INFORMATIONAL PROPOSAL

FOR INFORMATION ONLY, NOT TO BE USED FOR BIDDING

NEBRASKA DEPARTMENT OF ROADS
LETTING DATE : March 14, 2002

METRIC

CALL ORDER: N12 **CONTRACT ID: 4058X**

CONTROL NO./SEQ. NO.: 40058 /000 PROJECT NO.: S-30-4(1019)

TENTATIVE START DATE: 04/15/02 **CONTRACT TIME: 130 WORKING DAYS**

LOCATION: ON US-30 EAST OF GRAND ISLAND.
IN COUNTY: HALL

BIDDER

GROUP 1 GRADING
GROUP 3 CONCRETE PAVEMENT
GROUP 4 CULVERTS
GROUP 8B ELECTRICAL
GROUP 10 GENERAL ITEMS

SEE SPECIAL PROVISIONS FOR GROUP TIES

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 ____.

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.

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.

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.

SPECIAL PROVISIONS
FOR
STATE
PROJECT NO. S-30-4(1019)

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 March 14, 2002, 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 Metric 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 Metric 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.

GROUPS 1, 3, 4, 8B AND 10 ARE TIED TOGETHER AND BIDDING PROPOSAL FORMS FOR THIS WORK WILL BE ISSUED AND A CONTRACT AWARDED TO A CONTRACTOR WHO IS QUALIFIED FOR CONCRETE PAVEMENT.

STATUS OF UTILITIES

The following information is current as of December 6, 2001.

Utility facilities, aerial and/or underground may exist within this project. The contractor should request a utility status update at the project preconstruction conference, and/or prior to starting work.

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

The following utilities have facilities within the project area, and have been provided project plans.

Grand Island Utilities (City of Grand Island)
Qwest Communications
Northwestern Public Service Company
Charter Communications

All utility rehabilitation will be accomplished prior to or concurrent with construction.

STATUS OF RIGHT OF WAY

The right of way for this project has been acquired and physical possession is held by the State of Nebraska and ready for the contractor's use, except tracts listed below.

Status of unacquired and uncleared right of way tracts is estimated as follows:

TRACT NO.	HEARING DATE	IMPROVEMENTS REMAINING THIS DATE	IMPROVEMENT CLEARANCE
9	None	Cellar, Well	Pay Item
23	None	Garage	Pay Item
17	None	Well	Pay Item
5, 7, 8, 21, 26 – condemned	1-8-02	None	None
2, 19, 22 – condemned	None	Building – Tract 2	Pay Item
15, 24 – condemned	10-30-01	Building – Tract 15	Pay Item

It is anticipated that all right of way will be acquired and physical possession held by the State prior to the tentative starting date shown elsewhere in this proposal.

The contractor will not be allowed to perform work on any tract listed above until legal and physical possession has been acquired by the State. If necessary, the contractor will be granted an extension of time if a delay is caused because of the above tract(s) not being acquired.

All necessary arrangements have been made for the right of way clearance to be undertaken and completed concurrently with the highway construction.

All necessary rights of way, including control of access rights when pertinent, have been acquired including legal and physical possession except for the above.

SUBCONTRACTOR BIDDERS LIST INFORMATION
(S1-43-0801)

All bidders must complete and submit with the bidding proposal, the "Subcontractor Bidders List" form provided by the NDR Contracts office.

Bidders must identify all firms who bid or quote subcontracts on all projects. If no bids or subcontractor quotations are received, the "Subcontractor Bidders List" must be submitted with the bidding documents and the bidder must indicate on the face of the "Subcontractor Bidders List" that no bids or subcontractor quotations were received.

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 was resulted.)

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 are damage was resulted.)

AWARD AND EXECUTION OF CONTRACT

The first sentence of Subsection 103.03 in the Standard Specifications is void and superseded by the following:

The bidder to whom the contract is awarded shall furnish within 5 days after the award, a contract bond, in a sum equal to the full amount of the contract.

The first sentence of Subsection 103.04 is void and superseded by the following:

The contract shall be signed by the successful bidder and returned, together with a satisfactory bond, within 5 days from the date of award.

Paragraph 1.a. of Subsection 103.05 is void and superseded by the following:

a. Fails to file an acceptable performance bond within 5 days from the date of award.

SPECIAL PROSECUTION AND PROGRESS
(Phasing)

The plans depict phasing sequences that are to be used in the construction of this project. Any deviation from these sequences shall require the written approval of the Engineer.

COORDINATION WITH OTHERS

The Contractor for the work contained in the proposal will be required to coordinate his operations with the Contractor who will be performing the construction of the detention cells located on both sides of Seeding Mile Road. However, it is anticipated that the construction of the detention cells will be completed prior to the start date of Project S-30-4(1019).

UNION PACIFIC RAILROAD COMPANY

WORK TO BE PERFORMED BY THE RAILROAD COMPANY

The Union Pacific Railroad Company will perform, or cause to be performed, such temporary and permanent alterations of telegraph, telephone, signal wires and signals, tracks or other facilities on its right of way as are required. According to the best information available at this time it may be necessary for the Railroad Company to perform work within the limits of the project concurrently with the highway construction work. The company agrees to furnish to the State a drawing showing the location of the existing facilities and their relocation.

The Railroad Company shall provide an inspector or inspectors for any direct labor work undertaken by the Railroad Company on or in connection with the project.

RAILROAD SAFETY TRAINING (S1-22A-0801)

The railroad company requires that anyone working within the railroad right-of-way attend a “Rail Safety Training” class. The Contractor, or their representative, will not be allowed on railroad right-of-way until they have successfully completed the mandatory safety training. The railroad will present a certification card to everyone who completes their safety training, and construction crews will be required to have their safety training certification cards in their possession at all times when they are working on railroad right-of-way.

The contractor will be responsible for all costs associated with attending this training class.

FLAGGING PROTECTION

When, for any reason, the Manager, Industry & Public Projects (Mr. Jack Dobrinska) or other duly authorized representative of the Union Pacific Railroad Company shall deem it necessary to employ flagmen for the protection of train operations, such flagmen shall be furnished by the Railroad Company and all costs for such flagmen shall be borne by the contractor.

Prospective bidders shall familiarize themselves fully with the Railroad Company's requirements for flagging protection before bidding on the work.

REIMBURSEMENT TO RAILROAD COMPANY FOR FLAGGING COSTS (S1-24-0801)

At all times while performing such work, flagmen shall be deemed to be employees of the Railroad Company.

The contractor shall reimburse the Railroad Company directly for this flagging protection and shall make a showing that the Railroad Company has been reimbursed for all necessary flagging required by his operations before final payment for the work contemplated in the contract is made by the State.

Direct payment for flagging protection as required in these special provisions will not be made but it shall be considered that this work is subsidiary to any or all of the items for which the contract provides that direct payment shall be made.

FLAGGING CONDITIONS (S1-25-0801)

Flagging and other protective services and devices will be provided by the Company to protect its facilities, property and movements of its trains or engine.

In general, the Company will furnish such flagging or other protective services and devices:

(a) For any excavation below elevation of track subgrade, if, in the opinion of the Company's representative, track or other railroad facilities may be subject to settlement or movement.

(b) During any clearing, grubbing, grading or blasting in proximity to the railroad, which, in the opinion of the Company's representative, may endanger or interfere with the railroad's facilities or operations.

(c) When any of the Contractor's operations are carried on or within the Railroad Company's right of way and in the opinion of the Company's representative could endanger Company's facilities or create a hazard to the Company's operations.

