NEBRASKA
Good Life. Great Journey.
DEPARTMENT OF TRANSPORTATION

County Bridge Match Program Selected Proposals January 12, 2018

NACO District	Lead County	Bridge County	Structure Number	Local Bridge ID	Location	Cost Estimate	Estimated CBMP Funding
Southeast	Johnson	Johnson	C004902535		2.2W 2.5N OF TECUMSEH at STREAM	$121,520	$66,836
Southeast		Johnson	C004902305		JCT N50/N62 4W .7N at STREAM	$67,840	$37,312
Southeast		Gage	C003427230	Y N 35-1	4.5S OF LIBERTY at STREAM	$138,800	$76,340
Southeast		Gage	C003414315	Q-E-16-1	4N 2W OF LIBERTY at WILDCAT CREEK	$131,600	$72,380
Southeast		Pawnee	C006701810	T2N R9E S12SE	NJCT N8/N99 2.5N .3W at STREAM	$59,400	$32,670
Southeast		Pawnee	C006713423	T1N R12E S19S	JCT N65/S-67C 1S 2.3E at NEGRO BRANCH	$94,090	$51,750
Southeast	Lancaster	Lancaster	C005500640	B-147	JCT US77/S-55E 2N 3.5E at STREAM (B 147)	$400,000	$100,000
Southeast		Lancaster	C005504005	N-19	N EDGE OF CONESTOGA LAKE at STREAM (N 19)	$350,000	$100,000
Southeast	Otoe	Otoe	C006600415		4.2N PALMYRA at STREAM	$91,360	$50,248
Southeast		Nemaha	C006402910P		4E 1.5S OF JULIAN at STREAM	$67,280	$37,004
Southeast		Nemaha	C006402710		1N OF HOWE at STREAM	$67,840	$37,312
Southeast		Nemaha	C006400305		2.4W 9.1S OF JOHNSON at STREAM	$122,960	$67,628
Southeast		Saunders	C007832670		1N 2.2W OF YUTAN at STREAM	$47,040	$25,872
Southeast		Cass	C001305310P	T-16-NS-2100	.5N 2E NEHAWKA at STREAM	$52,800	$29,040
Southeast		Cass	C001304715	G-25-26-2700	6.9E 1.5S OF LOUISVILLE at STREAM	$74,560	$41,008
Southeast	Richardson	Richardson	C007402010P	23-2-14 O-39	.2SE DAW (710T-639/640BL) at STREAM	$250,000	$100,000
Southeast		Richardson	C007421110	11-3-13K-143	1E4.5N HUMB (635-718/719) at STREAM	$250,000	$100,000
Southeast		Richardson	C007452615	2-1-17 D-199	2N1.7W RULO(708-658/659) at STREAM	$50,000	
Southeast	Saline	Saline	C007602140	N 2 W 2	2.7N 3W OF DORCHESTER at STREAM	$215,000	$108,403
Southeast		Seward	C008001105	M25-26	4S OF BEAVER CROSSING at JOHNSON CREEK	$165,000	$83,193
Southeast		Jefferson	C004812810		JCT US136/N15 1N 1.2E at STREAM	$185,000	$93,277
Southeast		Fillmore	C003001505	551 31X32 STANTON	2E 1.7N SHICKLEY at STREAM	$195,000	$98,319
Southeast		Fillmore	C003000825	186 14X23 FAIRMONT	1N 3.2E FAIRMONT at INDIAN CREEK	$205,000	$103,361
Southeast		Seward	C008002905P	JT-16	4.2S OF SEWARD at CROOKED CREEK	$225,000	$113,445
Northeast	Antelope	Antelope	C000214705		2N 6E OF OAKDALE at AL HOPKINS CREEK	$200,000	$98,765
Northeast		Antelope	C000216025		1S OF TILDEN at GILES CREEK	$200,000	$98,765
Northeast		Antelope	C000230110		5N US20 HOLT CL at S BR VERDIGRIS CREEK	$5,000	$2,469
Northeast	Cedar	Cedar	C001403815		7.5S 1.5W OF FORDYCE at BOW CREEK	$369,483	$150,000
Northeast		Stanton	C008414830		12.7S 3.9E OF STANTON at M FK MAPLE CREEK	$369,483	$150,000
Northeast		Stanton	C008422020		1.5W 1N OF STANTON at PLEASANT RUN CREEK	$50,000	$27,500
Northeast	Cuming	Cuming	C002000640		9N .3W BEEMER at STREAM	$10,000	$5,500
Northeast		Cuming	C002000713		3W 4.5S OF ALOYS at STREAM	$10,000	$5,500
Northeast		Cuming	C002000635		9N .5W OF BEEMER at STREAM	$10,000	$5,500
Northeast		Cuming	C002003515		6E 1S OF BEEMER at STREAM	$10,000	$5,500
Northeast	Madison	Madison	C005920815		3N .7W OF BATTLE CREEK at STREAM	$110,000	$60,500
Northeast		Madison	C005901103		14.2S OF MEADOW GROVE at STREAM	$103,962	$57,179
Northeast		Madison	C005900727		10S 2W MEADOW GROVE at DRAINAGE DITCH	$83,680	$46,024
Northeast		Platte	C007124510	BL 10-5	4E .5N OF PLATTE CENTER at SHORT CREEK	$62,000	$34,100
Northeast		Platte	C007102235	MBH 22-8	1S 1.8W OF TARNOV at STREAM	$67,440	$37,092
Northeast	Nance	Nance	C006320810		1.5E 1N OF BELGRADE at ASH CREEK	$85,000	$46,750
Northeast	Wayne	Wayne	C009001515		1.2S 3W OF WINSIDE at STREAM	$112,880	$62,084
Northeast		Wayne	C009001205		JCT N57/N98 3N 8.7W at STREAM	$81,120	$44,616
Northeast		Thurston	C008700420		5.7W 2N OF WINNEBAGO at STREAM	$125,840	$69,212
Northeast		Thurston	C008712615		3.2E OF PENDER at STREAM	$121,520	$66,836

NACO District	Lead County	Bridge County	Structure Number	Local Bridge ID	Location	Cost Estimate	Estimated CBMP Funding
Central	Adams	Adams	C000104105P	Q4-3	13075 S. SHOWBOAT BLVD. at LITTLE BLUE RIVER	$380,000	$150,000
Central	Custer	Custer	C002117111	208	4SE .5S BROKEN BOW at MUD CREEK	$0	
Central		Custer	C002149420	513A	4S 3.5E OCONTO #512A at STREAM	$85,000	$46,750
Central		Custer	C002149415	570	4S 3.2E OCONTO #570 at STREAM	$80,000	$44,000
Central		Custer	C002105905	569	4S 3E OF OCONTO NO. 569 at STREAM	$80,000	$44,000
Central	Hall	Hall	C004022715	T12N R10W 24U3	2.1S 6.7E CAIRO at SILVER CREEK	$99,700	$54,835
Central	Hamilton	Hamilton	C004110915		1S PHILLIPS at LINCOLN CREEK	$210,000	$109,091
Central		Hamilton	C004115810		.8S 3.6E GILTNER at STREAM	$175,000	$90,909
Central	Howard	Howard	C004733115	20 N-7	.4N ST PAUL at STREAM	$75,207	$41,364
Central		Howard	C004733410	17 J-4	3S ST PAUL at STREAM	$69,033	$37,968
Central		Howard	C004721905	32 H-1	1.3W 2.8N DANNEBROG at TURKEY CREEK	$4,134	$2,274
Central	Loup	Loup	C005800205		5W US183 ROCK CL at CALAMUS RIVER	$369,483	$150,000
West Central	Furnas	Furnas	C003324910		2.5E 2N OF EDISON at TURKEY CREEK	$290,000	$149,347
West Central		Furnas	C003331410		.7S 2E OF EDISON at STREAM	$85,000	$46,546
West Central		Furnas	C003320635		1.5W 3N OF EDISON at DRY CREEK	$7,500	$4,107
West Central	Hitchcock	Hitchcock	C004415705		8.5S 2E OF CULBERTSON at DRIFTWOOD CREEK	$71,139	$39,126
West Central		Hayes	C004300300		4.5W 1.5N HAMLET at FRENCHMAN CREEK	$69,215	$38,068
West Central	Red Willow	Red Willow	C007314405		NW EDGE OF DANBURY at BEAVER CREEK	$55,000	$30,250
West Central		Frontier	C003242005	190726.01	2N 3.5E OF STOCKVILLE at MITCHELL CREEK	$14,000	$7,700
West Central		Frontier	C003227710	RD Middle Canyon	5.2S 1.5W OF EUSTIS at STREAM	$105,000	$57,750
Panhandle	Cheyenne	Cheyenne	C001704103	170	7S SIDNEY at COW CREEK	$41,818	$23,000
Panhandle	Scotts Bluff	Scotts Bluff	C007921010	E14A	WJCT US26/N29 .9E at TRI-STATE CANAL	$350,000	$150,000

APPLICATION FORM County Bridge Match Program 2017

Applying County	**Johnson**	**Date of Application**	**11/29/2017**
Agency Name	Johnson County	**Contact Person Title**	Highway Superintendent
Contact Person Name	Matt Schaardt	**Address Line 1**	813 N 1st Street
E-mail	mattjocoroads@gmail.com	**Address Line 2**	Tecumseh, NE
Phone Number	(402) 335-3789	**zip code**	68450
NACO District	**Southeast**		

Proposal Name / Location	CBMP2017-C004902535, C004902305, C003427230, C003414315, C006701810, C006713423
Multi-County Proposal	Yes
Proposal Priority Number	1

Instructions
required input
changes allowed
locked - no input

Structure Information

NBI Structure Number	Local Name	Location	County	Existing Length (ft)	Existing Total Width (ft)	Existing Type	State Classification
C004902535		2.2W 2.5N OF TECUMSEH at STREAM	Johnson	32.00	19.70	Steel Stringer/Multi-beam or Girder	Local
C004902305		JCT N50/N62 4W .7N at STREAM	Johnson	33.00	19.70	Steel continuous Stringer/Multi-beam or Girder	Collector
C003427230	Y N 35-1	4.5S OF LIBERTY at STREAM	Gage	31.00	19.80	Wood or Timber Stringer/Multi-beam or Girder	Local
C003414315	Q-E-16-1	4N 2W OF LIBERTY at WILDCAT CREEK	Gage	36.00	15.80	Wood or Timber Stringer/Multi-beam or Girder	Local
C006701810	T2N R9E S12SE	NJCT N8/N99 2.5N .3W at STREAM	Pawnee	32.00	28.00	Steel Stringer/Multi-beam or Girder	Other Arterial
C006713423	T1N R12E S19S	JCT N65/S-67C 1S 2.3E at NEGRO BRANCH	Pawnee	30.00	28.00	Steel Stringer/Multi-beam or Girder	Other Arterial
Add a Structure?							

Eligibility

NBI Structure Number	Min. Maintenance Road (yes/no)	Advertised for Construction bids?	Average Daily Traffic
C004902535	No	No	40
C004902305	No	No	55
C003427230	No	No	35
C003414315	No	No	20
C006701810	No	No	70
C006713423	No	No	35

Proposal Construction Details

NBI Structure Number	Proposed Action	Proposed Structure Type	Proposed Length (ft)*	Proposed Total Width (ft)*	Workforce	Total Estimated Bridge Cost	Anticipated Reimbursement from CBMP	Comment
C004902535	Replace	Culvert Pipes			County Forces	$121,520	$66,836	3-120" x 48'
C004902305	Replace	Culvert Pipes			County Forces	$67,840	$37,312	2-96" x 64'
C003427230	Replace	Culvert Pipes			County Forces	$138,800	$76,340	3-120" x 60'
C003414315	Replace	Culvert Pipes			County Forces	$131,600	$72,380	3-108" x 55'
C006701810	Replace	Culvert Pipes			Contract	$59,400	$32,670	2-96" x 43'
C006713423	Replace	Culvert Pipes			Contract	$94,090	$51,750	3-108" x 47'
					total	$613,250	$337,288	OK

*** Length and Width not required for Culverts.**
Please provide culvert size in comments.

Criteria 1 - Innovation (0-20 points)

Describe what is innovative about this proposal.

Corrugated metal culvert pipes are a cost-effective replacement alternative for deficient bridges in the State of Nebraska. The design and construction process is streamlined with the utilization of standard plan and construction practices. Local culvert suppliers are available and competitive, often resulting in cheaper material prices to the County. Culvert construction will be completed by County forces, an inovative 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 inovation 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.

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 saving's 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 is significantly less costly than a traditional bridge or concrete box culvert. The bidding of a "materials, only" bundled project reduces the monetary and time costs associated with the contracting process.

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

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

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

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

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

The use of corrugated metal culvert replacement structures provides significant long-term maintenance cost savings. Properly sized corrugated metal culvert pipes are considered durable and expected to require minimal maintenance over their expected service life of 50-75 years. The lack of guardrail facilitates the ease of mowing and snow plow operations. There are no costs associated with guardrail maintenance, if damaged. Maintenance activities and costs associated with deck repair are non-existent over the life of the culvert. If the culvert is utilized to control a degraded stream, there are significant benefits to upstream structures in the basin. Maintenance and/or replacement of these structures can minimized or eliminated due to the positive effects of stream stabilization.

Removal of a structure from the bridge inventory would save time and costs associated with general management and inspection. The County expends considerable resources to complete the required maintenance activities on deficient bridges. Normal operations include the replacement and repair of timber/concrete decks, abutment back-wall, pile, wing, stringer, and guardrail. Additional costs are associated with bank stabilization (scouring) and the backfill of roadway settlement. Replacement with this type of structure will eliminate many of these costs' of time, material and labor.

Criteria 5 – Project Significance (0-20 points)

Describe what makes this proposal significant to your county.

In general, each stream crossing is significant to the local individuals, communities and agricultural related acitivities occurring in rural Nebraska.
The width and weight restrictions of structurally deficient bridges may limit the required access to property and create an inconvienance 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, Johnson/Gage/Pawnee Counties and the State of Nebraska:

C004902535:
The detour route length is 3 miles for un-restricted traffic.
The structure/roadway provides access to a wildlife management area directly to the north.
The structure/roadway is utilized for local and agricultural operation (production and farm to market) traffic.
The structure is considered “necessary” to the local traffic. The structure provides access to 3 residences, the alternate route is 3 miles and is a safety issue due to a sub-standard curve.

C004902305:
The detour route length is 4 miles for un-restricted traffic.
The structure/roadway is utilized for local and agricultural operation (production and farm to market) traffic.
The structure is considered “necessary” to the local traffic.

C003427230:
The structure/roadway is utilized as a bus and mail route.
The detour route length is 5 miles for restricted traffic.
The structure/roadway is utilized for local, commercial and agricultural operation (farm to market) traffic. Currently, most commercial and agricultural traffic is restricted because of an inadequate weight limit (posting) and narrow width.

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:

80% **percent complete**

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

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

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

APPLICATION FORM County Bridge Match Program 2017

Applying County	**Lancaster**	**Date of Application**	**11/28/2017**
Agency Name	**Lancaster County**	**Contact Person Title**	**County Engineer**
Contact Person Name	**Pamela Dingman**	**Address Line 1**	**444 Cherrycreek Rd Bldg C**
E-mail	**pdingman@lancaster.ne.gov**	**Address Line 2**	**Lincoln, NE**
Phone Number	**402-441-7681**	**zip code**	**68528**
NACO District	**Southeast**		

Proposal Name / Location	Replacement of Lancaster County Bridges B-147 and N-19
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
C005500640	B-147	JCT US77/S-55E 2N 3.5E at STREAM (B 147)	Lancaster	29.00	24.00	Steel Stringer/Multi-beam or Girder	Other Arterial
C005504005	N-19	N EDGE OF CONESTOGA LAKE at STREAM (N 19)	Lancaster	31.00	29.30	Concrete Channel Beam	Local
Add a Structure?							

