

# INFORMATIONAL PROPOSAL (For information only, not to be used for bidding)

NEBRASKA DEPARTMENT OF ROADS  
LETTING DATE : November 13, 2003

CALL ORDER: N15            CONTRACT ID: 4961

CONTROL NO./SEQ. NO.: 41961 /000 PROJECT NO.: RD-80-6(1014)

TENTATIVE START DATE: 08/02/04      CONTRACT TIME: 50 WORKING DAYS

LOCATION: I-80, KEARNEY - MINDEN.

IN COUNTY: BUFFALO

BIDDER

GROUP 8 SPECIALTY

## NOTES

THE TOTAL AMOUNT OF WORK WHICH WILL BE ACCEPTED IN THIS LETTING IS LIMITED TO \$\_\_\_\_\_.

THE NUMBER OF \_\_\_\_\_ CONTRACTS WHICH WILL BE ACCEPTED IN THIS LETTING IS LIMITED TO \_\_\_\_\_.

THIS PROJECT (IS TIED)(IS NOT TIED) TO PROJECT NO. RD-81-3(1040).

STRIKE OUT WORDS IN PARENTHESIS THAT DO NOT APPLY.

## **NOTICE TO ALL BIDDERS**

To report bid rigging activities, call: 1-800-424-9071

The U.S. Department of Transportation (DOT) operates the above toll-free "hotline" Monday through Friday, 8:00 a.m. to 5:00 p.m. eastern time. Anyone with knowledge of possible bid rigging, bidder collusion, or other fraudulent activities should use the "hotline" to report such activities.

The "hotline" is part of the DOT's continuing effort to identify and investigate highway construction contract fraud and abuse and is operated under the direction of the DOT Inspector General. All information will be treated confidentially and caller anonymity will be respected.

## **LETTING QUESTIONS**

Prior to the letting, any questions pertaining to the Special Provisions or the plans for this project should be directed to Construction Division personnel at (402) 479-4568 or (402) 479-4529.

STATE OF NEBRASKA  
DEPARTMENT OF ROADS

Required Provisions Supplemental to the  
**Standard Specifications for Highway Construction**

**I. Application**

These contract provisions shall apply to all work performed on the contract by the contractor with his own organization and with the assistance of workmen under his immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract.

The contractor shall insert in each of his subcontracts all of the stipulations contained in the Special Provisions and these Required Provisions.

A breach of any of the stipulations contained in these Required Provisions may be grounds for termination of the contract.

**II. Equal Opportunity**

1. **Selection of Labor**

During the performance of this contract, the contractor shall not discriminate against labor from any other state.

2. **Nebraska Fair Employment Practices Act**

The contractor shall not discriminate against any employee or applicant for employment, to be employed in the performance of this contract with respect to his hire, tenure, terms, conditions, or privileges of employment, because of his race, color, religion, sex or national origin. The contractor agrees to post in a conspicuous place or places a notice to be provided by the State Highway Department which sets forth excerpts of the Act.

3. **Nebraska Equal Pay Act**

The contractor shall not discriminate on the basis of sex by paying wages to employees of one sex at a lesser rate than the rate paid to employees of the opposite sex for comparable work on jobs which have comparable requirements. An abstract of the Act is included on the notice which is provided by the State Highway Department.

April 4, 1995

III. Employment of Labor

1. **General**

No person under the age of sixteen (16) years, and no one whose age or physical condition is such as to make his employment dangerous to his health or safety, or to the health and safety of others shall be employed on any project. This paragraph shall not be construed to deny the employment of older people or physically handicapped persons, otherwise employable, where such persons may be safely assigned to work which they can ably perform.

No person currently serving sentence to a penal or correction institution shall be employed on any project.

Except as specifically provided under this section, workers who are qualified by training or experience to be assigned to projects of this character shall not be discriminated against on any grounds whatsoever.

2. **Payrolls**

Payrolls and basic records relating thereto will be maintained during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working on the site of the work.

The contractor's and subcontractor's payroll records shall be available for inspection by authorized representatives of the State Highway Department and authorized representatives of Federal Agencies.

The wages of labor shall be paid in legal tender of the United States, except that this condition will be considered satisfied if payment is made by a negotiable check, on a solvent bank, which may be cashed readily by the employee in the local community for the full amount, without discount or collection charges of any kind. Where checks are used for payment the contractor shall make all necessary arrangements for them to be cashed and shall give information regarding such arrangements.

No fee of any kind shall be asked or accepted by the contractor or any of his agents from any person as a condition of employment on the project.

No laborers shall be charged for any tools used in performing their respective duties except for reasonably avoidable loss or damage thereto.

Every employee on the work covered by this contract shall be permitted to lodge, board and trade where and with whom he elects and neither the contractor nor his agents, nor his employees shall directly or indirectly require as a condition of employment that an employee shall lodge, board or trade at a particular place or with a particular person.

No charge shall be made for any transportation furnished by the contractor or his agents to any person employed on the work.

April 4, 1995

No individual shall be employed as a laborer on this contract except on a wage basis, but this shall not be construed to prohibit the rental of teams, trucks or other equipment from individuals. No such rental agreement, or any charges for feed, gasoline, supplies, or repairs on account of such agreement, shall cause any deduction from the wages accruing to any employee except as authorized by the regulations hereinbefore cited.

#### **IV. Safety and Accident Prevention**

In the performance of this contract, the contractor shall comply with all applicable Federal, State and local laws governing safety, health and sanitation. The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions, on his own responsibility or as the contracting officer may determine, reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract.

#### **V. Subletting or Assigning the Contract**

The contractor shall perform with his own organization contract work amounting to not less than 30 percent of the total contract amount except that any items designated in the contract as "Specialty Items" may be performed by subcontract and the amount of any such "Specialty Items" so performed may be deducted from the total contract amount before computing the amount of work required to be performed by the contractor with his own organization.

Any items that have been selected as "Specialty Items" for the contract are listed as such in the Special Provisions found elsewhere in the contract.

No portion of the contract shall be sublet, assigned, or otherwise disposed of except with the written consent of the contracting officer or his authorized representative. Requests for permission to sublet assign or otherwise dispose of any portion of the contract shall be in writing and accompanied by a showing that the organization which will perform the work is particularly experienced and equipped for such work. The contractor shall give assurance that the minimum wage for labor as stated in his proposal shall apply to labor performed on all work sublet, assigned or otherwise disposed of in any way. Consent to sublet, assign or otherwise dispose of any portion of the contract shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract.

April 4, 1995

**SPECIAL PROVISIONS  
FOR  
STATE  
PROJECT NO. RD-80-6(1014)**

**GENERAL CONDITIONS**

Sealed bids for the work contemplated in this proposal form will be received at the office of the Nebraska Department of Roads in Room 104 of the Central Office Building at 1500 Highway 2 at Lincoln, Nebraska, on November 13, 2003, until 1:30 P.M.