PROTECTION OF UTILITIES
(S1-26-0801)

Before the contractor begins his operations on the railroad right-of-way he shall confer with the official representatives of the State and the Railroad Company with regard to any underground or overhead utilities which may be on or in close proximity to the site of the work. The contractor shall take such measures as the State or Railroad Company may direct in protecting those utilities properly throughout the period his construction operations are in progress. The party or parties owning or operating overhead or underground utilities shall perform the actual work of moving, repairing, reconditioning or revising those utilities, except as otherwise provided in the contract. Whenever and wherever such operations are undertaken by owners of utilities, the contractor shall cooperate to the extent that ample protection of their work will be provided so that the entire work that is contemplated in the contract may be expedited to the best interests of all concerned, as judged by the engineer for the State.

The contractor shall be responsible for any and all damages to utilities that are permitted to remain in place, or to reconstructed utilities in the vicinity, which may be due either directly or indirectly to his operations, and shall repair promptly any such damaged property to the satisfaction of the engineer and the owner of the property, or shall make payment to such owners for repairs as may become necessary on account of damages that are due to his operations.

Direct payment for this work will not be made but it shall be considered that the protection of the utilities is subsidiary to any or all of the items for which the contract provides that direct payment shall be made.

RAILROAD SPECIAL PROVISIONS

Before the contractor begins his operations on railroad right of way, he will contact the railroad at least 10 days in advance by telephone at 1-800-336-9193 (a 24-hour number) to determine if fiber optic cable is buried anywhere on the railroad property to be used by the contractor.

The railroad will advise the contractor if fiber optic cable exists at the location(s) being occupied and will dispatch a representative to locate, mark and protect each cable in the vicinity of the work to be performed by the contractor.

The railroad will need the Railroad Mile Post involved which is 146.04 (Omaha-North Platte) on this project.

The contractor, for his own protection, should obtain and record the "Trouble Log Number" from the railroad for verification of the call made.

WRITTEN NOTICE TO RAILROAD COMPANY

The contractor shall give written notice to the Manager, Industry & Public Projects (Mr. Jack Dobrinska) or to his authorized representative, at least ten days in advance of the date on which he expects to begin any work under or adjacent to any of the tracks of the Railroad Company or he expects to begin any construction work on the right of way of the Railroad Company. The contractor shall also give written notice to the Manager, Industry & Public Projects (Mr. Jack Dobrinska) no later than ten days after completion of all work on the railroad company's right of way.

PROTECTION OF PROPERTY
(S1-29-0801)

The contractor shall use the utmost care to guard against accidents or cause the least possible interference with the operation of trains of the Railroad Company and the telephone, telegraph or signal lines of the Railroad Company or of any tenant of the Railroad Company's right-of-way. The contractor shall use the utmost care in guarding against injury to underground and overhead public utilities and services at or near the site of the work.

All work to be done under this contract shall be handled by the contractor so as to interfere as little as is reasonably possible with the use of tracks, wires, signals and property of the Railroad Company or its tenants, and the underground or overhead services of public and private utilities, and the contractor shall be responsible for any damages which may be sustained by the Railroad Company, its tenants, employees, passengers or freight in its care, or by the owners of any public or private overhead or underground services caused by such interferences which could have been avoided by the proper handling of said work. The contractor shall discontinue immediately, upon request of the engineer, any practices or actions which, in the opinion of the engineer, are unsafe or cause damage to underground or overhead services of public or private utilities, or which might result in delays to trains, engines or cars, or damage to tracks, roadbed, telephone, telegraph or signal wires.

The contractor shall take all precautions for the purposes of protecting the embankment of all railroad tracks as may be determined necessary by the authorized representative of the Railroad Company. The contractor agrees to affix the seal of a registered professional engineer licensed to practice in the State of Nebraska on all plans and calculations pertaining to details for sheeting or otherwise protecting excavations next to or adjacent to railroad tracks if necessary and noted on the State's plans. The contractor also shall take all precautions for the protection of underground and overhead services either public or private, as may be determined by the engineer.

PROTECTION OF PROPERTY

The contractor shall not place or permit to be placed, or remain, piles of material or other temporary obstructions closer than 12 feet (3.7 meters) to the nearest rail of any track or closer than 23 feet (7 meters) above the top of any rail except that the construction forms and scaffolding may be placed no closer than 12 feet (3.7 meters) from the centerline of any such track.

Any changes necessary in the clearance set forth above shall be made only by special arrangements with the Manager, Industry & Public Projects (Mr. Jack Dobrinska) of the Company or his authorized representative.

The contractor agrees to affix the seal of a registered professional engineer licensed to practice in the State of Nebraska on all plans and calculations pertaining to details for sheeting or otherwise protecting excavations next to or adjacent to railroad tracks if necessary and noted on the State's plans.

RAILROAD CROSSINGS
(S1-31-1201)

The Contractor shall use only public roadways or special crossings that are specifically shown on the plans to cross railroad tracks. If the Contractor should desire a temporary crossing for construction purposes at a location other than an existing public crossing, provisions for such crossing shall be negotiated with the railroad by the Contractor, and all costs for such crossing shall be borne by the Contractor.

Prospective bidders should familiarize themselves with railroad temporary crossing and insurance requirements before bidding on the work.

INSPECTION
(S1-32-0801)

Subsection 105.09 in the Standard Specifications is amended to provide also that the work shall be subject to the inspection of the properly authorized representatives of the railroad and that such inspection shall in no sense make the railroad a party to this contract and will in no way interfere with the rights of either party hereunder.

INSURANCE
(S1-33-1201)

The State shall require its Contractor or any of his subcontractors to carry regular Contractor's Public Liability and Property Damage Insurance as specified in Federal-Aid Policy Guide 23 CFR 646A providing for a limit of not less than Two Million Dollars ($2,000,000) for all damages arising out of bodily injuries to or death of one person, and subject to that limit for each person, a total limit of not less than Four Million Dollars ($4,000,000) for all damages arising out of bodily injuries to or death of two or more persons in any one accident and providing for a limit of not less than Two Million Dollars ($2,000,000) for all damages to or destruction of property in any one accident and subject to that limit a total (or aggregate) limit of not less than Four Million Dollars ($4,000,000) for all damages to or destruction of property during the policy period. A certified copy of the policy providing said Contractor's Public Liability and Property Damage Insurance executed by a corporation qualified to write the same in the State in which the work is to be performed, in form and substance satisfactory to the Railroad, shall be delivered to and approved by the Railroad prior to the entry upon or use of the Railroad's property by the Contractor.

In addition to any other forms of insurance or bonds required under the terms of the contract and the specifications, the Contractor shall furnish to the Railroad a Railroad Protective

Policy in the form provided by Federal-Aid Policy Guide 23 CFR 646A. The combined single limit of said policy shall not be less than Two Million Dollars ($2,000,000) for all damages arising out of bodily injuries to or death of any person or persons and for all damages arising out of loss or destruction of or injury or damage to property in any one occurrence during the policy period; and subject to that limit, a total (or aggregate) limit of not less than Six Million Dollars ($6,000,000) for all damages arising out of bodily injuries to or death of any person or persons and for all damages arising out of or loss or destruction of or injury or damage to property during the policy period. Said insurance policy executed by a corporation qualified to write the same in the State in which the work is to be performed shall be in form and substance satisfactory to the Railroad and shall be delivered to and approved by the Railroad prior to the entry upon or use of its property by the Contractor.

The above mentioned insurance shall be written in accordance with the Federal-Aid Policy Guide 23 CFR 646A issued by the Federal Highway Administration, which is hereby, through reference, made a part of these provisions.