Eligibility

NBI Structure Number	Min. Maintenance Road (yes/no)	Advertised for Construction bids?	Average Daily Traffic
C005500640	No	No	72
C005504005	No	No	167

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
C005500640	Replace	Concrete Box Culvert	0.00	0.00	Contract	$400,000	$100,000	Anticipated to be a Quad 12' x 12' CBC
C005504005	Replace	Concrete Box Culvert	0.00	0.00	Contract	$350,000	$100,000	Anticipated to be a Triple 12' x 8' CBC
					total	$750,000	$200,000	OK

*** Length and Width not required for Culverts.**
Please provide culvert size in comments.

Criteria 1 - Innovation (0-20 points)

Describe what is innovative about this proposal.

Replacement of short span structurally deficient bridges of stringer/girder or slab type design with Reinforced Concrete Box Culverts (CBC) can be accomplished at a fraction of the cost of in-kind replacement, enabling bridge owners to program the replacement of a greater number of structurally deficient bridges in any given fiscal year. These CBC' s can be bundled into a single project offering additional savings in design, letting, mobilization, construction inspection, and construction management services. Equipment required for the construction of CBC's is much more limited and readily available than that required for traditional stringer/girder and slab type construction, opening the bid opportunity to a greater number of contractors and therefore increasing competivness in as-bid pricing.Construction of this structure type is much safer and simpler for contractors to build and as such may be completed much more rapidly than stringer/girder and slab type designs making them ideal for emergency replacements by minimizing the duration of unexpected bridge closures. Long-term cost savings over the lengthy service life of this structure type are realized in reduced maintenance costs due to the inherent simplicity and durability of the design type. Additionally, this is a replacement strategy that is easily repeatable by other local bridge owners and can be directly applied to more than half of all Lancaster County owned structurally deficient bridges.

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

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

Cost of CBC construction is a fraction of that of traditional stringer/girder and slab bridge type designs. Long-term cost savings over the lengthy service life of this structure type are realized in reduced maintenance costs due to the inherent simplicity and durability of the design type. CBC's offer the advantage of a significantly reduced construction time over traditional stringer/girder and slab bridge design types thus minimizing the duration of closure and disruption to traffic. Replacement structures can also be designed much more rapidly than traditional designs types with local bridge owners haveing the option of requesting LRFD compliant reinforced concrete box culvert plans be designed and detailed by the NDOT, a courtesy afforded to all counties. Equipment required for the construction of CBC's is much more affordable and readily available than that required for traditional stringer/girder and slab type construction, opening the bid opportunity to a greater number of contractors and therefore increasing competivness in as-bid pricing.

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

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

The simple bridge management strategy of replacing short span stringer/girder and slab type bridges with Reinforced Concrete Box Culverts is readily available and easily repeatable by other local bridge owners and in multiple locations. As an example this method can be directly applied to the replacement of more than half of all Lancaster County owned structurally deficient bridges.

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

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

CBC's are extremely durable with a useful service life expectancy of 100 years and beyond, exceeding that of traditional stringer/girder and slab bridge design types. The absence of the need for a rail system in favor of providing a recovery zone free of lateral obstructions also results in reduced maintenance costs associated with mowing and impact damage to the rail. The buried nature of the design type reduces exposure to vehicular collision and deicing chemicals and provides for improved distribution of the live loads applied to the structure, contributing to the ease of their preservation. CBC's are more readily repaired and lengthened than other bridge type structures. Maintenance activities are often of a nature that can be accomplished with County forces rather than the need to acquire outside contract services.

Criteria 5 – Project Significance (0-20 points)

Describe what makes this proposal significant to your county.

Both these bridges are currently closed due to the rotting of timber pile and the undermining of spread footings and timber backwalls with NBI item "113 Scour Critical" coded as a value of "2 SC-Extensive Scour" at each site. CBC's have neither of these features, have been proven to have in-service capacities far in excess of their design loading, and can often be constructed without the need for bridge or guard rail making them ideal for locations where overweight and overwidth agricultural loads are previlant. Once the existing bridges are replaced the roads will be returned to service making nearby communities and agricultural routes once again available to farm owners, daily commuters, school buses and emergency vehicles.

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:
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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!

APPLICATION FORM County Bridge Match Program 2017

Applying County	**Otoe**	**Date of Application**	**11/30/2017**
Agency Name	**Otoe County**	**Contact Person Title**	**Highway Superintendent**
Contact Person Name	**Jon Brinkman**	**Address Line 1**	**0**
E-mail	**roadswest@otoe.nacone.org**	**Address Line 2**	**Nebraska City, NE**
Phone Number	**(402) 873-9586**	**zip code**	**68410**
NACO District	**Southeast**		

Proposal Name / Location	CBMP2017- C006600415, C006402910P, C006402710, C006400305, C007832670, C001305310P, C001304715
Multi-County Proposal	Yes
Proposal Priority Number	3

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
C006600415		4.2N PALMYRA at STREAM	Otoe	30.00	19.80	Steel Stringer/Multi-beam or Girder	Local
C006402910P		4E 1.5S OF JULIAN at STREAM	Nemaha	71.00	17.50	Steel Truss - Thru	Local
C006402710		1N OF HOWE at STREAM	Nemaha	32.00	16.00	Steel Stringer/Multi-beam or Girder	Local
C006400305		2.4W 9.1S OF JOHNSON at STREAM	Nemaha	40.00	16.00	Steel Stringer/Multi-beam or Girder	Collector
C007832670		1N 2.2W OF YUTAN at STREAM	Saunders	24.00	17.40	Wood or Timber Stringer/Multi-beam or Girder	Local
C001305310P	T-16-NS-2100	.5N 2E NEHAWKA at STREAM	Cass	24.00	26.00	Steel Stringer/Multi-beam or Girder	Local
C001304715	G-25-26-2700	6.9E 1.5S OF LOUISVILLE at STREAM	Cass	31.00	20.10	Steel Stringer/Multi-beam or Girder	Local

Eligibility

NBI Structure Number	Min. Maintenance Road (yes/no)	Advertised for Construction bids?	Average Daily Traffic
C006600415	No	No	30
C006402910P	No	No	20
C006402710	No	No	40
C006400305	No	No	50
C007832670	No	No	10
C001305310P	No	No	25
C001304715	No	No	35

Proposal Construction Details

NBI Structure Number	Proposed Action	Proposed Structure Type	Proposed Length (ft)*	Proposed Total Width (ft)*	Workforce	Total Estimated Bridge Cost	Anticipated Reimbursement from CBMP	Comment
C006600415	Replace	Culvert Pipes			County Forces	$91,360	$50,248	2-120" x 51'
C006402910P	Replace	Culvert Pipes			County Forces	$67,280	$37,004	2-96" x 63'
C006402710	Replace	Culvert Pipes			County Forces	$67,840	$37,312	2-96" x 64'
C006400305	Replace	Culvert Pipes			County Forces	$122,960	$67,628	3-120" x 49'
C007832670	Replace	Culvert Pipes			County Forces	$47,040	$25,872	2-84" x 48'
C001305310P	Replace	Culvert Pipes			County Forces	$52,800	$29,040	2-84" x 60'
C001304715	Replace	Culvert Pipes			County Forces	$74,560	$41,008	2-96" x 76'
					total	$523,840	$288,112	OK

*** Length and Width not required for Culverts.**
Please provide culvert size in comments.

Criteria 1 - Innovation (0-20 points)

Describe what is innovative about this proposal.

Corrugated metal culvert pipes are a cost-effective replacement alternative for deficient bridges in the State of Nebraska. The design and construction process is streamlined with the utilization of standard plan and construction practices. Local culvert suppliers are available and competitive, often resulting in cheaper material prices to the County. Culvert construction will be completed by County forces, an inovative 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 inovation 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.

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 is significantly less costly than a traditional bridge or concrete box culvert. The bidding of a "materials, only" bundled project reduces the monetary and time costs associated with the contracting process.

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

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

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

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

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

The use of corrugated metal culvert replacement structures provides significant long-term maintenance cost savings. Properly sized corrugated metal culvert pipes are considered durable and expected to require minimal maintenance over their expected service life of 50-75 years. The lack of guardrail facilitates the ease of mowing and snow plow operations. There are no costs associated with guardrail maintenance, if damaged. Maintenance activities and costs associated with deck repair are non-existent over the life of the culvert. If the culvert is utilized to control a degraded stream, there are significant benefits to upstream structures in the basin. Maintenance and/or replacement of these structures can be minimized or eliminated due to the positive effects of stream stabilization.

Removal of a structure from the bridge inventory would save time and costs associated with general management and inspection. The County expends considerable resources to complete the required maintenance activities on deficient bridges. Normal operations include the replacement and repair of timber/concrete decks, abutment back-wall, pile, wing, stringer, and guardrail. Additional costs are associated with bank stabilization (scouring) and the backfill of roadway settlement. Replacement with this type of structure will eliminate many of these costs' of time, material and labor.

Criteria 5 – Project Significance (0-20 points)

Describe what makes this proposal significant to your county.

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

C006600415:
The structure/roadway is utilized as a bus and mail route.
The project is used as an emergency services route for residents in the area.
The detour route length is 7.5 miles for un-restricted traffic.
The structure/roadway provides access to a local business-Christiansen Tree Service, Inc.
The structure/roadway is utilized for local, commercial and agricultural operation (farm to market) traffic.

C006402910P:
The project is used as an emergency services route for local residents, and is the only access to the area ("bottom" farm ground to Peru, NE.)
The detour route length is 2 miles for un-restricted traffic.
The structure/roadway provides continuity to two NRD projects that were recently completed. A higher volume of traffic is expected due to a new NRD recreation area/lake nearby.
The structure/roadway is utilized for local, commercial and agricultural operation (farm to market) traffic.

C006402710:
The project is used as an emergency services route for residents in the area.
The detour route length is 1.5 miles for un-restricted traffic.
The existing structure denies access to a local farmer's field due to it's low load ratings. A hog confinement/feeding operation utilizes the roadway/structure for feed and delivery of hogs to market.

Criteria 6 – Needs (0-20 points)

Calculated by scoring committee based on the counties SD bridges.

Criteria 7 – Equity (0-20 points)

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

Submittal Instructions:

83% **percent complete**

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

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

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

APPLICATION FORM County Bridge Match Program 2017

Applying County	**Richardson**	**Date of Application**	**11/21/2017**
Agency Name	Richardson County	**Contact Person Title**	Assistant Highway Superintendent
Contact Person Name	Steve Darveau, Jr.	**Address Line 1**	65087 706 Trail
E-mail	rchighway@sentco.net	**Address Line 2**	Falls City, NE
Phone Number	(402) 245-2614	**zip code**	68355
NACO District	**Southeast**		

Proposal Name / Location	Richardson Ccounty Built Bridges/Richardson 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
C007402010P	23-2-14 O-39	.2SE DAW (710T-639/640BL) at STREAM	Richardson	60.00	27.00	Steel Stringer/Multi-beam or Girder	Local
C007421110	11-3-13K-143	1E4.5N HUMB (635-718/719) at STREAM	Richardson	48.00	25.90	Steel Stringer/Multi-beam or Girder	Local
C007452615	2-1-17 D-199	2N1.7W RULO(708-658/659) at STREAM	Richardson	81.00	14.20	Steel Truss - Thru	Local
Add a Structure?							

Eligibility

NBI Structure Number	Min. Maintenance Road (yes/no)	Advertised for Construction bids?	Average Daily Traffic
C007402010P	No	No	100
C007421110	No	No	30
C007452615	Yes	No	

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
C007402010P	Replace	Steel Girder	90.00	28.00	County Forces	$250,000	$100,000	add optional information
C007421110	Replace	Steel Girder	90.00	28.00	County Forces	$250,000	$100,000	add optional information
C007452615	Remove		81.00	14.20	County Forces	$50,000		County to remove from system
					total	$550,000	$200,000	OK

*** Length and Width not required for Culverts.**
Please provide culvert size in comments.

Criteria 1 - Innovation (0-20 points)

Describe what is innovative about this proposal.

Richardson County will perform the construction of the steel girder bridges with county forces. In addition, they will be able to solicit bids from suppliers for both projects, essentially bundling the material bid. In addition to the county replacing these structurally deficient bridges, Richardson County proposes to remove from the NBIS structure no. C007452615. This proposal will remove 3 bridges from the list of structurally deficient bridges in the state.

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

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

With local county workforce, the equipment and manpower is within the county for quick and easy mobilization. The general design of the structures, both of which are similar in sizes, will save in both engineering cost and construction time savings. The familiarity of the design and learning curve will speed the construction process up.

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

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

The bridges will be designed for "County Built". The "County Built" bridges are a more simplistic design for ease of construction. Usually with no poured concrete substructure. They will have open pile bents/abutments and sheet pile type abutments. This type of bridge design and construction can be shared with counties across the state.

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

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

Moving the substructures further away from the stream bed, and properly skewing the bridge, will reduce debris build up due to high waters from storms. This will save the county time and money for not having to clean the channel out after a storm event.

Criteria 5 – Project Significance (0-20 points)

Describe what makes this proposal significant to your county.

These bridges provide access to the surrounding farming community are are necessary to get the farm product to market. Both C007402010P & C007421110 are on mail routes. C007402010P has an ADT of 100 and is a heavily used road for the locals. C007421110 has an ADT of 30 and is used heavily during the planting and harvest seasons. In addition, by removing structure no. C007452615 from the inventory, this will reduce the number of bridges the county has to maintain and report on every 2 years. In addition, the will reduce the number of structurally deficient bridges in the state.

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:

82% **percent complete**

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

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

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

APPLICATION FORM County Bridge Match Program 2017

Applying County	**Saline**	**Date of Application**	**11/30/2017**
Agency Name	**Saline County**	**Contact Person Title**	**Highway Superintendent**
Contact Person Name	**Bruce Filipi**	**Address Line 1**	**PO Box 865**
E-mail	**scroads@diodecom.net**	**Address Line 2**	**Wilber, NE**
Phone Number	**(402) 821-2737**	**zip code**	**68465**
NACO District	**Southeast**		

Proposal Name / Location	Saline, Seward, Jefferson and Fillmore County\
Multi-County Proposal	Yes
Proposal Priority Number	1

Instructions
required input
changes allowed
locked - no input

Structure Information

NBI Structure Number	Local Name	Location	County	Existing Length (ft)	Existing Total Width (ft)	Existing Type	State Classification
C007602140	N 2 W 2	2.7N 3W OF DORCHESTER at STREAM	Saline	48.00	20.00	Wood or Timber Stringer/Multi-beam or Girder	Local
C008001105	M25-26	4S OF BEAVER CROSSING at JOHNSON CREEK	Seward	40.00	20.00	Steel Girder and Floorbeam System	Local
C004812810		JCT US136/N15 1N 1.2E at STREAM	Jefferson	36.00	19.60	Steel Girder and Floorbeam System	Local
C003001505	551 31X32 STANTON	2E 1.7N SHICKLEY at STREAM	Fillmore	21.00	29.00	Concrete Arch - Deck	Local
C003000825	186 14X23 FAIRMONT	1N 3.2E FAIRMONT at INDIAN CREEK	Fillmore	27.00	20.00	Concrete Arch - Deck	Local
C008002905P	JT-16	4.2S OF SEWARD at CROOKED CREEK	Seward	61.00	15.50	Steel Truss - Thru	Local
Add a Structure?							

