

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

NEBRASKA DEPARTMENT OF ROADS
LETTING DATE : October 10, 2002

METRIC

CALL ORDER: F08 CONTRACT ID: 4862

CONTROL NO./SEQ. NO.: 41862 /000 PROJECT NO.: EACSTPD-4-5(103)

TENTATIVE START DATE: 03/31/03 CONTRACT TIME: 210 WORKING DAYS

LOCATION: ON N-4, EAST OF LAWRENCE.
IN COUNTY: NUCKOLLS

BIDDER

GROUP 1 GRADING
GROUP 4 CULVERT
GROUP 4A CONCRETE BOX CULVERT AT STA.139+32.1
GROUP 4B SANITARY SEWER AND WATER MAIN
GROUP 5 SEEDING
GROUP 6 BRIDGE AT STA. 48+40.8
GROUP 7 GUARDRAIL
GROUP 9 BITUMINOUS
GROUP 10 GENERAL ITEMS

THIS PROPOSAL CONTAINS A DBE GOAL OF 10.0 %.

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.

**REQUIRED CONTRACT PROVISIONS
FEDERAL-AID CONSTRUCTION CONTRACTS**

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ATTACHMENTS

- A. Employment Preference for Appalachian Contracts
(included in Appalachian contracts only)

I. GENERAL

1. These contract provisions shall apply to all work performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piece-work, station work, or by subcontract.

2. Except as otherwise provided for in each section, the contractor shall insert in each subcontract all of the stipulations contained in these Required Contract Provisions, and further require their inclusion in any lower tier subcontract or purchase order that may in turn be made. The Required Contract Provisions shall not be incorporated by reference in any case. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with these Required Contract Provisions.

3. A breach of any of the stipulations contained in these Required Contract Provisions shall be sufficient grounds for termination of the contract.

4. A breach of the following clauses of the Required Contract Provisions may also be grounds for debarment as provided in 29 CFR 5.12:

Section I, paragraph 2;
Section IV, paragraphs 1, 2, 3, 4, and 7;
Section V, paragraphs 1 and 2a through 2g.

5. Disputes arising out of the labor standards provisions of Section IV (except paragraph 5) and Section V of these Required Contract Provisions shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the U.S. Department of Labor (DOL) as set forth in 29 CFR 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the DOL, or the contractor's employees or their representatives.

6. **Selection of Labor:** During the performance of this contract, the contractor shall not:

- a. discriminate against labor from any other State, possession, or territory of the United States (except for employment

preference for Appalachian contracts, when applicable, as specified in Attachment A), or

- b. employ convict labor for any purpose within the limits of the project unless it is labor performed by convicts who are on parole, supervised release, or probation.

II. NONDISCRIMINATION

(Applicable to all Federal-aid construction contracts and to all related subcontracts of \$10,000 or more.)

1. **Equal Employment Opportunity:** Equal employment opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (28 CFR 35, 29 CFR 1630 and 41 CFR 60) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140 shall constitute the EEO and specific affirmative action standards for the contractor's project activities under this contract. The Equal Opportunity Construction Contract Specifications set forth under 41 CFR 60-4.3 and the provisions of the American Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR 35 and 29 CFR 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

- a. The contractor will work with the State highway agency (SHA) and the Federal Government in carrying out EEO obligations and in their review of his/her activities under the contract.

- b. The contractor will accept as his operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, national origin, age or disability. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, preapprenticeship, and/or on-the-job training."

2. **EEO Officer:** The contractor will designate and make known to the SHA contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active contractor program of EEO and who must be assigned adequate authority and responsibility to do so.

3. **Dissemination of Policy:** All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action, or who are substantially involved in such action, will be made fully cognizant of, and will implement, the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

- a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minority group employees.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

4. **Recruitment:** When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minority groups in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minority group applicants. To meet this requirement, the contractor will identify sources of potential minority group employees, and establish with such identified sources procedures whereby minority group applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, he is expected to observe the provisions of that agreement to the extent that the system permits the contractor's compliance with EEO contract provisions. (The DOL has held that where implementation of such agreements have the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Executive Order 11246, as amended.)

c. The contractor will encourage his present employees to refer minority group applicants for employment. Information and procedures with regard to referring minority group applicants will be discussed with employees.