The State shall require its Contractor or any of its subcontractors to carry a Business Automobile Insurance Policy or equivalent policy with minimum limits of one million dollars ($1,000,000) for bodily injury and property damage per occurrence on all vehicles which the Contractor or subcontractors, their agents or employees may use at any time in connection with the performance of the work on this project. A certified copy of the policy providing said Business Automobile Insurance executed by a corporation qualified to write the same in the state in which the work is to be performed, in form and substance satisfactory to the companies, shall be delivered to and approved by the companies prior to the entry upon or use of the companies property by the Contractor.

The insurance as hereinbefore specified shall be carried by the Contractor and the Railroad covering all work performed on this project within the limits of the rights-of-way of the Railroad. Said insurance shall be carried until all work required under the terms of the contract is satisfactorily completed, as evidenced by formal acceptance by the State.

The State's Contractor shall cause triplicate originals of the policy or policies covering the Railroad Protective Liability Insurance specified above to be delivered to the State for delivery to the Railroad. The Contractor shall not enter upon or perform any work upon the property or the rights-of-way of the Railroad until the specified originals of the policy or policies have been delivered to and approved by the Railroad. The Contractor shall deliver one original policy of the above described Contractor's Property Damage Liability Insurance and one copy of the Business Automobile Insurance Policy to the State prior to the beginning of any work on the Railroad's right-of-way.

In addition to the above, the Contractor shall indemnify and hold the railroad(s) harmless against and from all cost, liability, and expense whatsoever (including the railroad attorney's fees and court costs and expenses) actually incurred arising out of or in any way contributed to by any negligent act or omission of the Contractor and its employees, for any damage to or destruction of any telecommunications system by the Contractor and its employees on the railroad's property.

RIGHT OF WAY
(S1-34-0801)

The right of way and property which the public has, or will have, by ownership or easement, for the permanent construction and the prosecution of the construction operations, is indicated in the plans or will be defined upon request. Any additional ground, or working or storage space that the contractor may require for his operations, shall be provided by the contractor at his own expense.

RESTORATION OF RAILROAD COMPANY'S PROPERTY
(S1-35-0801)

In the event the contractor shall in any manner move or disturb other property of the Railroad Company, in connection with the use of the said property, then, and in that event, the contractor shall, as soon as possible and at its sole expense, restore such property to the same condition as it was in before such property was moved or disturbed, and the contractor shall indemnify and save harmless the Railroad Company against and from any and all liability, loss, damages, claims, demands, costs and expenses of whatsoever nature, including court costs and attorneys' fees, which may result from injury to or death of persons whomsoever, or damage to or loss or destruction of property whatsoever, when such injury, death, damage, loss or destruction grows out of or arises from the taking down of any fence, or the moving or disturbance of any other property, of the Railroad Company.

FINAL CLEANING UP
(S1-36-0801)

Subsection 104.08 in the Standard Specifications is amended to provide also that upon the completion of the work contemplated in this contract, the contractor shall remove all machinery, equipment, surplus materials, falsework, rubbish, ditches, and temporary building, furnished or erected by him from within the limits of the right of way of the Railroad Company and shall leave the said right of way in a neat condition satisfactory to the Chief Engineer of the Railroad Company, or his authorized representative.

PERCENTAGE OF COST OF WORK WITHIN RAILROAD RIGHT-OF-WAY

The following information is furnished to aid in the determination of a proper premium for the Railroad Protective Liability Insurance required elsewhere in these special provisions.

RAILROAD PROTECTIVE POLICY DATA SHEET

Railroad: Union Pacific Railroad Company

Railroad Contact: Mr. Jack A. Dobrinska

Title: Manager, Industry & Public Projects

Address: 1416 Dodge Street, Room 1000, Omaha, NE 68179

Telephone Number: (402) 271-2029 Fax: (402) 271-4461 E-mail: jadobrin@up.com

Project Number: S-30-4(1019)

Project Location: Grand Island East

Type of Project: New & Reconstructed Municipal State Highway

No. of trains/day: Total: 1

Freight or Coal: 1 Speed: 5 mph Passenger -- Speed -- mph

No. of Tracks: Mainline -- Branchline 1

Project Over RR: No X Yes _____ Project Under Railroad: No X Yes _____

Railroad Shoo-fly Required: No X Yes _____

Project Parallel to RR: No X Yes _____ If Yes, Number of Miles _____

Crossings on State Highway or City Street System: No _____ Yes X

If Yes, Number of Crossings 1 #815986F

Pavement or Overlay up to Crossing on County or City Road:

No _____ Yes X If Yes, Number of Crossings 1

Work to be done by Railroad Install concrete crossing surface, install new cantilever signals and gates, relocate signals and gates during construction to accommodate traffic phasing, install new housing, remove existing signals, move switch.

It shall be the contractor's responsibility to contact the railroad for additional information needed to purchase the Railroad Protective Policy.

The percentage of work within railroad right of way that is within 50 feet (15.25 meters) of any railroad track shall be covered by railroad protective insurance. The railroad's ownership of right of way that extends beyond 50 feet (15.25 meters) from the closest track shall be covered under regular Contractor's Public liability and Property Damage Insurance in the amounts specified in this contract.

Group	Approximate Percent of Work Within 50 feet (15.25 meters) of Centerline of Nearest Track	Approximate Percent of Work on RR/ROW Not Within 50 feet (15.25 meters) of Centerline of Nearest Track	Description of Work
All	0.1 %	0 %	

CONSTRUCTION DETAILS

FUEL COST ADJUSTMENT PAYMENT (S2-1-0801)

Section 205 in the Standard Specifications and Supplemental Specifications is amended to include the following:

Payment will be made to the contractor for monthly fluctuations in the cost of diesel fuel used in performing the items of work, "Excavation", "Excavation, Borrow", "Excavation, Established Quantity", and/or “Earthwork Measured in Embankment” when the fuel cost fluctuates by more than 10% from the base price defined below. Payments may be positive, negative, or nonexistent depending on the circumstances. Payments or deductions will only be calculated on that portion of the fuel cost fluctuation that exceeds the 10% specified above.

Payments or deductions for the fuel cost adjustment will be included in the contractor’s progress estimates; and the payment or deduction authorized for each estimate will be based upon the algebraic difference between the quantities for “Excavation”, “Excavation, Borrow”, “Excavation, Established Quantity”, and/or “Earthwork Measured in Embankment” on the current estimate and the quantities shown on the previous estimate.

The fuel cost adjustment for the current estimate will be computed according to the following formula:

FCA=QFD where

FCA = Fuel cost adjustment, in dollars;

Q = The algebraic difference between the quantities (in cubic yards or cubic meters) for "Excavation", "Excavation, Borrow", "Excavation, Established Quantity", and/or “Earthwork Measured in Embankment” on the current estimate and the quantities shown on the previous estimate;

F = English
The fuel use factor for diesel fuel, in gallons per cubic yard. For the items of work “Excavation”, “Excavation, Borrow”, and “Excavation, Established Quantity”, “F” shall be equal to .15. For the item of work “Earthwork Measured in Embankment”, “F” shall be equal to .20.

Metric
The fuel use factor for diesel fuel, in liters per cubic meter. For the items of work “Excavation”, “Excavation, Borrow”, and “Excavation, Established Quantity”, “F” shall be equal to .74. For the item of work “Earthwork Measured in Embankment”, “F” shall be equal to 1.00.

D = Allowable price differential.

The allowable price differential, “D”, for the current estimate will be computed according to the following formula:

When the current price, P, is greater than the base price, P(b).

D = P – 1.10P(b), but not less than zero.

When the current price, P, is less than the base price, P(b).

D = P – .90P(b), but not greater than zero.

In either case, P(b) shall be the base diesel price, in dollars per gallon (liter), defined as the average of the minimum and maximum prices for No. 2 Diesel Fuel (Oklahoma) published in the first issue of “*Platt’s Oilgram Price Report*” for the month in which bids for the work were received.

