Boone County Nebraska
Albion North and Albion Southeast Replacement Project
C000612830 andC000614120

The structures are primarily used for farm access and farm operations in the area. Structure C000612830 is a timber structure in poor condition with an 8-ton rating. The structure receives a fair amount of traffic in its present condition and would increase if a better structure was constructed. The timber deck is an ongoing maintenance cost to keep it useable for the traffic that does use the structure that could be eliminated.

Structure C000614120 is a truss bridge that receives significant daily traffic and is needed in the area for farm production by several farming operations. Again, keeping the timber deck in useable for the 75 vehicles a day that use the structure is an ongoing maintenance cost. The structure is a fracture critical truss that requires additional inspection and reporting costs. The 11-ton structure is 16' wide and replacing it with a new structure would greatly increase its use by local farm operators.

The County is proposing to replace C00612830 with a precast deck plank structure with steel abutments and a TL-2 railing to replace Structure C000614120 with a poured in place concrete slab bridge. Both bridge types have been used extensively throughout the county as they both minimize superstructure thickness which requires less grading and right-of-way to be purchased. The precast deck plank has proven to minimize closure time by eliminating in field deck pours and cure times for concrete. To replace C000614120 4 span deck plank bridge would be needed. A poured in place slab would allow for a 3 span structure to span the creek. There is concern for tree debris in the area and the longer spans and 1 less bent will allow for better passage of debris. Both structure types have been proven to minimize maintenance costs. Letting both structures at one time increases the scope and size of the project attracting more bridge contractors to the bidding. We recognize that not every available contractor in the area that builds deck plank bridges may not build poured slabs. The award will not be tied together and will allow contractors to bid on either one or both structures. The county may award bridge projects to multiple contractors depending upon low bid for each structure.

Both structures have a negative impact on daily farming practices in the area. Once replaced, there will be immediate improvement for farmers in the area by allowing wider and heavier loads to cross the crossings without detour. The wider structure will also improve traffic safety for normal traffic as well.

Boone County
C000612830

Boone County
C000614120

CASS COUNTY DEPARTMENT OF ROADS

LEONARD THORNE - HIGHWAY SUPERINTENDENT
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WEEPING WATER, NE 68463
PH: 402-296-9353 FAX: 402-297-0165
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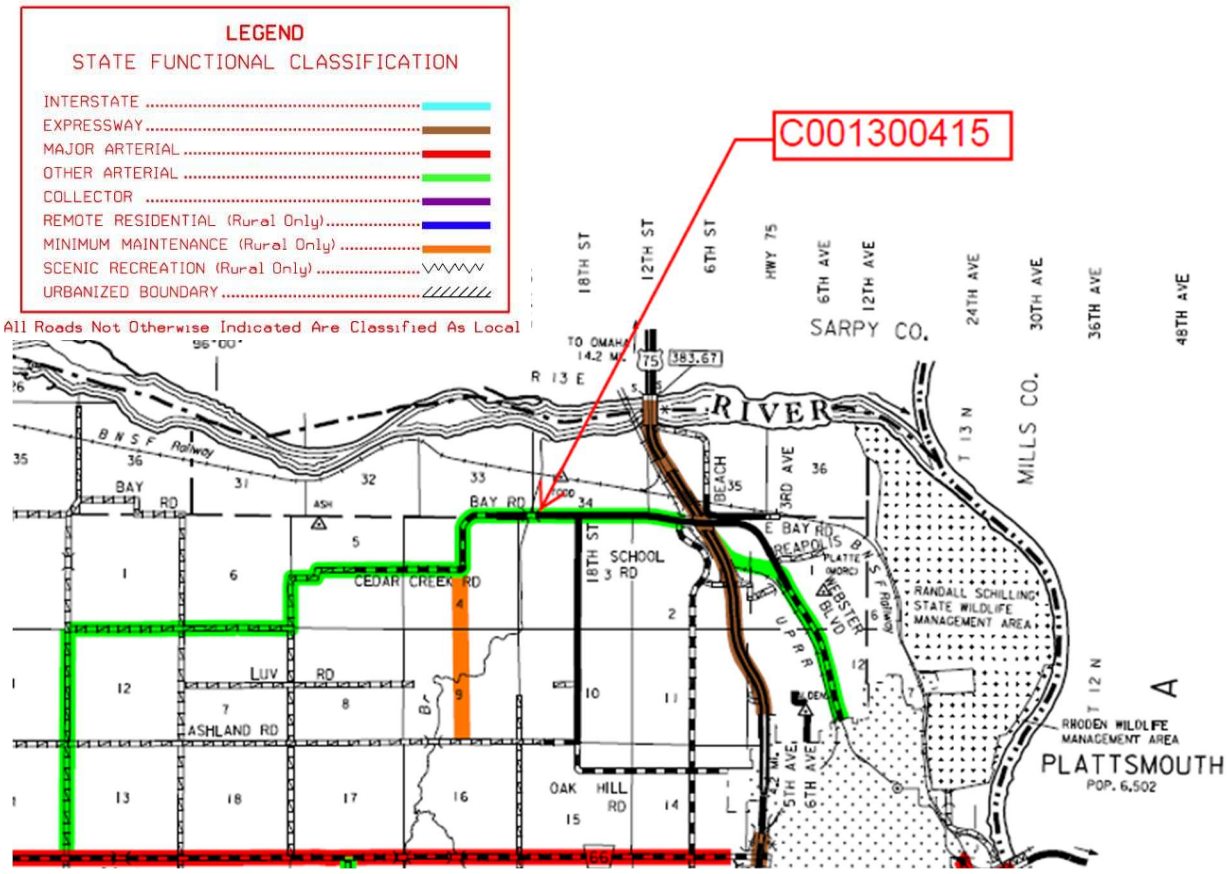
2025 County Bridge Match Program Proposal:

Cass County structure C001300415 is being submitted for consideration in the County Bridge Match Program (CBMP).

This bridge satisfies the proposal requirements:

- Cass County's proposal is for a single bridge.
- C001300415 is indicated on the proposal's map of Eligible Bridges.
- The roadway is classified as "Other Arterial."
- This proposal includes the completed Application Form and Project Narrative.



Location Map

Without CBMP assistance, a project of this size would impose additional hardships on Cass County taxpayers. The funding will allow the County to schedule an important project, such as this, for construction without significantly affecting other budgeted priorities. C001300415 is currently on Cass County's 1-year Improvement Plan as a

bridge replacement project, C-13(940). The preliminary survey is complete, and the project can readily be moved to design and construction if selected for funding.

Structure C001300415 spans Four-mile Creek, directly North of Plattsmouth, in Cass County. Specifically, the bridge is located on Bay Road between 30th and 18th Streets and between Sections 3/34, Township 12/13, North Range 13 East.
Latitude: 41.045592°; Longitude: -95.948110°.

C001300415 Existing Structure

The Structure Inventory and Appraisal (SI&A) indicates that the existing bridge is a 3-span 122 ft. Continuous Concrete Slab Bridge. The bridge is near the end of its useful service life. The substructure is in poor condition and requires repair or bridge replacement.

The bridge is located on Bay Road, a vital route for essential services to a large housing subdivision to the west (Buccaneer Bay.) The subdivision has a population of approximately 1500 residents who rely on the paved roadway/structure for access to the City of Plattsmouth and Highway 34. Access to Highway 34 is the main route for traffic moving south into Plattsmouth and north into Omaha, Bellevue and Offutt Air Force Base. This road supports a significant volume of diverse traffic, and the current ADT is approximately 4500. The detour is 4.5 miles, on primarily gravel, with no restricted bridges.

Cass County intends to be proactive and replace the structure before it fails, or requires closure, to minimize the impact on the traveling public. Permanent closure of the bridge is not an option. The roadway is a vital commuter, farm to market, and recreational route and provides paved access for all types of traffic. A significant challenge to construction of the bridge is providing continual access to subdivision residents. The route will not be closed during construction; access will be maintained utilizing a shoofly with a temporary bridge.

The proposed structure will be a 3-span, 150-foot-long Continuous Concrete Slab bridge (1-60-foot & 2-45-foot spans) on a 15° skew. The width will be 28 feet (clear roadway) with guardrail, end treatments, and Type II approach sections. The bridge will be built on the existing alignment. Traffic will utilize a shoofly adjacent to the construction activities.

