daily Traffic			
C003401120	No	No	40	1		
C003401335	No	No	40	4		
C007603005P	No No	No No	25 30	4		
C007614815	INO	INO	30	4		

APPLICATION FORM County Bridge Match Program 2023

100% percent complete

Proposal Name / Location	Saline and Gage County
Multi-County Proposal	Yes
Proposal Priority Number	1

Instructions

required input

changes allowed

locked - no input

NBI Structure Number	Local Name	Location	County	Existing Length (ft)	Existing Total Width (ft)	Existing Type	State Classification
C003401120	E-35 Blakely-1	2W .5N OF BEATRICE at BOTTLE CREEK	Gage	37.00	15.90	Steel Truss - Thru	Local
C003401335	E-1 Lincoln-2	3W .5S OF BEATRICE CBD at STREAM	Gage	37.00	19.80	Steel Truss - Thru	Local
C007603005P	H 14 C 1	.1N 1.1E OF WILBER at STREAM	Saline	24.00	24.00	Wood or Timber Stringer/Multi-beam or Girder	Local
C007614815	B 33 N 1	1.5S .2W OF WESTERN at STREAM	Saline	29.00	16.00	Steel Stringer/Multi- beam or Girder	Local
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					1		
	Eligibility						
NBI Structure Number	Min. Maintenance Road (yes/no)	Advertised for Construction bids?	Average Daily Traffic				

F	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			
C003401120	Replace	Concrete Box Culvert	40.00	40.00	Contract	\$300,000	\$139,535	3-12'x12'x40'			
C003401335	Replace	Concrete Box Culvert	66.00	34.00	Contract	\$345,000	\$160,465	3-10'x12'x66'			
C007603005P	Replace	Concrete Box Culvert	42.00	40.00	Contract	\$265,000	\$143,243	3-12'x6'x42'			
C007614815	Replace	Concrete Box Culvert	42.00	40.00	Contract	\$290,000	\$156,757	3-12'x8'-42'			
			* Length and Width no	ot required for Culverts.	total	\$1,200,000	\$600,000	ОК			
			Please provide culver	t size in comments.							

Criteria 1 - Innovation (0-20 points)

Describe what is innovative about this proposal.

Saline and Gage County are working hand in hand in replacing four existing deficient bridge Structures No. C003401120, C003401335, C007603005P, and C007614815 with Concrete Box Culverts. (CBC's).

•According to the data on NBI, the current structures are deficient, making it a priority to ensure our community's safety through accessibility.

•CBC's require less maintenance over a long period of time.

•Stream stability to reduce the amount of scouring, sediment, and erosion depositions.

A concrete box culvert will not require as many deep foundations, either pile footing or spread footing will provide adequate stability. A CBC depends on soil structure interaction for stability.
 Not vulnerable to corrosion.

•Typically completed with 60 calendar days, allowing residents to utilize it within a short amount of time.

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

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

•CBC's are cost-efficient and require less time to build than bridge structures.

•Life expectancy is anticipated to be greater than 100 years, which reduces the amount of maintenance and repair costs.

•Bundled projects saves time on the engineering and construction aspect.

•Since it is four projects within the same geographic vicinity, contractor can plan accordingly when and where equipment shall be used to complete in a timely manner.

•Nebraska has plenty of contractors with vast experience in building CBC's, which will result in multiple experienced bidders, and builders.

•No guardrails are needed, reducing materials/costs linked to the project.

•Operational vehicles, farmers, and locals will also be saving time and money as they won't have to detour to arrive at their desired destination.

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

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

•Saline and Gage County have a significant history of bundling projects.

These four innovations are of use to not only Saline and Gage County but surrounding counties as well. Designs and building process can be provided and accessed by Nebraska counties.
 These roads provide access to healthcare, education, employment, as well as economic and social benefits. They provide access to transport goods, making the process expedient and efficient to our economy. CBC's will allow our community to travel with minimal restrictions.

•Replacing with CBC's reduces cost of bridge replacement/rehab, concrete box materials are easier to access, can be purchased from localities, and less in cost.

•CBC's depend on soil structure interaction for stability.

•Removal of deficient bridges saves time on constant bridge inspections due to deficiency, maintenance, and snow removals.

•Structures are heavily used by locals, farmers, and industrialists. With the existing structures, they limit vehicles due to bridge widths, maximum loads allowed, and guardrail.

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

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

•Concrete box culverts are known to have an outstanding history of low maintenance costs, durability, and a life span beyond 100 years.

•Eliminating future bridge inspection costs.

•Built within a timely efficient manner with experienced contractors to grant accessibility to travelers, localities, businesses, farms, schools, and mail distributors.

• Since structures C003401120, C003401335, C007603005P, and C007614815 will be removed from the deficient bridge inventory for lower maintenance requirements are needed for any of the structures, which leads to the elimination of those costs in the long term.

•No guardrail is required, saving costs, allowing de-icing, mowing, and plowing to maneuver in a timely efficient manner.

Criteria 5 – Project Significance (0-20 points)

Describe what makes this proposal significant to your county.

The locations of all four roads are significant to the county's accessibility to highways, schools, markets, and farms. The project addresses the following for local individuals in Saline and Gage Counties:

•All four projects are identified by both counties on their one-and -six-year plan to be replaced as soon as their budget allows.

•The routes are utilized by emergency services.

•The detour length for these structures is a minimum of 3-4 miles and is considered excessive.

•The routes are heavily utilized by locals and farmers who need to be able to use the routes for bringing commodities to market.

•The existing structure in Gage County, Structure No. C003401120, is very narrow, it is an alternative road for The Homestead National Historic Park, as well as a "through" route to allowing accessibility throughout Gage County.

•The existing bridge Structure No. C007603005P in Saline County is a narrow timber structure that has high maintenance costs.