In either case, P, shall be the current diesel price, in dollars per gallon (liter), defined as the average of the minimum and maximum prices for No. 2 Diesel Fuel (Oklahoma) published in the first issue of “*Platt’s Oilgram Price Report*” for the month in which the progress estimate is generated.

CONSTRUCTION AND OBLITERATION OF TEMPORARY ROAD

The 600 mm culvert pipe for the temporary road will be furnished and installed by the grading contractor. The length of each section of pipe shall not exceed 8 meters. Excavation and connection bands required to install the pipes will be subsidiary to the pipes.

The embankment required to construct the temporary road is included in the pay quantity of Earthwork Measured in Embankment shown in Group 1.

When the temporary road is no longer required, it shall be obliterated by the grading contractor. The asphalt surfacing shall be removed, the embankment removed, and the area graded to the original cross sections.

The culvert pipes used for the temporary road shall be removed, salvaged and delivered to the State of Nebraska Maintenance Yard located in Grand Island, Nebraska.

The removal of the asphalt surfacing shall be paid for in accordance with Section 203 in the 1997 Metric Edition of the Standard Specifications.

The work of obliterating the embankment shall be paid for as “Excavation (Established Quantity)”.

The removal of the culvert pipe, will not be measured and paid for directly, but will be considered subsidiary to “Excavation (Established Quantity)”.

ABANDON WELLS

This work shall consist of removing the casing to an elevation at least 1.5 meters below the surrounding ground or finished grade elevation, whichever is lower, and capping as specified in the Nebraska Department of Health & Environmental Control Council Regulations Title 178, published by the State of Nebraska Department of Health.

The work shall be measured for payment as a single unit complete for each location that is shown in the plans, or directed by the engineer.

The work measured as provided herein, shall be paid for at the contract unit price per each for the item, “Abandon Wells”. This price shall be full compensation for all work, fees, materials and incidentals necessary to complete the work.

SUBGRADE PREPARATION (S3-1-0801)

Paragraph 2.a. of Subsection 302.03 in the Standard Specifications is amended to include that trimming on narrow, irregular or roadway grading of 1/2 mile (0.8 km) or less may be accomplished using conventional methods.

AGGREGATE FOUNDATION COURSE-D

Amend Section 307 of the 1997 Metric Edition of the Standard Specifications to include Aggregate Foundation Course-D. This specification applies to all depths of Aggregate Foundation Course-D shown on the plans.

1. Material Requirements

   a. Foundation Course-D shall consist of mineral aggregate.

   b. Aggregate shall conform to the quality requirements of Subsection 1033.02, Paragraphs 1., 2., and 9.

   c. At least 14 days before beginning foundation course production, the Contractor shall submit a proposed mix design along with a 40-kg sample of each aggregate to the NDR Materials and Research laboratory for approval. The mix design will:

      1. Result in an aggregate mix that meets the gradation requirements of Table 1.

      2. Propose single defined values for the percentage passing each sieve on the gradations of Table 1.

      3. Include the average aggregate(s) gradations used to calculate the mix design.

      4. Create a fine aggregate angularity value of 43.0 or greater according to AASHTO T 304 Method A.

   d. The NDR Materials and Research laboratory will determine the specific moisture-density values for the proposed foundation course design.

Table 1

Aggregate Foundation Course-D Gradation Requirements		
Sieve Size	Target Value (Percent Passing)	Tolerance
12.5 mm	100	0
9.5 mm	100	-4
4.75 mm	93	±4
2.00 mm	60	±4
600 µm	28	±3
425 µm	20	±3
75 µm	3	±3

2. Construction Methods

a. The Contractor shall place, compact and profile the foundation course as shown in the plans.

b. The foundation course shall be spread in a uniform layer and compacted to at least 100 percent of the maximum density as determined by NDR T 99.

c. After compaction the foundation course shall be trimmed such that the thickness will not vary from the plan thickness by more than 12.5 mm.

3. Method of Measurement

Aggregate Foundation Course-D shall be measured as prescribed in Paragraph 3. of Subsection 307.04.

4. Basis of Payment

Aggregate Foundation Course-D measured as provided herein shall be paid for at the contract unit price per square meter for the item, “Aggregate Foundation Course-D ___”. This price shall be full compensation for all material, equipment, labor, tools and incidentals necessary to complete the work.

TEMPORARY SURFACING

The work shall consist of the construction and removal of the temporary surfacing on this project in accordance with plans and these Special Provisions.

The Temporary Surfacing depth shall be as shown in the plans. This provision is applicable to all Temporary Surfacing depths shown in the plans.

Prepare the underlying subgrade, prior to placing the temporary surfacing, in accordance with the requirements of Section 302 in the 1997 Metric Edition of the Standard Specifications.

At the Contractor's option, the surfacing may be constructed using Class "47B-25" Concrete, Class "AX-25" Concrete, Class “PR-25” Concrete or Asphaltic Concrete Type SP4. These materials may be used interchangeably during the course of the work except that surfacing at any individual location must be completed with the same material with which the work was begun.

Asphaltic Concrete used for surfacing shall meet all specifications and sampled and tested as shown in the Supplemental Specifications. The incentive, disincentive pay tables do not apply, however, any asphaltic concrete not meeting the specifications will be subject to removal.

Subsection 302.04 is amended to provide that work of subgrade preparation, as well as all water applied as directed by the Engineer, will not be measured for payment but shall be considered subsidiary to the item “Temporary Surfacing _____”.

Subsection 304.04 is amended to provide that the work of shoulder construction, as well as all water applied as directed by the Engineer, will not be measured for payment, but shall be considered subsidiary to the item “Temporary Surfacing _____”.

Subsection 304.04 is amended to provide that work of shoulder construction, as well as all water applied as directed by the Engineer, will not be measured for payment, but shall be considered subsidiary to the item “Temporary Surfacing _____”.

Subsection 503.05 is amended to provide that Asphaltic Concrete and P.G. Binder used in asphaltic concrete will not be measured for payment, but shall be considered subsidiary to the item “Temporary Surfacing _____”.

Subsection 504.04 is amended to provide that the application of a tack coat, including furnishing emulsified asphalt, will not be measured for payment, but shall be considered subsidiary to the item “Temporary Surfacing _____”.

Paragraph 10. of Subsection 603.03 is amended to provide that concrete used in the surfacing, reach a minimum strength of 25 MPa before opening to traffic.

Subsection 603.04 is amended to provide that concrete pavement will not be measured for payment, but shall be considered subsidiary to the item “Temporary Surfacing _____”.

When the need for the temporary surfacing is no longer required, the Contractor shall remove the temporary surfacing and it shall become the property of the Contractor and removed from the project. All the work necessary to accomplish this requirement is considered subsidiary to the item “Temporary Surfacing _____”.

Measure temporary surfacing by the square meter of completed and accepted work.

The work and materials required for temporary surfacing will be paid for at the contract unit price per square meter for the item “Temporary Surfacing _____.” Payment will be full compensation for the work prescribed in these Special Provisions and the Standard Specifications.

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.

TEMPORARY PAVEMENT MARKING

Section 1069 in the Standard Specifications is amended to include the following:

1. Prior to the initial placement of the markings, temporary paint, Type II tape or raised pavement markers, the pavement upon which the markings are to be placed shall be dry, cleaned and properly prepared by shot blasting, as a minimum, and to the extent recommended by the manufacturer so that all contaminants, loose debris, and other foreign material are completely removed. Surface preparation for any subsequent application shall consist of air blasting and brushing the roadway surface to remove all loose dirt, mud or other debris and to dry the surface. Each additional application of paint shall be applied over the previously painted stripes.