5. **Personnel Actions:** Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to insure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with his obligations under this contract, will attempt to resolve

such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of his avenues of appeal.

6. Training and Promotion:

a. The contractor will assist in locating, qualifying, and increasing the skills of minority group and women employees, and applicants for employment.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs, i.e., apprenticeship, and on-the-job training programs for the geographical area of contract performance. Where feasible, 25 percent of apprentices or trainees in each occupation shall be in their first year of apprenticeship or training. In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision.

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of minority group and women employees and will encourage eligible employees to apply for such training and promotion.

7. **Unions:** If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use his/her best efforts to obtain the cooperation of such unions to increase opportunities for minority groups and women within the unions, and to effect referrals by such unions of minority and female employees. Actions by the contractor either directly or through a contractor's association acting as agent will include the procedures set forth below:

a. The contractor will use best efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minority group members and women for membership in the unions and increasing the skills of minority group employees and women so that they may qualify for higher paying employment.

b. The contractor will use best efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, national origin, age or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the SHA and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of minority and women referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, national origin, age or disability; making full efforts to obtain qualified and/or qualifiable minority group persons and women. (The DOL has held that it shall be no excuse that the union with which the contractor has a collective bargaining agreement providing for exclusive referral failed to refer minority employees.) In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246 (Rev. 3-94)

tive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the SHA.

8. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment: The contractor shall not discriminate on the grounds of race, color, religion, sex, national origin, age or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment.

a. The contractor shall notify all potential subcontractors and suppliers of his/her EEO obligations under this contract.

b. Disadvantaged business enterprises (DBE), as defined in 49 CFR 23, shall have equal opportunity to compete for and perform subcontracts which the contractor enters into pursuant to this contract. The contractor will use his best efforts to solicit bids from and to utilize DBE subcontractors or subcontractors with meaningful minority group and female representation among their employees. Contractors shall obtain lists of DBE construction firms from SHA personnel.

c. The contractor will use his best efforts to ensure subcontractor compliance with their EEO obligations.

9. Records and Reports: The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following completion of the contract work and shall be available at reasonable times and places for inspection by authorized representatives of the SHA and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women;

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minority and female employees; and

(4) The progress and efforts being made in securing the services of DBE subcontractors or subcontractors with meaningful minority and female representation among their employees.

b. The contractors will submit an annual report to the SHA each July for the duration of the project, indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on Form FHWA-1391. If on-the-job training is being required by special provision, the contractor will be required to collect and report training data.

III. NONSEGREGATED FACILITIES

(Applicable to all Federal-aid construction contracts and to all related subcontracts of \$10,000 or more.)

a. By submission of this bid, the execution of this contract or subcontract, or the consummation of this material supply agreement or purchase order, as appropriate, the bidder, Federal-aid construction contractor, subcontractor, material supplier, or vendor, as appropriate, certifies that the firm does not maintain or provide for its employees any segregated facilities at any of its establishments, and that the firm does not permit its employees to perform their services at any location, under its control, where segregated facilities are maintained. The firm agrees that a breach of this certification is a violation of the EEO provisions of this contract. The firm further certifies that no employee will be denied access to adequate facilities on the basis of sex or disability.

b. As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, restrooms and washrooms, restaurants and other eating areas, timeclocks, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees which are segregated by explicit directive, or are, in fact, segregated on the basis of race, color, religion, national origin, age or disability, because of habit, local custom, or otherwise. The only exception will be for the disabled when the demands for accessibility override (e.g. disabled parking).

c. The contractor agrees that it has obtained or will obtain identical certification from proposed subcontractors or material suppliers prior to award of subcontracts or consummation of material supply agreements of \$10,000 or more and that it will retain such certifications in its files.

IV. PAYMENT OF PREDETERMINED MINIMUM WAGE

(Applicable to all Federal-aid construction contracts exceeding \$2,000 and to all related subcontracts, except for projects located on roadways classified as local roads or rural minor collectors, which are exempt.)