C001300415 Existing Roadway

Continuous Concrete Slab bridges are cost effective, and they typically require fewer construction days than alternative designs and use a streamlined design and construction process. This means that an existing bridge can normally be replaced with a Continuous Concrete Slab bridge in 120 calendar days. Contractor innovation in the construction process continues to reduce the time and material expenditure required. Additionally, the experienced contractor pool in Nebraska creates a competitive environment, reducing the owner's replacement structure cost.

Continuous Concrete Slab bridges provide additional benefits regarding permitting and design. Given the common and acceptable practice of bridge submersion on Nebraska roadways, it is best to install a structure that can withstand such events. Continuous Concrete Slab bridges are frequently used because they can withstand this practice while minimizing environmental impacts. These structures typically reduce or eliminate the need for channel modifications. Additional savings are realized throughout the bridges' longer anticipated life span. These structures often last beyond 75 years. Altogether, installing a Continuous Concrete Slab bridge reduces the county's general maintenance and repair costs for years to come.

Proposed Continuous Concrete Slab Bridge

Cass County is grateful for the opportunity to obtain CBMP funding in 2025. The community has been required to adapt to increased travel time, financial losses, and inconvenience caused by the inadequacies of the existing structure. The replacement bridge will provide an all-weather roadway, accessibility to Bay Hill Golf Club, and the suburbs near the structure. The project will have a positive impact on the vital commuter route and improve the quality of life for local residents and producers. Additionally, the proposal will provide the necessary infrastructure for future community growth.

Example of Continuous Concrete Slab Structure Roadway

Cuming County Roads Department

200 South Lincoln Street, Room 202
West Point, NE 68788

Phone: 402-372-6008
FAX: 402-372-6013
E-Mail: chowser@cumingcounty.ne.gov

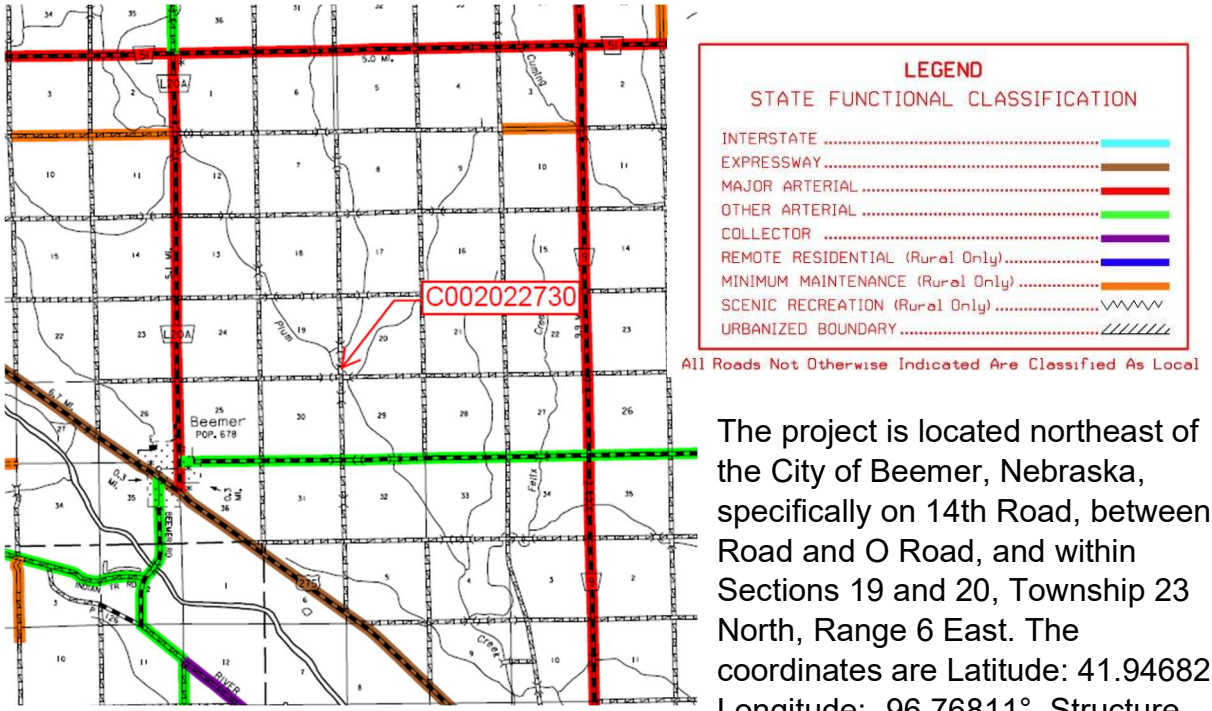
2025 County Bridge Match Program Proposal:

Cuming County structure C002022730 is being submitted for County Bridge Match Program (CBMP) consideration.

This bridge satisfies the proposal requirements:

- Cuming County's proposal is for a single bridge.
- C002022730 is indicated on the proposal's map of Eligible Bridges.
- The roadway is classified as "Local."
- This proposal includes the completed Application Form and Project Narrative.

Without CBMP assistance, a project of this size would create additional hardships for the taxpayers of Cuming County. The County has a significant number of bridges to maintain, which creates a significant financial burden. Funding is the limiting factor in the repair and replacement of these bridges. C002022730 is currently closed. With CBMP funding, this structure can be replaced. Currently, C002022730 is on Cuming County's 1-year Improvement Plan. The structure was being maintained with replacement wood decking before being closed. The project can be readily transitioned to design and construction if selected for funding.



Location Map

The project is located northeast of the City of Beemer, Nebraska, specifically on 14th Road, between P Road and O Road, and within Sections 19 and 20, Township 23 North, Range 6 East. The coordinates are Latitude: 41.94682°, Longitude: -96.76811°. Structure C002022730 spans the Plum Creek

in north-central Cuming County. The Structure Inventory and Appraisal (SI&A) indicates that the existing bridge is an 88-foot Steel Truss-through bridge. The deck is constructed of timber with a width of 16 feet (clear roadway), and the bridge is posted 13/22/28 tons.

Existing Structure

The current narrow width and load rating of this bridge limit traffic, especially for the heavy vehicles required for farming and emergency services. The local agricultural community utilizes this bridge as a “farm to market” route. Heavy farm equipment and heavy emergency vehicles have to detour four miles around the structure due to the weight limit restrictions. Now, with the structure having been recently closed due to the Fracture Critical Inspection, all traffic must detour, increasing the time, mileage, and costs associated with travel in the area.

Adding to the difficulty in traveling in this area, structure C002012220 was also closed due to a Fracture Critical inspection. C002012220 is located around the corner to the east of C002022730 and facilitates east-west traffic, whereas C002022730 is for north-south traffic. Having bridges closed on the north and south roads, as well as the east and west, is a significant inconvenience to all local traffic. Farmers transporting grain to local elevators, emergency vehicles, livestock transportation, and local traffic are all hindered by these structures being closed. Community outreach indicates that the people prioritize replacing the north-south structure, allowing the local community to have a convenient route between Highway 51 and Highway 275.

The narrow width and low tonnage of the existing bridge detours heavier traffic and wide agricultural equipment to other roadways. This is a hardship for the community as it increases the required fuel, mileage, time, and overall cost of agricultural production. Cuming County is a farming community, specializing in grain and livestock production, and the people utilize Highway 275, located southwest of C002022730. The detour length is 4 miles due to restricted traffic. Removal or closure of this bridge is not a long-term option as the community requires a crossing at the current location.

Existing Narrow Roadway

Funding is the primary challenge of replacing this structure, which is why CBMP is an excellent opportunity for Cuming County to afford the replacement structure.
The maintenance requirements of C002022730 prior to being closed were excessive, as they included the cost of time and money to perform the required fracture critical bridge inspections, and include considerable maintenance. The replacement structure will be significantly cheaper to maintain, and typically only takes 120 days to build. The replacement structure estimate is a NU900 175’ (1-70’ 2- 52’-6”) on a 45° skew (RHB). The width will be improved to 28 feet (clear roadway) with thrie beam guardrail, end treatments, and approach sections, Type II.

Example proposed NU900 Bridge

Cuming County is grateful for the opportunity to request CBMP funding in 2025. A new structure, with an appropriate width and unrestrictive tonnage, will carry significantly more traffic than the existing bridge. The replacement will reduce the use and stress on other bridges in the area, allowing the County to focus its resources on different structures that require maintenance or replacement.