Prior to placing the temporary pavement markings on the prepared surface, the Contractor shall layout, spot or string line the proposed temporary marking location. The temporary markings shall be aligned in such a way as to provide a smooth and gradual transition to and from the existing markings, and throughout both straight and horizontally-curved sections of the project.

2. Initial surface preparation requiring shot blasting shall be paid at the contract unit price per meter for the item "Temporary Pavement Marking Surface Preparation". Surface preparation for repainting, consisting of air blasting and brushing, shall be subsidiary to other items for which payment is made.

TEMPORARY TRAFFIC SIGNAL

Section 422 in the 1997 Metric Edition of the Standard Specifications is amended to include the following:

TEMPORARY TRAFFIC SIGNAL

The Contractor shall furnish, construct, maintain and remove the temporary traffic signal as directed by the project manager. All equipment and material shall be furnished by the Contractor and will remain the Contractor’s property.

The Contractor shall contact Mr. Bob Smith, Grand Island, (308) 385-5444, to request electric power service for the temporary signal. This should be done as soon as the contract is awarded.

The Contractor shall supply a solid state 170 style traffic signal controller capable of 8 phase operation. The Contractor shall program and maintain the controller. Contact Bob Simard, Department of Roads’ Traffic Engineering Division, (402) 479-4594, for the phasing and timing data to program into the controller.

Wire the signal heads so that the heads for each approach are separated. A minimum of two signal heads are required for each approach. Center the signal heads over the approach lanes. The signal heads for each approach shall have a minimum horizontal separation of 3 meters as viewed by the drivers.

The Contractor shall maintain the entire temporary signal for the duration of its use at no additional cost to the state.

Payment for the temporary traffic signal shall be full compensation for furnishing, installing, operating, maintaining and removing the temporary traffic signal and for all labor, equipment, tools, materials and incidentals required to complete the work.

ROADWAY LIGHTING

Paragraph 7 of Subsection 1073.02 of the 1997 Metric Edition of the Standard Specifications is amended to include the following:

1. Conventional Roadway Luminaires

A. Housing

Luminaire housing shall be "cobra-head" style, of pressure die-cast aluminum, Large Housing Series. The casting shall be sound, complete, with smooth edges and free of flash. The lower portion of the housing shall be hinged for easy access.

The optical compartment shall be effectively sealed and filtered using a dacron polyester filter. The seal/filter combination shall be provided between the reflector and lens and between the socket assembly and reflector. The seal/filter combination shall be under compression when the assembly is in operating position. Seal/filter combination shall be of heat resisting material selected to last the functional life of the unit, but shall be easily replaceable should they become damaged. The optical compartment door shall be secured in position with a positive latch mechanism. The hinge arrangement shall be designed to prevent accidental disengagement when it is in the open position.

Finish shall be gray polyester powder coat. It shall successfully withstand 1,000 hours salt spray test per ASTM B 117.

Attachment hardware used to secure components to the aluminum housing shall be organically coated. Stainless steel or galvanized hardware is not allowed.

Housing must be legibly and durably marked with the lamp size, using ANSI NEMA lamp identification label.

B. Slipfitter

The slipfitter shall accept 32 mm to 50 mm pipe.

C. Reflector

The reflector shall be hydroformed aluminum with an approved aluminum oxide or silica coating bonded to the inside and outside surfaces.

D. Socket

The socket shall be a mogul base porcelain.

E. Lens

The lens shall be made of clear tempered flat glass, heat resistant and free from imperfections.

F. Terminal block

A terminal block will be required.

G. Ballast

The ballast shall be of the magnetic regulator type the pressure sodium lamp size as indicated in the plans.

Ballast shall be dual volt 120/240 or multi tap, ballast to be factory wired to 240 volt.

The ballast and starting aid shall not incur significant life reduction should the lamp continue in open or shorted circuit condition for a six-month period.

Regulation and Operation:

At nominal line voltage and nominal lamp voltage, the ballast design center will not vary more than 5% from rated lamp wattage. Lamp wattage variation shall not exceed 10% for a ±10% line voltage variation.

The ballast/lamp combination must provide reliable starting to -40 degrees F.

Ballast starting current must not exceed normal operating current.

Power factor must be rated above 90% through all operational modes.

H. Photometric and Performance Requirements

The luminaire shall have “cutoff” control characteristics as follows: Candela per 1000 lumens shall not exceed 100 (10%) at a vertical angle of 80 degrees above nadir, and 25 (2.5%) at an angle of 90 degrees above nadir horizontal.

The luminaires as required by manufacturer to meet specifications shall be installed according to the following parameters: Lamp size and lumens as specified in the plans shall provide a minimum average maintained horizontal illumination level of 0.90 FC with an average to minimum uniformity ratio not exceeding 3.5:1. The maximum to minimum ratio shall not exceed 7.0:1. Lateral distribution shall be factory-preset to IES distribution to meet specifications.

Parameters used; roadway width 20 m, 35 m pole spacing, mounting height 12.2 m, pole setback 3.1 m, mastarm length 2.4 m, maintenance factor .81, staggered spacing pole layout.

I. Substitutions and Variations

No substitutions or variations of the above will be allowed.

Approval

In addition to the requirements for approval of materials outlined in Subsection 901.01 of the Standard Specifications, the contractor shall be prepared to furnish, upon request by the engineer, the following: candle power, utilization, and iso-foot candle curves; photometric data base diskette in standard IES format for IBM PC; and a working sample of any luminaire he proposes to furnish.

The right is reserved to reject any and all proposals. The State of Nebraska will decide all questions which may arise as to the quality or acceptability of the luminaire submitted for approval under this specification.

Manufacturers allowed to submit luminaires for approval are as follows:

Crouse Hinds
Hubbell
General Electric
American Electric

LOCAL MATERIAL SOURCES
(S5-1-0801)

Information regarding possible sources of local materials is available at the Materials and Research Division of the Department of Roads, Lincoln, Nebraska.

ASPHALTIC CONCRETE
(S5-5-0801)

Paragraph 5. of Subsection 503.02 in the Standard Specifications is void.

TINING
(S6-19-1001)

Paragraph (5) d. of Subsection 603.03 of the Standard Specifications is void and superseded by the following:

Description

When required by the plans or Special Provisions, the Contractor shall tine texture the concrete pavement surface using the following methods:

Construction Methods

1. The surface of the concrete pavement shall be dragged with wet burlap, carpet, or canvas belt before tining.

2. Mainline Tining-Longitudinal

   a. Mainline paving shall be tined with a metal device 23 feet (7 meters) in length with a single row of tines.

   b. The tines shall be of such dimensions as to produce grooves parallel to the centerline of the road approximately 1/8 inch (3 mm) wide and 1/8 inch (3 mm) deep spaced at 3/4 inch (19 mm) on center. A 2 inch (50 mm) to 3 inch (75 mm) wide strip of pavement surface shall be protected from surface grooving for the length of and centered along the longitudinal joint.

c. The tining device shall be mechanically operated and shall cover the full pavement width in a single pass at a uniform speed and depth centered on the longitudinal joint. Longitudinal tining shall be accomplished by equipment with horizontal and vertical string line controls to ensure straight grooves.

3. Non Mainline Tining-Transverse

a. Either mechanical or hand transverse tining shall be used on other pavement requiring tining on the project. This shall consist of creating uniform grooves approximately 1/8 inch (3 mm) wide by 1/8 inch (3 mm) deep spaced 3/4 inch (19 mm) on center placed transversely to the centerline of the road.

b. Hand tining will be allowed on irregular areas or areas inaccessible to the tining machine as shown in the 6 inch (155 mm) to 16 inch (405 mm) Concrete Pavement Special Plan. A tine rake shall be used for hand tining. The use of a corrugated bull float or other device that creates a smooth finish between the grooves will not be permitted.