Bids submitted by mail should be addressed to the Nebraska Department of Roads, c/o Contract Lettings Section, P.O. Box 94759, Lincoln, NE 68509-4759.

The 1997 English Edition of the Standard Specifications for Highway Construction, including all amendments and additions thereto effective at the date of the contract, are made a part of these Special Provisions, through reference.

The Supplemental Specifications to the 1997 English Edition of the Standard Specifications for Highway Construction dated July 12, 2001, including all amendments and additions thereto effective at the date of the contract, are made part of these Special Provisions, through reference.

The Required Provisions dated April 4, 1995, are attached to and are a part of this proposal form.

The attention of bidders is directed to the Required Provisions covering subletting or assigning the contract.

The proposal contains a statement that the contractor is complying with, and will continue to comply with, fair labor standards in the pursuit of his business and in the execution of the work contemplated in this proposal.

Fair labor standards shall be construed to mean such a scale of wages and conditions of employment as are paid and maintained by at least fifty per cent of the contractors in the same business or field of endeavor as the contractor filing this proposal.

**STATUS OF UTILITIES**

No utilities have been or will be required to relocate within the limits of this project.

Underground utilities may exist within the limits of this project. The Contractor shall determine to his satisfaction the extent of occupancy of any underground utilities located within the respective construction areas and the extent of conflict with the proposed work under this contract.

Any utility adjustments or interruption of service for the convenience of the Contractor shall be the sole responsibility of the Contractor.

To arrange for utilities to locate and flag their underground facilities, contact The Diggers Hotline of Nebraska at 1-800-331-5666.

**STATUS OF RIGHT-OF-WAY  
(S1-16-0801)**

According to the best information available, all necessary right-of-way has been acquired.

**REQUIRED SUBCONTRACTOR/SUPPLIER QUOTATIONS LIST  
(S1-43-0603)**

At bid submittal, all bidders must provide to the NDOR the identity of all firms who provided quotations on all projects, including both DBEs and non-DBEs. This information must be on a form provided by the NDOR Contracts Office.

If no quotations were received, the bidder must indicate this in the space provided.

Each bidder will be required to submit one list per letting to cover all projects bid.

**CONTROL OF WORK  
(S1-43-0901)**

Subsection 105.08 in the 1997 Standard Specifications is void and replaced by the following:

105.08 - Authority and Duty of the Inspector

Department inspectors are authorized to inspect all work performed and all materials furnished. Such inspection may extend to the preparation, fabrication, or manufacture of the materials. The inspector has the authority to reject work or materials until any issues can be decided, including the right to suspend work. The inspector is not authorized to alter or waive the provisions of the contract or act as a supervisor for the Contractor.

105.13 – Tentative Acceptance of Portions of the Project

Paragraph 3.a. of Subsection 105.13 is amended by deleting the word “normal”.

**LEGAL RELATIONS AND RESPONSIBILITY TO THE PUBLIC  
(S1-43-1001)**

107.14 – Opening of Sections of the Project to Traffic

Subsection 107.14 Paragraphs 2.b.(1) and (2) are void and replaced by the following:

- 2.b. (1) Whenever the Department permits the public use of a highway undergoing construction, repair, or maintenance in lieu of a detour route, the Contractor shall not be held responsible for damages to those portions of the project upon which the Department permitted public use, when such damages are the result of no proximate act or failure to act on the part of the Contractor.

- (2) If the traveling public should cause damage to the roadway, the Contractor shall assist the State in identifying the responsible party and the Contractor shall as a minimum if present at the time of the damage record pertinent information regarding the accident. (Who caused the damage; when the damage occurred; and how the damage occurred.)

#### 107.15 – Contractor’s Responsibility for Work

Subsection 107.15 is amended by adding Paragraph 1.b.(3) as follows:

- (3) The Contractor shall not be held responsible for damage caused by the traveling public on those portions of the project where the Department has permitted public use of the road in lieu of using a detour route and the damage as not the result of any proximate act or failure to act on the part of the Contractor.

### **MEASUREMENT AND PAYMENT (S1-43-0901)**

#### 109.08 – Acceptance, Final Payment, and Termination of Contractor’s Responsibility

Subsection 109.08 Paragraph c. amended by deleting the word “normal”.

Subsection 109.08 Paragraph d. is void and replaced by the following:

- d. If the traveling public should cause damage to the roadway the Contractor shall assist the State in identifying the responsible party and the Contractor shall as a minimum if present at the time of the damage record pertinent information regarding the accident. (Who caused the damage; when the damage occurred; and how the damage occurred.)

### **LIABILITY INSURANCE (S1-43-1103)**

Paragraph 2.a. of Subsection 107.13 in the Standard Specifications is void and superseded by the following:

- a. The General Liability coverage for bodily injury liability shall be not less than \$1,000,000 for injuries, including accidental death, in any one occurrence, and subject to an aggregate limit of not less than \$2,000,000.

Paragraph 2.b. of Subsection 107.13 is void and superseded by the following:

- b. The amount of property damage liability insurance shall be not less than \$1,000,000.



**SPECIAL PROSECUTION AND PROGRESS  
(Migratory Birds)**

Paragraph 4.h. of Subsection 107.01 in the Standard Specifications for Highway Construction is void.

**SPECIAL PROSECUTION AND PROGRESS  
(Lane Closure Lengths)**

The maximum lane closure length for this project shall be 4.00 miles.

**SPECIAL PROSECUTION AND PROGRESS  
(Holidays and UNL Football Game Day)**

The Contractor will be required to schedule his operations in a manner to have all traffic lanes open to traffic on the following holidays:

Memorial Day and Labor Day weekends – these holiday weekends shall begin at 3:00 p.m., Friday, and shall include the remainder of Friday and all day Saturday, Sunday and the Monday holiday.

- July 4<sup>th</sup>
- If July 4<sup>th</sup> falls on a Monday or Friday, the Saturday and Sunday either preceding or following July 4<sup>th</sup> shall be included as part of the holiday.
  - If July 4<sup>th</sup> falls on either Tuesday, Wednesday or Thursday, only that day will be considered as the holiday.
  - If July 4<sup>th</sup> falls on a Saturday or Sunday, the day preceding and the day following July 4<sup>th</sup> shall be included as part of the holiday.
  - The July 4<sup>th</sup> holiday shall begin at 3:00 p.m. on the day preceding the first day of the July 4<sup>th</sup> holiday, as defined above.

The Contractor will also be required to have all traffic lanes open to traffic on any day that the University of Nebraska has a home football game.

Failure to have all traffic lanes open to traffic, as specified, on these holidays or UNL home football game day will result in a liquidated damage assessment of \$5,000 per occurrence. This assessment will be in addition to other liquidated damages described elsewhere in this proposal or in the Standard Specifications used for this project.