Example proposed roadway

Cuming County is excited to see what can be learned and saved by the County through the construction of the replacement structure with the assistance of the County Bridge Match Program.

Gage County Bridge Replacement on S 36th Road and 82nd Road

Gage County is a predominantly rural area where roads and bridges are the essential threads connecting families, farms, and businesses. Two critical yet deteriorating structures, the bridges on South 36th Road and 82nd Road, have reached a point where replacement is essential to ensure the safety and sustainability of our community. This proposal seeks CBMP funding to replace these aging bridges with modern concrete box culverts (CBCs), a solution designed to address current challenges while supporting the county's long-term infrastructure goals.

Gage County takes a proactive, data-driven approach to replacing failing bridges with durable, low-maintenance designs, ensuring every dollar of CBMP investment delivers long-term value. The County remains steadfastly committed to maintaining and modernizing its transportation network. All CBMP projects, even those awarded last cycle, already have plans submitted for state approval and are budgeted for construction within the current fiscal year. This demonstrates Gage County's follow-through and our commitment that extends beyond applying for these projects; we make sure they get built quickly and efficiently.

Bridge C003422745 — S 36th Road (South of Belvidere Drive)

The bridge on South 36th Road, located just south of Belvidere Drive, serves as a **heavy-traffic haul route** connecting local farms, residents, and the **Seitz Rock Quarry** to Highway 136. Originally built in **1977**, the structure has endured decades of wear under continuous truck and agricultural traffic, far beyond what it was designed to handle.

Current Condition

- **Deck: 4 Poor**
- **Superstructure: 4 Poor**
- **Substructure: 4 Poor**
- **Posted Load Rating: 25 Tons / 37 Tons / 43 Tons**

Maintenance History

The bridge deck has presented persistent issues since 2012, including cracking, scaling, and delamination. In 2020, the deck was milled and overlaid, but the problems quickly resurfaced. Ongoing potholing and asphalt breakups require constant maintenance, drawing county crews to the site multiple times per year. Structural components also show advanced deterioration: girders at the bearings are scaling, delaminating, and heavily rusted. The abutments, which are believed to have been repurposed from a former railroad bridge, show signs of age and wear.

The County performed channel maintenance in 1999 to realign the stream and prevent erosion of the south abutment, and in 2012, maintenance was done on the southwest wing. Despite these interventions, deterioration continues.

Traffic and Safety

South 36th Road carries some of the **heaviest daily traffic in rural Gage County**, including quarry trucks and farm-to-market vehicles. Traffic counts confirm this importance, with **621 vehicles per day with 20% of traffic being heavy truck traffic**. In the past ten years, one injury accident (classified as INJ-B, suspected injury) and three animal-related crashes have occurred at this location, underscoring its high usage and potential hazards. While the crash resulted only in a suspected injury, the County recognizes that it was fortunate to avoid a fatality which is an outcome that is never acceptable. This underscores the urgent need to replace the deteriorating bridge before a more serious incident occurs.

Community and Economic Impact

This bridge plays a vital role in supporting Gage County's economy. The Seitz Quarry depends on this route for hauling rock and aggregate materials across the region and state, while farmers rely on it to move equipment and grain efficiently to Highway 136. Deterioration of the bridge not only poses safety risks but also threatens to disrupt essential supply chains. A bridge failure or closure would force heavy traffic onto alternate routes not designed for such loads, increasing road damage and maintenance costs elsewhere in the county.

Proposed Solution

Replacing this bridge with a **Triple 12' x 12' x 40' Concrete Box Culvert** will provide a safer, longer-lasting, and low-maintenance crossing. CBCs are cost-effective, minimize long-term upkeep, and offer the durability needed for heavy truck traffic. This design also allows for efficient construction and faster reopening to traffic, minimizing disruption for residents and commerce. The new structure will carry **no weight restrictions**, ensuring quarry and agricultural hauls can continue safely and efficiently for decades to come. This solution aligns fully with Nebraska Minimum Design Standards and will restore a reliable corridor for quarry operations, agricultural movement, and emergency services.

Bridge C003453335 — 82nd Road (North of Dogwood Road)

The bridge on 82nd Road, north of Dogwood Road, serves as a **key connector in a high-traffic agricultural corridor**. This gravel route is used daily by residents, farmers, and ag-related businesses to access state highways and local communities.

Current Condition

- **Deck: 5 Fair**
- **Superstructure: 5 Fair**
- **Substructure: 6 Satisfactory**
- **Posted Load Rating: 6 Tons / 11 Tons / 13 Tons**

Maintenance History

Built several decades ago, this **fracture-critical bridge** has experienced severe deterioration. The deck exhibits heavy wear, cracking, scaling, and spalling up to one inch deep, with broken curbs and truss angles twisted inward. Stitching on the truss is bent, and both abutments show large cracks and spalls at the northwest and southeast corners, along with leaching and scaling on the concrete backwalls.

In **September 2019**, an inspection discovered a **critical finding of imminent failure** on the lower chord of the truss. The bridge was immediately closed for two months. Gage County forces completed an emergency repair using engineered plans provided by Mainelli Wagner, restoring temporary service. However, the bridge's ongoing structural decline makes replacement the only sustainable solution.

Channel maintenance was previously performed in 1999 to address undermining along the backwalls, yet these efforts have reached their limit in extending the bridge's service life.

Traffic and Community Use

Traffic counts show steady use, with **165 average daily traffic**. The bridge's load restrictions and prior closure have forced frequent detours, increasing travel distances, fuel costs, and stress on other rural routes. The detours also divert heavy traffic into small communities, raising safety concerns for residential areas and school routes.

Proposed Solution

Replacing this aging truss bridge with a **Triple 14' x 14' x 50' Concrete Box Culvert** will eliminate fracture-critical risks, restore full load capacity, and drastically reduce maintenance demands. The CBC design provides a durable, long-term fix with no future weight restrictions, allowing full access for agricultural equipment and heavy vehicles. It also enables efficient installation and faster reopening to traffic. This approach aligns with Nebraska Minimum Design Standards and provides a sustainable, low-maintenance structure for future generations.

<u>The Case for Replacement</u>

Replacing these two structures with Concrete Box Culverts (CBCs) represents the most practical and cost-effective solution for Gage County. CBCs provide the strength and stability required for modern agricultural and industrial traffic while drastically reducing maintenance demands.

This design choice aligns with the county's broader strategy to build low-maintenance, long-life structures that minimize future costs and eliminate weight restrictions. CBCs also allow for efficient construction and faster reopening to traffic which would be beneficial for these routes as they serve quarry operations, farm-to-market hauls, and daily commuters.

These replacements reflect Gage County's continued commitment to upgrading its infrastructure with durable, fiscally responsible designs that meet Nebraska Minimum Design Standards and serve the community for decades to come.

<u>Broader Infrastructure Challenges in Gage County</u>

These replacements are part of Gage County's long-term infrastructure improvement strategy. Across the county, more than 170 bridges require repair or replacement, with estimated costs exceeding **$280 million** (which increases every year as costs of construction continue to increase). The local tax base cannot bear this burden alone. CBMP support is critical to addressing these needs efficiently and equitably.

Gage County continues to demonstrate proactive planning and responsible management of CBMP-funded projects, ensuring that awarded funds translate into on-the-ground improvements.

Benefits of CBMP Funding

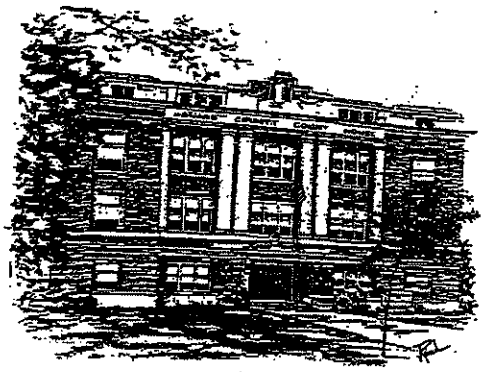
CBMP funding for these two bridge replacements will:

- Restore safe and efficient transportation routes for residents, businesses, and emergency responders.
- Support Gage County's agricultural and industrial economy by enabling reliable freight movement.
- Reduce future maintenance costs through durable, low-maintenance concrete box structures.
- Eliminate load restrictions and minimize the risk of costly detours or closures.
- Protect rural communities from safety risks and economic disruptions caused by deteriorating infrastructure.