•Structure No. C003401335 in Gage County is used for rural local, agricultural, and residential traffic. This structures significance is vital to Southeast Community College students as they utilize that structure to get to classes/school activities.

In addition, there is an environmental impact: all four of these proposed innovations have a stream crossing. These stream crossings serve our community, whether it is for agricultural operations, business operations, local individuals, or surrounding counties. Our goal is to not only replace structures, but also ensure stream stability to reduce the amount of scouring, sediment, and erosion depositions.

Criteria 6 – Needs	s (0-20 poi	nts)
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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:

When your application is complete and you are ready to submit it for review go to:
http://doi.nebraska.gov/projects/ila/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!

	APPLICAT	ION FORM	County Bridge	Match Program 2	023	100%
Applying County	Saunders	Date of Application	12/8/2022		Proposal Name / Location	CBMP 2022-C00780321 C008001405
Agency Name	Saunders County	Contact Person Title	Highway Superintendent		Multi-County Proposal	Yes
Contact Person Name	Andy Nordstrom	Address Line 1	426 N Broadway		Proposal Priority Number	2
E-mail	anordstrom@saunderscounty.ne .gov	Address Line 2	Wahoo, NE			
Phone Number	402-443-8124	zip code	68066			
NACO District	Southeast					
	Structure Information					
NBI Structure Number	Local Name	Location	County	Existing Length (ft)	Existing Total Width (ft)	Existing Type
C007803215		6S .1W OF PRAGUE at TRIB N FORK WAHOO CRK	Saunders	71.00	18.00	Wood or Timber Stringer/Multi-beam c Girder
C008001405	C-33-F-4	1.2SW OF STAPLEHURST at LINCOLN CREEK	Seward	72.00	16.00	Steel Truss - Thru
	Eligibility					
	Ligibility					

Eligibility								
NBI Structure Number	Structure Number Min. Maintenance Road (yes/no) Advertised for Construction bids?							
C007803215	No	No	50					
C008001405	No	No	25					

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of 8

percent complete

State

Classification

Local

Local

Instructions

required input changes allowed locked - no input

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	
C007803215	Replace	Concrete Slab	91.00	28.00	Contract	\$624,102	\$250,000	3-span 91'-9" deck slab	
C008001405	Replace	Concrete Slab	91.00	28.00	Contract	\$624,102	\$250,000	3-span 91'-9" deck slab	
·			* Length and Width no	t required for Culverts.	total	\$1,248,204	\$500,000	ОК	
			Please provide culver	t 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 process is streamlined 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.

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.

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 successful and incorporate those "lessons learned" into future replacement projects.

of 8

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, Saunders/Seward County and the State of Nebraska:

C007803215:

The structure/roadway on a bus route and is used by emergency services for access to the area. The detour for this structure is 4 miles to restricted traffic, with the detour utilizing State Highway 79. Farmers also use this structure/roadway as a major "farm to market" route even more so during harvest season as heavy equipment avoids the major highway. This structure will provide continuity to C007803215, built in 2001.

C008001405:

The structure/roadway is currently utilized as a bus and mail route.

The structure/roadway is currently used by emergency services to access the vicinity, and is the only access to the area.

The current detour for this structure is 5 miles to restricted traffic.

The structure/roadway is utilized heavily by local agricultural operations in the area for a safe "farm to market" route.

These structures are considered "necessary" to the local area. Local residential and agricultural traffic rely on this structure 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

When your application is complete and you are ready to submit it for review go to: <u>http://dot.nebraska.qov/projects/tia/bridge-match/</u> 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!

of 8

Applying County	Boone	Date of Application	12/7/2022		Proposal Name / Location	Albion North	
Agency Name	Boone County, NE	Contact Person Title	Hwy Supt		Multi-County Proposal	Yes	
Contact Person Name	Dan Stankoski	Address Line 1	222 S 4th St		Proposal Priority Number	1	
E-mail	dstankoski@boonecountyne. gov	Address Line 2	Albion, NE				
Phone Number	4027410146	zip code	68620				
NACO District	Northeast			-			
	Structure Information						
NBI Structure Number	Local Name	Location	County	Existing Length (ft)	Existing Total Width (ft)	Existing Type	State Classification
C000611815		3.5S 5.3E PETERSBURG at ONEILL VALLEY	Boone	32.00	20.10	Wood or Timber Stringer/Multi-beam or Girder	Collector
c000601410		1.5S 2.3W PETERSBURG at STREAM	Boone	49.00	17.80	Wood or Timber Stringer/Multi-beam or Girder	Local
<enter here="" sn=""></enter>							
	Eligibility			1			
NBI Structure Number	Min. Maintenance Road (yes/no)	Advertised for Construction bids?	Average Daily Traffic				
C000611815	No	No	25				
c000601410	No	No	50				
				-			
				-			

100% percent complete

Instructions

required input

changes allowed

locked - no input

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	
C000611815	Replace	Concrete Box Culvert	0.00	0.00	Contract	\$250,000	\$137,500	3-12x8 Box	
c000601410	Replace	Concrete Box Culvert	0.00	0.00	Contract	\$220,000	\$121,000	3-12x6x	
			* Length and Width no	ot required for Culverts.	total	\$470,000	\$258,500	OK	
Please provide culvert size in comments.									

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Criteria 1 - Innovation (0-20 points)
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Describe what is innovative about this proposal.

The project is innovative in the fact that it will be replacing two structurally deficient bridges with box culverts. By letting both projects together, we feel that we can increase the interest in the projects and receive more competitive bids from contractors. The design will utilize NDOT approved standard plans to reduce engineering costs. Our experience has shown a box culvert, minimize maintenance costs in comparison with a bridge. There are several contractors that bid in this area that keep construction costs low. The construction will utilize state of Nebraska standard plans that will minimize design expenses and provide a low maintenance structure for the crossings.