## **SPECIAL PROSECUTION AND PROGRESS (Dowel Bar Retrofit & Diamond Grinding)**

The Contractor shall maintain a single lane closure in areas where (1) the dowel bar placement and/or grouting operation is in progress and (2) the dowel bar placement has been completed and the diamond grinding has not been completed. Providing that the minimum material strengths have been met, 24 hour compressive strength of 5000 psi, the Contractor will be required to begin the diamond grinding within 7 calendar days after completion of the dowel bar retrofit on any traffic lane segment of 5 miles or less in length. For segments greater than 5 miles, the Contractor will be required to begin the diamond grinding within 7 calendar days after completing 5 miles of the dowel bar retrofit. **Traffic will not be allowed on dowel bar retrofit sections until after completion of the diamond grinding.** The removal of the concrete in the kerf cuts and placement/grouting of the dowel bars will be completed for an entire lane segment in one direction prior to beginning concrete removal of the kerf cuts and dowel bar placement/grouting operation in another segment. Failure to begin the diamond grinding in any traffic lane segment within the calendar days allowed shall result in the assessment of liquidated damages of \$1,000.00 per day for each traffic lane segment in violation.

The Contractor shall schedule his work so as to minimize the number of lane closures; for example, constructing different items of work at the same time whenever possible.

In an attempt to prevent corner cracking, lanes shall remain closed after sawing the slots for the dowel bars until the grouting and diamond grinding operations are completed.

The maximum continuous length of lane closure, excluding length of taper, for dowel bar placement and diamond grinding operations shall be 4.00 miles. Based on the work operation, the Engineer may specify a lane closure shorter than the maximum permissible length. In the event that the Contractor elects to initiate simultaneous lane closures, the distance between the end of the first closure and the beginning of the taper for the next closure shall be a minimum of 2 miles. Lane closures will be allowed in eastbound and westbound lanes concurrently.

## **CONSTRUCTION DETAILS**

### **TEMPORARY TRAFFIC CONTROL DEVICES (S4-9-1201)**

Paragraphs 2.a. of Subsection 422.05 in the Standard Specifications is void and superseded by the following:

2.a. If signs are not returned or are returned damaged, and the damage is beyond reasonable "wear and tear" and the damage was caused by the Contractor, then the Contractor shall be charged the value of the missing or damaged items. These charges shall be deducted from monies due the Contractor upon final payment.

**TYPE B HIGH INTENSITY WARNING LIGHTS  
(S4-9-1002)**

All references in the plans to Type B High Intensity Warning Lights shall be considered void. The plans will not be revised to reflect this change.

**SURVEILLANCE OF TEMPORARY TRAFFIC CONTROL DEVICES**

Paragraphs 2.i., 2.j.(2)(ii), and 2.k. of Subsection 422.01 of the Standard Specifications are void and superseded by the following:

The Contractor shall provide continuous surveillance of temporary traffic control devices on a 24-hour per day basis during construction activities, and when lanes/ramps are closed. Surveillance will not be required when all lanes and ramps are open to traffic and equipment and traffic control devices are removed from the roadway a safe distance (i.e., during specified holidays, during peak hours, and on UNL home football game days for projects east of Highway US-281).

Surveillance shall not be required on any weekend, holiday or UNL game day when all lanes and ramps are open to traffic.

The personnel assigned to provide the continuous 24-hour surveillance shall be responsible for surveillance, identifying deficiencies, and effecting the immediate repair, correction or replacement of the traffic control devices. *The personnel assigned shall also be responsible for completing a Traffic Control Inspection form, provided by the Engineer, at the completion of each 24-hour period. These forms shall be submitted daily to the Engineer, either in person or via facsimile transmission.*

Continuous shall be defined as having one or more persons on the project at all times. It is assumed that these personnel will be assigned in three 8-hour shifts per day, with one 30 minute meal break and two 15 minute breaks per shift. Ultimately, however, shift and break lengths shall be determined by the Contractor.

The Contractor shall provide the Engineer with a means of contacting or locating the 24-hour surveillance personnel on the project and shall also provide the Engineer with the names and telephone numbers of personnel to contact if the 24-hour surveillance personnel cannot be located on the project.

The Department expects deficiencies to be corrected immediately upon detection, but in no case should the time limit for correction exceed sixty minutes. Failure to (1) correct deficiencies or (2) respond to notifications from the Department or law enforcement officials within the sixty-minute time period will result in the assessment of a \$1,000 liquidated damage assessment. This liquidated damage assessment will be assessed per occurrence and per calendar day that the deficiency is not corrected. This assessment will be in addition to other liquidated assessment described elsewhere in the proposal. *[If applicable, Exception: the replacement and repositioning of tubular posts shall be performed within the time period stipulated in paragraph 13.c.(3) of Subsection 422.03. Also, the Contractor shall be responsible for immediate removal of tubular posts that become dislodged and of all other objects that encroach or impede traffic.]*

Additionally, if necessary, the Engineer may proceed to correct deficiencies in a manner that he or she deems appropriate and assess the Contractor for the costs incurred as a result of the performance of the corrective action by others.

Subsection 422.04 of the Standard Specifications are amended to include the following:

This work shall be measured and paid for by the calendar day for the item "Surveillance of Temporary Traffic Control Devices". This price shall be considered full compensation for all labor, materials, equipment, tools and incidentals necessary to complete the work.

Subsection 422.05 of the Standard Specifications are amended to include the following:

Payment for "Surveillance of Temporary Traffic Control Devices" will not be made for any day 24-hour surveillance is not provided and will not extend beyond the last working day or calendar day allowed by the contract, or any approved extension of contract time allowance.

## **CONCRETE PAVEMENT JOINT REPAIR**

Section 605 in the Standard Specifications and Supplemental Specifications is amended to include the following:

Approximately 11 lane joints will require the full depth joint repair, before the dowel bar retrofitting and diamond grinding operations.

Paragraph 6. of Subsection 605.01 is amended to include the following:

When performing this operation on multi-lane highways, the Contractor will be permitted to have one lane closed at night. Where the pavement has been removed, the Contractor will be required to have the excavated area filled with either (1) the appropriate patching concrete material for curing overnight, or (2) a commercially available cold-mix bituminous mixture or other suitable temporary patch material with a durable surface, as directed by the Engineer. The next day, the Contractor will then be required to remove any "temporary patches", thoroughly clean the repair area and complete the required permanent patch so that the lane can be opened to traffic by the end of the second day. The material, installation, removal and disposal of these temporary patches will not be measured and paid for directly, but shall be considered subsidiary to the concrete pavement repair work being performed.

Paragraph 1. of Subsection 605.02 is amended to include the following:

Repairs may be made with Class PR1-3500 (PR1-24 MPa) concrete after June 1 and before September 15, provided the minimum strength is met in the allotted time.