Conclusion

The bridges on South 36th and 82nd Roads are more than just infrastructure, they are lifelines for the residents, businesses, and industries of Gage County. Their current deterioration presents unacceptable safety risks and economic inefficiencies. Replacing them with modern CBCs will provide long-term stability, enhance public safety, and reinforce the county's ongoing commitment to maintaining essential transportation links.

CBMP funding will allow Gage County to continue the progress already underway by transforming outdated structures into durable, efficient assets that serve rural Nebraska for decades to come.



HOWARD COUNTY
DEPARTMENT OF ROADS
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roads@howardcountyne.gov

Howard County Bridge Match Proposal 2025

Howard County is proposing to replace three bridges through the 2025 County Bridge Match Program. The bridges proposed for replacement are C004712105, C004712510, and C004712815.

Howard County, located in central Nebraska, is agriculturally-dependent with a population of 6,475. Howard County is like most rural counties in Nebraska and the Midwest; it is very dependent upon agriculture and the related economies, and the population supporting the county continues to decrease. While expenses increase and revenue remains stagnant or decreases, any financial assistance to Howard County and its residents is welcomed. As agricultural equipment continues to widen, wider bridge decks will be necessary to decrease the damage to the structures and the equipment. Additionally, the volume and speed of all vehicles have increased, causing maintenance needs of all roads and bridges to increase.

All three bridges proposed for replacement are largely farm-to-market routes as well as school bus and mail routes. Each bridge also serves local residents and is necessary for emergency services.

Howard County has 133 on-system bridges across the county; about half of these bridges are irrigation canal bridges that were constructed by the Bureau of Reclamation and then turned over to Howard County. Of the 133 bridges on the National Bridge Inventory, more than half of them are over 40 years old. A full 25 percent of the Howard County's NBI bridges are at least 50 years old. It is an easy conclusion that Howard County will have a large number of bridges that need to be repaired or replaced in a short time span. Any cost savings realized by Howard County through the County Bridge Match Program will be used for the repair and replacement of other bridges in the county.

Structure C004712105 on Naper Road between 5th and 6th avenues

Deck: 5 Fair
Superstructure: 6 Fair
Substructure: 4 Poor
Channel: 5 Fair
Load Rating: 5 tons, 6 tons, 9 tons

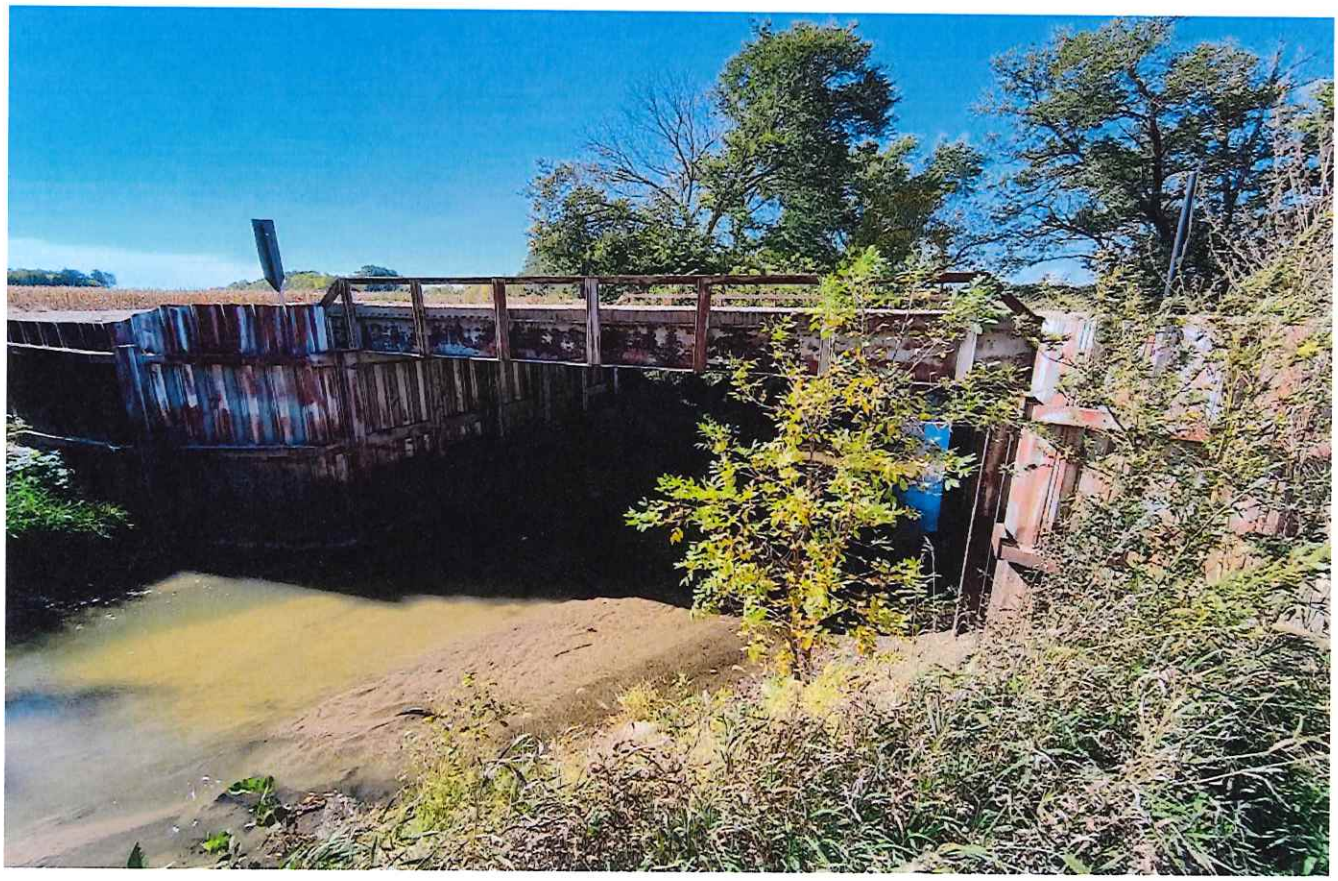
Bridge C004712105 is the lowest load rated bridge in Howard County. It was built in 1963 and crosses Oak Creek. Oak Creek is one of two watersheds that cross half of Howard County and empty into the South Loup River. The present bridge is 60 feet long and has a clear roadway width of 18.2 feet. It is a single span steel girder bridge with corrugated steel decking.

This bridge is within one mile of Dannebrog, a Howard County village with a population of 273. The surrounding area is farm fields but there are also four residences within a half mile of the bridge. There are another 10 residences within two miles that would use this bridge. The average daily traffic count is 45. This is not expected to decrease.

Howard County proposes replacing this bridge with a 75-foot bridge that is 28.5 feet wide. The estimated cost of this is $455,000.

Replacing this bridge would improve accessibility for several residents, busses from two school districts and the mail carrier. Additionally, area farmers would be able to cross the bridge and access fields with

less impact on other area drivers. This route also serves as a shortcut and off-highway route for many drivers.



Structure C004712510 on Liberty Road, .5 mile south of 9th Ave.

Deck: 5 Fair
Superstructure: 7 Good
Substructure: 4 Poor
Channel: 5 Fair
Load Rating: 58 tons, 85 tons, 99 tons

Bridge C004712510 was built in 1974 and crosses Turkey Creek. Turkey Creek is one of two area watersheds that extend beyond Howard County – a lot of water drains through Turkey Creek on the way to the South Loup River. While the bridge deck is 24 feet, this is a heavily travelled road, a primary road between St. Paul and Dannebrog. Liberty Road is also a school bus route for two school districts. Besides a mail route, this is also a primary emergency route. A lot of the traffic is agriculture-related; when planting or harvest season, the bridge is not wide enough for two vehicles.

The present bridge is a single span steel girder bridge with a 28-foot concrete deck. It is 30 feet long.

The water channel has a skewed alignment with the bridge, entering at the northwest corner of the bridge and exiting at the southwest bridge corner. With the amount of water flowing under this bridge, the bridge is prone to scour. If this bridge would wash out, the detour for this route would be 4 miles.

Liberty Road is a collector road with an average daily traffic count of 150. As a collector road, this is a heavily travelled road between Dannebrog and St. Paul. The traffic is only expected to increase.

It is proposed to replace this bridge with a 60-foot bridge with a 28.5-foot width. The estimated cost is $310,000. Replacing this bridge would improve traffic flow on this collector road.