Eligibility

NBI Structure Number	Min. Maintenance Road (yes/no)	Advertised for Construction bids?	Average Daily Traffic
C007602140	No	No	30
C008001105	No	No	60
C004812810	No	No	60
C003001505	No	No	25
C003000825	No	No	40
C008002905P	No	No	75

Proposal Construction Details

NBI Structure Number	Proposed Action	Proposed Structure Type	Proposed Length (ft)*	Proposed Total Width (ft)*	Workforce	Total Estimated Bridge Cost	Anticipated Reimbursement from CBMP	Comment
C007602140	Replace	Concrete Box Culvert			Contract	$215,000	$108,403	Triple 12' x 8' CBC
C008001105	Replace	Concrete Box Culvert			Contract	$165,000	$83,193	Twin 14' x 14' CBC
C004812810	Replace	Concrete Box Culvert			Contract	$185,000	$93,277	Twin 10' x 10' CBC
C003001505	Replace	Concrete Box Culvert			Contract	$195,000	$98,319	Twin 12' x 14' CBC
C003000825	Replace	Concrete Box Culvert			Contract	$205,000	$103,361	Twin 12' x 14' CBC
C008002905P	Replace	Concrete Box Culvert			Contract	$225,000	$113,446	Triple 14' x 12' CBC
			* Length and Width not required for Culverts. Please provide culvert size in comments.		total	$1,190,000	$599,999	OK

Criteria 1 - Innovation (0-20 points)

Describe what is innovative about this proposal.

Saline, Seward, Jefferson and Fillmore Counties will bundle these projects in order to reduce costs for each county. The 2016 round of County Bridge Match proposals indicated strong interest from contractors to bid on multi-project bundles. This gives the Contractor the ability to plan their workload more effeciently, thereby allowing them to bid aggressively on the projects. Each of the six structures is on its respective County's One and Six Plan to be replaced. This bundling will potentially save each county significant funding, allowing them to move an additional project up to be paid for with money from their own local budget. This innovative approach allows structurally deficient bridges to be replaced in a cost effective manner. Saline County will serve as the lead for this project, and if approved, an interlocal agreement will be entered into by all counties.

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

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

We believe substantial cost and time savings will come from bundling these projects. Because they will be built by one contractor, the four counties can capitalize on a lower mobilization cost. It will also help save time by having one contractor who can move from site to site. This will reduce each county's efforts in administration of the contract.

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

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

Last year, Saline and Jefferson Counties bundled a group of projects together with great success. This year, both counties have agreed to include two neighboring counties in a new group of projects in order to promote the value and efficiency of bundling projects statewide. We believe this year's example will further show all counties that this innovative approach can be used not only for the County Bridge Match Program, but also on future projects.

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

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

We will be replacing six structures which all have some timber members. Three of these six are all timber. Timber bridges have significant annual maintenance costs. By replacing these structures with concrete box culverts we will be eliminating these costs. Concrete box culverts that are properly sized have a proven history of low maintenance requirements in Nebraska.

Criteria 5 – Project Significance (0-20 points)

Describe what makes this proposal significant to your county.

This proposal is significant for all four counties because we are expanding on the success of last year's experience and bundling these projects across multiple county lines. Additionally, each structure serves a vital role in our farm to market local road network.

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:

80% **percent complete**

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

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

APPLICATION FORM County Bridge Match Program 2017

Applying County	**Antelope**	**Date of Application**	**11/20/2017**
Agency Name	Antelope County	**Contact Person Title**	Highway Superintendent
Contact Person Name	Brian McDonald	**Address Line 1**	PO Box 159
E-mail	bmcdonald@jeo.com	**Address Line 2**	Norfolk, NE
Phone Number	(402) 371-6416	**zip code**	68702
NACO District	**Northeast**		

Proposal Name / Location	Antelope Co - Tilden North and South
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
C000214705		2N 6E OF OAKDALE at AL HOPKINS CREEK	Antelope	40.00	20.80	Steel Girder and Floorbeam System	Local
C000216025		1S OF TILDEN at GILES CREEK	Antelope	41.00	15.80	Steel Truss - Thru	Local
C000230110		5N US20 HOLT CL at S BR VERDIGRIS CREEK	Antelope	29.00	16.00	Wood or Timber Stringer/Multi-beam or Girder	Local
Add a Structure?							

Eligibility

NBI Structure Number	Min. Maintenance Road (yes/no)	Advertised for Construction bids?	Average Daily Traffic
C000214705	No	No	40
C000216025	No	No	20
C000230110	yes	No	10

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
C000214705	Replace	Concrete Box Culvert			Contract	$200,000	$98,765	3-12x8x40' CBC
C000216025	Replace	Concrete Box Culvert			Contract	$200,000	$98,765	3-12x6x40'CBC
C000230110	Remove	Not Applicable	0.00	0.00	County Forces	$5,000	$2,469	structure to be removed and roadway closed to traffic
			* Length and Width not required for Culverts. Please provide culvert size in comments.		total	$405,000	$199,999	OK

Criteria 1 - Innovation (0-20 points)

Describe what is innovative about this proposal.

The county is proposing to bundle 2 box culvert projects each located within 3 miles of Tilden Nebraska. This will streamline the bidding process by only requiring one specification be prepared. It will minimize contractor mobilization costs. Experience has shown that box culverts minimize maintenance costs in comparison with a bridge. The county also proposed to remove one additional structure at its own costs to eliminate an additional structure from the Structurally deficient list. Replacing structure C000214705 will have a direct impact on the local economy by allowing for wind towers to be placed. The energy company the county is working with has requested replacement of this structure to facilitate their operation.

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

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

By bundling 2 structures into one letting, we will be able to reduce engineering costs for the county and reduce contractor mobilization costs. By increasing the project size, we hope to also increase the contractor pool because of the larger size of project. The contractor also has some more flexibility in his operation by having two sites to work.

Criteria 3 – Sustainability or transferability of innovation (0-10 points) **Describe how the innovation can be shared and used by other Counties.**
Standaradized plans are available from the Department of Transportation which are easily shared among the counties.

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

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

A box culvert construction will minimize the initial construction costs. The county has built several box culverts in recent years and have received very competitive bids from the local contractors. Our past experience has shown that maintenance costs are minimized. There are no railings to damage, no beams to rust, or joints maintain. By bundling multiple culverts, we believe the overall construction costs will be minimized as well. Both Structures C000214705 and C000216025 are currently fracture critical bridges and require an expensive bridge inspection every two years. By replacing these structures with Box culverts a standard bridge inspection can be performed at a significant cost savings. The cost of inspection of structure C000230110 will be eliminated by removing the structure.

Criteria 5 – Project Significance (0-20 points)

Describe what makes this proposal significant to your county.

Bridge C000214705 is posted at 3 tons and has been a priority of the County for a number of years. This structure is on the Counties priority list for replacement due to the load posting being a problem for farm vehicles in the area. Antelope County has approved construction of up to 168 wind energy towers in the vicinity of this bridge. The company proposing the towers has approached the County specifically requesting to replace this structure in order to access a number of their proposed sites. Each tower has a significant impact on the local economy, County tax base, road improvement, and clean power supply. They not only create construction jobs for the towers themselves, but have reaching effects for other Counties in the region. Direct economic effects include direct payments to landowners, housing and feeding the construction workers, supplying materials, material storage, material transportation, and tower maintenance jobs. In order to access prime sites, the construction company will also improve a number of roads in the region to get better access at no cost to Antelope County greatly improving safety and access to other properties. Not replacing this structure will reduce the number of wind towers that can be built. Each tower built will positively impact local economy for years to come. Bridge C000216025 is a low tonage truss that is narrow and requires farm loads to detour south.

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:

81% **percent complete**

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Follow the instructions on the website for uploading this application and supporting documentation.

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

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

APPLICATION FORM County Bridge Match Program 2017

Applying County	**Cedar**	**Date of Application**	**11/29/2017**
Agency Name	**Cedar County**	**Contact Person Title**	**Highway Superintendent**
Contact Person Name	**Carla Schmidt**	**Address Line 1**	**PO Box 816**
E-mail	**ccroads@hartel.net**	**Address Line 2**	**Hartington, NE**
Phone Number	**(402) 254-7309**	**zip code**	**68739**
NACO District	**Northeast**		

Proposal Name / Location	CBMP2017-C001403815, C008414830, C008422020
Multi-County Proposal	Yes
Proposal Priority Number	1

Instructions
required input
changes allowed
locked - no input

Structure Information

NBI Structure Number	Local Name	Location	County	Existing Length (ft)	Existing Total Width (ft)	Existing Type	State Classification
C001403815		7.5S 1.5W OF FORDYCE at BOW CREEK	Cedar	62.00	25.00	Steel Truss - Thru	Local
C008414830		12.7S 3.9E OF STANTON at M FK MAPLE CREEK	Stanton	40.00	18.40	Steel Girder and Floorbeam System	Local
C008422020		1.5W 1N OF STANTON at PLEASANT RUN CREEK	Stanton	44.00	16.10	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
C001403815	No	No	25
C008414830	No	No	25
C008422020	No	No	10

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
C001403815	Replace	Precast Deck Panels	91.75	28.00	Contract	$369,483	$150,000	3-Span (31' Deck Slab units)
C008414830	Replace	Precast Deck Panels	91.75	28.00	Contract	$369,483	$150,000	3-Span (31' Deck Slab units)
C008422020	Remove	Not Applicable			Contract	$50,000	$27,500	Remove from inventory.
					total	$788,966	$327,500	OK

*** Length and Width not required for Culverts.**
Please provide culvert 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. In addition to the replacement projects, Stanton County is proposing removal of Structure C008422020 from the traveled way and NBIS structurally deficient list.

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

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

Pre-cast deck slab bridges are typically significantly less costly than traditional cast in place or girder bridges, with cost savings 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. Additional savings are realized throughout the bridges' anticipated life-span, expected beyond 75 years, in costs associated with general maintenance and repair.
Removal of structure C008422020 from the inventory will result in a considerable cost and time savings to the County and State. Replacement structure construction, maintenance, mowing, snow removal, rating and inspection activities will not be necessary.

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

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

Pre-cast deck slab bridge design and construction is is a standardized process in the State of Nebraska, information regarding the process can easilly 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 it's expected use beyond 75 years. The County expends considerable resources to complete the required maintenance activities on deficient bridges including the replacement and repair of timber/concrete decks, abutment back-wall, pile, wing, stringer, and guardrail. Additional costs are associated with bank stabilization (scouring) and the backfill of roadway settlement. Replacement with this type of structure will reduce or eliminate many of these costs of time, material and labor. Removal of structure C008422020 from the inventory will eliminate the maintenance requirements for the bridge, saving a considerable amount of expenditures in the long term.

Criteria 5 – Project Significance (0-20 points)

Describe what makes this proposal significant to your county.

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

C001403815:
The structure/roadway is currently utilized as a bus and mail route.
The detour route length is 8 miles for un-restricted traffic and is considered excessive.
The structure/roadway provides a vital "farm to market" from a considerable part of Cedar County to Nebraska Highway 81. Replacement of the structure will enhance Cedar County's infrastructure and provide an adequate, safe roadway for Cedar County residents.
The structure/roadway is a critical link to transportation in Cedar County and is utilized for local, commercial and rural agricultural traffic. The structure provides access to a large commercial feedlot.
The structure is considered “necessary” to local traffic and essential to the local economy. Currently, most commercial and agricultural traffic is restricted (detoured) because of an inadequate weight limit (posting) and narrow width.

C008414830:
The project is designated as an emergency services route. Several families depend on the roadway to provide quick response from the Clarkson Fire and Rescue.
The detour route length is 1.5 miles for un-restricted traffic.
The structure/roadway is utilized for local, commercial and rural agricultural traffic. The structure provides access to a large cattle feeding operation in the area.
The structure is considered “necessary” to the local traffic. Currently, most commercial and agricultural traffic is restricted (detoured) because of an inadequate weight limit (posting) and narrow width.

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:

82% **percent complete**

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

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

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

APPLICATION FORM County Bridge Match Program 2017

Applying County	**Cuming**	**Date of Application**	**11/27/2017**
Agency Name	**Cuming County**	**Contact Person Title**	**Highway Superintendent**
Contact Person Name	**Chris Howser**	**Address Line 1**	**200 S Lincoln Rm 202**
E-mail	**chowser@cumingcounty.ne.gov**	**Address Line 2**	**West Point, NE**
Phone Number	**(402) 380-2582**	**zip code**	**68788**
NACO District	**Northeast**		

Proposal Name / Location	CBMP2017-C002000640, C002000713, C002000635, C002003515
Multi-County Proposal	No
Proposal Priority Number	2

Instructions
required input
changes allowed
locked - no input

Structure Information

NBI Structure Number	Local Name	Location	County	Existing Length (ft)	Existing Total Width (ft)	Existing Type	State Classification
C002000640		9N .3W BEEMER at STREAM	Cuming	25.00	28.50	Steel Stringer/Multi-beam or Girder	Other Arterial
C002000713		3W 4.5S OF ALOYS at STREAM	Cuming	25.00	28.40	Steel Stringer/Multi-beam or Girder	Local
C002000635		9N .5W OF BEEMER at STREAM	Cuming	24.00	28.70	Steel Stringer/Multi-beam or Girder	Other Arterial
C002003515		6E 1S OF BEEMER at STREAM	Cuming	24.00	28.50	Steel Stringer/Multi-beam or Girder	Local

Eligibility

NBI Structure Number	Min. Maintenance Road (yes/no)	Advertised for Construction bids?	Average Daily Traffic
C002000640	No	No	25
C002000713	No	No	80
C002000635	No	No	25
C002003515	No	No	30

Proposal Construction Details

NBI Structure Number	Proposed Action	Proposed Structure Type	Proposed Length (ft)*	Proposed Total Width (ft)*	Workforce	Total Estimated Bridge Cost	Anticipated Reimbursement from CBMP	Comment
C002000640	Rehab	Not Applicable			County Forces	$10,000	$5,500	Bracing
C002000713	Rehab	Not Applicable			County Forces	$10,000	$5,500	Bracing
C002000635	Rehab	Not Applicable			County Forces	$10,000	$5,500	Bracing
C002003515	Rehab	Not Applicable			County Forces	$10,000	$5,500	Bracing
			* Length and Width not required for Culverts. Please provide culvert size in comments.		total	$40,000	$22,000	OK

Criteria 1 - Innovation (0-20 points)

Describe what is innovative about this proposal.

The intent of the proposal is to remove several bridges from the structurally deficient list by performing only the rehabilitation work required. The bridge bracing will be installed by County forces and will require minimal material and construction costs. The rehabilitation components will be pre-fabricated and assembled on-site. Road closure, due to construction activities will be kept to a minimum. These design modifications will prolong the useful life of the existing structures that are, otherwise in acceptable condition.

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

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

The required modifications (bracing) will improve the structural evaluation, which will remove each structure from the Structurally Deficient list. The existing structures are considered to be in satisfactory condition, otherwise making replacement at this time unnecessary. The proposed modifications' design, material, construction and time costs are significantly less that those required for a replacement structure. Bridge "out of service" time is minimized, reducing the impacts to the local community.

Criteria 3 – Sustainability or transferability of innovation (0-10 points)
Describe how the innovation can be shared and used by other Counties.
The bracing design and construction methods utilized can easily be shared. Standardized plans can be modified for site specific requirements for use in all Counties.