1. General:

a. All mechanics and laborers employed or working upon the site of the work will be paid unconditionally and not less often than once a week and without subsequent deduction or rebate on any account [except such payroll deductions as are permitted by regulations (29 CFR 3) issued by the Secretary of Labor under the Copeland Act (40 U.S.C. 276c)] the full amounts of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment. The payment shall be computed at wage rates not less than those contained in the wage determination of the Secretary of Labor (hereinafter "the wage determination") which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor or its subcontractors and such laborers and mechanics. The wage determination (including any additional classifications and wage rates conformed under paragraph 2 of this Section IV and the DOL poster (WH-1321) or Form FHWA-1495) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers. For the purpose of this Section, contributions made or costs reasonably anticipated for bona fide fringe benefits under Section 1(b)(2) of the Davis-Bacon Act (40 U.S.C. 276a) on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of Section IV, paragraph 3b, hereof. Also, for the purpose of this Section, regular contributions made or costs incurred for more

than a weekly period (but not less often than quarterly) under plans, funds, or programs, which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in paragraphs 4 and 5 of this Section IV.

b. Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein, provided, that the employer's payroll records accurately set forth the time spent in each classification in which work is performed.

c. All rulings and interpretations of the Davis-Bacon Act and related acts contained in 29 CFR 1, 3, and 5 are herein incorporated by reference in this contract.

2. Classification:

a. The SHA contracting officer shall require that any class of laborers or mechanics employed under the contract, which is not listed in the wage determination, shall be classified in conformance with the wage determination.

b. The contracting officer shall approve an additional classification, wage rate and fringe benefits only when the following criteria have been met:

(1) the work to be performed by the additional classification requested is not performed by a classification in the wage determination;

(2) the additional classification is utilized in the area by the construction industry;

(3) the proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination; and

(4) with respect to helpers, when such a classification prevails in the area in which the work is performed.

c. If the contractor or subcontractors, as appropriate, the laborers and mechanics (if known) to be employed in the additional classification or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the DOL, Administrator of the Wage and Hour Division, Employment Standards Administration, Washington, D.C. 20210. The Wage and Hour Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

d. In the event the contractor or subcontractors, as appropriate, the laborers or mechanics to be employed in the additional classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Wage and Hour Administrator for determination. Said Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

e. The wage rate (including fringe benefits where appropriate) determined pursuant to paragraph 2c or 2d of this Section IV shall be paid to all workers performing work in the additional classification from the first day on which work is performed in the classification.

3. Payment of Fringe Benefits:

a. Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor or subcontractors, as appropriate, shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly case equivalent thereof.

b. If the contractor or subcontractor, as appropriate, does not make payments to a trustee or other third person, he/she may consider as a part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, provided, that the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

4. Apprentices and Trainees (Programs of the U.S. DOL) and Helpers:

a. Apprentices:

(1) Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the DOL, Employment and Training Administration, Bureau of Apprenticeship and Training, or with a State apprenticeship agency recognized by the Bureau, or if a person is employed in his/her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Bureau of Apprenticeship and Training or a State apprenticeship agency (where appropriate) to be eligible for probationary employment as an apprentice.

(2) The allowable ratio of apprentices to journeyman-level employees on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any employee listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate listed in the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor or subcontractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman-level hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

(3) Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeyman-level hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator for

the Wage and Hour Division determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination

(4) In the event the Bureau of Apprenticeship and Training, or a State apprenticeship agency recognized by the Bureau, withdraws approval of an apprenticeship program, the contractor or subcontractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the comparable work performed by regular employees until an acceptable program is approved.

b. Trainees:

(1) Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the DOL, Employment and Training Administration.

(2) The ratio of trainees to journeyman-level employees on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed.

(3) Every trainee must be paid at not less than the rate specified in the approved program for his/her level of progress, expressed as a percentage of the journeyman-level hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman-level wage rate on the wage determination which provides for less than full fringe benefits for apprentices, in which case such trainees shall receive the same fringe benefits as apprentices.

(4) In the event the Employment and Training Administration withdraws approval of a training program, the contractor or subcontractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

c. Helpers:

Helpers will be permitted to work on a project if the helper classification is specified and defined on the applicable wage determination or is approved pursuant to the conformance procedure set forth in Section IV.2. Any worker listed on a payroll at a helper wage rate, who is not a helper under a approved definition, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed.

5. Apprentices and Trainees (Programs of the U.S. DOT):

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeymen shall not be greater than permitted by the terms of the particular program.

