

SOFT-MATCH BRIDGE PROGRAM POLICIES

2004

I. General Description

The 1987 Surface Transportation and Uniform Relocation Assistance Act created a special program regarding off-system county bridges. The program permits a county to build a bridge on any county road not on the Federal-aid Secondary system and receive credit for 80% of eligible costs. The credit is used as a county's share of matching funds for a Federal-aid bridge replacement or rehabilitation project at another location.

II. Eligible Bridges

To be eligible for the Soft-Match Bridge Program, a bridge must meet the following requirements:

- 1) Meet eligibility requirements for HBRRP funding
 - Be classified as either "Structurally Deficient" or "Functionally Obsolete"
 - Have a sufficiency rating of 50 or less for replacement or 80 or less for rehabilitation
- 2) Be located on either a Minor Collector or Local county road
- 3) Be non-controversial

III. Eligible Project Expenses

The following construction items are eligible for Soft-Match credit:

- 1) Old structure removal.
- 2) Construction costs of the replacement structure.
- 3) Construction costs of drop-pipe culverts at bridge location.
- 4) Safety improvements.
- 5) Erosion and sediment control.

No credit is allowed for preliminary engineering, advertising for bids, approach grading, or surfacing.

IV. Soft-Match Bridge Projects

In order to qualify for credit, Soft-Match Projects must follow the procedures outlined in the *Soft-Match Program Procedures* section on pages 2 and 3 of this document. Projects must also meet the requirements of the *Guidelines for Soft-Match Bridge Projects* outlined on pages 3 – 7 of this document.

V. Soft-Match Program Procedures

- 1) Local agency notifies NDOR in writing of intent to construct a bridge qualifying for Soft Match. See Appendix A, “Letter of Request for Soft Match Approval”, for recommended example.
- 2) NDOR review proposed project (verify eligibility for Highway Bridge Replacement and Rehabilitation Program funding), and inform County the project is acceptable.
- 3) Local agency prepare, or causes to be prepared, design and construction plans, specifications and estimate.
- 4) Department of Roads Bridge Division will, as a courtesy, check load capacity prior to letting and construction
- 5) Project is advertised and let to contract by local agency, or built by local governmental forces.
- 6) Local agency forward bid results to NDOR’s Government Affairs within 30 days of notice of award of the construction contract. All ineligible expenses shall be clearly indicated.
- 7) Local agency supervise, or cause to be supervised, construction under the direction of a licensed Professional Engineer (PE).
- 8) Local agency provide NDOR Government Affairs Division with:
 - summary of construction costs
 - amount of requested credit,
 - certification and resolution that the project has been accomplished in accordance with soft match program requirements and
 - photos of the finished structure.Local agency provide NDOR Bridge Division with
 - an updated NBIS inspection record and
 - as-built structure plans for the purpose of getting load-rated.
- 9) NDOR provide appropriate certification to FHWA and indicate soft match credit amount by letter to FHWA.
- 10) NDOR inform local agency of approval of credit and update available credit balance.
- 11) Local agency identify Federal-aid project or projects to which soft match credit is to be applied as part of the Federal-aid portion and inform the NDOR of their intent to use credit on the project. Projects must be identified at least four months prior to their scheduled letting date. A blanket letter is acceptable to request application of any available soft match credits to all future eligible federal-aid projects.

- 12) NDOR verify the availability of the Federal-aid funds and local agency soft match credit and estimated cost.
- 13) Federal-aid project advertised and let to contract by NDOR under standard procedures.
- 14) The NDOR will annually inform local agencies of the status of their soft match credit account. A copy will be provided to FHWA.