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

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

The required bracing will provide additional stability to the structure, reducing wear that will necessitate repair. The modifications will extend the life of the existing bridges and replacement should not be required well into the future. The proposal will require minimum expenditure of time, cost, material and construction to extend the life, and provide use-able existing bridges to the local agricultural and commodity community.

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 acitivities occurring in rural Nebraska. The width and weight restrictions of structurally deficient bridges may limit the required access to property and create an inconvienance 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, Cuming County and the State of Nebraska:

C002003515:
The roadway/bridge is primarily utilized for rural (farm and feedlot) agricultural operation traffic. Significant heavy traffic utilizes the route.
This structure is considered "necessary" to the local traffic. Agricultural traffic is restricted because of an inadequate weight limit (posting) and narrow width.

C002000635, C002000640:
The detour route lengths are 4 miles for un-restricted traffic.
The roadway/bridges are primarily utilized for rural (farm and feedlot) agricultural operation traffic. Several of the largest feedlot operations in the County operate in the general area of the bridges. Operation traffic must detour around the bridges due to their low tonnage.
These structure's are considered “necessary” to the local, commercial and agricultural traffic. Increases in the rating via bracing will improve the transport of commercial and agricultural traffic and provide a significant benefit to the areas business and residents.

C002000713:
The roadway/bridge is primarily utilized for rural (farm and feedlot) agricultural operation traffic. Several smaller feedlots operate in the general area. Significant heavy traffic utilizes the route in support of these operations.
The structure is considered “necessary” to the local traffic. Currently, most agricultural and commercial traffic is restricted because of an inadequate weight limit (posting). Electric utility maintenance during emergencies requires heavy truck traffic access. Increases in rating via bracing will improve the transport of commercial and agricultural traffic and provide a significant benefit to the areas business and residents.

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:

72% **percent complete**

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http://dot.nebraska.gov/projects/tia/bridge-match/
Follow the instructions on the website for uploading this application and supporting documentation.

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

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

APPLICATION FORM County Bridge Match Program 2017

Applying County	**Madison**	**Date of Application**	**11/30/2017**
Agency Name	Madison County	**Contact Person Title**	Highway Superintendent
Contact Person Name	Richard Johnson	**Address Line 1**	707 Michigan Ave
E-mail	rcj@cableone.net	**Address Line 2**	Norfolk, NE
Phone Number	(402) 371-1255	**zip code**	68701
NACO District	**Northeast**		

Proposal Name / Location	CBMP2017-C005920815, C005901103, C007124510, C007102235
Multi-County Proposal	Yes
Proposal Priority Number	1

Instructions
required input
changes allowed
locked - no input

Structure Information

NBI Structure Number	Local Name	Location	County	Existing Length (ft)	Existing Total Width (ft)	Existing Type	State Classification
C005920815		3N .7W OF BATTLE CREEK at STREAM	Madison	33.00	20.00	Wood or Timber Stringer/Multi-beam or Girder	Local
C005901103		14.2S OF MEADOW GROVE at STREAM	Madison	24.00	24.50	Wood or Timber Stringer/Multi-beam or Girder	Local
C005900727		10S 2W MEADOW GROVE at DRAINAGE DITCH	Madison	25.00	24.50	Wood or Timber Stringer/Multi-beam or Girder	Local
C007124510	BL 10-5	4E .5N OF PLATTE CENTER at SHORT CREEK	Platte	24.00	16.00	Wood or Timber Stringer/Multi-beam or Girder	Local
C007102235	MBH 22-8	1S 1.8W OF TARNOV at STREAM	Platte	28.00	24.00	Steel Stringer/Multi-beam or Girder	Local
Add a Structure?							

Eligibility

NBI Structure Number	Min. Maintenance Road (yes/no)	Advertised for Construction bids?	Average Daily Traffic
C005920815	No	No	120
C005901103	No	No	50
C005900727	No	No	40
C007124510	No	No	50
C007102235	No	No	45

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
C005920815	Replace	Culvert Pipes			County Forces	$110,000	$60,500	3-120" x 40'
C005901103	Replace	Culvert Pipes			County Forces	$103,962	$57,179	2-84" x 80' (Double Broken Back)
C005900727	Replace	Culvert Pipes			County Forces	$83,680	$46,024	3-96" x 52'
C007124510	Replace	Culvert Pipes			County Forces	$62,000	$34,100	3-84" x 40' (Round Equivalent)
C007102235	Replace	Culvert Pipes			County Forces	$67,440	$37,092	3-84" x 52'
			* Length and Width not required for Culverts. Please provide culvert size in comments.		total	$427,082	$234,895	OK

Criteria 1 - Innovation (0-20 points)

Describe what is innovative about this proposal.

Corrugated metal culvert pipes are a cost-effective replacement alternative for deficient bridges in the State of Nebraska. The design and construction process is streamlined with the utilization of standard plan and construction practices. Local culvert suppliers are available and competitive, often resulting in cheaper material prices to the County. Culvert construction will be completed by County forces, an inovative 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 inovation 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.

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 saving's 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 are associated with guardrail for 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 is significantly less costly than a traditional bridge or concrete box culvert. The bidding of a "materials, only" bundled project reduces the monetary and time costs associated with the contracting process.

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

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

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

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

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

The use of corrugated metal culvert replacement structures provides significant long-term maintenance cost savings. Properly sized corrugated metal culvert pipes are considered durable and expected to require minimal maintenance over their expected service life of 50-75 years. The lack of guardrail facilitates the ease of mowing and snow plow operations. There are no costs associated with guardrail maintenance, if damaged. Maintenance activities and costs associated with deck repair are non-existent over the life of the culvert. If the culvert is utilized to control a degraded stream, there are significant benefits to upstream structures in the basin. Maintenance and/or replacement of these structures can be minimized or eliminated due to the positive effects of stream stabilization.

Removal of a structure from the bridge inventory would save time and costs associated with general management and inspection. The County expends considerable resources to complete the required maintenance activities on deficient bridges. Normal operations include the replacement and repair of timber/concrete decks, abutment back-wall, pile, wing, stringer, and guardrail. Additional costs are associated with bank stabilization (scouring) and the backfill of roadway settlement. Replacement with this type of structure will eliminate many of these costs' of time, material and labor.

Criteria 5 – Project Significance (0-20 points)

Describe what makes this proposal significant to your county.

In general, each stream crossing is significant to the local individuals, communities and agricultural related acitivities occurring in rural Nebraska. The width and weight restrictions of structurally deficient bridges may limit the required access to property and create an inconvienance 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, Madison/Platte Counties, and the State of Nebraska:

C005920815:
The structure/roadway is utilized for rural local, residential, commercial and agricultural operation/equipment traffic.
The roadway/structure provides the most direct route to transport agricultural products to market.
The detour route length is 17 miles for un-restricted traffic. This is excessive.
The structure/roadway does function as an emergency services route. The alternate route would significantly increase response times to the area.
The structure/roadway provides the only access to Yellow Banks State Wildlife Management Area from the east.

C005901103:
The detour route length is 4 miles for un-restricted traffic.
The structure/roadway does function as an emergency services route.
The structure/roadway provides access to the ADM Grain Storage facility (1.5 miles north) and is utilized heavily during planting/harvest season.
The replacement of the structure would provide continuity along 539th Avenue. Madison County replaced a bridge 1/2 miles south approximately 5 years ago. Once completed, there will be no posted structures from the Platte County line to Highway 32.
The structure/roadway is utilized for rural local, residential, commercial and agricultural operation/equipment traffic.

C005900727:
The detour route length is 4 miles for un-restricted traffic.

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:

79% **percent complete**

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

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

APPLICATION FORM County Bridge Match Program 2017

Applying County	**Nance**	**Date of Application**	**11/17/2017**
Agency Name	Nance County	**Contact Person Title**	Highway Superintendent
Contact Person Name	LeRoy Gerrard	**Address Line 1**	PO Box 338
E-mail	nanceroad@hamilton.net	**Address Line 2**	Fullerton, NE
Phone Number	(308) 550-0631	**zip code**	68638
NACO District	**Northeast**		

Proposal Name / Location	Belgrade East
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
C006320810		1.5E 1N OF BELGRADE at ASH CREEK	Nance	28.00	20.10	Wood or Timber Stringer/Multi-beam or Girder	Local
Add a Structure?							

Eligibility

NBI Structure Number	Min. Maintenance Road (yes/no)	Advertised for Construction bids?	Average Daily Traffic
C006320810	No	No	35

Proposal Construction Details

NBI Structure Number	Proposed Action	Proposed Structure Type	Proposed Length (ft)*	Proposed Total Width (ft)*	Workforce	Total Estimated Bridge Cost	Anticipated Reimbursement from CBMP	Comment
C006320810	Replace	Culvert Pipes			County Forces	$85,000	$46,750	3-10'dia CMP with headwall
			* Length and Width not required for Culverts. Please provide culvert size in comments.		total	$85,000	$46,750	OK

Criteria 1 - Innovation (0-20 points)

Describe what is innovative about this proposal.

As innovation, the county intends to install culvert pipe with premanufactured headwalls welded to the individual pipes that are then bolted together on site. The edge of the outermost headwall utilizes a standard sheet pile as part of the headwall. The wing sheeting will be interlocked with the headwall sheet piling in the field to create a continuous attachment to the wings without requiring field welding.

This method of construction is considered an accelerated bridge construction method as all components are delivered premanufactured and then assembled on site. The structure will also be constructed by county crews using a rented backhoe. By renting the necessary equipment they don't have for the installation, the county has minimized their equipment costs by not purchasing equipment they don't feel that they can fully utilize.

By utilizing a structure type the county crews are familiar with reduces the overall cost of the project and enhances the skills of the county workforce.

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

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

By using premanufactured components, construction times are greatly reduced. This construction will take less than 2 weeks to be completed. The culverts also minimize design costs in comparison with a bridge.

By utilizing county crews, construction costs are greatly reduced. By not using a contractor, Mobilization, profit, bonding, and insurance costs normally paid to the contractor are eliminated. Using rented equipment also allows the county to minimize construction costs.

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

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

After doing a number of these installations, our road foreman has gained valuable experience. He would be more than happy to answer questions of other County Road crews who may also be considering the installation with their crews.

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

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

Past experience has shown us that eliminating bridges and replacing them with either metal or concrete culverts results only minor maintenance costs. The life expectancy of galvanized metal pipe is significantly longer that other alternatives with little or no maintenance costs. The county has found galvanized pipes located within the county that have been in place for 40 and 50 years that are still in good condition. The watershed also has minimal debris sources resulting in lower costs for flood clean up.

Criteria 5 – Project Significance (0-20 points)

Describe what makes this proposal significant to your county.

Local farmers have requested the replacement of this structure in order to allow them to avoid using the Highway to access Belgrade. This is the only structure across Ash Creek in this area that can be used without using the highways. Keeping this traffic off of the Highway will improve safety for slow moving vehicles. The structure is also located on a mail route.

Criteria 6 – Needs (0-20 points)

Calculated by scoring committee based on the counties SD bridges.

Criteria 7 – Equity (0-20 points)

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

Submittal Instructions:

62% **percent complete**

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

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

APPLICATION FORM County Bridge Match Program 2017

Applying County	**Wayne**	**Date of Application**	**11/29/2017**
Agency Name	**Wayne County**	**Contact Person Title**	**Highway Superintendent**
Contact Person Name	**Mark Casey**	**Address Line 1**	**510 Pearl St**
E-mail	**roads@wayne.nacone.org**	**Address Line 2**	**Wayne, NE**
Phone Number	**(402) 375-1153**	**zip code**	**68787**
NACO District	**Northeast**		

Proposal Name / Location	CBMP2017-C009001515, C009001205, C008700420, C008712615
Multi-County Proposal	Yes
Proposal Priority Number	1

Instructions
required input
changes allowed
locked - no input

Structure Information

NBI Structure Number	Local Name	Location	County	Existing Length (ft)	Existing Total Width (ft)	Existing Type	State Classification
C009001515		1.2S 3W OF WINSIDE at STREAM	Wayne	24.00	19.80	Steel Stringer/Multi-beam or Girder	Local
C009001205		JCT N57/N98 3N 8.7W at STREAM	Wayne	35.00	17.30	Wood or Timber Stringer/Multi-beam or Girder	Collector
C008700420		5.7W 2N OF WINNEBAGO at STREAM	Thurston	28.00	17.00	Wood or Timber Stringer/Multi-beam or Girder	Local
C008712615		3.2E OF PENDER at STREAM	Thurston	32.00	20.50	Wood or Timber Stringer/Multi-beam or Girder	Local
Add a Structure?							

Eligibility

NBI Structure Number	Min. Maintenance Road (yes/no)	Advertised for Construction bids?	Average Daily Traffic
C009001515	No	No	10
C009001205	No	No	20
C008700420	No	No	25
C008712615	No	No	30

Proposal Construction Details

NBI Structure Number	Proposed Action	Proposed Structure Type	Proposed Length (ft)*	Proposed Total Width (ft)*	Workforce	Total Estimated Bridge Cost	Anticipated Reimbursement from CBMP	Comment
C009001515	Replace	Culvert Pipes			County Forces	$112,880	$62,084	3-108" x 42'
C009001205	Replace	Culvert Pipes			County Forces	$81,120	$44,616	4-72" x 47' Round Equivalent
C008700420	Replace	Culvert Pipes			County Forces	$125,840	$69,212	3-108" x 51'
C008712615	Replace	Culvert Pipes			County Forces	$121,520	$66,836	3-108" x 48'
			* Length and Width not required for Culverts. Please provide culvert size in comments.		total	$441,360	$242,748	OK

Criteria 1 - Innovation (0-20 points)

Describe what is innovative about this proposal.

Corrugated metal culvert pipes are a cost-effective replacement alternative for deficient bridges in the State of Nebraska. The design and construction process is streamlined with the utilization of standard plan and construction practices. Local culvert suppliers are available and competitive, often resulting in cheaper material prices to the County. Culvert construction will be completed by County forces, an inovative 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 inovation 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.

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 is significantly less costly than a traditional bridge or concrete box culvert. The bidding of a "materials, only" bundled project reduces the monetary and time costs associated with the contracting process.

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

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

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

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

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

The use of corrugated metal culvert replacement structures provides significant long-term maintenance cost savings. Properly sized corrugated metal culvert pipes are considered durable and expected to require minimal maintenance over their expected service life of 50-75 years. The lack of guardrail facilitates the ease of mowing and snow plow operations. There are no costs associated with guardrail maintenance, if damaged. Maintenance activities and costs associated with deck repair are non-existent over the life of the culvert. If the culvert is utilized to control a degraded stream, there are significant benefits to upstream structures in the basin. Maintenance and/or replacement of these structures can be minimized or eliminated due to the positive effects of stream stabilization.

Removal of a structure from the bridge inventory would save time and costs associated with general management and inspection. The County expends considerable resources to complete the required maintenance activities on deficient bridges. Normal operations include the replacement and repair of timber/concrete decks, abutment back-wall, pile, wing, stringer, and guardrail. Additional costs are associated with bank stabilization (scouring) and the backfill of roadway settlement. Replacement with this type of structure will eliminate many of these costs' of time, material and labor.

Criteria 5 – Project Significance (0-20 points)

Describe what makes this proposal significant to your county.