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

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

The use of NDOT culvert plans saves the county design costs when compared with a bridge. The cost of culvert construction is less than the cost of what a bridge that would be needed to make the crossing. Maintenance culvert costs would be limited to bridge inspection over much of its design life as there is minimal debris in these areas. There are a number of contractors that routinely bid these projects and are familiar with the design plans and construction. With multiple projects being bid in the package, it is likely to increase the number of contractors and competitiveness of the bids. The culvert design only requires the use of steel and concrete which require less lead times when compared to bridge beams of either steel or concrete. A culver can also be built without a crane mobilization.

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

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

Other counties can readily use NDOT design culvert plans and benefit from letting multiple projects in the same area with similar design. Bidding multiple sites together to increase the bidding pool can also be copied by other counties.

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

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

The county has built several box culverts in recent years and have received very competitive bids from the local contractors. If properly sized, box culverts require no maintenance beyond silt removal and flood debris which can both be handled by county crews. Experience has shown that maintenance costs are minimized by replacing bridges with box culverts. There are no railings for vehicles damage, no beams to rust, and no joints maintain. Eliminating the railings also makes both snow removal and mowing easier.

Criteria 5 – Project Significance (0-20 points)

Describe what makes this proposal significant to your county.

The roadway this structure C000611805 is being built upon is designated as a Collector and is located 1 mile north of a 50,000 Head feed lot that is a large employer in the county. The traffic on all of the roads in the vicinity of this feedlot is increased and this structure has a 9-ton load limit which impedes access to the east on a county Collector. Improving the roadway to carry fully loaded truck traffic would provide improve the access to the feedlot. This bridge is also impeding the movement of grain movement as the area has many lower maintained roadways and a number of section lines without roadways. Structure C000601410 is located close to Petersburg in an area that has limited road access. This bridge is currently limiting access for farming in the area and results is some traffic having to detour to the north to avoid crossing this structure.

Criteria 6 – Needs	s (0-20 poi	nts)
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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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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!

	APPLICAT	ION FORM	County Bridge	e Match Program 2	2023	100%
Applying County	Holt	Date of Application	12/8/2022		Proposal Name / Location	CBMP 2022-C00450950 C005802105P, C003612305
Agency Name	Holt County	Contact Person Title	Highway Superintendent		Multi-County Proposal	Yes
Contact Person Name	Gary Connot	Address Line 1	1806 108 Rd		Proposal Priority Number	1
E-mail	gary.connot@holtcountyne.g ov	Address Line 2	O'Neill, NE]		
Phone Number	402-336-3888	zip code	68763			
NACO District	Northeast			2		
	Structure Information					
NBI Structure Number	Local Name	Location	County	Existing Length (ft)	Existing Total Width (ft)	Existing Type
C004509505	T25N R9W-S25-WL	9.8S 1E EWING at CLEARWATER CREEK	Holt	61.00	19.60	Steel Truss - Thru
C005802105P		5W 18.5N OF TAYLOR at CALAMUS RIVER	Loup	41.00	18.20	Wood or Timber Stringer/Multi-beam o Girder
C003612305		17.8N 6E BURWELL at BIG CEDAR CREEK	Garfield	31.00	20.30	Wood or Timber Stringer/Multi-beam o Girder
<enter here="" sn=""></enter>						
	Eligibility			ו		
NBI Structure Number	Min. Maintenance Road (yes/no)	Advertised for Construction bids?	Average Daily Traffic			

bids?

No

No

No

60

15

10

00% percent complete

State

Classification

Local

Local

Local

Proposal Name /	CBMP 2022-C004509505, C005802105P, C003612305	
Multi-County Proposal	Yes	
Proposal Priority Number	1	

Instructions	
required input	
changes allowed	
locked - no input	

C004509505 C005802105P C003612305

No

No

No

l	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
C004509505	Replace	Precast Deck Panels	91.75	28.00	Contract	\$624,102	\$250,000	add optional information
C005802105P	Replace	Precast Deck Panels	91.75	28.00	Contract	\$630,213	\$250,000	add optional information
C003612305	Replace	Precast Deck Panels	50.63	28.00	Contract	\$471,809	\$250,000	add optional information
			* Length and Width no	t required for Culverts.	total	\$1,726,124	\$750,000	ОК
			Please provide culver	t size in comments.				

Criteria 1 - Innovation (0-20 points)

Describe what is innovative about this proposal.

Pre-cast deck panel bridges are a quickly constructed, cost-effective replacement alternative for deficient bridges in the State of Nebraska.

The design, fabrication, and construction process is streamlined with the utilization of standard plan and construction practices with typical bridge construction completed within 6 weeks. An experienced pool of contractors active in Nebraska results in a competitive environment, reducing replacement structure cost to Counties.

The fabrication of the combination driving surface/structural beam at an off-site location reduces construction time significantly. There are currently a number of local suppliers that can produce the deck slab units which can easily be installed by most experienced bridge crews. Contractor innovation of the construction process continues to reduce the required time and material expenditures, reducing overall cost to the owner.

Pre-cast concrete deck slab units provide additional benefits regarding permitting and design. Bridge submergence is common and acceptable on the rural county roadways of Nebraska. Low superstructure height reduces the road grading requirements and environmental impacts are minimized by reducing or eliminating channel modification. Permitting requirements are minimized, accordingly.

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.

Pre-cast deck slab bridges are typically significantly less costly than traditional cast in place or girder bridges, with cost savings of in the order of 20-25%.

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. The lack of field cast concrete, which requires curing and is susceptible to weather delay reduces replacement structure installation time.

In general, heavy equipment requirements are minimized, as most construction can be performed with smaller equipment.

Installation time is typically in 6-weeks or less, which is half the time of traditional bridges. 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 beyond 75 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.

Pre-cast deck 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 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 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 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, Holt/Loup/Garfield Counties and the State of Nebraska:

C005409505:

The structure/roadway is currently utilized as a bus and emergency services route.

The current detour for this structure is 3 miles to un-restricted traffic.