4. When authorized, pavement texture damaged by rain and pavements not textured to the specified requirements shall be textured only after the concrete has attained its designed strength. The texturing shall be done with diamond grinding equipment specifically designed to grind and texture concrete pavements. The cutting head shall be at least 36 inches (915 mm) wide and capable of producing the depth and spacing indicated in 2.b. or 3.a.

DOWELED CONCRETE PAVEMENT
(S6-20-0901)

Section 603 in the Supplemental Specifications and the Standard Specifications is amended to include Doweled Concrete Pavement.

Transverse Joints for doweled concrete pavement shall be constructed perpendicular to the roadway on 16’-6” (5 meter) centers.

The dowel bars shall meet the requirements of Section 1022.

The dowel bars shall be placed within a tolerance of 1/4 inch (6 mm) in both the horizontal and vertical planes. The Contractor shall check with a suitable template approved by the Engineer, the placement of each assembly and the position of the bars within the assembly. If the assembly is found to be placed outside any one of the tolerances, the placement shall be corrected.

Dowels for transverse joints furnished in approved assemblies shall be suitable for the joint layout shown in the plans. The assemblies shall be dipped in MC-70, RC-70, RC-250, CRS-1, CRS-2, CSS-1H, HFMS-2h, or HFMS-2s prior to delivery to the work site.

When basket assemblies are used, the baskets shall be placed at all transverse joints where doweled concrete is required, and shall be securely pinned to the grade to prevent any movement during the paving operation. Pins shall be placed at a maximum distance of three feet (1 meter) apart and shall be a minimum of 12 inches (300 mm) in length. All lateral support braces, which would restrict movement of the dowel bars, shall be cut after the baskets are secured and prior to placing the concrete.

Assemblies that are damaged prior to placement shall not be used. Assemblies damaged after placement shall be replaced prior to paving.

If normal vibration is found inadequate to thoroughly consolidate the plastic concrete within and around the dowel basket assemblies, additional hand vibration or other procedures may be required by the Engineer.

Precautions shall be taken to assure that the sawed contraction joint is located directly over the center of the dowel bars.

CRACKS IN CONCRETE PAVEMENT
(S6-20-0901)

Transverse cracks which form in the concrete pavement panels between load transfer joints shall be secured with a minimum of 1 1/2 inch x 18 inch (38 mm x 450 mm) epoxy coated deformed reinforcing bars as shown in the plans. The reinforcing bars shall conform to the requirements of Sections 1020 and 1021. The dowel bars shall be secured using a resin adhesive listed on NDOR approved products list. No payment will be made for this work.

CONCRETE PAVEMENT CORES
(S6-21-0302)

Section 603 in the Standard Specifications, and Supplemental Specifications is amended to include the following:

Coring

All coring applicable to this specification shall be the responsibility of the Contractor.

All record core locations shall be determined by Materials and Research Division. The locations will be requested by the Contractor and furnished to the Contractor though the Project Manager.

All cores, including designated, additional, exploratory, and special cores, shall be drilled at such locations as the Engineer may direct. The coring shall be done in the presence of the Engineer.

All cores shall be obtained in accordance with AASHTO T-24 and with concrete coring equipment approved by the Engineer. Equipment that must be anchored or secured to the pavement will not be permitted.

Because cores will be used to verify concrete strength requirements, no cores shall be drilled until the concrete is sufficiently cured to permit the cores to be transported without damage and without special handling or wrapping to protect against moisture loss.

All cores shall have a four-inch (100 mm) nominal diameter unless otherwise indicated in the plans or Special Provisions.

Measurement

The Engineer shall measure the thickness of each core by the caliper method indicated in the specifications. If the caliper measurement shows the core to have a length equal to or greater than plan thickness, no further measurement will be made. If the caliper method shows less than plan thickness, another measurement will be made in accordance with NDR Standard Test Method T-148.

A copy of the measurements shall be furnished to the Contractor.

Payment

Coring shall be paid for at the contract unit price per each for the item “Concrete Pavement Thickness Cores”. Payment will be made for the minimum number of cores required for the project as determined by the Engineer. Additional cores required to determine the limits of deficiencies will be obtained at the Contractor’s expense.

Special cores requested by the Engineer will be paid for at the contract unit price unless a deficiency is found. In the case of a deficiency, the special cores will be obtained at the Contractor’s expense.

SEEDING

Subsection 803.02 in the 1997 Metric Edition of the Standard Specifications is amended to include the following:

Type "B"	Minimum Purity (%)	Broadcast or Hydraulic Seeder Appli-cation Rate in kg of Pure Live Seed/ha	Approved Mech. Drill Application Rate in kg of Pure Live Seed/ha
Perennial Ryegrass – Linn	85		10
K-31 Fescue	85		15
Western Wheatgrass – Flintlock	85		10
Sheeps Fescue	85		5
Buffalograss – Sharps, Cody	80		5
Blue Grama – NE, KS, CO	35		2
Oats	90		12

The mulch for this seeding is restricted to prairie hay.

All seed shall be origin Nebraska, adjoining states, or as specified. A contractor proposing to use a substitute variety, or origin shall submit for the engineer's consideration a seed tag representing the seed which shows the variety, origin and analysis of the seed.

Rates of application of commercial inorganic fertilizer shall be:

	Rate of Application Per ha (Minimum)
Available Nitrogen (N_2) ----------	35 or 40 kg
Available Phosphoric Acid (P_2O_5) ----------	102 or 107 kg

Rate of application of granular sulphur coated urea fertilizer shall be:

Nitrogen (total available) ----------	67 kg

The contractor may, at his option, apply granular urea formaldehyde in lieu of the sulphur coated urea fertilizer at the following rate:

Nitrogen (total available) ----------	67 kg

47B CONCRETE PAVEMENTS AND 47BD CONCRETE FOR BRIDGES (S10-4A-0302)

General

Section 1002 in the 1997 Standard Specifications and Supplemental Specifications is amended to include the following:

For the purpose of this Special Provision, Type IPN shall mean Type IP cement made with 15 to 25 percent natural pozzolan and Type IPF shall mean Type IP cement made with 15 to 25 percent Class F fly ash. All cements must conform to the requirements of Section 1004 in the 1997 Standard Specifications and Supplemental Specifications.

47BD Concrete for Bridges and Barriers

The 47BD concrete used in bridge decks, approach slabs, bridge rails, and barriers shall be proportioned using one of the alternates shown in Table I.

TABLE I (ENGLISH)
CLASS 47BD CONCRETE PROPORTIONS

Alt.	Cement Type	Pounds of Cement per Cu.Yd.	Pounds of Class F Fly Ash	Air Content Percent Min.	Air Content Percent Max.	Pounds of Total Agg. per Cu.Yd. Min.	Pounds of Total Agg. per Cu.Yd. Max.	Ratio of Total Agg. Percent	Type of Coarse Agg.
1	I or II	590	130 Min.	5.0	7.5	2530	2950	30±3	Limestone
2	IPN	658	0*	5.0	7.5	2530	2950	30±3	Limestone
3	IPF	658	0**	5.0	7.5	2530	2950	30±3	Limestone

TABLE I (METRIC)
CLASS 47BD CONCRETE PROPORTIONS

Alt.	Cement Type	Kg of Cement per Cu. Meter	Kg of Class F Fly Ash	Air Content Percent Min.	Air Content Percent Max.	Kg of Total Agg. per Cu.Meter Min.	Kg of Total Agg. per Cu.Meter Max.	Ratio of Total Agg. Percent	Type of Coarse Agg.
1	I or II	350	77 Min.	5.0	7.5	1500	1750	30±3	Limestone
2	IPN	390	0*	5.0	7.5	1500	1750	30±3	Limestone
3	IPF	390	0**	5.0	7.5	1500	1750	30±3	Limestone

* Class C or F fly ash may be substituted in the mix design provided the total pozzolan content does not exceed 25 percent. The mix may be modified by substituting an amount of fly ash equal to the weight of cement removed.