In general, each stream crossing is significant to the local individuals, communities and agricultural related acitivities occurring in rural Nebraska. The width and weight restrictions of structurally deficient bridges may limit the required access to property and create an inconvienance 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, Thurston/Wayne Counties, and the State of Nebraska:

C008700420:
The structure/roadway is utilized as mail route.
The structure/roadway is not utilized as a main bus route, but is an alternate route for a special needs bus from Winnebago Public Schools.
The detour route length is 6 miles for un-restricted traffic.
The route is important to agricultural operations in Thurston County and on the Winnebago Indian Reservation. Replacement of the bridge will improve access to local livestock operations, bin sites, farm fields and pastures. This will improve roadway safety by reducing some of the agricultural traffic on nearby (parallel) arterial routes.
The structure/roadway provides continuity to other recent projects, and provides access to sever small livestock and grain operations in the area.
The roadway/bridge is utilized for local, commercial and agricultural operation (harvest, grain and livestock and livestock waste) traffic.

C008712615:
The structure/roadway is utilized as mail route.
The detour route length is 4 miles for un-restricted traffic. The route is important to agricultural operations in Thurston County and on the Omaha Indian Reservation. Replacement of the bridge will improve access to local live-stock operations, bin sites, farm fields and pastures. This will improve roadway safety by reducing some of the agricultural traffic on Highway 94 (parallel route.)
The structure/roadway provides continuity to other recently completed projects and provides access for several small live-stock and grain operations in the immediate area.
The roadway/bridge is utilized for local, commercial and agricultural operation (harvest, grain and livestock and livestock waste) traffic.

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:

78% **percent complete**

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

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

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

APPLICATION FORM County Bridge Match Program 2017

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

Proposal Name / Location	REHAB @ C1-467 Pauline Little Blue River Bridge
Multi-County Proposal	No
Proposal Priority Number	1

Instructions
required input
changes allowed
locked - no input

Structure Information

NBI Structure Number	Local Name	Location	County	Existing Length (ft)	Existing Total Width (ft)	Existing Type	State Classification
C000104105P	Q4-3	13075 S. SHOWBOAT BLVD. at LITTLE BLUE RIVER	Adams	283.00	28.80	Steel continuous Stringer/Multi-beam or Girder	Other Arterial
Add a Structure?							

Eligibility

NBI Structure Number	Min. Maintenance Road (yes/no)	Advertised for Construction bids?	Average Daily Traffic
C000104105P	No	No	1025

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
C000104105P	Rehab	Not Applicable	283.00	28.80	Contract	$380,000	$150,000	Rehab deck, super & sub
			* Length and Width not required for Culverts. Please provide culvert size in comments.		total	$380,000	$150,000	OK

Criteria 1 - Innovation (0-20 points)

Describe what is innovative about this proposal.

The 2017 selections only focused on existing bridge replacements with single or multiple corrugated metal pipe installations, concrete box culvert construction and/or new bridge replacements.

Innovation = Rehabilitation & Preservation
Let's RECOGNIZE what's still GOOD
Let's UTILIZE the material strengths still in place
Let's invest in the RESEARCH that's been done
Let's PRESERVE good materials from going to landfills
Let's REUSE & IMPROVE to save on costs and time
To REHABILITATE, you must INNOVATE

"INNOVATION" has already been utilized on this structure. The County has hired Mainelli Wagner & Associates to enginer this "rehab" project. Under MWA's guidance, the County hired the firm of National Ground Penetrating Radar Services to use Ground Penetrating Radar (GPR) to locate, map and provide high resolution concrete imaging across the existing deck in accordance with ASTM 6432-99. Cores of the deck were also obtained to evaluate the rebar conditions. All data collected showed delamination depth of 0.6 inches. REHAB the concrete deck with the "INNOVATIVE" membrane placed between the cleaned existing concrete old deck and place asphaltic wear surface on the deck per "RESEARCH" and "PRESERVATION" methods currently in use by NDOT, we will follow NDOT's lead on this "INNOVATION". It is NOW time to share and utilize the same INNOVATIVE techniques to the local system bridges.

INNOVATION continues with PRESERVATION, to IMPROVE & REUSE
PRESERVE what is GOOD and IMPROVE the "leak links" for REUSE of the structure in place. This will be done by the following: 1) Remove the existing turndowns; 2) Sandblast the girder ends to evaluated full condition of girder ends at each abutment; 3) If girder ends OK, jack up girders enough to allow the removal of the existing bearing devises and installation of new bearing devices; 4) Pour new turndown so that it is flush with the front face of the abutment wall and provide accommodations for an approach span seat on the back side; 5) Construct a 20 ft approach span; 6) Grind off the depth of delaminated concrete from the existing deck surface as established by the use of Ground Penetrating Radar (GPR) as noted in paragraph one above; 7) Place barrier membrane over cleaned concrete deck surface then overlay with asphalt.

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

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

COST & TIME SAVINGS for Average Daily Traffic of 1025 Vehicles (2015 Traffic Counts)

NEW Construction	REHAB Existing	SAVINGS
1)NEW Bridge est. @ $1,250,000.	Rehab Project @ $380,000.	SAVED cost = $870,000.
2)NEW Bridge CLOSURE = 365 days	Rehab CLOSURE = 90 days	SAVED Closure = 275 days
3)Detour Use @ 260 work days @1025 ADT=266,500 vehicles	60 work days@1025 ADT =61,500 vehicles	SAVED 205,000 vehicles Use of Gravel detour
4)Detour Miles@ 260 work days @5 mi x .50/mi x 1025 ADT = $666,250 TOTAL Commuter Cost	60 work days @ 5mile @ .50/mi x 1025 ADT = $153,700 TOTAL Commuter Cost	SAVED Commuter cost = $512,500
5)Time Delay 260 work days 0.5 hr x 260 x 1025 ADT = 133,250 Hours	60 work days @ 0.5 hr x 60 x 1025 ADT = 30,750 Hours	SAVED 102,500 Hours for Commuters
6)Detour Expense for 260 days = $290,920	90 day Detour Expense = $130,480	SAVINGS for Detour = $160,440
Direct $$ Exp @ $2,207,170	$664,180.	$$ SAVINGS = $1,542,990.

TIME SAVINGS

Build NEW est. 365 days CLOSED or 12 months or 52 weeks or 260 working days for commuters to workers in or around the Hastings area businesses, production & industry jobs

260 work days x 1025 vehicles per day = 266,500 vehicles travel detour

REHAB Existing est. 90 days CLOSED or 3 months or 12 weeks or 60 working days for commuters 60 work days x 1025 vehicles per day = 61,500 vehicles travel detour

DETOUR USE & IMPACT

To the EAST = 5 miles BUT RESTRICTED bridge C000104510 for trucks @ 28-37-43

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

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

Today's "Social Media" networks, You-Tube postings, etc., provides multiple facets of "transferability" across the globe! Innovative ideas & projects can ALWAYS be posted, circulated and "shared". Innovation is and can ALWAYS be shared and used between Counties and their Highway Superintendent. The ability to openly discuss ideas and share "what we're doing", "how we did it", and/or "who did you work with", are always topics of interest and discussion between Superintendents during meetings. Presentations at meetings or trainings as agenda items or presentations can be done. Videos & pictures of the original conditions of the structure, continued with rehabilitation construction videos & pictures, along with a narrative of progress and repairs performed on the completed rehab project can be shared and presented during meetings/trainings. A posting on the LTAP site would be a GREAT "share" location for this "Rehabilitation Project". Also, the NDOT website under the CBMP link could post all the completed projects annually along with videos & pictures, narratives, public comments, etc. The posting of the CBMP applications after selections are made is a process of "sharing ideas" within itself. Counties can do review and research on the applications, contact the respective County for additional information on how their project went, plus the positive or negative side of the project as a whole is very beneficial by being able to contact the person direct. The posting of the CBMP selected projects AFTER completion annually is a way of sharing the innovaitons applied and used on projects. The LTAP and CBMP websites can be used as another research link for sharing NDOT's projects that develop and utilize innovation, as a "sharing" link for future County planning for projects. NDOT can also share Nebraska's CBMP success stories with FHWA by selecting and submitting projects for posting on FHWA websites, etc. In summary, the use of using various types/links of Social Media postings, You-Tube posting, LTAP sharing & posting on their website & circulating to other LTAPs nationwide, NDOT sharing & posting successful projects, methods, rehabilitation technologies on their website and to other State DOT sites plus with links to FHWA. Sharing does not stop at the County level, lets circulate our efforts, technologies and skills up and down the the various governmental and private sectors. NDOT has been utilizing the concrete deck with asphalt overlay and membrane "innovation" with great success in recent years. So much so, that they are now implementing this detail on nearly all applications. It is now time that this type of rehabilitation repair be done on the county level. It has been a proven success on the State level since its introduction as a "new innovation" that it should now be applicable for use on many local structures across the State. Discussion and implementation between counties of what has been done efficiently and successfully to safe both time and funds, along with bridge preservation, this "innovation rehabilitation project" will aid countless structures with moderate condition issues, and prolong the life cycles of structures nearly the end of their respective life cycle for many years into the future.

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

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

The "BEST SAVINGS" either 'long term' or 'short term' is the fact that a REHABILITATION project on this structure SAVES funds up front, see criteria 2 above. The existing structure has many years of usable service life BUT not on a major Other Artherial Route that carries a minimum for 1025 vehicles a days, with an estimated truck useage of 10% across this load rated structure. The "weak link" is the rust at the girder ends and bearing conditions, along with 0.6" of delamination across the concrete deck. There are two (2) main points to stress: 1 - The approach span (integral abutment), and 2 - Deck membrane and overlay -- 1) Rehab problematic details on the current structure (turndown break up, section loss of girders at abutment ends, deck deterioration), with removal and preservation. Repair with integral abutments and approach section, proven to mitigate deterioration due to freeze/thaw and salt application. Approach span will also promote a higher quality deck and reduce truck impact on the steel structure. 2) Deck repair is expensive, utilize what life is left in the bridge deck. Rebar corrosion was very minimal per cores taken and proven by GPR. Increase deck endurance, while maintaining or improving deck quality and reducing maintenance costs in the future. Protect the structure in its entirety. Maintenance costs will be reduced to asphalt overlay with membrane replacement, rather than deck replacement. Structure life will be greatly increased with the reduction of water and salt application infiltration.

Criteria 5 – Project Significance (0-20 points)

Describe what makes this proposal significant to your county.

This bridge is on a Major Arterial route #2175 that carries 1025 vehicles per day as counted by NDOT in the 2015 Traffic Counts. It should also be noted that the traffic counts continue to increase as this route continues north a full 21 miles across the County. The rehab bridge is currently restricted with a posted load rating of 27-34-39, which restricts commerce traffic movement across the southern part of Adams County on a hard surfaced roadway. This route is also a direct "haul route" for livestock coming out of north central Kansas from Hwy 36 or vise-versa from central Nebraska and Interstate 80. The total 21 mile stretch across Adams County starting at the Webster County line north to the northeast side of Hastings connects onto US Hwy 34/281. This County Arterial route continues through Webster County and connects with NE Hwy 4 and NE Hwy 78 south into Kansas. The commuters and truck traffic use our county asphalt roads to save miles by basically running straight north/south instead of routing west to US 281 or east to Hwy 14. When you look at a map, most people thing the Webster County section and Adams County's Other Arterial Route 2175 are direct extensions of NE Hwy 78. Ambulance service from the southern communities use this as an emergency route to bring medical calls to Mary Lanning Memorial Hospital on the east side of Hastings. This route also serves as a school bus route for 3 area schools (Blue Hill, Sandy Creek & Lawrence/Nelson), it is a mail route for 2 post offices (Bllue Hill & Glenvil). Commuters, suppliers, general travelers, business wholesalers/retailers and the "out of town" shoppers use this route as a direct link to Hastings. Also, the agriculture industry and grain elevators use this route as a "haul road" to bring grain to the larger elevators and direct rail service around the east side of Hastings. Over-the-road trucks utilitze this route to deliver products to the industrial businesses around and to the east side of Hastings and to SAVE MILES instead of going the extra miles west to US Hwy 281 or east to NE Hwy 14. MOST IMPORTANT: the ability to REHABILITATE a structure SAVES time & money for ALL as detailed in Criteria 2 for this specific structure and others. The REHAB will remove the structure from the "Structurally Deficient" list of (8,136 sf) AND give the bridge a new load rating capacity to allow for all truck traffic instead of it's current posting of 27-34-39!!

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:

66% **percent complete**

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

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

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

APPLICATION FORM County Bridge Match Program 2017

Applying County	**Custer**	**Date of Application**	**11/6/2017**
Agency Name	**Custer County**	**Contact Person Title**	**Highway Superintendent**
Contact Person Name	**Chris Jacobsen**	**Address Line 1**	**43700 Ryno Rd**
E-mail	**custer@qwestoffice.net**	**Address Line 2**	**Broken Bow, NE**
Phone Number	**(308) 872-5132**	**zip code**	**68822**
NACO District	**Central**		

Proposal Name / Location	C21(404)A1, A2, A3, Oconto SE, Plus C002117111
Multi-County Proposal	
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
C002117111	208	4SE .5S BROKEN BOW at MUD CREEK	Custer	57.00	16.20	Wood or Timber Stringer/Multi-beam or Girder	Local
C002149420	513A	4S 3.5E OCONTO #512A at STREAM	Custer	25.00	20.00	Wood or Timber Stringer/Multi-beam or Girder	Local
C002149415	570	4S 3.2E OCONTO #570 at STREAM	Custer	24.00	20.00	Wood or Timber Stringer/Multi-beam or Girder	Local
C002105905	569	4S 3E OF OCONTO NO. 569 at STREAM	Custer	25.00	20.00	Wood or Timber Stringer/Multi-beam or Girder	Local
Add a Structure?							

Eligibility

NBI Structure Number	Min. Maintenance Road (yes/no)	Advertised for Construction bids?	Average Daily Traffic
C002117111	no	no	1
C002149420	no	no	20
C002149415	no	no	20
C002105905	no	no	20

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
C002117111	Close & remove from inventory				County			Close Bridge and remove from inventory
C002149420	Replace with new structure	multi-culvert			County	$85,000	$46,750	estimated 3-RE72", Spaced to remove from inventory
C002149415	Replace with new structure	multi-culvert			County	$80,000	$44,000	estimated 2-RE84", Spaced to remove from inventory
C002105905	Replace with new structure	multi-culvert			County	$80,000	$44,000	estimated 2-RE84", Spaced to remove from inventory
			* **Length and Width not required for Culverts.**		total	$245,000	$134,750	OK
			Please provide culvert size in comments.					

Criteria 1 - Innovation (0-20 points)

Describe what is innovative about this proposal.

The concept in this proposal is to get the biggest bang for the buck, by replacing 3 of the 4 structures with multi-cmps spread apart enough to permanently remove them from bridge inventory, along with the permanent closure of the road and 4th structure. All structures will be built using County Forces, and the material will be bid per structure and all structures together as one project, to award the option for material with the best cost savings.

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

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

By the Use of County Forces to build all the required structures, the close proximity of the structures to one another which reduces the mobilization cost to each structure, and the option to select material bids from multiple supplies per structure, or bids from one supplier for all the structures together as one project based on the best cost and delivery time savings.

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

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

Based on the size and nature of the replacement structures in this proposal works within the capabilities of most County's within the State.

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

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

Removal of all wooden structures and replacing them with heavy gauge culvert metal pipes.

Criteria 5 – Project Significance (0-20 points)

Describe what makes this proposal significant to your county.

Most of these structures are on the same route which improves the reliability of the route. Improvement of just one of the structures does not improve the capacity or reliability of the route, thus the County must replace all the affected structures, including the Non-SD structure, to provide reliability to area residents.