Local agricultural operations rely on this structure/roadway for transporting goods, and access to multiple fields and pastures.

Replacement of this structure would provide continuity to other recently replaced structures in the vicinity.

C005802105P:

The structure/roadway is currently used as an emergency services route, and is one of the few means of access to the area during an emergency.

The current detour for this structure is 5 miles, but requires "cross-country" travel. This is considered excessive and becomes worse during the winter season.

Local agricultural operations in the area rely heavily on this structure. The structure provides the only access to a local cattle operation, west of the Calamus River.

C003612305:

The detour route length is 14 miles for un-restricted traffic and is considered excessive.

The structure/roadway is utilized for local, commercial and rural agricultural traffic, and provides access to several large cattle ranches in the area. These ranches utilize the roadway/bridge daily, in all seasons, to haul cattle and feed.

The ranches of the area also provide calving and other cattle related services to other producers which requires hauling/utilization of the roadway/bridge.

Criteria 6 – Needs	s (0-20 poi	nts)
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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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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!

Applying County	Platte	Date of Application	17/0/2022		Proposal Name / Location	CBMP 2022-C007104730	
Agency Name	Platte County	Contact Person Title			Multi-County Proposal	No	
Contact Person Name	Jane Cromwell	Address Line 1	2610 14th Street		Proposal Priority Number	1	
E-mail	jcromwell@plattecounty.ne.gov	Address Line 2	Columbus, NE				
Phone Number	402-563-4909	zip code	68601				
NACO District	Northeast						
	Structure Information						
NBI Structure Number	Local Name	Location	County	Existing Length (ft)	Existing Total Width (ft)	Existing Type	State Classification
C007104730	BB 2-3	Jct US81/N91 4E 2.2N at Tracy Creek	Platte	52.00	20.00	Steel Truss - Thru	Other Arterial
					4		
	Eligibility						
NBI Structure Number	Min. Maintenance Road (yes/no)	Advertised for Construction bids?	Average Daily Traffic				
C007104730	No	No	70				

APPLICATION FORM County Bridge Match Program 2023

100%

of 8

F	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
C007104730	Replace	Precast Deck Panels	91.75	28.00	Contract	\$624,102	\$250,000	3-span 91'-9" deck Slab
			* Length and Width no	t required for Culverts.	total	\$624,102	\$250,000	OK
	Please provide culvert size in comments.							

of 8

Criteria 1 - Innovation (0-20 points)

Describe what is innovative about this proposal.

Pre-cast deck panel bridges are a quickly constructed, cost-effective replacement alternative for deficient bridges in the State of Nebraska.

The design, fabrication, and construction process is streamlined with the utilization of standard plan and construction practices with typical bridge construction completed within 6 weeks. An experienced pool of contractors active in Nebraska results in a competitive environment, reducing replacement structure cost to Counties.

The fabrication of the combination driving surface/structural beam at an off-site location reduces construction time significantly. There are currently a number of local suppliers that can produce the deck slab units which can easily be installed by most experienced bridge crews. Contractor innovation of the construction process continues to reduce the required time and material expenditures, reducing overall cost to the owner.

Pre-cast concrete deck slab units provide additional benefits regarding permitting and design. Bridge submergence is common and acceptable on the rural county roadways of Nebraska. Low superstructure height reduces the road grading requirements and environmental impacts are minimized by reducing or eliminating 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.

Pre-cast deck slab bridges are typically significantly less costly than traditional cast in place or girder bridges, with cost savings of in the order of 20-25%.

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. The lack of field cast concrete, which requires curing and is susceptible to weather delay reduces replacement structure installation time.

In general, heavy equipment requirements are minimized, as most construction can be performed with smaller equipment.

Installation time is typically in 6-weeks or less, which is typically half the time of traditional bridges. This results in lower overall cost and a reduction of impacts to the traveling, agricultural, and commodity community.

of 8

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

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

Pre-cast deck 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.

of 8

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 backwall, 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.

of 8

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, Platte County and the State of Nebraska:

C007104730:

The structure/roadway is utilized by emergency services, and is the only access in the area for 3 properties.

The current detour for this structure is 2 miles to un-restricted traffic.

Local agricultural operations utilize this structure/roadway for a main "farm to market" route. It provides direct access to Columbus, Nebraska.

Replacement of the structure would increase continuity throughout the county; it connects residents of Madison County to the City of Columbus. The structure is considered "necessary" to the local residents.

of 8

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

When your application is complete and you are ready to submit it for review go to: <u>http://dot.nebraska.qov/projects/tia/bridge-match/</u> 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!

of 8

percent complete

Applying County	Wayne	Date of	
Applying councy	Wayne	Application	
Agency Name	Wayne County	Contact Person Highw	
Agency Name	wayne county	Title	Superintendent
Contact Person Name	Mark Casey	Address Line 1	510 Pearl Street Suite
Contact Person Name	Mark Casey	Address Line 1	5
E-mail	roads@waynecountyne.gov	Address Line 2	Wayne, NE
Phone Number	(402)375-1153	zip code	68787
NACO District	Northeast	-	

	CBMP 2022-C001114210
Location	& C002004715
Multi-County	Yes
Proposal	res
Proposal Priority	1
Number	1