VI. Guidelines for Soft-Match Bridge Projects

- 1) A county must notify the Department of Roads in writing of their intent to replace or rehabilitate a structure qualifying for this program. This notification should include the county project number, the NBIS inventory structure number (“C00_____”) and a legal description of the project location. See the attached sample “**Letter of Request for Soft Match Approval**” (Appendix A). The structure to be constructed or rehabilitated by the county must be eligible for Federal-aid bridge replacement off-system funds. The Department of Roads must approve the project for the soft match program before the letting.
- 2) The soft match program has provisions for projects done jointly by two or more local agencies. Each local agency involved submits their intentions in writing to the Department of Roads. One county acts as the lead agency, which will send project correspondence to the Nebraska Department of Roads. The lead agency will submit to NDOR an inter-local agreement executed by all involved local agencies.
- 3) The project must be non-controversial. Non-controversial means Resource Agencies and the public do not have controversy with issues associated with the project. A checklist to assure the project is non-controversial is attached to the Certification of Compliance letter. The completed checklist shall be submitted to NDOR with the Certification of Compliance letter at the completion of the project.
- 4) The new or rehabilitated structure must meet all standards applicable to bridge projects funded under the Federal-aid Highway Bridge Replacement and Rehabilitation Program (HBRRP). The design must be in accordance with the current issue of “Standard Specifications for Highway Bridges,” published by AASHTO. The project must meet or exceed the Board of Public Roads Classifications & Standards Minimum Design Standards - Rural Roads. When possible, use standardized plans prepared by the Department of Roads, unless site conditions or other factors make this undesirable.
- 5) All bridge railing and guardrail systems shall meet current AASHTO standards.
- 6) A professional engineer or professional engineers, as provided in the State’s Engineers and Architects Regulation Act, will prepare plans and specifications and provide construction inspection services. This includes hydrologic and hydraulic investigations. If the County has more than one professional engineer involved in the project, the County will designate a coordinating professional. This is in

accordance with State Statute 81-3437(3)(g). All plans, including the structure design plans, must be sealed and signed, in accordance with State Statute 81-3437(3)(d).

- 7) The Program requires the local agency or agencies to follow Federal and State law concerning backwater requirements. Document water surface elevations upstream of the structure for the existing and proposed cases. If a rise of more than one foot is caused, documentation of compensation is required. Note that it is not a design requirement for Q_{100} to pass under the structure. A lesser amount is acceptable. The effects of the Q_{100} flow should be examined and designed for. In some cases, following a risk assessment, a road sag may be designed to accommodate overflow. Analyze a range of flows up to and including Q_{100} for economics and risk assessment. A typical analysis includes natural, existing, and proposed conditions. Evaluate stream degradation or aggradation. Also, evaluate contraction scour and local scour. This involves, but is not limited to, field observation together with evaluating readily available data such as historical inspection data. The proposed structure should be designed to accommodate the hydraulic conditions analyzed. Plans shall list or show the following information (note: this is the same information required on Bridge Data Sheets for Federal-aid “BR” projects):
 - Q_{100} base flood,
 - Q_{100} bridge base flood, i.e. that portion of Q_{100} passing through the bridge
 - $Q_{low\ road}$ overtopping flood, i.e. frequency that water overtops the road
 - Q_{100} contraction scour,
 - Q_{100} local scour (if appropriate include contraction and local scour values for floods greater than Q_{100} up to Q_{500}),
 - D.A. (drainage area),
 - H.W. (high water downstream side),
 - F.L. (flow line) and
 - Low Road Elevation and grades.
- 8) Plans shall list or show the required pile loads and minimum tip elevations. Design bearing must be achieved below anticipated scour depth. Note that the use of test piles is acceptable; it is not the intent of these guidelines to require soil borings.
- 9) Department of Roads Bridge Division will, as a courtesy, check load capacity before letting and construction. This is a good check to make sure the bridge will meet or exceed Board of Public Roads Classifications & Standards Minimum Design Standards - Rural Roads.
- 10) County will forward bid results to Government Affairs Division within 30 days of the contractor notice of award. Clearly indicate any ineligible expenses. Lettings shall be in accordance with State and local law.
- 11) The coordinating PE must approve, in writing, any deviation during construction from the final plans and specifications. This would include construction errors, pile bearing, concrete strengths, new steel certification, etc.