Paragraph 6.d. of Subsection 1002.02 is void and superseded by the following:

The Contractor may use liquid calcium chloride in Class PR1 concrete from June 1 through August 31. Flaked calcium chloride shall be used during the remainder of the year, as stated in Paragraph 6.c.

The last sentence of Paragraph 2. of Subsection 605.04 is void.

Paragraph 16. of Subsection 605.04 is void and superseded by the following: The pavement elevation of repair areas shall be corrected in a manner that eliminates swales or bumps. Swales and bumps are defined as having a 1/8" or greater deviation using an approved 10 foot straightedge. Correction shall be diamond grinding or replacement. The condition of the adjacent pavement shall be considered when evaluating the 1/8" deviation requirement.

Paragraph 20. of Subsection 605.04 is amended to include the following subparagraphs.

- f. From June 1 through August 31, if the daytime temperature is 85°F or greater, covering the repair concrete with polyethylene film and insulation board is optional, provided the maturity method is used to measure the strength of the concrete.
- g. From June 1 through August 31, if the pavement is to remain closed to traffic for at least 24 hours, covering of the repair concrete with polyethylene film and insulation board is optional.

Paragraph 21. of Subsection 605.04 is amended to include the following:

- b. Class PR1 Concrete may be used for concrete repair if the repaired area is to remain closed to traffic for at least 24 hours.
- c. Class PR3 Concrete shall be used for all concrete repair if the repaired areas must be opened to traffic within 24 hours.
- d. Strength measurements for the opening and the 24-hour pay strengths of the PR1 and PR3 Concrete may be performed using the maturity meter method.

Paragraphs 25. b. (1) and 25. b. (2) of Subsection 605.04 are void and superseded by the following:

A full depth diamond blade saw cut shall be made and dowel bars and/or tie bars anchored into the faces of the existing concrete as designated in the plans. A full depth cut approximately 4 inches (100 mm) wide may be made with a wheel cutter through the repair section if the repair will be overlaid. The wheel-type cutter shall be operated to produce minimum disturbance of the foundation course material, with no encroachment of the cut into the concrete of the adjoining lane.

Dowel bars or tie bars shall be anchored into the faces of the existing concrete as designated in the plans. To provide proper alignment, a drill approved by the Engineer shall be used to install the dowel bars. The drill shall be capable of drilling the holes parallel to the surface of the pavement and to the centerline of the highway  $\pm$  1/8 inch. The dowel bar holes shall be drilled in the same plane  $\pm$  1/8 inch and at the spacing shown in the plans. The tie bars can be drilled independently. The drilled holes shall be thoroughly cleaned with compressed air to remove all dust, dirt, loose material and moisture.

After cleaning and prior to dowel or tie bar insertion, an application of grout shall be made at the back of the hole. The grout shall be from the Approved Products List. Twist the dowel or tie bar one full turn during insertion to completely surround it with the grout. Grout retention disks shall be placed on the bars as designated in the plans. The furnishing and installation of dowel and tie bars will not be paid for directly but shall be considered subsidiary to the concrete pavement or joint repair work being performed.

Paragraph 25. c. of Subsection 605.04 is amended to include the following:

Any loosened foundation course material shall be removed and replaced with concrete.

Paragraph 1. of Subsection 605.06 is amended to include the following:

Pay Item	Pay Unit
Concrete Pavement, _____ Joint Repair	Square Yard (SY) Square Meter (m <sup>2</sup> )

**CONCRETE PAVEMENT REPAIR**

Section 605 in the Standard Specifications and Supplemental Specifications is amended to include the following:

Paragraph 6. of Subsection 605.01 is amended to include the following:

When performing this operation on multi-lane highways, the Contractor will be permitted to have one lane closed at night. Where the pavement has been removed, the Contractor will be required to have the excavated area filled with either (1) the appropriate patching concrete material for curing overnight, or (2) a commercially available cold-mix bituminous mixture or other suitable temporary patch material with a durable surface, as directed by the Engineer. The next day, the Contractor will then be required to remove any “temporary patches”, thoroughly clean the repair area and complete the required permanent patch so that the lane can be opened to traffic by the end of the second day. The material, installation, removal and disposal of these temporary patches will not be measured and paid for directly, but shall be considered subsidiary to the concrete pavement repair work being performed.

Paragraph 1. of Subsection 605.02 is amended to include the following:

Repairs may be made with Class PR1-3500 (PR1-24 MPa) concrete after June 1 and before September 15, provided the minimum strength is met in the allotted time.

Repairing the concrete pavement shall be done prior to the dowel bar retrofitting and diamond grinding operations.

Paragraph 6.d. of Subsection 1002.02 is void and superseded by the following:

The Contractor may use liquid calcium chloride in Class PR1 concrete from June 1 through August 31. Flaked calcium chloride shall be used during the remainder of the year, as stated in Paragraph 6.c.

The last sentence of Paragraph 2. of Subsection 605.04 is void.

Paragraph 10. of Subsection 605.04 is void.

Paragraph 16. of Subsection 605.04 is amended to include the following:

The minimum concrete placement shall be as shown in the plans or as directed by the engineer. Interior transverse joints shall be sawed to a minimum of one-third the actual thickness of the slab at the spacing designated in the plans.

The pavement elevation of repair areas shall be corrected in a manner that eliminates swales or bumps. Swales and bumps are defined as having a 1/8" or greater deviation using an approved 10 foot straightedge. Correction shall be diamond grinding or replacement. The condition of the adjacent pavement shall be considered when evaluating the 1/8" deviation requirement.

Paragraph 20. of Subsection 605.04 is amended to include the following subparagraphs.

- f. From June 1 through August 31, if the daytime temperature is 85°F or greater, covering the repair concrete with polyethylene film and insulation board is optional, provided the maturity method is used to measure the strength of the concrete.
- g. From June 1 through August 31, if the pavement is to remain closed to traffic for at least 24 hours, covering of the repair concrete with polyethylene film and insulation board is optional.

Paragraph 21. of Subsection 605.04 is amended to include the following:

- b. Class PR1 Concrete may be used for concrete repair if the repaired area is to remain closed to traffic for at least 24 hours.
- c. Class PR3 Concrete shall be used for all concrete repair if the repaired areas must be opened to traffic within 24 hours.
- d. Strength measurements for the opening and the 24-hour pay strengths of the PR1 and PR3 Concrete may be performed using the maturity meter method.

Paragraphs 25. b. (1) and 25. b. (2) of Subsection 605.04 are void and superseded by the following:

A full depth diamond blade saw cut shall be made and dowel bars and/or tie bars anchored into the faces of the existing concrete as designated in the plans. A full depth cut approximately 4 inches (100 mm) wide may be made with a wheel cutter through the repair section if the repair will be overlaid. The wheel-type cutter shall be operated to produce minimum disturbance of the foundation course material, with no encroachment of the cut into the concrete of the adjoining lane.