83%

Instructions	
vegetized input	
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
C009002810		3.2N 1.8W OF HOSKINS at STREAM	Wayne	36.00	19.80	Steel Girder and Floorbeam System	Local
C009012725		3.6E 2.7N OF CARROLL at STREAM	Wayne	42.00	16.40	Steel Stringer/Multi-beam or Girder	Local
C005904505		.5S 2E OF MADISON at STREAM	Madison	31.00	20.00	Wood or Timber Stringer/Multi-beam or Girder	Local
C005944425		JCT US81/N32 4E 3S at STREAM	Madison	24.00	20.80	Wood or Timber Stringer/Multi-beam or Girder	Local
C005902305		8E OF NEWMAN GROVE at STREAM	Madison	29.00	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				
C009002810	No	No	20				
C009012725	No	No	20				
C005904505	No	No	40				
C005944425	No	No	50				
C005902305	No	No	60				

of 8

P	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	
C009002810	Replace	Culvert Pipes			County Forces	\$194,700	\$107,085	3-108"x47' CMPs	
C009012725	Replace	Culvert Pipes			County Forces	\$209,400	\$115,170	3-108"x54' CMPs	
C005904505	Replace	Culvert Pipes			County Forces	\$155,340	\$85,420	3-96"x41' CMPs	
C005944425	Replace	Culvert Pipes			County Forces	\$214,000	\$117,677	3-120"x50' CMPs	
C005902305	Replace	Culvert Pipes			County Forces	\$176,220	\$96,902	3-96"x53' CMPs	
			* Length and Width no	t required for Culverts.	total	\$949,660	\$522,254	ОК	
Please provide culvert size in comments.									

of 8

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.

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.

of 8

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.

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.

of 8

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.

of 8

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, Wayne/Madison Counties, and the State of Nebraska:

C009002810:

The structure/roadway is currently utilized by emergency services for access to the area.

The current detour for the structure is 3 miles to un-restricted traffic.

The structure is located within the expanding Plum Creek Windfarm and is part of the main route between major substations. It is currently the only weight restricted structure on this route. The structure/roadway is heavily used, and is becoming increasingly vital to the windfarm operation in the vicinity.

Local agricultural operations in the area also heavily rely on the structure as a vital connection to a collector roadway on their "Farm to Market" route.

C009012725:

The structure/roadway is currently utilized by emergency services for access to the area.

The current detour for the structure is 3 miles to restricted traffic, however there is no good detour for heavy loads.

The structure provides local access to lviestock confinements and other agricultural operations.

Local agricultural operations have made this structure vital to the area.

C005904505:

The current detour for this structure is 4 miles to un-restricted traffic.

Local agricultural operations utilize this structure for daily use and transport of goods throughout the year.

of 8

Criteria 6 – N	leeds (0-20	points)
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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

When your application is complete and you are ready to submit it for review go to: <u>http://dot.nebraska.qov/projects/tia/bridge-match/</u> 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!

of 8

	APPLICAT	ION FORM	County Bridge	Match Program	2023
Applying County	Dawson	Date of Application	12/6/2022		Proposal N Locatio
Agency Name	Dawson County, NE	Contact Person Title	Dawson County Highway Superintendent		Multi-Cou Propos
Contact Person Name	Mark Christiansen	Address Line 1	700 N Washington Rm. h		Proposal Pr Numbe
E-mail	mark.christiansen@dawsonc ountyne.org	Address Line 2	Lexington, NE		
Phone Number	308-324-4256	zip code	68850		
NACO District	Central				
	Structure Information				
NBI Structure Number	Local Name	Location	County	Existing Length (ft)	Existing Width (
C002423415	27101901B	3.5E 5N OF OVERTON at ELM CREEK	Dawson	61.00	20.00
C002413705	07092202	3.5S OF DARR at STREAM	Dawson	31.00	20.00
<enter here="" sn=""></enter>					
	Eligibility	•			
NBI Structure Number	Min. Maintenance Road (yes/no)	Advertised for Construction bids?	Average Daily Traffic		
C002423415	No	No	55	1	

87% percent complete

Proposal Name / Location	C002423415 & C002413705 / Dawson County		
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
C002423415	27101901B	3.5E 5N OF OVERTON at ELM CREEK	Dawson	61.00	20.00	Steel Girder and Floorbeam System	Collector
C002413705	07092202	3.5S OF DARR at STREAM	Dawson	31.00	20.00	Wood or Timber Stringer/Multi-beam or Girder	Local
<enter here="" sn=""></enter>							

Eligibility							
NBI Structure Number	Min. Maintenance Road (yes/no)	Advertised for Construction bids?	Average Daily Traffic				
C002423415	No	No	55				
C002413705	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	
C002423415	Replace	Concrete Box Culvert			Contract	\$456,750	\$250,000	Triple 12'x12'x60' RCBC	
C002413705	Replace	Concrete Box Culvert			Contract	\$194,350	\$50,000	Twin 10'x7'x40' RCBC	
		1	* Length and Width no	ot required for Culverts.	total	\$651,100	\$300,000	ОК	
	Please provide culvert size in comments.								

Criteria 1 - Innovation (0-20 points)

Describe what is innovative about this proposal.

Structure No. C002423415 (23415) spans Elm Creek and would be reconstructed to a reinforced concrete box culvert structure. Elm Creek Q100 flows are estimated at approximately 4,200 cubic feet per second. Structure No. C002413705 (13705) spans a small stream and will be reconstructed to a reinforced concrete box culvert structure. Stream Q100 flows are estimated at approximately 3,400 cubic feet per second. A complete hydraulic assessment will be done for both structures to verify flows through the new boxes and ensure backwater requirements are met.

The site at 23415 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. There are also guardrail limitations near the structure so by going with a box culvert that issue is eliminated.

The site at 13705 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 row crops adjacent to the structure, so in the event of an overtopping flood, minimal damage will be experienced.

The proposed box culverts 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 Dawson 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 cos 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. Dawson County's central location has a history of attracting so more contractors for competitive bidding. 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.

Both sites will be concrete box culverts, 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.

23415 is fracture critical 2 girder bridge that currently has a low load posting that only allows light traffic. Reconstructing 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 reconstructed bridge would continue to require frequent repairs while the box culvert would need minimal maintenance.

13705 is an old timber structure and currently has a low load posting that only allows light traffic. 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.

23415 is on a Collector Route and 13705 is on a local routh and both have an agricultural surrounding that serves residents Dawson County. Significant detouring of agricultural equipment occurs today due to the reduced load carrying capacity of the existing bridges. Legally loaded vehicles will remain restricted from crossing until a new structure is constructed.