- 12) The attached Soft Match Program Construction Inspection Checklist (Appendix D) is recommended. It is not intended to be all-inclusive, or to suggest that all listed items require action. The checklist is included as a guide to construction inspection items that typically need attention. The references cited in paragraph (4) above take precedence over the attached checklist. Use a complete, organized pile record form to document the bearing of each pile during pile driving operations. Consider using Department of Roads' DR Form 97 (Appendix E).
- 13) Within 180 days of project's substantial completion, the County will submit to Department of Roads' Bridge Division:
- Notification that the structure was replaced or rehabilitated
 - Updated NBIS inspection record
 - As-built structure plans, for Bridge Division to calculate load-rating.
- 14) Also within 180 days after substantial project completion, the County will submit to Department of Roads Government Affairs Division:
- A cover letter stating that the project has been completed, total costs eligible under the guidelines of the soft match program, and the amount of credit requested (80% of net county expenditures on eligible expenses). In determining the requested amount, identify all participating entity or entities (FEMA, NRD, etc.) and amounts.
 - A summary of project costs, preferably limited to one sheet (the County keeps detailed records, which are subject to audit) and possibly brief enough to be in the cover letter.
 - An executed "Certification of Compliance with attached non-controversy checklist" (Appendix B) along with a resolution (Appendix C);
 - Eight (typically) photos. Four photos from the completed structure (one in each direction), two looking at the completed structure from the road on either side and the last two shot from upstream and downstream looking at the completed structure.
- 15) As a Nebraska policy, approach work is not applied as a credit toward the project. No approach grading or approach surfacing will be allowed to count as a participating item in determining the cost of a project. Engineering and advertising are not eligible for soft match credit. Be clear about ineligible costs on the final submittal to prevent questions and confusion.
- 16) Materials such as structural steel must be traceable to origination. If structural steel is not traceable, A7 material characteristics are assumed, or stresses used for design must be determined in accordance with procedures outlined in the "Manual for Maintenance Inspection of Bridges 1983, w/Interim changes."
- 17) Credit for future matching of HBRRP projects will not be allowed for any county constructed bridge projects until:
- an updated NBIS inspection record, which results in removal of the structure from FHWA's "Selection List," is recorded in the State's bridge inventory file,

- a load-rating determined by Department of Roads' Bridge Division that proves the structure is no longer deficient, and
- Department of Roads' Bridge Division determines that the new or rehabilitated structure meets or exceeds Board of Public Roads Classifications & Standards Minimum Design Standards - Rural Roads.

18) Upon submittal of the updated NBIS inspection record, the County must also certify that the structure meets all of the requirements of the soft match program. See the attached certification form. The State, after review of all eligible costs, will notify the Federal Highway Administration and the County of the amount of credit due the County.

19) A County must have adequate records to support their certification that the project meets all standards applicable to their bridge projects funded under the HBRRP. The County must keep such records and make them available for Federal or State review for a period of at least three years. This period begins when the project is complete and accepted by the State for credit to match Federal-aid HBRRP funds. The County should keep permit(s), hydrology and hydraulics documentation, plans, specifications, pile driving and construction records for the lifetime of the bridge.

VII. Soft-Match Credit

Following completion of a project and the awarding of credit, NDOR will maintain Soft-Match credit balances for each county. Counties then indicate Federal-aid bridge projects for use of their credit. These Federal-Aid bridge projects must be identified at least four months before their scheduled letting date in order to use Soft-Match credit. Counties may also state their intent to use all available credit on any future Federal-Aid bridge projects.

VIII. Compliance Reviews

NDOR and FHWA personnel will conduct project compliance reviews periodically.

APPROVED BY


 Date: July 8, 2004
 John Craig
 Director
 Nebraska Department of Roads


 Date: 7/8/04
 Larry Shafer
 Government Affairs Manager
 Nebraska Department of Roads

Concurrence:


 Date: 7/14/04
 William Brownell
 Division Administrator
 Federal Highway Administration
 Nebraska Division

example of a County's request to begin a Soft Match project

July 14, 2004

Larry Shafer, Manager
Government Affairs
Nebraska Department of Roads
P.O. Box 94759
Lincoln, NE 68509

Dear Mr. Shafer:

Subject: Federal-Aid Soft Match Bridge Program
Letter of Request for Soft Match Approval
Bridge No. C009720425
Between Sec. 2 and 11 - T4N-R4E

choose one

Good County intends to [replace] [rehabilitate] the above structure, including its substructure. We ask you to concur, in writing, with the eligibility of this structure for the Soft Match Bridge Program. The County will follow the "Soft-Match Bridge Program Policies". The following information applies to this structure.

choose one

1. Sufficiency rating is below [50 for replacement] [80 for rehabilitation].
2. The project will be non-controversial.
3. The new structure will meet all standards applicable to bridge projects funded under the Federal Highway Bridge Replacement and Rehabilitation Program, the current issue of AASHTO, and Federal-aid requirements. The project will meet or exceed Board of Public Roads Classifications & Standards Minimum Design Standards - Rural Roads.
4. The coordinating professional engineer having overall responsibility for all phases of this project from design through construction is _____, P.E.
5. The County will request credit only on construction costs of the bridge, culvert, or dam structure.