Dowel bars shall be placed on the new transverse joint nearest the existing transverse joint. A minimum of 2 tie bars shall be placed on each side of a full depth pavement repair as designated in the plans.

Dowel bars or tie bars shall be anchored into the faces of the existing concrete as designated in the plans. To provide proper alignment, a drill approved by the Engineer shall be used to install the dowel bars. The drill shall be capable of drilling the holes parallel to the surface of the pavement and to the centerline of the highway  $\pm 1/8$  inch. The dowel bar holes shall be drilled in the same plane  $\pm 1/8$  inch and at the spacing shown in the plans. The tie bars can be drilled independently. The drilled holes shall be thoroughly cleaned with compressed air to remove all dust, dirt, loose material and moisture.

After cleaning and prior to dowel or tie bar insertion, an application of grout shall be made at the back of the hole. The grout shall be from the Approved Products List. Twist the dowel or tie bar one full turn during insertion to completely surround it with the grout. Grout

retention disks shall be placed on the bars as designated in the plans. The furnishing and installation of dowel and tie bars will not be paid for directly but shall be considered subsidiary to the concrete pavement or joint repair work being performed.

Paragraph 25. c. of Subsection 605.04 is amended to include the following:

Any loosened foundation course material shall be removed and replaced with concrete.

Paragraph 25. d. of Subsection 605.04 is void.

Subsection 605.05 in the 1997 Standard Specifications is amended to provide that adjoining full depth repair areas of varying widths in the same traffic lane, which are situated such the removals of the areas may be accomplished concurrently, shall be considered as a single repair. The total area of the adjoining areas shall be combined to determine the repair type as shown in Table 605.01.

### **CONCRETE PAVEMENT REPAIR (PARTIAL DEPTH REPAIR)**

Section 605 in the Standard Specifications and Supplemental Specifications is amended to include the following:

Paragraph 6. of Subsection 605.01 is amended to include the following:

When performing this operation on multi-lane highways, the Contractor will be permitted to have one lane closed at night. Where the pavement has been removed, the Contractor will be required to have the excavated area filled with either (1) the appropriate patching concrete material for curing overnight, or (2) a commercially available cold-mix bituminous mixture or other suitable temporary patch material with a durable surface, as directed by the Engineer. The next day, the Contractor will then be required to remove any "temporary patches", thoroughly clean the repair area and complete the required permanent patch so that the lane can be opened to traffic by the end of the second day. The material, installation, removal and disposal of these temporary patches will not be measured and paid for directly, but shall be considered subsidiary to the concrete pavement repair work being performed.

Paragraph 1. of Subsection 605.02 is amended to include the following:

Repairs may be made with Class PR1-3500 (PR1-24 MPa) concrete after June 1 and before September 15, provided the minimum strength is met in the allotted time.

Paragraph 6.d. of Subsection 1002.02 is void and superseded by the following:

The Contractor may use liquid calcium chloride in Class PR1 concrete from June 1 through August 31. Flaked calcium chloride shall be used during the remainder of the year, as stated in Paragraph 6.c.

Paragraph 2. of Subsection 605.04 is void and superseded by the following:

All repairs shall be cut so the edges are parallel or perpendicular to the traveled way. For partial depth repairs, the Contractor shall cut and chip the pavement edges with a 15-pound



maximum chipping hammer to form reasonably neat vertical surfaces. These repairs shall be done prior to the dowel bar retrofitting and diamond grinding operations.

Paragraph 9.c. of Subsection 605.04 is void and superseded by the following:

The vertical faces except for the transverse and longitudinal joints and cracks of the repair shall be brushed with the grout just prior to placement of the repair concrete.

Paragraph 16. of Subsection 605.04 is amended to include the following:

The minimum concrete placement shall be as shown in the plans or as directed by the engineer. Interior transverse joints shall be cut at the spacings designated in the plans.

Paragraph 20. of Subsection 605.04 is amended to include the following subparagraphs.

- f. From June 1 through August 31, if the daytime temperature is 85°F or greater, covering the repair concrete with polyethylene film and insulation board is optional, provided the maturity method is used to measure the strength of the concrete.
- g. From June 1 through August 31, if the pavement is to remain closed to traffic for at least 24 hours, covering of the repair concrete with polyethylene film and insulation board is optional.

Paragraph 21. of Subsection 605.04 is amended to include the following:

- b. Class PR1 Concrete may be used for concrete repair if the repaired area is to remain closed to traffic for at least 24 hours.
- c. Class PR3 Concrete shall be used for all concrete repair if the repaired areas must be opened to traffic within 24 hours.
- d. Strength measurements for the opening and the 24-hour pay strengths of the PR1 and PR3 Concrete may be performed using the maturity meter method.

Paragraph 25. d. of Subsection 605.04 is void.

Subsection 605.05 in the 1997 Standard Specifications is amended to provide that adjoining partial depth repair areas of varying widths in the same traffic lane, which are situated such the removals of the areas may be accomplished concurrently, shall be considered as a single repair. The total area of the adjoining areas shall be combined to determine the repair type as shown in Table 605.01.

## SEALING TRANSVERSE AND LONGITUDINAL CRACKS

Subsection 611.01 in the 2001 Supplement Specifications is amended to include the following:

The transverse and longitudinal cracks shall be sealed after the dowel bar retrofitting and diamond grinding operations.

Subsection 611.02 is amended to include the following:

Material having a bond specification will be tested on concrete blocks that will be constructed by the Department's Concrete Laboratory. The concrete blocks will be constructed using 47B-3000 concrete meeting the requirements of Section 1002 in the Standard Specifications.

The design is amended so that no fly ash is used in the mixture. All other specifications for Portland cement concrete apply.

If a Department approved independent laboratory will be used for testing purposes, the Department must be notified so that concrete blocks for bond testing can be set to the approved independent laboratory.

The first sentence of Paragraph 1. a. of Subsection 611.03 is void and superseded by the following:

Transverse and longitudinal cracks from 1/4 inch to 1/2 inch (6 mm to 12.5 mm) in width shall be prepared with a crack reservoir of a nominal 1/2 inch (12.5 mm) in width at the surface of the pavement and to a depth of at least 5/8 inch (16 mm).

The last sentence of Paragraph 1. b. of Subsection 611.03 is void and superseded by the following:

The backer rod shall be of such diameter to be seated properly that will allow for a depth of approximately 1/2 inch to 1 inch (12.5 mm to 25 mm) of crack sealing filler.

Paragraphs 2. d. and 2. e. of Subsection 611.03 are void and superseded by the following:

- d. When proper pouring consistency is attained, the cracks shall be filled to 1/8 inch (3 mm) below the pavement surface through the use of a pressure type applicator approved by the Engineer, and equipped with a nozzle which will fit into the joints.
- e. Material spilled on surfaces of the pavement adjacent to the crack shall be cleaned away by the Contractor at no additional cost to the Department.