This route is significant to residents in Dawson county who currently travel lengthy detours with heavy agricultural equipment. 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)
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Calculated by scoring committee based on the counties SD bridges.

Criteria 7 – Equity (0	0-20 points)	
Determined by scoring con	mmittee based on the number	of projects awarded to the county.
Submittal Instructio	ins:	
	87%	percent complete
	When your application is complet	e and you are ready to submit it for review go to:
	http://dot.nebraska.gov/projects/	tia/bridge-match/
	Follow the instructions on the we	bsite for uploading this application and supporting documentation.
	If you have questions or difficultie	es please contact:
	Jodi Gibson	
	402-479-4337	
	jodi.gibson@nebraska.gov	
	Thank you for you	ır work on behalf of Nebraska's bridges!

	APPLICAT	ION FORM	County Bridge	Match Program 2	023	100%	percent complete
Applying County	Hall	Date of Application	12/8/2022]		C40(461) Nine Bridge Rd]
Agency Name	Hall County Highway Department	Contact Person Title	Highway Superintendent		Multi-County Proposal	Yes	
Contact Person Name	Don Robb	Address Line 1	2900 W 2nd St		Proposal Priority Number	1	
E-mail	donr@hallcountyne.gov	Address Line 2	Grand Island, NE				
Phone Number	(308) 385-5126	zip code	68803				
NACO District	Central						
	Structure Information						
NBI Structure Number	Local Name	Location	County	Existing Length (ft)	Existing Total Width (ft)	Existing Type	State Classification
C004003205	T10N R12W 19U0	WJCT US30/N11 .8N at WOOD RIVER	Hall	64.00	33.50	Prestressed concrete Stringer/Multi-beam or Girder	Other Arterial
C004003005	T10N R11W 21P9	3W 1.6S ALDA at WOOD RIVER	Hall	51.00	15.90	Steel Truss - Thru	Local
<enter here="" sn=""></enter>							
							1
	Eligibility]			

Eligibility										
NBI Structure Number	Min. Maintenance Road (yes/no)	Advertised for Construction bids?	Average Daily Traffic							
C004003205	No	No	390							
C004003005	Yes	No	10							

percent complete

required input

changes allowed

locked - no input

	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						
C004003205	Replace	Prestressed Concrete Girder	80.00	32.00	Contract	\$866,000	\$250,000	Replace with single span prestressed concrete girder bridge.						
C004003005	Remove	Not Applicable	0.00	0.00	County Forces	\$50,000		Remove existing fracture critical						
			* Length and Width no	t required for Culverts.	total	\$916,000	\$277,500	ОК						
			Please provide culver	t size in comments.										

Criteria 1 - Innovation (0-20 points)

Describe what is innovative about this proposal.

The proposal is a 2 for 1 project for the CBMP program. Replacing Bridge C004003205 - If approved, the CBMP will fund a portion of the cost of replacing the existing bridge with a 32 clear roadway width, single span, prestressed concrete girder bridge with concrete approach paving slabs. Removal of Bridge C004003005 - Removal of an existing county bridge will take it off the NBIS. Removal of the bridge increases CBMP's maximum proposal award and should improve the score. The county will remove the bridge and slope back the banks of river thereby eliminating a bottleneck downstream of the City of Wood River.

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

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

Replacing Bridge C004003205 - A new bridge will result in reduced future maintenance costs. Removal of Bridge C004003005 will significantly reduce future maintenance costs for the county since there will not be a drainage structure, only a channel that carries through the Right-Of-Way.

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

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

Removal of Bridge C004003005 - Many counties have a good county road network and a bridge across a river is not necessarily needed on every county road. Counties can learn from examples set by other counties in removing some bridges that are not needed for reasonable access to property.

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

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

Replacing Bridge C004003205 will reduce future maintenance costs with a new bridge. Removing bridge C004003005 will virtually eliminate maintenance costs for the bridge with future maintenance costs only being related to the maintenance of the channel through the county road right-of-way.

Criteria 5 – Project Significance (0-20 points)

Describe what makes this proposal significant to your county.

Bridge C004003205 - This bridge is on Wood River Road and serves as the route that up to half the school busses use. There many students and parents live that live west of the school and use Wood River road on their way to and from the school. It's a school bus route and a mail route. It's a paved county road that receives quite a bit of school and agricultural traffic.

Criteria 6 – Needs	s (0-20 poi	nts)
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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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http://doi.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!

	APPLICAT		County Bridge	Match Program 2	2023	87%	percent complete
Applying County	Furnas	Date of Application	12/7/2022		Proposal Name / Location	C003300610 & C003321240 Replacement / Furnas County]
Agency Name	Furnas County, NE	Contact Person Title	Highway Superintendent		Multi-County Proposal	No	1
Contact Person Name	Lance Harter	Address Line 1	PO Box 1209		Proposal Priority Number	1	
E-mail	Iharter@oakcreekengineerin g.com	Address Line 2	Kearney, NE				-
Phone Number	308-455-1152	zip code	68848				
NACO District	West Central						
	Structure Information						
NBI Structure Number	Local Name	Location	County	Existing Length (ft)	Existing Total Width (ft)	Existing Type	State Classification
C003300610		.5W 1N OF HOLBROOK at DEER CREEK	Furnas	53.00	16.00	Steel Truss - Thru	Local
C003321240		2.5E of Edison at Turkey Creek Trib	Furnas	30.00	28.00	Steel Stringer/Multi- beam or Girder	Local
<enter here="" sn=""></enter>		, 					
							+
	Eligibility						
NBI Structure Number	Min. Maintenance Road (yes/no)	Advertised for Construction bids?	Average Daily Traffic				
C003300610	No	No	20				
C003321240	No	No	30				

Instructions

required input changes allowed locked - no input

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				
C003300610	Replace	Culvert Pipes			County Forces	\$210,710	\$115,891	Triple 12' CMPs				
C003321240	Replace	Culvert Pipes			County Forces	\$169,859		Triple 10' CMPs				
			* Length and Width no	ot required for Culverts.	total	\$380,569	\$209,313	OK				
			Please provide culver	t size in comments.								