We propose to construct a twin 8x6 concrete box culvert. Estimated cost is \$40,000. This is only an estimate. The County will proceed with the preparation of construction plans and specifications. We propose to let the culvert to contract. Construction is scheduled for the Fall of 1998. Bid results will be forwarded within 30 days of notice of award of the construction contract. If any of the above information changes, we will notify you immediately.

Sincerely,

Good County Hwy. Supt.

cc: Good County Board
(Coordinating) Professional Engineer

CERTIFICATION OF COMPLIANCE

_____ County requests that 80% of the net county funds expended for eligible construction costs, including supervision of construction, of County Project No. _____, Structure No. C00_____ be applied as credit for the non-Federal share of future Highway Bridge Replacement and Rehabilitation Program projects, in accordance with the provisions of Title 23 United States Code Off-System Bridge Program. The County has complied with all provisions of the Soft Match Program and all statements made in the Letter of Request for Soft Match Approval and subsequent correspondence.

The following hereby certify that the above referenced project meets all conditions necessary to qualify for the credit mentioned above, subject to the penalties of U.S. Code, Title 18, Section 1020 (attached).

Coordinating Profession Engineer having overall responsibility for all phases of project from design through construction (affix seal and sign):

The County Board of _____ County, having met on the _____ day of _____, 20____, hereby authorizes the County Board Chairperson and the County Highway Superintendent to sign in behalf of the County this Certification of Compliance. A copy of the resolution of authorization is attached hereto.

County Highway Superintendent

County Board Chairperson

The above appeared before me on the _____ day of _____, 20____ and signed this certification in my presence.

WITNESS my hand and Notary Seal.

Seal

Notary Public

Non-Controversial Checklist

Please initial and date the activity was completed.

Initial:	Date (Month/Year):	Activity
		1. U.S. Army Corp of Engineers 404 Permit obtained.
		2. U.S. Army Corp of Engineers 404 Permit completed and closed.
		3. Coordination with State Historic Preservation Office State Historic Preservation Office Nebraska State Historical Society P.O. Box 82554 Lincoln, NE 68501-2554 Phone: 402-471-4787 in Lincoln or 1-800-833-6747 - Historic Preservation
		4. Coordination with Nebraska Game and Parks 2200 North 33 rd Street Lincoln, NE 68503 Phone: 402-471-5444
		6.Coordination with U.S. Fish and Wildlife Nebraska Field Office 203 West 2 nd Street Grand Island, NE 68804 Phone: 308-382-6468
		6. No impact to public property.
		7. No condemnation of private property.
		8. No request for public hearing.

TITLE 18--CRIMES AND CRIMINAL PROCEDURE**PART I--CRIMES****CHAPTER 47--FRAUD AND FALSE STATEMENTS**

Sec. 1020. Highway projects

Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the costs thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction of any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report, or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to a material fact in any statement, certificate, or report submitted pursuant to the provisions of the Federal-Aid Road Act approved July 11, 1916 (39 Stat. 355), as amended and supplemented,

Shall be fined under this title or imprisoned not more than five years, or both.

(June 25, 1948, ch. 645, 62 Stat. 753; Oct. 31, 1951, ch. 655, Sec. 27, 65 Stat. 721; May 6, 1954, ch. 181, Sec. 18, 68 Stat. 76; Pub. L. 89-670, Sec. 10(f), Oct. 15, 1966, 80 Stat. 948; Pub. L. 103-322, title XXXIII, Sec. 330016(1)(L), Sept. 13, 1994, 108 Stat. 2147.)

RESOLUTION # _____

WHEREAS, the Board of Commissioners of Good County, desires to receive soft match credit for Structure No. C00_____, and

WHEREAS, all requirements for receiving soft match credit have been met,

NOW, THEREFORE BE IT RESOLVED, that the Chairman of the Board of Commissioners and the County Highway Superintendent are hereby authorized to sign a Certification of Compliance for Structure No. C00_____ as required to receive soft match credit.