Subsection 611.04 is void and superseded by the following:

Sealing transverse and longitudinal cracks will be measured for payment by the linear foot (meter) of transverse and longitudinal cracks sealed, measured to the nearest foot (meter) of sealed cracks, complete, in place and accepted by the Engineer.

## FOUNDATION COURSE REPLACEMENT (S6-18-0801)

This work shall consist of removing and disposing of damaged portland cement foundation course below the concrete pavement that is removed for joint or pavement repair.

When the engineer determines that the foundation course needs replacing, the contractor shall remove and dispose of it and replace it with concrete of the same type used for the repair. The additional depth of concrete required shall be placed with the joint repair or panel repair concrete.

Foundation course replacement will be measured by the square yard of foundation course removed, and shall be paid for at the contract unit price per square yard for the item "Foundation Course Replacement". This price shall be full compensation for removing and disposing of the old foundation course, preparation of the subgrade, furnishing and placing the replacement concrete, and for all labor, equipment, tools and incidentals necessary to complete the work.

## DIAMOND GRINDING AND TEXTURING CONCRETE PAVEMENT

### DESCRIPTION

This work shall consist of diamond grinding and texturing the driving lane of the mainline concrete pavement surface for profile improvement. The passing lane and outside concrete shoulder shall be day lighted as required to prevent any vertical projection in excess of ¼ inch. The grinding quantities are based on 14' width. Grinding shall not extend across bridges unless specifically designated by the Engineer. The work shall be done according to the plans and these Special Provisions.

Sta. 544+91 to Sta. 930+06	Westbound	Grind 14' wide
Sta. 545+01 to Sta. 930+00	Eastbound	Grind 14' wide

### PROJECT INFORMATION

The 12" non-reinforced portland cement concrete pavement to be ground was constructed in 1984 (EB) and 1985 (WB). The surface is 24' wide with skewed, varied joint spacings of 12'-13'-19'-18' and has 3' inside and 10' outside concrete shoulders. There is cement treated foundation course. The joints are not doweled. Pertinent data for the original construction project is shown below:

Eastbound and Westbound	
Highway	I-80
Reference Post	272.23 to 279.48
Station	544+91 to 930+06 Westbound
Station	545+01 to 930+00 Eastbound
Class of Concrete:	47B (30% Coarse Aggregate)
Type of Coarse Aggregate:	Limestone
Source of Coarse Aggregate:	Martin Marieta Weeping Water, NE
Los Angeles Abrasion (% Wear):	Average 27
Bridge Exceptions:	Sta. 801+66 to 804+24 (Bridge No. 277.11) Sta. 832+77 to 835+18 (Bridge No. 277.70)

The minimum, maximum and average joint faulting in each mile is shown in the following table:

## JOINT FAULT MEASUREMENTS, INCHES

Location	Eastbound			Westbound		
	Min.	Max.	Avg.	Min.	Max.	Avg.
I-80 (272.23 to 273.00) Sta. 544+91 to 586+06	0.10	0.46	0.31	0.10	0.45	0.28
I-80 (273.00 to 274.00) Sta. 586+06 to 638+89	0.17	0.52	0.33	0.22	0.46	0.31
I-80 (274.00 to 275.00) Sta. 638+89 to 691+63	0.12	0.36	0.23	0.15	0.41	0.29
I-80 (275.00 to 276.00) Sta. 691+63 to 744+47	0.15	0.31	0.23	0.10	0.40	0.26
I-80 (276.00 to 277.00) Sta. 744+47 to 797+22	0.10	0.35	0.23	0.20	0.48	0.33
I-80 (277.00 to 278.00) Sta. 797+22 to 850+08	0.15	0.42	0.28	0.18	0.42	0.28
I-80 (278.00 to 279.00) Sta. 850+08 to 904+10	0.18	0.46	0.29	0.10	0.40	0.26
I-80 (279.00 to 279.48) Sta. 904+10 to 930+00	0.10	0.43	0.27	0.10	0.46	0.30

Below are the proportions for 47B concrete pavement:

Class Of Concrete	Sacks of Cement per Cu.Yd. (Fixed)	Type of Concrete	Lbs. Total Agg. per Sack of Cement		Ratio Coarse Agg. to Total Agg. (Percent)	Type of Coarse Aggregate
			Min.	Max.		
47B	6.0	Air-Entrained	480	520	30±3	Limestone

## EQUIPMENT

Grinding and texturing shall be done utilizing diamond blades mounted on self-propelled machines designed for grinding and texturing pavements. The cutting head shall be at least 36 inches wide and consist of many diamond blades with spacers. The equipment shall be such that it will not cause strain or damage to the underlying surface of the pavement. Equipment that causes excessive raveling, aggregate fractures, spalls, or disturbance of transverse or longitudinal joints will not be permitted.

## DIAMOND GRINDINGS

Grinding shall be done in the longitudinal direction so that grinding begins and ends at lines normal to the pavement centerline within one ground area, but not necessarily at the end of each shift or of a working day.

Grinding for profile improvement shall be continuous, within the area designated on the plans. All grinding shall be to full pavement width and shall include at least 90% of the pavement surface within any 100-foot length of pavement.

Grinding shall leave no vertical projection in excess of  $\frac{1}{4}$  inch on any longitudinal line and at either edge of the portland cement concrete pavement.

This work shall be done only with one lane closed, as shown in the plans. The Contractor will also be allowed to maintain a single lane closure overnight during the Diamond Grinding operation if he elects to continue grinding on a 24 hour basis. The lane closure shall be removed upon completion of grinding operation in that lane or when there is no grinding activity scheduled for the next day or the weekend. The Contractor will be assessed \$500 for each day the lane closure remains in place without grinding taking place.

Removal of all slurry or residue from the grinding operation shall be continuous. Pavement must be left in a clean condition. Residue from grinding operations shall not be permitted to flow into gutters or other drainage facilities. The residue shall be disposed of on the shoulder foreslopes.

Concrete pavement repair, joint repair and dowel bar retrofitting shall be completed in an area before the grinding operation.

## SMOOTHNESS

The ground and textured pavement will be considered acceptable provided the maximum profile index does not exceed 20 inches per mile in any individual 0.10 mile of each vehicle lane, when tested with the California Type Profilograph using a 0.1 inch blanking band.

## METHOD OF MEASUREMENT

The quantity of grinding and texturing concrete pavement to be paid for shall be measured in square yards to the nearest 1.0 square yard, completed and accepted by the Engineer.

## BASIS OF PAYMENT

The quantity of completed and accepted work, measured as provided herein, shall be paid for at the contract unit price per square yard for the item "Diamond Grinding and Texturing Concrete Pavement". This price shall be full compensation for furnishing all materials, equipment, labor, supplies, tools and incidentals necessary to complete the work.