Structure C004712815 at 12th Avenue and Rose Road

Deck: 5 Fair
Superstructure: 8 Very Good
Substructure: 7 Good
Channel: 7 Good
Load Rating: 11 tons, 18 tons, 26 tons

Bridge C004712815 was rebuilt in 2002 and crosses Cow Creek, which drains into Turkey Creek. This bridge is 28.5 feet wide and 32 feet long. This bridge is on 12th Avenue, between the northbound and southbound intersections with Rose Road. However, with larger agricultural equipment, this bridge is

skewed with both the creek and the road intersections at either end of the bridge. Average daily traffic is 62, with a mix of farm equipment and passenger vehicles. Farwell, a Howard County village of 132, is within two miles of the bridge. This is a school bus route, a mail route and serves the area residents. There is a large amount of farm equipment and trucks that cross this bridge; in most instances, these vehicles have to make two 90-degree corners within 125 feet. Widening the bridge deck is expected to improve traffic flow here.

The proposed structure would be 40 feet long and 32.5 feet wide. The additional width should help traffic, particularly semi-trucks and large farm equipment, to navigate road curves and the bridge. The cost estimate for this bridge replacement is $270,000.

The County Bridge Match Program offers substantial financial help for Howard County to replace these three bridges. The estimated total for the replacement of these three bridges $1,035,000; Howard County would be responsible for more than half of this total if these bridges are accepted for the County Bridge Match Program.

Lancaster County, Nebraska

County Bridge Match Program 2025 Application

Lancaster County is submitting two structures for the County Bridge Match Program funding: Structures C005503505 and C005581735. Structure C005503505 (X084) is located on S. 96th Street in the southeast part of the county, rated "poor", and needs replacing. In addition to the replacement project, Lancaster County is proposing removal of Structure C005581735 (C262) from the traveled way and the NBI. C005581735 is located on N. 19th Street in the northwest part of the county, rated "fair", load posted, fracture critical, scour critical.

C005503505 (X084)

Structure C005503505 (X084) is located on S. 96th Street in southeast Lancaster County, Sections 1 and 2, Township 7 North Range 7 East. The existing bridge is an 82-foot long, 30-foot wide pre-stressed concrete tee beam bridge built in 1974. The bridge spans the Hickman Branch of Salt Creek and is located in a regulatory floodplain. The roadway has an ADT of 113 and has a State Functional Classification of Collector, and the bridge is currently rated "Poor".

The bridge is located to the southeast of the City of Hickman, which is a growing city in Lancaster County. According to the County's inventory, X084 was first added to the bridge inventory in 1918 as a 60-foot long,16-foot wide steel bridge. In 1974 it was replaced with the current 82-foot long bridge.

In addition to its proximity to Hickman, the bridge is located in the vicinity of two state recreation areas, an unincorporated community, and several homes. Wagon Train State Recreation Area is located one mile north of the bridge and offers several activities

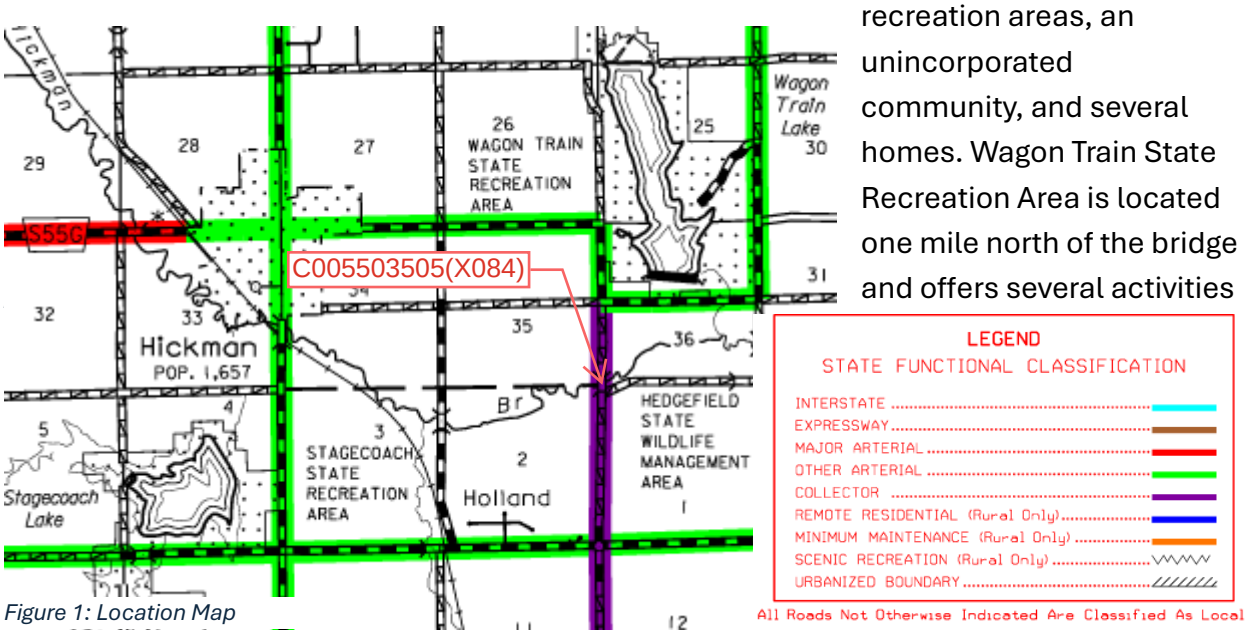


Figure 1: Location Map

for visitors including fishing, boating, hiking, and camping. X084 provides a direct route for visitors to access the lake. Stagecoach State Recreation Area is located approximately three miles away and is a destination for locals and visitors with its attractions.

An unincorporated community, Holland, is located approximately one mile south of the bridge. The 2050 Lancaster County Comprehensive Plan shows the area as dedicated green space and low density residential, and the Hickman Comprehensive plan has flagged the area as having low density residential in the area. At the time of this submittal, three preliminary plats for housing developments are located within a mile and a half of X084, which showcases the potential for development in this area. Replacing X084 will keep this area accessible, meaning developers and future homeowners will be interested in building and living in the area. This possibility for development will positively contribute to the economy of the county.

Figure 2: Bridge X084 Existing Structure

Currently Bridge X084 is rated “poor” overall, with the deck and superstructure specifically rated “poor”. Recent inspections show cracking throughout the superstructure, with severe cracking noted in span 2 in the most recent inspection. Lancaster County inspection records show that as time advances the cracking is becoming more severe. Replacing the structure now will prevent costly maintenance work or a potential bridge closure from being necessary. Being proactive with this structure will save money on maintenance costs as well as prevent the bridge from closing in a worst-case scenario.

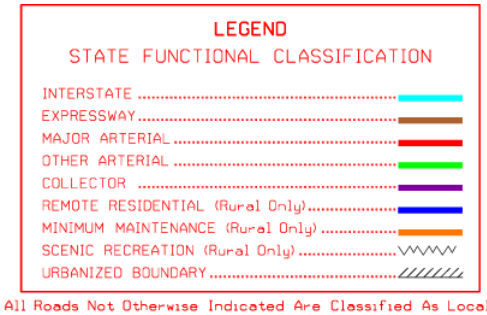
Figure 3: Cracks in X084, recorded in 2022

Figure 4: Cracks in X084, recorded in 2024

The proposed 3-span concrete slab bridge will have two 30-foot spans and one 40-foot span. The bents will be encased pile bents with nose armor angle on upstream side. Both bents will be skewed 25 degrees to align with the natural channel and allow for more efficient flow through the bridge. The nose armor will mitigate debris impact and collection; Lancaster County's records indicate that repeated maintenance work has been performed at the bridge to remove debris upstream, so the armor will save time and money that won't have to be spent on this maintenance. Concrete slab bridges are cost-effective and have a streamlined construction process. In addition, concrete slab bridges are very durable and have an expected lifespan of at least 75 years. Additional savings are realized through costs associated with maintenance and repairs throughout the lifespan of the bridge.

C005581735 (C262)

Bridge C005581735 (C262) is located on N.W. 19th Street, approximately two miles northeast of the Village of Raymond in northwest Lancaster County, in Section 28, Township 12 North, Range 6 East. The bridge is a single span 71-foot long, 20-foot wide deck steel girder bridge that spans Little Salt Creek and is located in the floodway. The bridge is load posted and rated "fair", has a timber deck and backwalls, and is on the scour critical list. The roadway has an ADT of 4.