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:

66% **percent complete**

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

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

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

APPLICATION FORM County Bridge Match Program 2017

Applying County	**Hall**	**Date of Application**	**11/30/2017**
Agency Name	Hall County	**Contact Person Title**	County Engineer
Contact Person Name	Steve Riehle	**Address Line 1**	2900 W 2nd St
E-mail	SteveR@HallCountyNE.gov	**Address Line 2**	Grand Island, NE
Phone Number	(308) 385-5126	**zip code**	68803
NACO District	**Central**		

Proposal Name / Location	70th South of NE-2
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
C004022715	T12N R10W 24U3	2.1S 6.7E CAIRO at SILVER CREEK	Hall	28.00	20.00	Wood or Timber Stringer/Multi-beam or Girder	Local
Add a Structure?							

Eligibility

NBI Structure Number	Min. Maintenance Road (yes/no)	Advertised for Construction bids?	Average Daily Traffic
C004022715	No	No	56

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
C004022715	Replace	Concrete Box Culvert			Contract	$99,700	$54,835	Twin 12' span x 5' rise x 40' long cast-in-place Concrete Box Culvert
					total	$99,700	$54,835	OK

*** Length and Width not required for Culverts.**
Please provide culvert size in comments.

Criteria 1 - Innovation (0-20 points)

Describe what is innovative about this proposal.

Hall County, Merrick County, the City of Grand Island, and the Central Platte Natural Resources District are working together on a flood control project on Silver Creek. The flood control project will significantly reduce peak flows in Silver Creek as it approaches the City of Grand Island. The reduced flows in Silver Creek will allow a replacement structure on 70th Road to be significantly smaller than before the flood control project. This bridge is 2 miles upstream of a bridge where the Q100 was reduced from 2,000 CFS to 438 CFS as a result of the flood control project.

Without the flood control project, a replacement structure would have to be a bridge at a cost of over $300,000. With the flood control project, a replacement structure will be around $100,000. In addition to the reduced initial cost for culverts compared to a bridge, culverts are more economical to maintain and have less impact on the road user as many drivers barely notice the culvert.

The 2016 CBMP proposal estimated a construction cost for the project with triple 84" Corrugated Metal Pipe culverts (CMP's), corrugated steel headwalls, and sheet pile wing walls. The estimated cost in the 2016 CBMP proposal for the large triple CMP's is almost 90% of the estimated cost for a cast-in-place Concrete Box Culvert (CBC). While the initial cost for a CBC is higher than for CMP's, the life cycle cost for a CBC will be less, thus this 2017 CBMP proposal is being submitted with a twin 12' x 6' CBC.

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

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

The initial construction cost of a CBC is only 10% higher than CMP's because of the large size of the pipes, tall headwalls and long wingwalls. With an estimated life of at least 50 years for a CBC compared to approximately 40 years for the CMP's, the life cycle cost for a CBC is 25% less than the CMP's.

The county will remove the existing timber bridge and prepare the channel for the box contractor in less than 1 week. The county performing the work eliminates the need for the box contractor to hire a subcontractor for removal and grading. The contractor should be able to build the box in 2 to 3 weeks. Backfill and roadway grading work for the 40' long box will take another week. From closure to project complete and the roadway opened to traffic should be 5 weeks.

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

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

The new CBC is very sustainable with lower maintenance costs then multiple CMP's. The new CBC will have much lower annual maintenance costs compared to a conventional bridge.

The only innovation on the project is having the county perform the removal and grading work. Counties that Some counties haven't done this can learn from Hall County and realize cost savings compared to having the box contractor mobilize and hire a subcontractor to do the work.

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

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

The long term maintenance savings of a CBC compared to a bridge are significant because the bridge deck, bridge railing, and approach guardrail are exposed to traffic and the elements. Hall County estimates that the annual maintenance cost for a CBC is less than 20% of the annual maintenance cost for a bridge.

Criteria 5 – Project Significance (0-20 points)

Describe what makes this proposal significant to your county.

Hall County was waiting for the flood control project to reduce the flows so the timber bridge could be replaced with a smaller drainage structure. Replacing the bridge with a Concrete Box Culvert will match a number of other structures in the county.

Criteria 6 – Needs (0-20 points)

Calculated by scoring committee based on the counties SD bridges.

Criteria 7 – Equity (0-20 points)

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

Submittal Instructions:

90% **percent complete**

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

APPLICATION FORM County Bridge Match Program 2017

Applying County	**Hamilton**	**Date of Application**	**11/21/2017**
Agency Name	**Hamilton County**	**Contact Person Title**	**Highway Superintendent**
Contact Person Name	**Kenneth Pawling II**	**Address Line 1**	**1509 A Street**
E-mail	**hwy-supt@hamilton.net**	**Address Line 2**	**Aurora, NE**
Phone Number	**(402) 694-6184**	**zip code**	**68818**
NACO District	**Central**		

Proposal Name / Location	Hamilton County Two Box Proposal
Multi-County Proposal	No
Proposal Priority Number	1

Instructions
required input
changes allowed
locked - no input

Structure Information

NBI Structure Number	Local Name	Location	County	Existing Length (ft)	Existing Total Width (ft)	Existing Type	State Classification
C004110915		1S PHILLIPS at LINCOLN CREEK	Hamilton	30.00	20.50	Steel Girder and Floorbeam System	Local
C004115810		.8S 3.6E GILTNER at STREAM	Hamilton	25.00	22.50	Steel Stringer/Multi-beam or Girder	Local
Add a Structure?							

Eligibility

NBI Structure Number	Min. Maintenance Road (yes/no)	Advertised for Construction bids?	Average Daily Traffic
C004110915	No	No	50
C004115810	No	No	35

Proposal Construction Details

NBI Structure Number	Proposed Action	Proposed Structure Type	Proposed Length (ft)*	Proposed Total Width (ft)*	Workforce	Total Estimated Bridge Cost	Anticipated Reimbursement from CBMP	Comment
C004110915	Replace	Concrete Box Culvert			Contract	$210,000	$109,091	Twin 12x6x60 CBC
C004115810	Replace	Concrete Box Culvert			Contract	$175,000	$90,909	Twin 12x6x42 CBC
			* Length and Width not required for Culverts. Please provide culvert size in comments.		total	$385,000	$200,000	OK

Criteria 1 - Innovation (0-20 points)

Describe what is innovative about this proposal.

This proposal is Innovative for the following reasons:
1) These bridges would be let for construction at the same time. The contractor would be given the option to tie the bids. By tying the bids, this allows a contractor to bid them aggressively to win both or it allows a smaller contractor the option bid 1 site aggressively to win one site. The award of the project would be based off of the lower of the 2 sites added together or the tied projects.
2) These two sites have same size box openings (12'x6'). This will allow the contractor to utilize his form work at both sites, both decreasing trucking cost of different forms but also increasing the speed of construction. This lowers the cost of construction for the above reasons.

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

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

This proposal is cost or time saving for the following reasons:
1) The two sites have the same size box openings (12'x6'). This greatly helps the contractor with form work and speed of construction. The contractor does not need to bring different size forms from their shop. They simply bring the forms from one job site to the other. This helps the contractor out in bidding process also for determining their material/forms/equipment/trucking.
2) The cast in place concrete box culvert utilizes locally sourced material from the concrete plants. This helps the community with an infusion of money to the local economy shorter hauls of material.
3) Many of these smaller concrete box culverts are poured in only 2 concrete pours, the floor and the walls and deck. This reduces the cost of the contractor and conseqently the cost of the project by limiting the amout of times a concrete pump truck shows up to a site.

Criteria 3 – Sustainability or transferability of innovation (0-10 points)
Describe how the innovation can be shared and used by other Counties.
The reults of the bidding process will be shared with the counties and state to better determine/understand the bidding process for the future.

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

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

These sites consist of poured in place concrete box culverts. These types of structures have historically been very low maintenance if sized and properly constructed at the correct flow line elevation. These types of structures give minimal problems to the owners over time. These structures do not have piling to worry about corrosion of steel pile or rotting of timber pile.

Criteria 5 – Project Significance (0-20 points)

Describe what makes this proposal significant to your county.

C004110915: This road is significant due to the fact that this is the closest thru road next to the town of Phillips. Should any work be done on the state spur 41A, traffic will shift 1 mile east to Road E. This site also is adjacent to the Syngenta Seed facility. The surrounding crops are seed farm production for Syngenta. Syngenta is a major seed production buisiness in the Hamilton County and provides good economic to the surrounding community and Hamilton County.
C004115810: This site is located on Road 5 between Road L and M. With recent legislation (LB977), the farmers are allowed to exceed the legal weight limit unless the road/bridge is posted. This road is the main non paved east/west road in the southern part of the county. The paved road 1 mile to the north is posted due to asphalt conditions, hence, the farmers typically take the Road 5 for the farm to market route. Replacing this bridge will make for a safer route for the farming buisiness.

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:

76% **percent complete**

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

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

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

APPLICATION FORM County Bridge Match Program 2017

Applying County	**Howard**	**Date of Application**	**11/27/2017**
Agency Name	Howard County	**Contact Person Title**	Highway Superintendent
Contact Person Name	Janet Thomsen	**Address Line 1**	408 Elm St.
E-mail	roads@howard.nacone.org	**Address Line 2**	St Paul, NE
Phone Number	(308) 754-5364	**zip code**	68873
NACO District	**Central**		

Proposal Name / Location	Howard County 2017
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
C004733115	20 N-7	.4N ST PAUL at STREAM	Howard	25.00	24.20	Steel Stringer/Multi-beam or Girder	Local
C004733410	17 J-4	3S ST PAUL at STREAM	Howard	56.00	19.90	Steel Stringer/Multi-beam or Girder	Local
C004721905	32 H-1	1.3W 2.8N DANNEBROG at TURKEY CREEK	Howard	40.00	16.10	Steel Girder and Floorbeam System	Local

Eligibility

NBI Structure Number	Min. Maintenance Road (yes/no)	Advertised for Construction bids?	Average Daily Traffic
C004733115	No	No	110
C004733410	No	No	80
C004721905	No	No	30

Proposal Construction Details

NBI Structure Number	Proposed Action	Proposed Structure Type	Proposed Length (ft)*	Proposed Total Width (ft)*	Workforce	Total Estimated Bridge Cost	Anticipated Reimbursement from CBMP	Comment
C004733115	Replace	Culvert Pipes			County Forces	$75,207	$41,364	Twin 96" by 44' culverts with headwalls and flared wings. Installation by County forces.
C004733410	Replace	Culvert Pipes			County Forces	$69,033	$37,968	Triple 60" by 40' culverts with headwalls and flared wings. Installation by County forces.
C004721905	Remove	Not Applicable			County Forces	$4,134	$2,274	Bridge will be vacated pending proper notification and results of public hearing. Proper barricading of bridge will be done and monitored by County forces.
			* **Length and Width not required for Culverts.**		total	$148,374	~~$81,606~~	See calculation comments >>
			Please provide culvert size in comments.					

Criteria 1 - Innovation (0-20 points)

Describe what is innovative about this proposal.

Howard County proposes to combine the replacement of two (2) structurally-deficient bridges and close a third structurally-deficient bridge. Structure No. C004733115 (33115) and Structure No. C004733410 (33410) are proposed to be replaced with culverts and headwalls, while Structure No. C004721905 (21905) would be closed, pending the results of a public hearing. Structure 33115 lies just outside of St. Paul. The road with 33115 serves two manufacturers with a combined employee count of 55, as well as a large subdivision of more than 60 homes. Additionally, this road is a primary access road for the St. Paul City Landfill. Both 33115 and 33410 are also school bus routes and mail routes, besides being used for agricultural purposes. Structure 21905 serves no residences; access to farmland is the only service provided by this bridge. A relatively short detour of two miles can be utilized by anyone using this bridge. By fabricating the culvert structures with headwalls and flared wings, the potential for scour is virtually eliminated. These structures will be constructed within existing right-of-way and will accommodate existing fences. Historically Howard County has replaced bridges with bridges. However, culverts are becoming a more cost-effective alternative in replacing structurally deficient brdges. Although this is a new innovation to Howard County, with the county engineer's figures, these proposed culverts will result in cost savings of at least 75% over the cost of a bridge. These culverts are designed for a 10 year flooding event, allowing smaller culverts and reduced installation and maintenance cost in the future, if needed. Alternative detour routes are nearby and can be used in the event of flooding or while the structures are being replaced.

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

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

Replacing existing structurally-deficient bridges with culverts and headwalls will save time and reduce costs for Howard County. Several suppliers are readily available and have experience manufacturing these culverts and headwalls. Although the installation of culverts with headwalls is innovative for Howard County, it can be done with county crew and equipment. The similar replacement culverts at the sites will result in cost savings of materials and time savings on labor. Cost savings on these proposals will then be passed on to other road and bridge projects in Howard County. Additionally, the time and cost associated in general maintenance of the culverts will be less than bridge maintenance. By installing culverts, the larger agricultural equipment is less likely to cause damage to the structures. Installation of culverts is much quicker than a bridge, resulting in shorter detour times and less potential for liability.

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

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

History has shown in other counties that culverts may be a cost-effective replacement for many bridges. Culverts, even multiple culverts, can cost up to 80 percent less than a bridge. Installation of culverts is much quicker than a bridge, resulting in a shorter detour time and less potential for loss liability. The culverts proposed by Howard County have a smaller flood event, with a road overtop return period of 10 years. Besides Howard County residents, other counties that regularly travel through or do business with the citizens of Howard County will find that culverts and roads are better maintained and safer to drive. Howard County can use the information and experience gained on these projects for other structures within the county.

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

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

Howard County has 133 bridges over 20 feet in length. There are an additional 100 bridges less than 20 feet in length. Of the 133 bridges on the National Bridge Inventory, more than half of them are over 40 years old. At least a quarter of the NBI bridges are more than 50 years old. Howard County will have a large number of bridges needing to be repaired or replaced in a short time span. With an estimated culvert cost at 75-80 percent of the cost of a bridge, these savings will be passed on to the repair and replacement of other Howard County bridges. After the culverts are installed, road maintenance costs will also decrease due to the use of corrosion-resistant materials used in making the culvert and sustainability once the culverts are in place. Additionally, the cost to maintain the culverts is less than bridges, over time. Closing bridge C004721905 will eliminate almost all maintenance associated with this bridge. Permanent barricades will be placed and monitored by county forces. However, bridge inspection and repairs will no longer be needed.

Criteria 5 – Project Significance (0-20 points)

Describe what makes this proposal significant to your county.

Howard County has 133 bridges more than 20 feet in length. There are an additional 100 bridges under 20 feet in length. Of the 133 bridges, 13 of them are structurally-deficient. While 10 percent of the bridges being structurally-deficient may not seem great, consider that half of Howard County's bridges are at least 40 years old; a full 25 percent of the county's bridges are at least 50 years old. Proposing to replace a structurally-deficient bridge with culverts is significant to Howard County. Howard County is like most rural counties in Nebraska and the Midwest; it is very dependent on agriculture and the associated economies, and the population supporting the County continues to decrease. While expenses increase and revenue remains stagnant or decreases, any help to Howard County and its residents is welcomed. As agricultural equipment continues to widen, culverts, without the guardrails found on bridges, decrease the damage to equipment and the method of crossing. Additionally, the volume and speed of all vehicles has increased causing more maintenance of any road and structure to increase. Regularly scheduled inspections by the Bridge Inspector will insure the maintenance of the culverts. This will increase the safe travel of the residents, school busses, postal carriers and farmers using the road for access to their croplands. While Howard County recognizes that culverts are not the answer for repairing every bridge, culverts are less expensive, and in most cases, easier to install and maintain than bridges. Cost savings by using culverts will help save funding that can then be passed on to other bridges when needed.