Dated at Good City, Nebraska this _____ day of _____, 20__.

COUNTY BOARD
GOOD COUNTY, NEBRASKA

Chairperson

ATTEST:

County Clerk

Concrete Box Culverts:

- (A) Staking.
- (B) Verify status of utilities prior to initial mobilization to site.
- (C) Inspection of foundation prior to placing reinforcement for toe walls or floor.
- (D) Inspection of reinforcement placement prior to all concrete pours.
- (E) Inspection during all concrete pours with cylinder testing and air tests.
- (F) Culvert placement (drop structures adjacent to CBC which attach to walls).
- (G) Erosion and sediment control.
- (H) Inspection during backfill.
- (I) Final inspection to verify grouting, channel shaping at ends of culvert and site cleanup. Includes site pictures and new SIA sheet.
- (J) Check validity of applications for payment and issue certificate of payment to the Owner.
- (K) Submittal of required documentation to County and Nebraska Dept. of Roads.

Multi-Span Continuous Concrete Slab Bridge:

- (A) Verify status of utilities prior to initial mobilization to the site.
- (B) Review shop drawings (if any).
- (C) Driving pile (and sheet piling, if any).
- (D) Placement of steel caps and bracing (if any).
- (E) Welding.
- (F) Painting.
- (G) Setting concrete forms.
- (H) Placing reinforcement.
- (I) Concrete pours.
- (J) Culvert placement (drop structures adjacent to abutments).
- (K) Guardrail placement.
- (L) Erosion and sediment control.
- (M) Backfilling operations.
- (N) Grouting.
- (O) Final inspection to verify grouting, channel shaping and site cleanup. Includes site pictures and new SIA sheets.
- (P) Check validity of applications for payment and issue certificate of payment to the owner.
- (Q) Submittal of required documentation to County and Nebraska Department of Roads.

Simple or Multi-Span Precast Concrete Deck Slab Bridge:

Same inspection as for Continuous Concrete slab bridge. In addition, inspection includes inspection of reinforcement placement, concrete pours, and curing procedures at the manufacturing plant for the deck slab units

Inspection includes unloading and placement of the units at the project site.

Simple or Multi-Span D.S.G. Bridges

- (A) Verify status of utilities prior to mobilization to site.
- (B) Review shop drawings.
- (C) Inspect any steel fabrication. Plant inspection is required for welded plate girder structures, and is recommended for all steel fabrication. If the contractor is willing to risk having to return rejected items to the plant, inspection at the job site is an option.
- (D) Driving piling.
- (E) Sheet pile driving.
- (F) Placement of steel caps and bracing (if any).
- (G) Setting steel girders.
- (H) Welding.
- (I) Painting.
- (J) Setting concrete forms.
- (K) Placing reinforcement.
- (L) Concrete pours.
- (M) Culvert placement (drop structures adjacent to abutments).
- (N) Erosion and sediment control.
- (O) Backfilling operations.
- (P) Grouting.
- (Q) Final inspection to verify channel shaping and site cleanup. Include site pictures and new SIA sheets. Check validity of applications for payment and issue certificates.
- (S) Submittal of required documentation to County and Department of Roads.

Inspection is limited to critical phases in order to keep the costs down. Inspection and construction requirements are in accordance with:

“Standard Specifications for Highway Construction, State of Nebraska, Department of Roads, 1997, and all subsequent amendments.”

Nebraska Department of Roads

Pile Record (English)

Distribution of Copies

White - Bridge Division
Canary - Construction Division

Pink - District Engineer
Goldenrod - Project Manager

PROJECT NO:	PILE: TYPE AND WEIGHT PER FOOT:	STRUCTURE NO.:
PROJECT NAME:	TYPE OF HAMMER:	STATION:
COUNTY:	WEIGHT OF RAM:	ABUTMENT OR GRADE BEAM NO.:
CONTRACTOR:	WEIGHT OF DRIVING CAP:	PIER OR BENT NO.:

[illegible][illegible]

DR Form 97, Jan 97

THIS FORM REPLACES DR FORM 97, JUL 80.
PREVIOUS EDITIONS WILL BE DESTROYED

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