Criteria 1 - Innovation (0-20 points)

Describe what is innovative about this proposal.

This proposal includes two (2) structurally deficient bridges being replaced with a corrugated metal culvert pipe structures. Structure No. C003300610 (00610) and C003350450 (50450).

Both Structures are classified as Local and are restricted for to loads less than the legal limit. Therefore replacing the structures would greatly benefit the traveling public.

The culvert structures 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.

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

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

Culvert pipe with 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. 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 guardrai 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.

Culvert pipe structures with headwalls and wingwalls are becoming more popular due to their simple design, availability 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. Criteria 4 – Long Term Maintenance Savings (0-5 points)

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

The proposed culverts will have a lifespan requiring little to no maintenance.

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

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.

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. The structures in this proposal are undersized for today's agricultural traffic demand and municipal truck routing. 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.

00610: Original construction predates 1935; Current load posting is 9 ton; Narrow, load posted, scour concerns; Sufficiency rating is 16.6. 21240: Original construction is 1935; Current load posting is 21 ton; Load posted; Local bridge and has a sufficiency rating of 59.4.

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 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. 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 provide safe travel for the public.

Criteria 6 –	Needs ((0-20	points)
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Calculated by scoring committee based on the counties SD bridges.

Criteria 7 – Equity	riteria 7 – Equity (0-20 points)									
Determined by scoring c	ommittee based on the numbe	r of projects awarded to the county.								
Submittal Instructi	ions:									
	87%	percent complete								
	When your application is comple	ete and you are ready to submit it for review go to:								
	http://dot.nebraska.gov/project	s/tia/bridge-match/								
	Follow the instructions on the w	ebsite for uploading this application and supporting documentation.								
	If you have questions or difficult	ties please contact:								
	Jodi Gibson									
	402-479-4337									
	jodi.gibson@nebraska.gov									
	Thank you for yo	ur work on behalf of Nebraska's bridges!								

	APPLICA1	ION FORM	County Bridge	e Match Program 2	2023	100%	percent complete
Applying County	Hitchcock	Date of Application	12/7/2022]	Location	Driftwood Creek Truss]
Agency Name	Hitchcock County	Contact Person Title	Highway Superintendent		Multi-County Proposal	No	
Contact Person Name	Phil Dixon	Address Line 1	31085 280th Rd		Proposal Priority Number	1	
E-mail	dixonphillip@gmail.com	Address Line 2	Pleasanton, NE				-
Phone Number	Phone	zip code	68866				
NACO District	West Central	I		7			
NBI Structure Number	Structure Information	Location	County	Existing Length (ft)	Existing Total	Existing Type	State
	Local Hame	7.3S 5E OF	county		Width (ft)	Existing Type	Classification
C004404510		7.35 SE OF TRENTON at DRIFTWOOD CREEK	Hitchcock	59.00	18.00	Wood or Timber Stringer/Multi-beam or Girder	Local
<enter here="" sn=""></enter>							
	Eligibility			ו			
NBI Structure Number	Min. Maintenance Road (yes/no)	Advertised for Construction bids?	Average Daily Traffic				
C004404510	No	No	34	1			
				4			
				1			
]			
				1			
				-			

Instructions required input changes allowed locked - no input

r	Proposal Construction	Dotaile						
NBI Structure Number	Proposal Construction Proposed Action	Proposed Structure Type	Proposed Length (ft)*	Proposed Total Width (ft)*	Workforce	Total Estimated Bridge Cost	Anticipated Reimbursement from CBMP	Comment
C004404510	Replace	Steel Girder	60.00	28.50	Contract	\$625,000	\$250,000	add optional information
			-	ot required for Culverts.	total	\$625,000	\$250,000	OK
			Please provide culver	t size in comments.				

Criteria 1 - Innovation (0-20 points)

Describe what is innovative about this proposal.

This proposal is for the replacement of a structurally deficent bridge, Structure No. C004404510 (04510). The proposed structure would be a concrete deck, steel girder bridge.

In addition to the replacement of 04510, Hitchcock County intends to put the replacement of Structure No. C004404515 in the same bid package to be awarded to one contractor. 04515 is the structure immediately downstream of 04510 and is less than 0.1 mile north of 04510, so the county would save money on the reduced cost for engineering on two similar bridges as well as on the cost of the materials and contracted work. 04515 is not eligible for CBMP funding although it will likely be on the Structurally Deficient list in the near future; Hitchcock County would cover 100% of the cost for the replacement of 04515.

04510 and 04515 are both narrow and restrict legally loaded vehicles, so replacing these structures with bridges that meet minimum design standards will greatly improve these sites and accommodate all legally loaded vehicles. Since these two structures are on the same road within 0.1 mile of each other, both bridges would need to be replaced to truly improve the sites and accommodate all of the travelling public without lengthy detours due to the load restrictions on both bridges.

A clear span, steel girder bridge is the most efficient way to span a creek with these site geometrics. Since the proposed structures would span the creek, a USACE Nationwide 14 Corp Permit is not anticipated, an no wetland mitigation will be required, so cost savings will occur. Additionally, the proposed structures will be constructed within existing right-of-way, so acquisition of more right-of-way will not be required.

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

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

The proposed design of 04510 will be similar to 04515, and it will be designed by the same engineering firm, so Hitchcock County will save money on engineering costs. 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, Hitchcock County will save both time and money on expensive repairs that will continue to be necessary with the existing structures.