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:

75% **percent complete**

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http://dot.nebraska.gov/projects/tia/bridge-match/
Follow the instructions on the website for uploading this application and supporting documentation.

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

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

APPLICATION FORM County Bridge Match Program 2017

Applying County	**Loup**	**Date of Application**	**11/29/2017**
Agency Name	**Loup County**	**Contact Person Title**	**Highway Superintendent**
Contact Person Name	**Richard Johnson**	**Address Line 1**	**707 Michigan Ave**
E-mail	**rcj@cableone.net**	**Address Line 2**	**Norfolk, NE**
Phone Number	**(402) 371-1255**	**zip code**	**68701**
NACO District	**Central**		

Proposal Name / Location	CBMP2017-C005800205
Multi-County Proposal	Yes
Proposal Priority Number	1

Instructions
required input
changes allowed
locked - no input

Structure Information

NBI Structure Number	Local Name	Location	County	Existing Length (ft)	Existing Total Width (ft)	Existing Type	State Classification
C005800205		5W US183 ROCK CL at CALAMUS RIVER	Loup	47.00	20.00	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
C005800205	No	No	35

Proposal Construction Details

NBI Structure Number	Proposed Action	Proposed Structure Type	Proposed Length (ft)*	Proposed Total Width (ft)*	Workforce	Total Estimated Bridge Cost	Anticipated Reimbursement from CBMP	Comment
C005800205	Replace	Precast Deck Panels	91.75	28.00	Contract	$369,483	$150,000	3 span (31' Deck Slab units)
			* Length and Width not required for Culverts. Please provide culvert size in comments.		total	$369,483	$150,000	OK

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. Structure C005800205 is located on the Loup/Rock county line and its' replacement will benefit the residents, agricultural and commodity traffic of both. The inter-county cooperation and cost sharing can be considered an innovative approach to structure replacement.

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 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 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. 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. The deck slab units can be fabricated relativaly easily and contractors may begin to make them in their yards, or even onsite. Currently there are a number of suppliers that can produce the units. 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. Information regarding the replacement of a county line structure process can be conveyed to other Counties.

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

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

The structure is considered extremely durable and expected to require minimal maintenance over it's expected use beyond 75 years. The County expends considerable resources to complete the required maintenance activities on deficient bridges including the replacement and repair of timber/concrete decks, abutment back-wall, pile, wing, stringer, and guardrail. Additional costs are associated with bank stabilization (scouring) and the backfill of roadway settlement. Replacement with this type of structure will 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 acitivities occurring in rural Nebraska. The width and weight restrictions of structurally deficient bridges may limit the required access to property and create an inconvienance 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 individuals, Loup and Rock County and the State of Nebraska:

The project serves as a bus route intermittently, determined by need. In the past, there have been children of agriculturally based families or their employees.

The project is on an emergency services route; it is the only river crossing in Loup County north of Taylor to more than a single residence or operation. The roadway /bridge provides emergency access for northern Loup County, southern Rock County, southern Brown County and part of Blaine County.

The detour length is approximately 90-100 miles, which is quite excessive.

The structure is utilized for commercial traffic. There is considerable agriculture industry in the area, primarily cattle operations.

There is significant economic activity in the area. The roadway/structure is utilized for hauling cattle from Loup, Rock, Blaine, and Brown counties. As stated above, the detour length is significant and haulers would be significantly affected if required to follow the detour.

The project provides continuity to other recently completed projects. When the project is completed it will provide access to Hwy. 183 for northern Loup and Blaine Counties and southern Rock and Brown Counties. Approximately 10 years ago, the other bridge on the Loup/Rock County line across the Calamus River was completed using local funds. Once the project is completed, there will be no posted bridges from the Northwest corner of Loup County to U.S. Hwy. 183.

The roadway/bridge is considered “necessary” to the local traffic. As stated above, this is the only Calamus River crossing north of Taylor and the only access for northern Loup County and

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:

69% **percent complete**

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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!

APPLICATION FORM County Bridge Match Program 2017

Applying County	**Furnas**	**Date of Application**	**11/27/2017**
Agency Name	Furnas County	**Contact Person Title**	Highway Superintendent
Contact Person Name	Lance Harter	**Address Line 1**	4634 Parklane Drive
E-mail	lharter@oakcreekengineering.com	**Address Line 2**	Kearney, NE
Phone Number	(308) 455-1152	**zip code**	68847
NACO District	**West Central**		

Proposal Name / Location	2017 Multi-Structure
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
C003324910		2.5E 2N OF EDISON at TURKEY CREEK	Furnas	43.00	16.20	Steel Truss - Thru	Local
C003331410		.7S 2E OF EDISON at STREAM	Furnas	83.00	20.00	Wood or Timber Stringer/Multi-beam or Girder	Local
C003320635		1.5W 3N OF EDISON at DRY CREEK	Furnas	37.00	16.00	Steel Stringer/Multi-beam or Girder	Local
Add a Structure?							

Eligibility

NBI Structure Number	Min. Maintenance Road (yes/no)	Advertised for Construction bids?	Average Daily Traffic
C003324910	No	No	25
C003331410	No	No	25
C003320635	No	No	17

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
C003324910	Replace	Steel Girder	70.00	27.00	Contract	$290,000	$150,000	add optional information
C003331410	Replace	Culvert Pipes			County Forces	$85,000	$46,750	Triple 144" Culverts x 46 ft. long with Headwalls and Sheet Pile Wings.
C003320635	Remove	Not Applicable			County Forces	$7,500	$3,250	add optional information
			* Length and Width not required for Culverts. Please provide culvert size in comments.		total	$382,500	$200,000	OK

Criteria 1 - Innovation (0-20 points)

Describe what is innovative about this proposal.

This proposal combines replacement of two (2) structurally deficient bridges and the removal of one (1) structurally deficient bridge. Structure No. C003324910 (24910) and C003331410 (31410) span Turkey Creek. Structure No. C003320635 (20635) spans Dry Creek.

All three (3) structures are on roads classified as Local. For 24910 and 31410, the proposed structures will be designed to eliminate obstacles within the horizontal clear zone and meet adequate return flow periods for road overtopping.

24910 would be a clear span bridge to prevent debris accumulation and for increased road overtop return flow periods. Turkey Creek Q100 flows are estimated at over 7,000 cubic feet per second. Hydraulic Assessment was previously completed for an upstream federal aide bridge located upstream from this structure. Background work for that Hydraulic Assessment will be used in design of this structure and reduce engineering costs.

31410 will be designed with toe walls and sheet pile wings. By fabricating this culvert structure with headwalls and toewalls, scour potential has effectively been eliminated. Headwalls also reduce the footprint of the structure by reducing required pipe length. This generally eliminates the need for right-of-way acquisition and accommodates existing fence lines. The proposed structure will be constructed within existing right-of-way.

Roadway to 20635 can be re-classified as a Minimum Maintenance, which eliminates the need to replace this structurally deficient bridge. A new structure would not be built to replace the existing structure.

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

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

24910 will be a clear span, concrete deck steel girder bridge that can be constructed by several local contractors. Concrete deck, steel girder bridge designs are common in today's county road bridge replacement options. Materials and skilled contractors are readily available, which will result in reduced supplier costs and expedited construction timelines. By selecting a clear span structure, we will save time by eliminating work within the channel and active flow. This structure can be constructed any time of the year and not see an increase in project cost due to constructability issues. Channel impacts will be avoided to the greatest extent practical and permitting can be expedited.

31410: Culvert pipe manufactured headwalls have been used by Furnas County for several other bridge replacement projects. These structure types have been designed to effectively meet roadway overtop expectations and have not required any routine maintenance. Several suppliers are readily available and have previous experience with fabrication of these structures. County Forces have successfully installed these structures with current crew and without needing to purchase specialized equipment.

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

Removing 20635 without the need for replacement results in the significant costs savings of a new structure and any maintenance a new structure might need. This also eliminates any current maintenance costs needed on the existing structure.

Criteria 3 – Sustainability or transferability of innovation (0-10 points) **Describe how the innovation can be shared and used by other Counties.**
Several suppliers are readily available and have previous experience with fabrication of bridge materials and culvert pipe structures. County Forces generally have the equipment needed to remove existing bridges and install culvert pipe structures with current crew.

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

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

24910 will be a steel girder bridge, requiring little to no maintenance costs throughout material lifespan. Bridge materials will meet all NDOT Specifications and lifespan will be maximized.

31410 will be a culvert type structure, requiring little to no maintenance throughout material lifespan. Culvert materials will meet NDOT Specifications for thickness and lifespan will be maximized.

20635 will be removed and will not require replacement/maintenance.

Criteria 5 – Project Significance (0-20 points)

Describe what makes this proposal significant to your county.

24910 is on a Local Road with an agricultural surrounding. Detouring of agricultural equipment occurs due to the reduced load carrying capacity of the existing bridge. Legally loaded vehicles are restricted from crossing due to the 11 ton load posting. This structure is currently on the County 6 year road plan for replacement.

31410 is on a Local Road with an agricultural surrounding. Detouring of agricultural equipment occurs due to the reduced load carrying capacity of the existing bridge. Legally loaded vehicles are restricted from crossing due to the 5 ton load posting. This structure is currently on the County 6 year road plan for replacement.

20635 is on a Local Road with an agricultural surrounding. Detouring of agricultural equipment occurs due to the reduced load carrying capacity of the existing bridge. Legally loaded vehicles are restricted from crossing due to the 5 ton load posting. This structure is currently on the County 6 year road plan for replacement.

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:

79% **percent complete**

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

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

APPLICATION FORM County Bridge Match Program 2017

Applying County	**Hitchcock**	**Date of Application**	**11/28/2017**
Agency Name	**Hitchcock County**	**Contact Person Title**	**Highway Superintendent**
Contact Person Name	**Phillip Dixon**	**Address Line 1**	**31085 280th Rd**
E-mail	**dixonphillip11@gmail.com**	**Address Line 2**	**Pleasanton, NE**
Phone Number	**(308) 388-3471**	**zip code**	**68866**
NACO District	**West Central**		

Proposal Name / Location	Hitchcock-Hayes Bundle
Multi-County Proposal	yes
Proposal Priority Number	1

Instructions
required input
changes allowed
locked - no input

Structure Information

NBI Structure Number	Local Name	Location	County	Existing Length (ft)	Existing Total Width (ft)	Existing Type	State Classification
C004415705		8.5S 2E OF CULBERTSON at DRIFTWOOD CREEK	Hitchcock	101.00	20.00	Steel Stringer/Multi-beam or Girder	Local
C004300300		4.5W 1.5N HAMLET at FRENCHMAN CREEK	Hayes	67.00	20.20	Wood or Timber Stringer/Multi-beam or Girder	Local
Add a Structure?							

Eligibility

NBI Structure Number	Min. Maintenance Road (yes/no)	Advertised for Construction bids?	Average Daily Traffic
C004415705	no	no	25
C004300300	no	no	25

Proposal Construction Details

NBI Structure Number	Proposed Action	Proposed Structure Type	Proposed Length (ft)*	Proposed Total Width (ft)*	Workforce	Total Estimated Bridge Cost	Anticipated Reimbursement from CBMP	Comment
C004415705	Replace with non-bridge size	Culvert Pipes			County Forces	$71,139	$39,126	Twin 10ft. CMP's
C004300300	Replace with non-bridge size	Culvert Pipes			County Forces	$69,215	$38,068	Triple 8ft. CMP's
			* Length and Width not required for Culverts. Please provide culvert size in comments.		total	$140,354	~~$77,194~~	See calculation comments >>

Criteria 1 - Innovation (0-20 points)

Describe what is innovative about this proposal.

This project is innovative because this will be the 2nd partnership of projects for the County Bridge Match Program between Hitchcock and Hayes Counties. These two Counties share the same philosophy to build easier maintenance metal culvert structures at cheaper capital costs. These Counties were selected in the first selection process and were extremely impressed with the savings they acquired by bidding larger amounts of material, equipment costs and utilization, manpower experience sharing and future cost savings of C.M.P. structures over timber bridges. The factors of the experience excited them to try for more projects and sharing of bundled projects to save costs for projects to aid the traveling public. The Counties of Hitchcock and Hayes held a joint meeting one year ago and decided that they would share equipment, labor, and knowledge of constructing these projects and future projects and now after completing the 2017 projects fully realize the savings they are attaining by bundling projects and working together. Bundling these projects between two counties and with several projects they will get innovative bids on materials, contractors and better quality work. Training and working with shared county labor to do parts of these projects will help save money and help in constructing future projects. Hitchcock has been installing their own projects of this type and their experience will aid Hayes County in training their labor force and Hayes equipment will aid Hitchcock County in the ability to construct these projects. Bundling installation of these culvert projects will save funding for future projects. The Counties have been sharing services by hiring a licensed Highway Superintendent, (Phillip Dixon) for the last 7 years and this partnership documents that these counties know they are successfully saving dollars by working together in innovative ways to reduce redundancy. Counties typically share projects along county lines , however due to the cost and number of projects in this innovative project, it is a unique partnership.

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

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

Hayes and Hitchcock Counties are visualizing the cost savings of manpower time on projects, which gives them more useful employment of labor on all aspects of county roadwork as more time for roadway maintenance, safety sign management, equipment maintenance and other type bridge maintenance. Projects of this type, which removes bridges and replaces them with metal culverts can be done in just days that will reduce labor costs, material cost and inconvenience for the traveling public. Maintenance of these projects will reduce costs of replacing worn out deck planks, broken or rotted stringers, rotted piling and replacing deck plank damaged by maintainers and machinery. Time will be reduced with easier road maintenance with motorgraders not needing to slow down and work around bridge approaches, which will allow them to maintain more miles of road a day saving fuel, machine costs and labor. Hayes and Hitchcock Counties are using NDOT Standard Specifications for the culvert gauges in their cost estimates as they believe this will give them longer lifespan giving them cost savings over going with lighter gauge culvert.

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

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

The innovation of bundling in the inaugurated first selection process of the County Bridge Match Program has impressed these counties officials to the point of wanting to do more sharing and bundling for the cost savings that they encountered in the first selection process of the County Bridge Match Program. The innovative way in which this project will be bundled will support projects with another county and allow them to bid larger quantities of materials from suppliers which brings larger savings to counties that are bundling these projects by working together. Hitchcock and Hayes Counties are also saving money on engineering on these projects by hiring one engineer to do all projects. Engineers can work cheaper where they have less travel time for them and their employees when working on surveying and working on projects in the same area. It is acknowledged that this program doesn't pay for engineering costs but bundling will bring cost savings to the counties. Procuring bids from contractors to do construction parts of these bundled projects will give counties more competitive bids because of the larger amounts of projects they can do in the same area will give them savings on utilizing equipment and labor more efficiently. The closer proximity of these projects should bring considerable savings to these two counties by bundling these projects.

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

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

Long time maintenance savings will bring considerable cost savings to the counties and the taxpayer. Savings will be made by replacing timber bridges with metal culvert structures thus reducing labor and material costs such as needing to replace worn out deck planking, broken or rotting stringers, constant replacing of guardrails and curbs and bridge signing costs. Cost cutting will be utilized on fuel and labor on motorgraders as they may maintain quickly across a culvert structure and not need to stop and spend time working around a bridge deck and trying to avoid bridge decks. The officials of these counties believe that replacing these timber bridges with CMP structures should give them 15 to 20 years of longer structure availability and big savings on maintenance upkeep over the years because of timber decay, damage from floods, maintainer damage and wear and tear from traffic.

Criteria 5 – Project Significance (0-20 points)

Describe what makes this proposal significant to your county.