## DOWEL BAR RETROFIT

### DESCRIPTION

Install epoxy coated dowel bars in the driving lane, on the transverse joints and transverse cracks in the existing portland cement concrete pavement as shown in the plans. Existing construction joints will not be dowel bar retrofitted. The dowels shall be placed after the concrete repair and prior to the diamond grinding operation. Below are the locations for dowel bar retrofit:

I-80 (272.23 to 279.48) -- Kearney to Minden  
Sta. 544+91 to Sta. 930+06 Westbound (2445 joints & 3 transverse cracks)  
Sta. 545+01 to Sta. 930+00 Eastbound (2444 joints & 4 transverse cracks)

Exceptions: Sta. 801+66 to 804+24 (Bridge No. 277.11)  
Sta. 832+77 to 835+18 (Bridge No. 277.70)

### MATERIALS

Furnish materials meeting the following requirements:

Epoxy coated dowel bars, 1-1/2 x 18 inches, shall conform to the requirements of Section 1022 in the Standard Specifications and Supplemental Specifications. Epoxy coating of the ends of the dowel bars is optional. The dowel bars shall be uniformly coated with an approved bond breaker in conformance with Paragraph 4 of Subsection 603.03.

The dowel bars shall have tight fitting end caps made of nonmetallic material that allow for at least 1/4 inch bar movement at each end of the bar. Chair devices for supporting the dowel bars shall be either epoxy coated or made of nonmetallic material. The chair devices shall provide a minimum clearance of 1/2 inch between the bottom of the bar and the surface upon which the bar is placed, and between the bar and the walls of the slot. The chairs shall be designed to prevent movement of the bar during placement of the grout. Samples of the end caps and chairs shall be submitted to the Engineer for approval before installation.

The caulking shall be a non-sag sealant approved by the Engineer before use.

The foam core board filler material shall be a closed cell foam faced with plastic film, foil or poster board material on each side. The foam core board filler shall be  $3/8 \pm 1/8$  inch thick. The foam core board filler shall be approved by the Engineer before installation.

## NON-SHRINK GROUT

The non-shrink grout placed around the dowel bars shall be one of the materials listed in the Approved Products List.

The grout may be extended as the manufacturer recommends. The aggregate for extending the grout must be a sand/gravel approved by Materials and Research Division and meeting the following gradation.

Sieve Size	Percentage Passing
3/8 in.	100
No. 20	0/5

The grout, with maximum aggregate extension, must meet the following strength requirements.

- 4-hour minimum compressive strength of 3000 psi
- 24-hour minimum compressive strength of 4500 psi
- 24-hour bond to dry PCC, 400 psi (California Test 551)

The contractor will furnish materials to be used for making the grout, and the mix design, to Materials and Research Division 30 days prior to installation.

A minimum of one set of 3 cylinders will be made from each day's pour from the first grout produced. Additional sets can be made at anytime during grout production. When the lane will be opened to traffic at the end of the day's pour, cylinders shall also be made from the last grout produced and placed. These cylinders shall be tested at the age of 4 hours to verify that the minimum 4-hour compressive strength has been attained before opening to traffic. If minimum grout strengths are not being met, grouting operations shall be suspended until the contractor can demonstrate batch mixing and proportioning proficiency that meets the minimum strength required. Acceptance will be based on meeting the 24-hour minimum strength requirements.

## CONSTRUCTION REQUIREMENTS

Slots shall be cut in the pavement with a gang saw capable of cutting at least three slots in each wheel path at a time. The slots shall be cut to the depth required to place the centers of the dowels at mid-depth in the concrete slab. Multiple saw cuts parallel to the centerline may be required to remove the material from the slot.

Jackhammers used to remove the concrete from the slots shall not be larger than the 30-pound class. Care shall be taken to prevent any damage to the pavement or to vehicles traveling in the adjoining lane.

All exposed surfaces and cracks in the slots shall be sandblasted and cleaned before bar installation. The transverse contraction joint on the bottom and sides shall be filled with non-sag caulking filler.

Chair devices shall be used to support the dowel bars at the depth shown on the plans but shall provide not less than 1/2 inch clearance around the sides and bottom of the bar. Place the dowel bars parallel to the centerline of the pavement and parallel to the pavement surface.

The dowel bars shall be placed within  $\pm 1/4$  inch of the desired alignment. The dowel bars shall be centered over the transverse joint or crack so that a minimum of 7 inches of the dowel bar extends into the adjacent panel.

Cut a piece of foam core board material (angled if joints are skewed) to fit tightly around the dowel bar. The foam core board shall be placed at the center of the dowel bar flush with the surface of the concrete pavement, or slightly recessed. The foam board shall also cover the existing transverse joint or crack and shall be maintained in a vertical position, tight to all edges, during grout placement operations. The joint or crack above the foam board insert shall be re-established within 8 hours of grout placement by means of sawing when the grout has attained sufficient strength. If the foam board is flush with the pavement or visible, sawing of the slots will not be required.

The non-shrink grout shall be produced with a portable mixer approved by the Engineer. Mobile mixers that mix the grout in a chute will not be allowed. The mixer must be capable of proportioning the grout material and automatically recording and printing the material weights. All grout shall be placed immediately after mixing and before the grout has attained initial set. The grout shall not be re-tempered with water.

The contractor shall thoroughly moisten all surfaces of the sawed slot immediately prior to filling with grout. All excess water shall be removed with compressed air.

Immediately after placement, the grout shall be thoroughly coated with white pigmented curing compound.

The grout shall be placed according to the manufacturer's recommendations. The grout shall be thoroughly consolidated with a hand held vibrator so the grout completely surrounds the dowel bars and support chairs. The grout shall be placed so that the material is at least 1/8 inch higher than the pavement if the pavement is to be diamond ground. If the pavement is not to be ground, the grout shall be finished flush with the surface. Dowel bars that must be removed due to poor workmanship and/or material failure, must be replaced with new bars. The repair work shall include diamond grinding. Any additional traffic control needed due to required retrofit repairs shall be performed at no additional cost.

## TEST SECTION

The Contractor shall construct a test section consisting of slot sawing, concrete removal, dowel bar placement, and grout mixing and placement at a location selected by the Engineer. The test section shall be at least one full lane width and consist of at least 10 but not more than 50 joints. The test section shall be placed in the presence of the Engineer and a representative from Materials and Research. Full depth cores will be taken from the test section to determine the quality of the placement operation.

## METHOD OF MEASUREMENT

Dowel Bar Retrofit will be measured by the each bar placed.

## BASIS OF PAYMENT

Payment for Dowel Bar Retrofit will be paid at the contract unit price per each for the item "Dowel Bar Retrofit." Payment will be full compensation for all work prescribed in this specification.