6. Withholding:

The SHA shall upon its own action or upon written request of an authorized representative of the DOL withhold, or cause to be withheld, from the contractor or subcontractor under this contract or any other Federal contract with the same prime contractor, or any other Federally-assisted contract subject to Davis-Bacon prevailing wage requirements which is held by the same prime contractor, as much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the SHA contracting officer may, after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

7. Overtime Requirements:

No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers, mechanics, watchmen, or guards (including apprentices, trainees, and helpers described in paragraphs 4 and 5 above) shall require or permit any laborer, mechanic, watchman, or guard in any workweek in which he/she is employed on such work, to work in excess of 40 hours in such workweek unless such laborer, mechanic, watchman, or guard receives compensation at a rate not less than one-and-one-half times his/her basic rate of pay for all hours worked in excess of 40 hours in such workweek.

8. Violation:

Liability for Unpaid Wages; Liquidated Damages:
In the event of any violation of the clause set forth in paragraph 7 above, the contractor and any subcontractor responsible thereof shall be liable to the affected employee for his/her unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory) for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer, mechanic, watchman, or guard employed in violation of the clause set forth in paragraph 7, in the sum of \$10 for each calendar day on which such employee was required or permitted to work in excess of the standard work week of 40 hours without payment of the overtime wages required by the clause set forth in paragraph 7.

9. Withholding for Unpaid Wages and Liquidated Damages:

The SHA shall upon its own action or upon written request of any authorized representative of the DOL withhold, or cause to be withheld, from any monies payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other Federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph 8 above.

V. STATEMENTS AND PAYROLLS

(Applicable to all Federal-aid construction contracts exceeding \$2,000 and to all related subcontracts, except for projects located on roadways classified as local roads or rural collectors, which are exempt.)

1. Compliance with Copeland Regulations (29 CFR 3):

The contractor shall comply with the Copeland Regulations of the Secretary of Labor which are herein incorporated by reference.

2. Payrolls and Payroll Records:

a. Payrolls and basic records relating thereto shall be maintained by the contractor and each subcontractor during the course of the work and preserved for a period of 3 years from the date of completion of the contract for all laborers, mechanics, apprentices, trainees, watchmen, helpers, and guards working at the site of the work.

b. The payroll records shall contain the name, social security number, and address of each such employee; his or her correct classification; hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalent thereof the types described in Section 1(b)(2)(B) of the Davis Bacon Act); daily and weekly number of hours worked; deductions made; and actual wages paid. In addition, for Appalachian contracts, the payroll records shall contain a notation indicating whether the employee does, or does not, normally reside in the labor area as defined in Attachment A, paragraph 1. Whenever the Secretary of Labor, pursuant to Section IV, paragraph 3b, has found that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in Section 1(b)(2)(B) of the Davis Bacon Act, the contractor and each subcontractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, that the plan or program has been communicated in writing to the laborers or mechanics affected, and show the cost anticipated or the actual cost incurred in providing benefits. Contractors or subcontractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprentices and trainees, and ratios and wage rates prescribed in the applicable programs.

c. Each contractor and subcontractor shall furnish, each week in which any contract work is performed, to the SHA resident engineer a payroll of wages paid each of its employees (including apprentices, trainees, and helpers, described in Section IV, paragraphs 4 and 5, and watchmen and guards engaged on work during the preceding weekly payroll period). The payroll submitted shall set out accurately and completely all of the information required to be maintained under paragraph 2b of this Section V. This information may be submitted in any form

desired. Optional Form WH-347 is available for this purpose and may be purchased from the Superintendent of Documents (Federal stock number 029-005-0014-1), U.S. Government Printing Office, Washington, D.C. 20402. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors.

d. Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his/her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(1) that the payroll for the payroll period contains the information required to be maintained under paragraph 2b of this Section V and that such information is correct and complete;

(2) that such laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in the Regulations, 29 CFR 3;

(3) that each laborer or mechanic has been paid not less than the applicable wage rate and fringe benefits or cash equivalent for the classification of worked performed, as specified in the applicable wage determination incorporated into the contract.

e. The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 2d of this Section V.