** No additional fly ash substitution is allowed.

Water reducing and set retarding admixtures shall be used in accordance with the manufacturer's recommendations of dosage rates.

47B Concrete Pavements

The 47B concrete used in concrete pavements shall be proportioned using one of the alternates shown in Table II.

TABLE II (ENGLISH)
CLASS 47B CONCRETE PAVEMENT PROPORTIONS

Alt.	Cement Type	Pounds of Cement per Cu.Yd.	Pounds of Class F Fly Ash	Air Content Percent Min.	Air Content Percent Max.	Pounds of Total Agg. per Cu.Yd. Min.	Pounds of Total Agg. per Cu.Yd. Max.	Ratio of Total Agg. Percent	Type of Coarse Agg.
1	I or II	510	110 Min.	5.0	7.5	2876	3130	30±3	Limestone
2	IPN	564*	0*	5.0	7.5	2876	3130	30±3	Limestone
3	IPF	564**	0**	5.0	7.5	2876	3130	30±3	Limestone

TABLE II (METRIC)
CLASS 47B CONCRETE PAVEMENT PROPORTIONS

Alt.	Cement Type	Kg of Cement per Cu. Meter	Kg of Class F Fly Ash	Air Content Percent Min.	Air Content Percent Max.	Kg of Total Agg. per Cu.Meter Min.	Kg of Total Agg. per Cu.Meter Max.	Ratio of Total Agg. Percent	Type of Coarse Agg.
1	I or II	303	65 Min.	5.0	7.5	1706	1857	30±3	Limestone
2	IPN	335*	0*	5.0	7.5	1706	1857	30±3	Limestone
3	IPF	335**	0**	5.0	7.5	1706	1857	30±3	Limestone

* Class C or F fly ash may be substituted in the mix design provided the total pozzolan content does not exceed 25 percent. The mix may be modified by substituting an amount of fly ash equal to the weight of cement removed.

** No additional fly ash substitution is allowed.

Water reducing admixtures shall be used in accordance with the manufacturer's recommendations of dosage rates.

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.

Table 1045.01

English-Metric Steel Plate Substitution Table

Metric (millimeters)	English (inches)	Metric (millimeters)	English (inches)
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.

DOWEL BARS
(S10-5-0801)

Subsection 1022.02 in the Standard Specifications is amended to include the following:

In addition to these certificates, two 1.8 meter samples of the coated bar (for tension testing and bend testing) of each size bar and each heat number shall be sent to the NDR Materials and Research Laboratory, Lincoln, Nebraska. These bars will be properly identified with tags showing the size and heat number.

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 (in2/ft. (mm 2/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 (S10-5-0202)

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

2. 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*.

PERFORMANCE GRADED BINDER

Section 503 in the Standard Specifications and Supplemental Specifications is amended to include Performance Graded Binders.

I. Description:

The performance graded binder to be used on this project shall be PG Binder 64-22, supplied by a Certified Supplier.

Certified Supplier

A supplier must be certified by the Nebraska Department of Roads to be allowed to supply Performance Graded Binder in Nebraska. A certified supplier must be a participant in one or more of the following PG Binder groups.

1. AASHTO Materials Reference Laboratory (AMRL)
2. Western Cooperative Testing Group
3. Combined States Binder Group

The supplier must maintain and follow the requirements of the group or groups in which they participate in to maintain certification by the Nebraska Department of Roads. In addition, active participation is required to maintain certification by the Department. Active participation will include submitting of round robin samples results, along with meeting other requirements of the group or groups. Failure to do so will result in loss of certification by the Department.

A certified supplier may be asked to supply to the Department, past round robin results, laboratory inspection reports, reasons for and investigative reports on out lying results, quality control testing, and/or technician training and proficiency testing reports.

Supplier Certification

A supplier may request certification by contacting the Nebraska Department of Roads, Materials and Research Division, Flexible Pavement Engineer at (402) 479-4675. A temporary certification may be issued for a period of up to one year. Split sample testing will be required prior to receiving a temporary certification. Split sample testing will be done on all grades of binder that the supplier intends to supply during the temporary certification. The supplier will have up to one year to become certified by participating in and following the requirements of one or more of the approved binder groups.

A supplier may become certified through active participation in other binder certification/round robin groups that are approved by the Department. The Department may request from the supplier prior to approval, past or current round robin results, quality control testing, laboratory inspection reports, and/or technician training and proficiency testing reports.

II. Binder Sampling and Testing:

1. Lots. Each 3750 tons (3400 Mg) of HMA produced will be a binder lot.

2. A binder lot will include only one PG Binder grade or a blend as allowed in paragraph 6.e.

3. A Binder lot will only include one supplier of the PG Binder or a blend as allowed in paragraph 6.e.

4. Blending of different binder grades and binders from different suppliers will be allowed with restrictions as noted in paragraph 6.e. The Engineer must be notified of the intent to blend prior to actual blending.

5. All binders shall be sampled at the rate of one sample per lot with a minimum of three samples per project.

   a. The sample shall consist of two one-quart (liter) cans and shall be taken by the Contractor's Certified Sampling Technician, with assistance from or under supervision of NDR personnel. The sample shall be taken at the plant from the line between the storage tank and the mixer or from the tank supplying material to the line, at a location at which material sampled is representative of the material in the line to the mixer. One can will be tested for compliance with MP1 specifications and the other can portion will be saved for dispute resolution, if needed. The sampling process shall follow procedures of the NDR Materials Sampling Guide and NDR T 40.

   b. Testing. When the tested PG Binder is in compliance, the binder lot will be accepted and both cans of the sample can be discarded. If the tested PG Binder does not comply, then the price of the PG Binder lot represented by the sample shall be adjusted according to Table 1. Overall project average testing requirements and price adjustments will also apply, as stated in Table 2.

6. Material Requirements:

   a. Performance graded binder, as specified in the contract items shall be in accordance with AASHTO Designation MP1 and meet all minimum and maximum requirements.

   b. Substitution of a PG Binder, which exceeds the upper and lower grade designations from the specified, requires advance notification of the Engineer, and be documented by a no cost change order. The bill of lading or delivery ticket shall state the binder grade and specific gravity.

   c. Material Certification - A Material Certification shall be submitted prior to construction stating, the type of modifier being used, and the recommended mixing and compaction temperatures for the Hot Mix Asphalt.

   d. The Contractor shall receive from the supplier, instructions on the proper storage and handling of each grade and shipment of PG Binder.

e. Blending of PG Binders at the hot mix plant site will be allowed only when transitioning to an asphalt mixture requiring a different grade of binder and with the following restrictions:

(1) The resultant blend will meet MP-1 specifications when tested as ±3° of the specified PG binder. The sample of the blended material will 1) be considered as a lot sample, 2) will be taken during initial production following the blending of the binders, and 3) deductions when not meeting MP-1, will apply. On the blended sample's identification form will be a note explaining the blending conditions and a statement that the sample is a blend of materials. The next lot sample, following the sample representing the blend, will be tested as the specified binder grade for the asphalt mixture being produced and shall meet MP-1 specifications.

(2) Modified Binders - When a type of modification is used and stated in the Material Certification as required in paragraph 6.c., it will not be allowed to be blended with a binder containing a different type of modification. Blending of the same type of modifiers will be allowed.