Hitchcock and Hayes Counties believe the greatest significant thing that this proposal will bring to them is cost savings in the future. These projects will also aid economic development by allowing faster and heavier truckloads that will promote agriculture which is the number one business in these two counties and our great state of Nebraska. Agriculture transportation is vital to central Nebraska. The total economic impact of Nebraska's agriculture production accounts for nearly 60% of the total output in this southwest region. The economic impact of agriculture production in Nebraska ranks transportation as the third largest output in the form of business receipts, behind crops, livestock and ag related manufacturing and ahead of research and ag tourism. When these industries are compared to the economic impact of labor income, transportation ranks second behind the crops industry. Oil exploration and drilling has created a problem in Hitchcock and Hayes Counties as these structurally deficient bridges cause problems with heavy trucks not being able to traverse these low tonnage bridges. The culvert structure replacements will allow free flow of these heavy tricks and easier flow of smaller vehicles as they need not to slow down to cross narrow bridges. These projects are very significant for Hitchcock and Hayes Counties as they have a large percentage of structurally deficient bridges in District 4 that the Nebraska Department of Transportation has on inventory in these two counties. The help obtained thru this County Bridge Match Program will allow them to remove some of these bridges at a cost they can afford otherwise it will take years for them to be able to afford to replace these structures. The financial help of this County Bridge Match Program will greatly reduce the current and future Real Estate taxation problem by declining the mill levy of the tax program and tremendously increasing economic development of these small town low population counties of Hitchcock and Hayes.

The structure in Hitchcock County separates land owned by farmers which causes them to travel 5 miles out of the way with farm equipment and trucks to access land across the creek. They need to detour around on a state highway causing safety concerns. The structure is not only structurally deficient but also has been shutdown to 4 Ton passage due to a critical finding report at this years bridge inspection.

The structure in Hayes County serves a cattle feedlot that has a considerable amount of heavy truck traffic servicing the feedlot and the amount of time of construction using CMP's as a replacement for the bridge would get the roadway open again much faster for the business. The county has been trying to keep this bridge passable by considerable patching of decayed stringers over the last few years.

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:

76% **percent complete**

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

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

APPLICATION FORM County Bridge Match Program 2017

Applying County	**Red Willow**	**Date of Application**	**11/28/2017**
Agency Name	Red Willow	**Contact Person Title**	County Road Superintendent
Contact Person Name	Gary Dicenta	**Address Line 1**	109 E. 2nd Street
E-mail	gdicenta@miller-engineers.com	**Address Line 2**	McCook, NE
Phone Number	308-345-3710	**zip code**	69001
NACO District	**West Central**		

Proposal Name / Location	Safer Roads - Red Willow/Frontier Counties
Multi-County Proposal	Yes
Proposal Priority Number	1

Instructions
required input
changes allowed
locked - no input

Structure Information

NBI Structure Number	Local Name	Location	County	Existing Length (ft)	Existing Total Width (ft)	Existing Type	State Classification
C007314405		NW EDGE OF DANBURY at BEAVER CREEK	Red Willow	52.00	25.50	Wood or Timber Stringer/Multi-beam or Girder	Local
C003242005	190726.01	2N 3.5E OF STOCKVILLE at MITCHELL CREEK	Frontier	32.00	16.20	Not Applicable Not Applicable	Local
C003227710	RD Middle Canyon	5.2S 1.5W OF EUSTIS at STREAM	Frontier	32.00	24.20	Wood or Timber Stringer/Multi-beam or Girder	Local
Add a Structure?							

Eligibility

NBI Structure Number	Min. Maintenance Road (yes/no)	Advertised for Construction bids?	Average Daily Traffic
C007314405	No	No	50
C003242005	No	No	10
C003227710	No	No	25

Proposal Construction Details

NBI Structure Number	Proposed Action	Proposed Structure Type	Proposed Length (ft)*	Proposed Total Width (ft)*	Workforce	Total Estimated Bridge Cost	Anticipated Reimbursement from CBMP	Comment
C007314405	Replace	Culvert Pipes			County Forces	$55,000	$30,250	2 - 8 1/2 x 40' CMPs with headwalls
C003242005	Replace	Culvert Pipes			County Forces	$14,000	$7,700	84" x 64' CMP
C003227710	Replace	Concrete Box Culvert	27.00	40.00	Contract	$105,000	$57,750	Triple 8x9x40
					total	$174,000	$95,700	OK

*** Length and Width not required for Culverts.**
Please provide culvert size in comments.

Criteria 1 - Innovation (0-20 points)

Describe what is innovative about this proposal.

Red Willow and Frontier Counties are submitting this proposal, in a cooperative effort to streamline the design, bid and build process through project bundling. It is innovative because traditionally, counties have not actively reached across the established map lines in the name of cooperation and efficiency. This project is innovative because it will be the first time Frontier and Red Willow Counties combined for the benefit of both counties. Red Willow County Highway Superintendent met with Frontier County and their engineer to discuss the advantages of working together. Both counties hope this will be the beginning of working together on future projects. Frontier and Red Willow County have been using Miller& Associates as their consulting engineer, so this will make design a quicker process. Frontier and Red Willow counties have been installing their own projects for numerous years. Although both counties are experienced, we hope to learn something new from the other county. Structure numbers C007314405 (Red Willow) and C00324005 (Frontier) are located on streams which are generally dry and only see flow during an excessive rainfall event. By constructing these culverts, we can eliminate bridge structures.

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

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

It is anticipated that each county will recognize savings in both engineering and construction costs by sharing forces and equipment. With the counties constructing the CMPs, design costs are much less than the more traditional bridge crossings. Culvert pipe, whether metal or concrete, are relatively inexpensive when compared to bridges. The cost of a new bridge could range anywhere from $150,000 to $500,000 or even greater. The use of CMPs, depending on whether a single or double is required makes the price range from $10,000 to $55,000. Removing the old structure and replacing with CMPs would possibly be a 2-3 week process, where going with a new bridge could be three (3) months or more. The use of a CBC would be a substantial cost savings of money and time compared to constructing a new bridge. This translates into lower overall project costs. Once the CMPs and CBC are constructed, very rarely will there be any maintenance costs.

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

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

Standard box culvert structure plans are available upon request from the NDOT and can easily be shared by cooperating counties. Construction methods can also be easily shared. Counties can do the removal and prep-work to reduce cost and time. CMP and CBC projects are easily maintained with the counties working together. Installation techniques can be shared and possibly improved. With the change in weather patterns and stream flows, culvert pipes and CBCs are becoming more common and economical. Once again, future maintenance costs should be minimal.

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

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

Corrugated metal pipes that are designed to meet NDOT standards have a lower initial cost and a life expectancy of thirty-five (35) plus years and require very little maintenance. Properly designed CBC (NDOT Standards) are extemely durable and require very little maintenance if any. There usually are no guardrails; therefore associated initial, general maintenance and collision repair costs are eliminated. Maintaining a wooden structure is extremely expensive with labor and equipment being tied up. Generally a wooden structure has a low posting limit. Replacing instead of repairing is the most cost beneficial, in the long run, when it comes to future maintenance.

Criteria 5 – Project Significance (0-20 points)

Describe what makes this proposal significant to your county.

This project will remove two (2) deficient bridges and one (1) temporary CMP (Which replaced a deficient structure).
C007314405 - Red Willow County - Structurally Deficient - 33% - This structure is a timber substructure and superstructure. The structure has a concrete deck which makes it nearly impossible (or cost prohibitive) to repair super or sub structure. Posted 11-16-24. This road carries larger oil field vehicles, farm equipment and semi tractor/trailers. It is also a mail route. This road has an ADT of 50 (Brm), one of the higher ADTs in the county. Currently most commercial and agricultural traffic is restricted because of a low posting and narrow width. Completed hydraulic study indicates replace with twin 8-1/2 x 40' CMPs with headwalls.
C003242005 - Frontier County - Temporary CMP: The original single span timber bridge (32' x 20') was removed because the bridge became cost prohibitive to repair. A temporary 36" CMP was installed to keep the road open. Installing this CMP will also raise the road grade profile to improve the existing roadway profile. Replacing with new culvert should only cause the road to be closed 2 - 4 days. This road has agricultural traffic. Completed hydraulic study indicates replace with 84" x 64' CMP.
C003227710 - Frontier County - Structurally Deficient - 39.9%: The existing (32' x 24.2') timber structure posted 9-ton. This road is a school bus route, mail route and farm to market route. Removing the 9-ton structure and replacing with CBC designed to NDOT standards will make this a safer structure and will carry the legal weight limits. This structure is in need of costly repairs and it is most economical to spend this money on a new structure that will have minimal repair expense. Completed hydraulic study indicates replace with triple (8'x9'x40') CBC designed to NDOT standards.
Counties will work together to remove existing structures, do dirt work and provide seeding.

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:

81% **percent complete**

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

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

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

APPLICATION FORM County Bridge Match Program 2017

Applying County	**Cheyenne**	**Date of Application**	**11/29/2017**
Agency Name	**Cheyenne County**	**Contact Person Title**	**Highway Superintendent**
Contact Person Name	**Douglas Hart**	**Address Line 1**	**Box 262**
E-mail	**dhart@cheyennecounty.net**	**Address Line 2**	**Sidney, NE**
Phone Number	**(308) 254-4294**	**zip code**	**69162**
NACO District	**Panhandle**		

Proposal Name / Location	Road 111
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
C001704103	170	7S SIDNEY at COW CREEK	Cheyenne	31.00	24.50	Wood or Timber Stringer/Multi-beam or Girder	Local
Add a Structure?							

Eligibility

NBI Structure Number	Min. Maintenance Road (yes/no)	Advertised for Construction bids?	Average Daily Traffic
C001704103	no	no	99

Proposal Construction Details

NBI Structure Number	Proposed Action	Proposed Structure Type	Proposed Length (ft)*	Proposed Total Width (ft)*	Workforce	Total Estimated Bridge Cost	Anticipated Reimbursement from CBMP	Comment
C001704103	Replace with non-bridge size	Culvert Pipes			County Forces	$41,818	$23,000	2- 60 ft CMP
			* Length and Width not required for Culverts. Please provide culvert size in comments.		total	$41,818	$23,000	OK

Criteria 1 - Innovation (0-20 points)

Describe what is innovative about this proposal.

The purpose of this proposal is to replace a deficeint timber bridge with low cost, low maintenance CMP of less that bridge size to take them off of our bridge inventory. This will save in construction time and increase the safety for the public as well as keep vital roads open for harvest and rural traffic. Cheyenne county has replaced one qualifying deficient bridge prior to the CBMP, and is currently in the process of replacing our 2nd bridge with CMP with funds achieved with a Multi-county proposal last year.

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

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

We will replace high maintance a timber structure with a low cost CMP that will take less time to complete and less funding to achieve a safe and sufficient structure with minimal disruption to farming traffic. Counties may join forces to complete the project faster and with more shared knowledge.

Criteria 3 – Sustainability or transferability of innovation (0-10 points)
Describe how the innovation can be shared and used by other Counties.
Interlocal agreements can be made for joining forces in bridge replacement. Many counties will use the less than bridge size CMP placement. This can save time and money.

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

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

This proposal replaces high maintance wood structures with a need for repairs with low maintenance CMP that will be maintance free for several years, and have a low replacement cost in the future.

Criteria 5 – Project Significance (0-20 points)

Describe what makes this proposal significant to your county.

It replaced our deficient bridges with low cost material and gets them off of the state inspection list. Cheyenne county has very few deficient bridges at this time and can be zero in the next 2 years with bridge match funding allowing other counties to recieve 100% of the bridge match funds in the final year of the program. All counties will likely encounter more deficient bridges in the future making it important to correct as many problems as possible with current funds.

Criteria 6 – Needs (0-20 points)

Calculated by scoring committee based on the counties SD bridges.

Criteria 7 – Equity (0-20 points)

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

Submittal Instructions:

90% **percent complete**

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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!

Criteria 1 - Innovation (0-20 points)

Describe what is innovative about this proposal.

The replacement of 47 year old, concrete channel beam structure, consists of a proposal for a new concrete box culvert. The box culvert would be of standard design. The short construction period would be advantageous on this high traffic, other arterial, roadway. The innovation for this bridge replacement is the choice of a box culvert for the replacement. It is a proven and reliable solution which Nebraska counties have come to rely on.

APPLICATION FORM County Bridge Match Program 2017

Applying County	**Scotts Bluff**	**Date of Application**	**12/1/2017**
Agency Name	Scotts Bluff County	**Contact Person Title**	Highway Superintendent
Contact Person Name	Linda Grummert	**Address Line 1**	785 Rundell Rd
E-mail	lgrummert@scottsbluffcounty.org	**Address Line 2**	Gering, NE
Phone Number	(308) 436-6700	**zip code**	69341
NACO District	**Panhandle**		

Proposal Name / Location	Scotts Bluff 2018 Proposal
Multi-County Proposal	No
Proposal Priority Number	1

Instructions
required input
changes allowed
locked - no input

Structure Information

NBI Structure Number	Local Name	Location	County	Existing Length (ft)	Existing Total Width (ft)	Existing Type	State Classification
C007921010	E14A	WJCT US26/N29 .9E at TRI-STATE CANAL	Scotts Bluff	78.00	33.00	Concrete Channel Beam	Other Arterial

Eligibility

NBI Structure Number	Min. Maintenance Road (yes/no)	Advertised for Construction bids?	Average Daily Traffic
C007921010	No	No	1365

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
C007921010	Replace	Concrete Box Culvert	80.00	36.00	Contract	$350,000	$150,000	add optional information
			* Length and Width not required for Culverts. Please provide culvert size in comments.		total	$350,000	$150,000	OK

Criteria 1 - Innovation (0-20 points)

Describe what is innovative about this proposal.

The replacement of 47 year old, concrete channel beam structure, consists of a proposal for a new concrete box culvert. The box culvert would be of standard design. The short construction period would be advantageous on this high traffic, other arterial, roadway. The innovation for this bridge replacement is the choice of a box culvert for the replacement. It is a proven and reliable solution which Nebraska counties have come to rely on.

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

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

Concrete Box culvert projects are typical completed in 2 months or less. A box culvert typical is half of the cost of a slab bridge design.

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

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

Concrete box culverts are a well known design. They have been used in Nebraska extensively as soft match projects in the past, making them a proven design. They were considered an economical design with the Soft Match program, that is why this design was so favored.

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

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

Concrete box culverts are low maintenance, and have a long life span. The Nebraska Soft Match Program considered box culverts to good choice for Local Public Agencies. They were inexpensive to construct, and were economical for the local agencies to maintain for many years.

Criteria 5 – Project Significance (0-20 points)

Describe what makes this proposal significant to your county.

This bridge replacement is over one of Scotts Bluff County's largest irrigation canals. Experment Road is a main paved roadway between Mitchell, Nebraska and Cook Oil Road, another major Scotts Bluff County roadway. These paved roadways, have areas of concentrated housing developments which rely on these roadways. This bridge is on a link to Nebraska State Highway No. 26, which is a 4 lane highway serving both Mitchell and Scottsbluff. Scotts Bluff county has nearly 50% of the structural deficent structures in the NACO panhandle district. The average daily traffic count on Experiment Road, at this bridge, is 1,365 according to the bridge record in BRM. This is the highest average daily traffic county of all remaining 26 structural deficient bridges in Scotts Bluff county.

Criteria 6 – Needs (0-20 points)

Calculated by scoring committee based on the counties SD bridges.

Criteria 7 – Equity (0-20 points)

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

Submittal Instructions:

100% **percent complete**

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