f. The falsification of any of the above certifications may subject the contractor to civil or criminal prosecution under 18 U.S.C. 1001 and 31 U.S.C. 231.

g. The contractor or subcontractor shall make the records required under paragraph 2b of this Section V available for inspection, copying, or transcription by authorized representatives of the SHA, the FHWA, or the DOL, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, the SHA, the FHWA, the DOL, or all may, after written notice to the contractor, sponsor, applicant, or owner, take such actions as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

VI. RECORD OF MATERIALS, SUPPLIES, AND LABOR

1. On all Federal-aid contracts on the National Highway System, except those which provide solely for the installation of protective devices at railroad grade crossings, those which are constructed on a force account or direct labor basis, highway beautification contracts, and contracts for which the total final construction cost for roadway and bridge is less than \$1,000,000 (23 CFR 635) the contractor shall:

a. Become familiar with the list of specific materials and supplies contained in Form FHWA-47, "Statement of Materials and Labor Used by Contractor of Highway Construction Involving Federal Funds," prior to the commencement of work under this contract.

b. Maintain a record of the total cost of all materials and supplies purchased for and incorporated in the work, and also of

Form FHWA-1273 (Rev. 3-94)

the quantities of those specific materials and supplies listed on Form FHWA-47, and in the units shown on Form FHWA-47.

c. Furnish, upon the completion of the contract, to the SHA resident engineer on Form FHWA-47 together with the data required in paragraph 1b relative to materials and supplies, a final labor summary of all contract work indicating the total hours worked and the total amount earned.

2. At the prime contractor's option, either a single report covering all contract work or separate reports for the contractor and for each subcontract shall be submitted.

VII. SUBLETTING OR ASSIGNING THE CONTRACT

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the State. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635).

a. "Its own organization" shall be construed to include only workers employed and paid directly by the prime contractor and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor, assignee, or agent of the prime contractor.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid on the contract as a whole and in general are to be limited to minor components of the overall contract.

2. The contract amount upon which the requirements set forth in paragraph 1 of Section VII is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. The contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the SHA contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the SHA contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the SHA has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract.

VIII. SAFETY: ACCIDENT PREVENTION

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the SHA contracting officer may determine, to be 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.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and health standards (29 CFR 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 333).

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 333).

IX. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, the following notice shall be posted on each Federal-aid highway project (23 CFR 635) in one or more places where it is readily available to all persons concerned with the project:

NOTICE TO ALL PERSONNEL ENGAGED ON FEDERAL-AID HIGHWAY PROJECTS

18 U.S.C. 1020 reads as follows:

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

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

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 1, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined not more than \$10,000 or imprisoned not more than 5 years or both."

X. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT

(Applicable to all Federal-aid construction contracts and to all related subcontracts of \$100,000 or more.)

By submission of this bid or the execution of this contract, or subcontract, as appropriate, the bidder, Federal-aid construction contractor, or subcontractor, as appropriate, will be deemed to have stipulated as follows:

1. That any facility that is or will be utilized in the performance of this contract, unless such contract is exempt under the Clean Air Act, as amended (42 U.S.C. 1857 *et seq.*, as amended by Pub.L. 91-604), and under the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251 *et seq.*, as amended by Pub.L. 92-500), Executive Order 11738, and regulations in implementation thereof (40 CFR 15) is not listed, on the date of contract award, on the U.S. Environmental Protection Agency (EPA) List of Violating Facilities pursuant to 40 CFR 15.20.

2. That the firm agrees to comply and remain in compliance with all the requirements of Section 114 of the Clean Air Act and Section 308 of the Federal Water Pollution Control Act and all regulations and guidelines listed thereunder.

3. That the firm shall promptly notify the SHA of the receipt of any communication from the Director, Office of Federal Activities, EPA, indicating that a facility that is or will be utilized for the contract is under consideration to be listed on the EPA List of Violating Facilities.

4. That the firm agrees to include or cause to be included the requirements of paragraph 1 through 4 of this Section X in every nonexempt subcontract, and further agrees to take such action as the government may direct as a means of enforcing such requirements.