TABLE 1

SINGLE SAMPLE TOLERANCE AND PRICE REDUCTION TABLE		
	Price Reduction[1] Pay Factor of 0.75	**Determined by Engineer[2] Pay Factor of 0.50 or Removal**
Tests on Original Binder Dynamic Shear, G*/Sin δ, kPa	0.86-0.92	< 0.86
Tests on Rolling Thin Film Oven Residue Dynamic Shear, G*/Sin δ, kPa	1.76-1.97	< 1.76
Tests Pressure Aging Vessel Residue Dynamic Shear, G*Sin δ, kPa	5601-6200	> 6200
Creep Stiffness S, Mpa	325-348	> 348
m-value	0.270-0.284	< 0.270

NOTE: If more than one test fails to meet requirements, the largest individual price reduction (pay factor of 0.75 or 0.50) will be used to calculate price reduction for the asphalt binder.

[1]Price Reduction will be based on contract unit price of asphalt binder.

[2]The Engineer will determine if the non-compliant material will be removed. If the non-compliant material is accepted, a price reduction of 50% will be applied. The price reduction shall be based on the contract unit price of asphalt binder.

The pay factor will be applied to the quantity of material that the sample represents.

Overall Project Average - Price Reduction Based on Complete MP-1 Testing

Out of specification material will be determined by the specifications outlined in AASHTO MP-1, excluding Direct Tension.

The Nebraska Department of Roads, Materials and Research, Bituminous Laboratory will do complete testing, per MP-1 specifications, on a minimum of three samples or 20% of the total samples from the project, whichever is the greatest. The Department will randomly select one sample for complete MP-1 testing out of every five samples received. When any test result shows sample not meeting MP-1 specifications, the previous and following sample received will be tested for complete MP-1 compliance. Testing will continue in this manner until tested samples meet all of MP-1 specifications.

Original Dynamic Shear Rheometer testing will be completed on all samples. When a sample being tested for only Original Dynamic Shear Rheometer compliance falls out of MP-1 specification, it will then be tested for complete MP-1 specification compliance. Adjacent samples will be tested when results, other than the Original Dynamic Shear Rheometer result, do not meet specification. This additional complete testing for MP-1 compliance is in addition to the minimum number of samples that will be tested for complete MP-1 compliance.

At the completion of testing, all complete MP-1 test results will be averaged. For averages that do not meet MP-1 specifications, the largest reduction shown in Table 2 will be applied to all the Performance Graded Binder used on the project.

Table 2

OVERALL PROJECT AVERAGE - PRICE REDUCTION TABLE		
	Range of Average	**Pay Factor Applied**
Tests on Original Binder Dynamic Shear, G*/Sin δ, kPa Min. 1.00 kPa	< 1.00 - 0.98 < 0.98 - 0.96 < 0.96 - 0.94 < 0.94	0.98 0.95 0.92 0.85
Tests on Rolling Thin Film Oven Residue Dynamic Shear, G*/Sin δ, kPa Min. 2.20 kPa	< 2.20 - 2.156 < 2.156 - 2.09 < 2.-09 - 2.024 < 2.024	0.98 0.95 0.92 0.85
Tests Pressure Aging Vessel Residue Dynamic Shear, G*Sin δ, kPa Max. 5000 kPa	< 5000 - 5100 < 5100 - 5250 < 5250 - 5400 < 5400	0.98 0.95 0.92 0.85
m-Value Min. 0.300	< 0.300 - 0.298 < 0.298 - 0.293 < 0.293 - 0.290 < 0.290	0.98 0.95 0.92 0.85
Creep Stiffness S, MPa Max. 300 MPa	< 300 - 306 < 306 - 315 < 315 - 324 < 324	0.98 0.95 0.92 0.85

Single Sample Reduction and Overall Project Average Reduction

A sample representing a lot, not meeting MP-1 Specification, will have a reduction for the material that the sample represents. Only the largest reduction from Table 1, will apply when more than one result of a single sample does not meet MP-1 specifications. Only the largest overall project average reduction from Table 2, will apply when more than one test average falls out of MP-1 specifications. Pay Factors based on both Table 1 and Table 2 test results are separate from each other and both will be applied.

Investigation of Verification Lot Samples That Do Not Meet Specifications

When the lot sample shows test results out of specification limits, the process of resolving the sample failure will include the following actions as appropriate:

1. The Bituminous Lab may conduct retesting of the remaining portion of the original can sample as determined necessary to confirm or disaffirm the original test result(s).

2. The Flexible Pavement Engineer will notify the Contractor who will arrange to investigate all aspects of the testing, loading, handling and delivery of the material in question. The Contractor shall report findings to the Central Laboratory, Flexible Pavement Engineer.

3. The Department will collect and compile all information and prepare a report. A copy of the report will be distributed to the District and the Contractor.

4. The Bituminous Laboratory will issue the standard report of tests for all samples tested, to include any resulting pay factor deductions. A copy of the report of tests will be distributed to the District, Construction Division, and Contractor.

Dispute Resolution

After testing and investigations have been completed on the one can of the sample and there is still a dispute, the Department will select an independent laboratory for referee testing to take place on the second can of the sample. If the independent lab's tests indicate failing results and pay deductions equal to or great than the Department's, the Contractor will reimburse the Department for the cost of testing. If the independent lab's tests indicate that the material meets specification or is at a pay deduction less than the Department's, the Department will assume the cost of testing. When the independent lab's tests indicate a pay deduction, the lesser of the Department's and the independent lab's deductions will be applied.

Basis of Measurement

PG Binder shall be measured in accordance with Subsection 503.05 in the Standard Specifications and Supplemental Specifications.

Basis of Payment:

Subsection 503.06 in the Standard Specifications and Supplemental Specifications is amended to provide that PG Binder, accepted by the Engineer for use in asphaltic concrete, will be paid for at the contract unit price per ton (Megagram) for the item "Performance Graded Binder _____", less any deductions as prescribed in the tolerance and price reduction tables.

SUPERPAVE ASPHALTIC CONCRETE

Asphaltic Concrete Type SP1 and SP4 shall use the 12.5 gradation band.

Paragraph 4.f.(1)(i) of Subsection 1028.03 in the Supplemental Specifications is void and superseded by the following:

Bulk Specific Gravity (Gmb) shall be determined for each specimen in accordance with AASHTO T 166.

Paragraph 4.f.(5) of Subsection 1028.03 in the Supplemental Specifications is void and superseded by the following:

5. (i) The percent of PG Binder shall be determined for each QC test. The percent of PG Binder will be computed by ignition oven results.

5. (ii) The gradations shall be determined for each QC test using AASHTO T 30.

Paragraph 4.g.(1) of Subsection 1028.03 in the Supplemental Specifications is void and superseded by the following:

All test results and calculations shall be recorded and documented on data sheets using the latest version of NDOR provided “Superpave” software. A copy containing complete project documentation will be provided to the Materials and Research Division at the completion of the project.

Paragraph 5.b. of Subsection 1028.03 in the Supplemental Specifications is void and superseded by the following:

Two consecutive test results (single test) outside the Specification limits or a (50% or reject) shall be cause to cease operations.

Paragraph 5.e. of Subsection 1028.03 in the Supplemental Specifications is void and superseded by the following:

Failure to cease operations after two consecutive test results fall outside the Specification limits shall subject all subsequent material to be rejected.

The **“Note”** in paragraph 9.b. of Subsection 1028.03 in the Supplemental Specifications is void and superseded by the following:

Note: The individual QC test value of the Maximum Mix Specific Gravity (Rice) will be used to calculate the density of each corresponding core.

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 <u>not</u> to be opened and read.

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