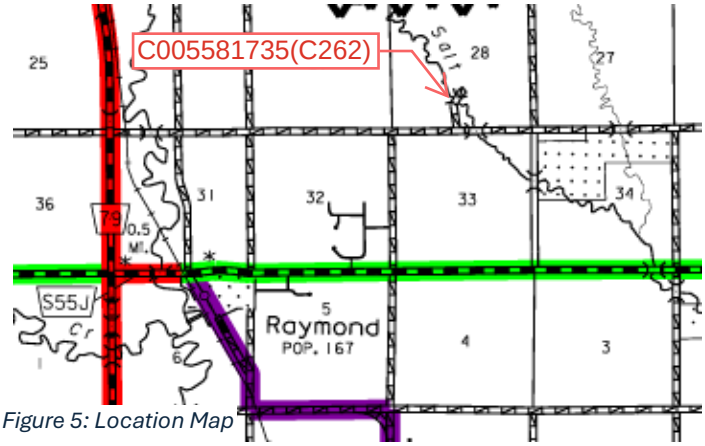


Figure 5: Location Map

Bridge C262 was first built in 1983 to provide access to two landowners, and it still serves this original purpose. The bridge provides access to a home acreage and a crop field. Since this is the only access for these landowners, it is an essential structure for them as well as emergency services. Lancaster County is proposing to remove the structure from the traveled way and provide landowners access via a bypass roadway. Construction on a bypass roadway is set to begin in the winter of 2025.

Figure 6: Bridge C262 Existing Structure

Removal of C262 from the inventory will eliminate maintenance requirements, which will amount to large cost savings in the long term. In the past 19 years alone, six major maintenance projects have taken place on the structure, with work including repairs on the deck and the steel stringers. These maintenance projects have led the bridge through several different condition ratings, with the rating increasing after work is performed, then deteriorating within a few years afterwards. This cycle of maintenance, deterioration, and maintenance is time intensive as well as costly. Additionally, the bridge is fracture critical and scour critical; removing it from the bridge inventory would also negate the need for these time intensive inspections.

Figure 7: Repair on Stringer

Figure 8: Scour Critical Inspection Photo from 2024

While an expected replacement for C262 would cost half a million dollars, estimates for the construction of the proposed access road and bridge removal are approximately half that amount. Additional cost savings are realized with the proposed road lifespan; the access road will require less maintenance than a bridge. In addition, the road will provide consistent access for the landowners that will be using it daily, and access won't be inconvenienced by a potential bridge closure or reconstruction project. This allows time and resources to be put to other projects in the county.

Figure 9: Proposed access road alignment

Conclusion

Replacing Bridge X084 and removing Bridge C262 are two pieces of the larger infrastructure challenge in Lancaster County. The County has been working diligently to reduce the number of bridges rated "Poor", the number of bridges that are Fracture Critical, and the number of Scour Critical bridges in our inventory. Without County Bridge Match Program funds, these projects could be delayed due to lack of funds. In the 2026 Fiscal Year budget, Lancaster County Engineering was allocated enough funds to only replace one structure. There are over 10 structures on the County's 6-year replacement bridge list alone, and several more that are on that list for maintenance and/or repairs. Receiving the County Bridge Match funds would provide more resources for additional bridge projects.

The replacement of Bridge C005503505 (X084) and removal of Bridge C005581735 (C262) are both important projects for Lancaster County. Replacing Bridge X084 will ensure it continues to serve the growing community in southeast Lancaster County. Removing Bridge C262 from the County's inventory will eliminate expensive maintenance activities and provide reliable access for landowners. With the assistance of the bridge match funds, Lancaster County will be able to continue to invest in infrastructure for the coming years.

2025

COUNTY BRIDGE MATCH REPLACEMENT PROJECTS

SALINE / FILLMORE COUNTIES IN NEBRASKA

SALINE/FILLMORE COUNTY

Structure Numbers C007601803 and C007610105 are in western Saline County near Friend, Nebraska. Structure Number C003001120 is in Fillmore County west of Geneva. These structures are on local roads which serve the areas farm to market road network and are currently inadequate to accommodate modern farm equipment. All three bridges are also narrow and lack adequate railing on the bridges. The narrow nature of the bridges causes head-to-head traffic to slow as only one vehicle can safely pass over the bridges at a time. The bridges are also timber structures with undetermined piling length, making them less resilient and subject to scour during a major flooding event.

Replacing these structures with concrete box culverts will improve access for the local farmers in the area, reduce maintenance costs in the long term and help improve stream stability. Additionally, replacing these structures will help make both Counties' transportation networks more resilient. It will allow for better access to local residence for critical services such as Emergency Medical Services and Fire Services. Also, it will provide additional redundancy to local school's bus routes, if necessary, as well as postal and delivery services.

With one Structure in each County – C007601803 in Saline County and C003001120 in Fillmore County – as well as Structure Number C007610105 on the Saline/Fillmore County Line we feel this is a perfect opportunity for both Counties to come together and utilize these highly sought after but extremely important County Bridge Match Funds.

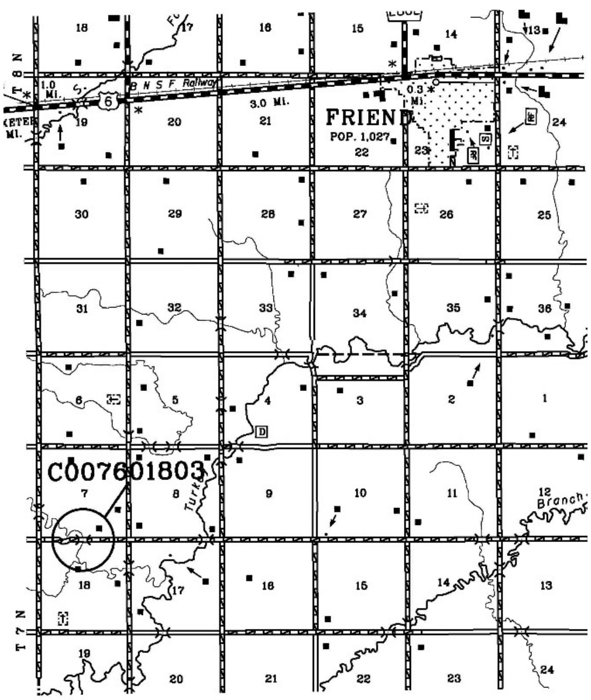
Both Saline County and Fillmore County, as well as most Counties, as experiencing very trying times with their budgets. The costs of running the biggest budget line in the County have greatly exceeded the amount that the County Boards can increase our budgets. This is why we understand the value and importance of this program and are appreciative of the opportunities it has provided us.

While the use of Concrete Box Culverts may not be seen as the most innovative solution, they are a proven method to quickly replace smaller bridges such as these. They are also some of the most durable structures around. We routinely inspect box culverts built in the 1960's (over 60 years ago now) with little to no defects. With proper inspection and periodic preventive maintenance, we believe box culverts are a low-cost, long-term solution to replace smaller bridges. They can also be constructed quickly, thereby limiting disruption to the traveling public in the area. Typically, box culvert projects of this magnitude are completed in under two months. Finally, box culverts are also the most hydraulically efficient solution and can assist with arresting stream degradation which is prevalent in Southeast Nebraska.

Historically, all these structures have served the area as important farm to market routes. While their current Average Daily Traffic counts are relatively low, once these deficient structures are replaced, we know the traffic will increase. Replacing these deficient structures will greatly improve Fillmore and Saline Counties' transportation systems which serve over a combined 20,000 residents.

The box culverts will all be designed to meet HL-93 loading. This will provide a highly durable solution for generations to come. Another advantage to box culverts is that they do not require a bridge rail. This will allow for modern farm equipment to cross easily and efficiently.