Due to the proximity of 04510 to 04515, the County will also save money on the contracted work since the contractor would be able to build both bridges simultaneously; the construction timeline will also be expedited because of this. Contractors would also save on materials since both bridges will require the same materials.

Several similar structures have been constructed in Hitchcock County, and competitive bidding occurs due to the simple design that is familiar to contractors which makes this project attractive to several bidders.

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

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

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.

The proposed structure type will have a lifespan requiring little to no maintenance because of the modern design with modern, longer lasting bridge materials.

Current condition of these bridges will require frequent 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 the structure is currently facing which inconvenience the travelling public.

04515 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.

Criteria 5 – Project Significance (0-20 points)

Describe what makes this proposal significant to your county.

Hitchcock County is mostly rural with significant agricultural traffic, and the equipment is getting larger in size and weight. 04510 and 04515 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. Both structures have been on the County 1 & 6 Year Road Plan for replacement for some time.

C004404510: Original construction predates 1935; Current load posting is 7 ton; Bridge is on a local route and has a sufficiency rating of 29.0. C004404515: Original construction predates 1935; Current load posting is 10 ton, 17 ton, 22 ton; Bridge is on a local route and has a sufficiency rating of 26.7.

This proposal is significant to Hitchcock 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 while saving CBMP funding by not having to assist with 04515.

Criteria	6 – Needs	(0-20 po	ints)
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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:

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!

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Applying County	Scotts Bluff	Date of Application	11/15/2022]		Scotts Bluff 2022 Proposal	
Agency Name	Scotts Bluff County	Contact Person Title	Highway Superintendent		Multi-County Proposal	No	
Contact Person Name		Address Line 1	785 Rundell Rd		Proposal Priority Number	1	
E-mail	steve.baird@scottsbluffcoun tyne.gov	Address Line 2	Gering, NE				
Phone Number	308-436-6700	zip code	69341				
NACO District	Panhandle			_			
	Structure Information						
NBI Structure Number	Local Name	Location	County	Existing Length (ft)	Existing Total Width (ft)	Existing Type	State Classification
C007932410	L-31	2E 2N OF MINATARE at NINEMILE CREEK	Scotts Bluff	72.00	24.00	Wood or Timber Stringer/Multi-beam or Girder	Local
<enter here="" sn=""></enter>							
	Eligibility]			
NBI Structure Number	Min. Maintenance Road (yes/no)	Advertised for Construction bids?	Average Daily Traffic				
C007932410	No	No	76				
				-			
				-			
				-			
				-			
				4			
	1			J			

APPLICATION FORM County Bridge Match Program 2023

100% percent complete

Instructions required input changes allowed locked - no input

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
C007932410	Rehab	Concrete Slab	72.00	28.00	Contract	\$521,573	\$250,000	add optional information
	* Length and Width not required for Culverts.			ot required for Culverts.	total	\$521,573	\$250,000	OK
Please provide culvert size in comments.								

Criteria 1 - Innovation (0-20 points)

Describe what is innovative about this proposal.

The replacement of this 57 year old currently closed bridge, consists of a proposal to replace the current timber deck and stringers with 10 precast deck slabs increasing the width of the bridge 4 feet. This will also allow the updating of the current 8" H pile in bent #2 to 9 piles of HP10x42 piling. This would allow the weight limit posting of 5 ton to be lifted. The current abutments would remain as well as bent #1. The innovation of this project is that a rehabilitation can be done on a bridge without having to tear out the whole substructure.

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

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

The concrete deck slabs install in as little as 1 day. Replacing this structure with a culvert would not be adviseable due to high water flows and the amount of debris upstream. There will be only routine maintenance on this structure after the installation of the concrete deck slabs such as vegetation control and erosion repairs. This structure lies on a gravel road, so no salt will be used on it helping the life of the concrete. The continuous process of replacing worn, broken or rotted deck plank and timber stringers will stop. Each year dry weather conditions cause deck plank to rapidly deteriorate. If the timber stringers have rotted areas on them it is difficult to make the deck plank stay in place as the bridge spikes will not remain embedded in the stringers Every year, just before harvest, there is an effort to replace planks and stringers to avoid traffic accidents on the bridge.

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

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

These deck slabs are economical and available from several vendors in Nebraska. As the completed projects accumulate, other counties across the state will be able to see the idea that a county can rehab a bridge instead of replacing a bridge. The upgrade to a structure like this insures that a county will have low maintenance costs for many years.

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

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

Scotts Bluff County has several bridges that have concrete and steel substructures with timber superstructures. By using the concrete deck slabs it will eliminate the constant maintenance of securing deck plank down, rotting plank, rotting stringers. These structures are on gravel roads, so there will be no salt impacts during winter operations, thus extending the life of the concrete deck. Residents will be able to see the funds spent in there neighborhoods, they will also see a bridge from having a posted tonage to a bridge with no posting. This will be very helpful to our area farmers as they take there harvest to market as timber bridges don't handle the weights and size of equipment that we have today. Lumber prices like all other prices have increased significantly the last couple of years, it doesnt make sense to go back to timber when the life span of the timber hasn't increased even though the price has.

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Criteria 5 – Project Significance (0-20 points)
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Describe what makes this proposal significant to your county.

This structure is a 3 span bridge that spans 9 mile creek. The bridge deck sits 23' above the flowline of the creek. Having a concrete deck will give the traveling public and better sense of security when they cross it. The bridge was closed back in September of 2020, the bridge is on Scotts Bluff County's 1 year plan as funds have been set aside to complete the project. Engineering has been started on the bridge showing that the amount budgeted is well below what is needed to complete the project. By receiving the bridge match it will allow us to complete the project and open a bridge that has been closed for 2 years. This will also allow a bridge to go from being posted for tonage to no posting, which will help our farmers, as well as take another structurally deficient bridge off our list. This investment will show there is a concern for residents safety and for the area farmers to conduct there agricultural business.

Criteria 6 –	Needs ((0-20 p o	ints)
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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!