## **SEALING TRANSVERSE AND LONGITUDINAL JOINTS**

Subsection 612.01 in the 2001 Supplemental Specifications is void and superseded by the following:

This work shall consist of the preparation and sealing of all joints in the concrete roadway (which include the transverse joints, longitudinal centerline joint, longitudinal outside shoulder joint and ramp joints adjacent to the mainline – the ramps at the Kearney Interchange will not be sealed, previously sealed in 2000) after the dowel bar retrofitting and diamond grinding operations.

Subsection 612.02 in the 2001 Supplemental Specifications is amended to include the following:

Material having a bond specification will be tested on concrete blocks that will be constructed by the Department's Concrete Laboratory. The concrete blocks will be constructed using 47B-3000 concrete meeting the requirements of Section 1002 in the Standard Specifications.

The design is amended so that no fly ash is used in the mixture. All other specifications for Portland cement concrete apply.

If a Department approved independent laboratory will be used for testing purposes, the Department must be notified so that concrete blocks for bond testing can be sent to the approved independent laboratory.

### **FLY ASH (S10-5-0801)**

Subsection 1008.01 in the Standard Specifications is void and superseded by the following:

Fly ash shall be Class C or F meeting the requirements of ASTM C 618.

**STRUCTURAL STEEL  
(S10-5-0801)**

Section 1045 of the Standard Specifications is amended to include the following:

1045.03 -- Steel Plate Substitution

The Contractor may use either English or Metric steel plates in accordance with Table 1045.01.

<b>Table 1045.01</b>			
<b>English-Metric Steel Plate Substitution Table</b>			
<b>Metric (millimeters)</b>	<b>English (inches)</b>	<b>Metric (millimeters)</b>	<b>English (inches)</b>
9	3/8	32	1 1/4
10	3/8	35	1 3/8
11	7/16	38	1 1/2
12	1/2	40	1 5/8
14	9/16	45	1 3/4
16	11/16	50	2
18	3/4	55	2 1/4
20	13/16	60	2 3/8
22	7/8	70	2 3/4
25	1	80	3 1/4
28	1 1/8	90	3 1/2
30	1 1/4		

**REPAIR OF DAMAGED METALLIC COATINGS  
(S10-5-0801)**

Paragraph 2. of Subsection 1061.01 in the Standard Specifications is void and superseded by the following:

2. The material used for repair shall provide a minimum coating thickness of at least 50 µm with one application.

**CORRUGATED METAL PIPE  
(S10-5-0801)**

Table 1035.01 in Section 1035 of the Supplemental Specifications is amended by deleting the title "Steel and Aluminum Culvert Thickness".

**METAL FLARED-END SECTIONS  
(S10-5-0801)**

Table 1036.01 in Section 1036 of the Supplemental Specifications is amended by deleting the title "Steel and Aluminum Flared-End Thickness".

**REINFORCED CONCRETE PIPE, MANHOLE RISERS,  
AND FLARED-END SECTIONS  
(S10-5-0801)**

Paragraph 3.a. of Subsection 1037.02 in the Supplemental Specifications is void and superseded by the following:

3.a. Round reinforced concrete pipe shall conform to the requirements of AASHTO M 170-95 with the exception of the minimum circumferential reinforcing (in<sup>2</sup>/ft. (mm<sup>2</sup>/m) of pipe wall) for 15, 21, and 24 inch (380, 460, 600 mm) Class III pipe, as shown below:

Paragraph 3.b. of Subsection 1037.02 is void and superseded by the following:

b. AASHTO M 170-95 Specifications are modified as follows:

Paragraph 4. of Subsection 1037.02 is void and superseded by the following:

4. Reinforced concrete arch pipe shall conform to the requirements of AASHTO M 206-95.

Paragraph 5. of Subsection 1037.02 is void and superseded by the following:

5. Reinforced concrete elliptical pipe shall conform to the requirements of AASHTO M 207-95.

Paragraph 7. of Subsection 1037.02 is void and superseded by the following:

7. Concrete flared-end sections shall be of the design shown in the plans and in conformance with the applicable requirements of AASHTO M 170-95, Class II pipe, AASHTO M 206-95, Class A-II pipe, or AASHTO M 207-95, Class HE-II pipe for the diameter of pipe which it is to be installed.

**HIGH TENSILE BOLTS, NUTS, AND WASHERS  
(S10-5-1001)**

Subsection 1058.02 in the Supplemental Specifications is void.

Paragraph 4.b.(5) in the Standard Specifications is void and superseded by the following:

- (5) The bolt, nut, and washer assembly shall be assembled in a Skidmore-Wilhelm calibrator or an acceptable equivalent device. For bolts that are too short to be assembled in the calibrator, see Subsection 1058.03, Paragraph 4.b.(9).

**ELASTOMERIC BEARINGS AND LAMINATED  
BEARING PADS  
(S10-5-0903)**

Paragraph 2. of Subsection 1068.02 in the Standard Specifications is void and superseded by the following:

2. Samples and Certification shall be furnished in accordance with NDR's *Materials Sampling Guide*.

Paragraph 3. of Subsection 1068.02 is void.

**STEEL BARS FOR CONCRETE REINFORCEMENT  
(S10-5-1201)**

Section 1020 in the Standard Specifications is void and superseded by the following:

1020.01 - Description

Steel tie bars for longitudinal joint reinforcement in concrete pavements shall be epoxy coated and deformed Grade 40 or 60 billet steel as shown in the plans, specifications or Special Provisions.

1020.02 - Material Characteristics

1. Billet-steel bars shall conform to the requirements of ASTM A 615/A 615M.
2. Epoxy coatings shall conform to the requirements in Section 1021 of the Standard Specifications and Supplemental Specifications.

1020.03 - Acceptance Requirements

Acceptance shall be based on sampling, testing, and certification requirements in accordance with the NDR *Materials Sampling Guide*.

**EPOXY COATED REINFORCING STEEL  
(S10-5-0403)**

Table 1021.01 in Section 1021 of the Standard Specifications is void and superseded by the following:

<b>Table 1021.01</b>			
<b>Bend Test Requirements</b>			
<b>English</b>		<b>Metric</b>	
<b>Bar No.</b>	<b>Mandrel Diameter (inches)</b>	<b>Bar</b>	<b>Mandrel Diameter (millimeters)</b>
3	3	10	75
4	4	13	100
5	5	16	125
6	6	19	150
7	7	22	175
8	8	25	200
9	9	29	230
10	10	32	250
11	11	36	280
14	17	43	430
18	23	57	580

**PROPOSAL GUARANTY  
(S1-38-0801)**

As an evidence of good faith in submitting a proposal for this work or for any portion thereof as provided in the proposal form, the bidder must file with his proposal a bid bond, which must be executed on the Department of Roads' Bid Bond form, in the amount of 5 percent of the amount bid for any group of items or collection of groups for which the bid is submitted. Any alterations, conditions or limitations added to the Department of Roads' Bid Bond form will be unacceptable and cause the bid not to be opened and read.

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