Structure Number C004810105 is a 48′ Timber Bridge with a Timber Deck that was originally built in the 1930's. This structure has a low posting which prohibits agricultural equipment from crossing this structure. Structure Number C004818503 is a 47′ Timber Bridge with a Timber Deck. Structure Number C003001120 is a 55′ Timber Bridge with a Timber Deck. Each structure will be replaced with a new triple 14′ span concrete box culvert which will conform with modern bridge design standards and will eliminate future maintenance costs at the site. Utilizing the same box culvert design for both sites will decrease the cost to the County in both engineering and construction. By utilizing the same span for all three structures, we hope to increase efficiency of the contractor and therefore reduce the overall cost and length of time that each project takes. Currently, school buses, EMS vehicles, and modern farm equipment cannot safely cross these bridges. Replacing these bridges will provide a reliable route for rural Saline and Fillmore County residents.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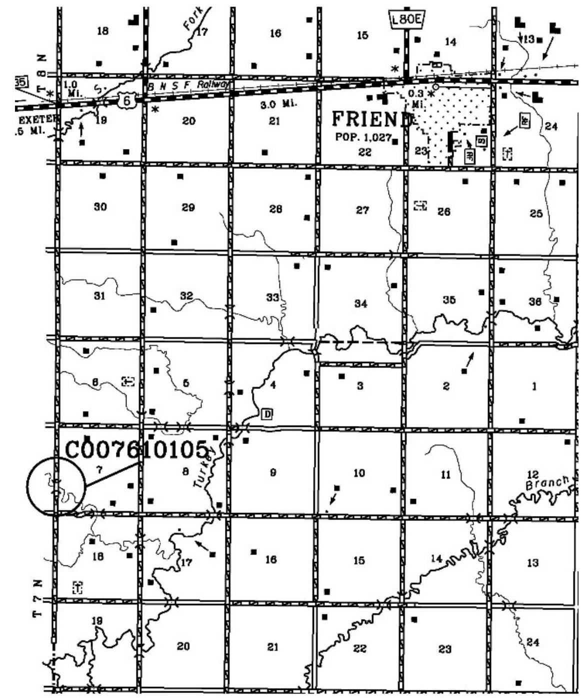
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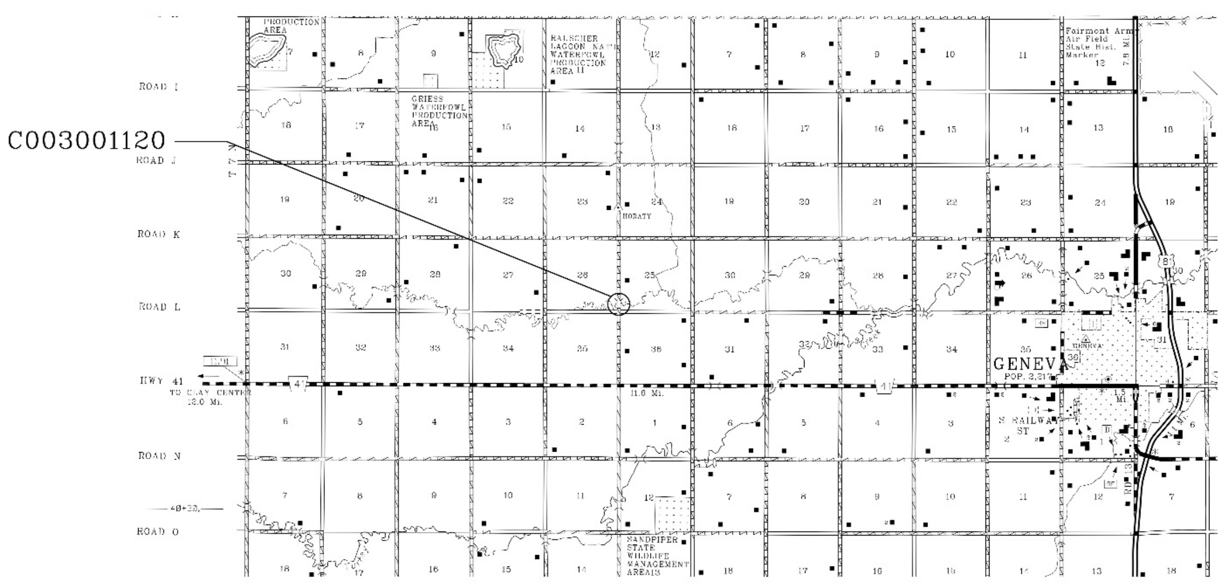
C003001120
ROAD I
ROAD J
ROAD K
ROAD L
HWY 41
ROAD N
ROAD O
PRODUCTION AREA
GRIESS WATERFOWL PRODUCTION AREA
HOBATY
GENEVA
Fairmont Army Air Field State Hist. Marker
SANDPIPER STATE WILDLIFE MANAGEMENT AREA
11.0 Mi.

Grant Proposal for Nebraska County Bridge Match Program (CBMP) - 2025
Applicant: Sarpy County, Nebraska
Project Title: Replacement of the Fracture Critical Bridge on Pflug Rd Over Springfield Creek

Project Need
Bridge C007721815 carries Pflug Road over Springfield Creek approximately 0.3 miles south of Springfield and just east of Highway 50. The existing 1935 bridge is a three-span structure—steel beam approach spans with timber decking and a steel pony truss main span supported by floorbeams and stringers with a timber deck. The 108-foot by 19.6-foot bridge has NBIS ratings of Deck 6, Superstructure 5, and Substructure 5, with a 10.5-ton inventory rating and postings of 13, 22, and 32 tons. These restrictions limit access for agricultural traffic, school buses, and emergency vehicles that rely on Pflug Road to reach Highway 50.

The structure includes Non-Redundant Steel Tension Members (NSTM), which drive increased inspection requirements and cost. The County is required to perform hands-on inspections to ensure safety, but deterioration in primary load paths and connection details continues. In 2024, Sarpy County completed a $25,000 maintenance project to replace deteriorated stringers on the west approach span. While this work restored functionality in the short term, it reinforced that the bridge's age and material condition make further repairs increasingly inefficient.

Multiple developments in the Springfield area will significantly increase traffic demand on Pflug Road and at the bridge site. A 94-lot residential subdivision has been platted at 132nd Street and Pflug Road, providing the most direct access to Highway 50 via this crossing. An 8-lot industrial park is planned just south of Highway 50 and Pflug Road, and a 4-lot industrial park has been platted at 150th and Fairview Road, less than a mile to the west. In addition, a 312-lot residential subdivision is under development at 132nd and Main Street, less than a mile north of the bridge. These projects together will substantially increase local traffic volumes and reinforce the need to replace the posted bridge with a modern structure capable of supporting current and future demand.

Traffic on Pflug Road remains low—less than 400 vehicles per day—mainly due to the load and geometric restrictions that directly suppress use. The crossing connects local residents and agricultural operations on the south city limit of Springfield and would support school bus and emergency routing if unrestricted. Given its non-redundant steel system, limited live load capacity, and escalating maintenance needs, the bridge has reached the point where full replacement is the only cost-effective option.

This project is being advanced as a **partnership between Sarpy County and the City of Springfield**. The City has identified Pflug Road as an important route along its southern boundary and fully supports the bridge replacement effort. A letter of support from the City of Springfield is included as page five of this submittal.

Safety, Access, and Detour Impacts
Pflug Road serves as a local connector between Highway 50 and the southern city limits of Springfield. With the bridge's low posting and narrow deck width, heavy trucks, agricultural vehicles, and school buses are unable to cross safely. These restrictions affect both daily use and emergency response.

When the bridge is closed or bypassed, traffic diverts either north along Highway 50 to Platteview Road and east to 132nd Street, adding roughly two miles of out-of-distance travel, or east through

Main Street and south along 6th/138th Street, which adds about one mile but routes vehicles through residential neighborhoods. Based on the County's estimate, this adds approximately five minutes to emergency response times for the area east of Springfield Creek. If the bridge were replaced and unrestricted, it would restore direct access for emergency services and allow Springfield Platteview Community Schools to route buses along Pflug Road. This would provide a shorter, safer path for an estimated two to three dozen students currently served by longer or less direct routes. The improved crossing would also allow agricultural operators to move equipment and harvest loads without impacting residences or being forced to take extended detours, reducing operational delays and local wear on alternate roads.

Existing Conditions

Bridge C007721815 was constructed in 1935 and has reached the end of its useful service life. The structure consists of two steel beam approach spans with timber decking and a steel pony truss main span with floorbeams and stringers supporting a timber deck. The total structure length is 108 feet, and the clear roadway width is 19.6 feet.

The August 2025 inspection documented common age-related deterioration, including pack rust, localized member bending, corrosion near bearings, and failed welds in built-up stringers. The paint system is in poor condition with widespread rust and section loss.

Substructure elements show corrosion, pack rust, and timber backwall decay. The eastbound approach is rough, and deck planks are worn. Minor bank erosion and debris accumulation at old abutments restrict the channel opening. These conditions are typical of a steel pony truss of this age but indicate continued deterioration in critical load-carrying components. The bridge's configuration, narrow width, and remaining service life make ongoing repair and repainting impractical compared to full replacement.

Proposed Solution

The site lies within the Springfield Creek floodway, which limits design flexibility and requires a low-profile structure to maintain conveyance and meet floodplain regulations. The proposed bridge type provides the necessary hydraulic opening while maintaining a shallow superstructure depth to comply with these constraints.

The existing truss bridge will be replaced with a three-span cast-in-place reinforced concrete slab bridge on integral abutments supported by steel H-piles. The design provides adequate hydraulic opening within floodway limits while offering long-term durability and reduced maintenance.

The new bridge will have a 30-foot clear roadway width, providing adequate two-way travel lanes for local and agricultural traffic. The deck will be a monolithic cast-in-place concrete slab designed for modern loadings with no wearing surface. The structure will include NDOT standard open concrete rails, 29 inches in height, meeting TL-2 or TL-3 performance levels as required by the Nebraska Minimum Design Standards. Approach guardrail will be installed on all corners with Type II end treatments to provide full transition protection.

Abutments will be integral with the superstructure to eliminate deck joints and expansion bearings, reducing both initial and long-term maintenance costs. Riprap will be placed at abutments and along the banks for scour protection. The old substructure elements currently within the channel will be removed to improve conveyance and reduce debris accumulation.

The bridge type is straightforward to construct and will be built under full closure with a short signed detour. The County will bid and award the project to the lowest responsible bidder.

This design approach provides a low-profile structure suited to the hydraulic and geometric constraints of the site while meeting all CBMP design requirements and minimizing future maintenance needs.

Benefits & Outcomes

Replacing Bridge C007721815 will restore a safe and reliable crossing at the southern limit of Springfield and remove a long-standing operational constraint on Pflug Road. The new bridge will eliminate all load restrictions, provide adequate roadway width, and reduce maintenance and inspection costs.

The new bridge will restore direct routing for emergency responders and allow Springfield Platteview Community Schools to include Pflug Road in bus routes, shortening travel for about two to three dozen students.

Agricultural operators will regain a reliable crossing for planting and harvest, allowing equipment to move freely without affecting residential streets. The wider deck improves safety for all users.

From a maintenance perspective, the cast-in-place concrete slab and integral abutment design will eliminate fracture-critical inspection requirements, steel repainting, and joint maintenance. The new structure will have no exposed steel superstructure elements and no expansion bearings, significantly lowering lifecycle costs.

Hydraulically, removing the old substructure elements and armoring the channel banks with riprap will improve conveyance and reduce the potential for debris buildup and scour. The bridge will be designed to pass the Q100 event without increasing upstream water surface elevations, ensuring compliance with floodplain regulations and improving long-term resiliency.

Overall, the project will enhance safety, connectivity, and reliability for local residents and agricultural users while reducing Sarpy County's long-term maintenance burden.

Budget and Funding

The estimated construction cost for the Pflug Road Bridge Replacement project is $1,500,000. This estimate includes bridge removal, new superstructure and substructure, approach grading, riprap protection, guardrail, and incidental roadway work. Engineering design, permitting, and construction administration are not included in this total and will be funded separately by Sarpy County.

Sarpy County is requesting County Bridge Match Program participation for 55 percent of eligible bridge construction costs, not to exceed $500,000. The County will provide the remaining match from its local road and bridge funds. The County is committed to maintaining the local match requirement and to managing all phases of the project from design through construction.

The project will be competitively bid and awarded to the lowest responsible bidder. Construction is anticipated to be completed within a single construction season under full road closure, allowing efficient progress and minimizing overall duration. All work will be completed by December 31, 2027, consistent with the CBMP schedule.

The funding partnership through CBMP is critical to advancing this project. Without external participation, replacement would likely be delayed several years due to competing priorities within the County's bridge program. CBMP funding will allow Sarpy County to address a structurally and

functionally obsolete bridge while delivering a long-term, low-maintenance solution that meets current design and safety standards.

Project Delivery and Schedule

The Pflug Road Bridge Replacement will be delivered using a conventional design–bid–build approach. Final design and hydraulic modeling will be completed in accordance with Nebraska Minimum Design Standards and CBMP requirements. Environmental documentation, floodplain permitting, and utility coordination will be completed prior to advertisement for bids.

The County will advertise the project through a public letting and will award the contract to the lowest responsible bidder. Construction will be completed by a qualified bridge contractor under County oversight. Work will occur under full closure of Pflug Road to allow efficient access for bridge removal, pile driving, formwork, and concrete placement. The detour using Highway 50, Platteview Road, and 132nd Street will remain in effect for the duration of construction.

The anticipated delivery schedule is summarized as follows:

- Preliminary Design and Hydraulics: Winter 2025 – Spring 2026
- Final Design and Permitting: Summer – Fall 2026
- Bid Letting and Award: Winter 2026/27
- Construction: Spring – Fall 2027
- Substantial Completion: By December 31, 2027

This schedule meets CBMP requirements and provides adequate time for permitting and coordination. Upon completion, the County will remove the existing structure from the NBIS inventory and place the new bridge into service without load posting.

Conclusion

Bridge C007721815 on Pflug Road is a functionally obsolete, load-restricted structure that no longer meets the transportation needs of the community it serves. Its narrow deck, deteriorated steel components, and non-redundant design create an ongoing safety, maintenance, and access concern for Sarpy County. Despite targeted repairs, the structure continues to deteriorate and requires costly, specialized inspections to remain in service.

The proposed replacement—a three-span cast-in-place concrete slab bridge on integral abutments—will eliminate the current restrictions and provide a long-term, low-maintenance crossing designed to meet modern load and safety standards. The design accommodates the hydraulic and floodplain constraints of Springfield Creek while improving channel conveyance and reducing debris accumulation.

This project directly supports the goals of the County Bridge Match Program by replacing a deficient, load-posted bridge on a local road with a durable, low-maintenance structure that improves safety and community access. With CBMP participation, Sarpy County will deliver a cost-effective project that restores unrestricted travel, improves emergency and school access, supports local agricultural operations, and reduces long-term maintenance costs.

The County is prepared to proceed with final design and construction upon selection and is committed to completing the project within the program schedule.

15100 S 84th Street • Papillion, Nebraska 68046 • 402-537-6900

SPRINGFIELD
NEBRASKA

September 22, 2025

Nebraska Department of Transportation
Local Projects Division
County Bridge Match Program
Attn: Jodi Gibson

Re: Letter of Support – Pflug Road Bridge Replacement Project

On behalf of the Mayor and City Council, I am writing to express our strong support for the proposed replacement of the Pflug Road bridge. The current condition of this rural bridge significantly impedes both personal and commercial travel—mobility that is critical to the safety and prosperity of our residents.

As Pflug Road continues to evolve into a major arterial route along the southern boundary of our city, the bridge's structural limitations present growing concerns. It is currently unable to accommodate larger truck traffic, farm machinery and limits emergency response vehicles. Moreover, the bridge must be widened and modernized to support the increasing transportation demands of our rapidly growing community.

Rural transportation plays a vital role in providing essential mobility and connectivity across Nebraska. Safe and efficient rural roads are fundamental for moving agricultural products, energy resources, manufactured goods, and other critical industry supplies to market. The Pflug Road bridge is a vital connection within this network, and its replacement is imperative to ensure both longevity and public safety.

We believe that funding through the County Bridge Match Program (CBMP) presents a valuable opportunity to pilot innovative solutions that can assist in repairing or replacing this critical infrastructure in the rural area of Sarpy County. The additional support from CBMP would be instrumental in delivering a safer, more resilient transportation link for our region.

We appreciate the opportunity to participate in this important project and to share our local perspective. We look forward to continuing our partnership with Sarpy County on long-term improvements along Pflug Road as growth and traffic demands evolve.

Thank you for your consideration and for your continued commitment to infrastructure improvements in our area.

Sincerely,

Kathleen R. Gottsch
City Administrator

PO Box 189
170 N. 3rd Street
Springfield, NE 68059

Small Town, Big Heart

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