XI. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION**1. Instructions for Certification - Primary Covered Transactions:**

(Applicable to all Federal-aid contracts - 49 CFR 29)

a. By signing and submitting this proposal, the prospective primary participant is providing the certification set out below.

b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this covered transaction. The prospective participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective primary participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction.

c. The certification in this clause is a material representation of fact upon which reliance was placed when the department or agency determined to enter into this transaction. If it is later determined that the prospective primary participant know-

ingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause of default.

d. The prospective primary participant shall provide immediate written notice to the department or agency to whom this proposal is submitted if any time the prospective primary participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "lower tier covered transaction," "participant," "person," "primary covered transaction," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the department or agency to which this proposal is submitted for assistance in obtaining a copy of those regulations.

f. The prospective primary participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction.

g. The prospective primary participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," provided by the department or agency entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the nonprocurement portion of the "Lists of Parties Excluded From Federal Procurement or Nonprocurement Programs" (Nonprocurement List) which is compiled by the General Services Administration.

i. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

j. Except for transactions authorized under paragraph f of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default.

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Primary Covered Transactions

1. The prospective primary participant certifies to the best of its knowledge and belief, that it and its principals:

- a. Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;
- b. Have not within a 3-year period preceding this proposal been convicted of or had a civil judgement rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
- c. Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph 1b of this certification; and
- d. Have not within a 3-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

2. Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

2. Instructions for Certification - Lower Tier Covered Transactions:

(Applicable to all subcontracts, purchase orders and other lower tier transactions of \$25,000 or more - 49 CFR 29)

- a. By signing and submitting this proposal, the prospective lower tier is providing the certification set out below.
- b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.
- c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances.
- d. The terms "covered transaction," "debarred," "suspended," "ineligible," "primary covered transaction," "participant," "person," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of rules implementing Executive Order 12549. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations.
- e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but is not required to, check the Nonprocurement List.

h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Covered Transactions:

- 1. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.
- 2. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

XII. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

(Applicable to all Federal-aid construction contracts and to all related subcontracts which exceed \$100,000 - 49 CFR 20)

- 1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:
 - a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

3. The prospective participant also agrees by submitting his or her bid or proposal that he or she shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such recipients shall certify and disclose accordingly.

**NOTICE OF REQUIREMENT FOR AFFIRMATIVE
ACTION TO ENSURE EQUAL EMPLOYMENT
OPPORTUNITY
(EXECUTIVE ORDER 11246)**

1. The Offeror's or Bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Specifications" set forth herein.
2. The goals and timetables for minority and female participation, expressed in percentage terms for the Contractor's aggregate work force in each trade on all construction work in the covered area are as follows:

GOALS FOR MINORITY PARTICIPATION IN EACH TRADE

| Economic Area | Goal % | Economic Area | Goal % |
|--------------------------------------|-------------------|---|-------------------|
| 103 Sioux City, IA: | | Non-SMSA Counties | 5.3 |
| SMSA Counties: | | IA Adams, IA Audubon, IA Cass, | |
| 7720 Sioux City, IA-NE | 1.9 | IA Fremont, IA Harrison, IA Mills, | |
| IA Woodbury, NE Dakota | | IA Montgomery, IA Page, IA Shelby, | |
| Non-SMSA Counties | 1.2 | IA Taylor, NE Burt, NE Cass, NE Colfax, | |
| IA Cherokee, IA Crawford, IA Ida, | | NE Dodge, NE Platte, NE Saunders, | |
| IA Monona, IA O'Brien, IA Plymouth, | | NE Washington | |
| IA Sioux, NE Antelope, NE Cedar, | | 144 Grand Island, NE: | |
| NE Cuming, NE Dixon, NE Knox, | | Non-SMSA Counties | 1.4 |
| NE Madison, NE Pierce, NE Stanton, | | NE Adams, NE Arthur, NE Blaine, | |
| NE Thurston, NE Wayne, SD BonHomme, | | NE Boone, NE Boyd, NE Brown, | |
| SD Clay, SD Union, SD Yankton | | NE Buffalo, NE Chase, NE Cherry, | |
| 142 Lincoln, NE: | | NE Clay, NE Custer, NE Dawson, | |
| SMSA Counties: | | NE Dundy, NE Franklin, NE Frontier, | |
| 4360 Lincoln, NE | 2.8 | NE Furnas, NE Garfield, NE Gosper, | |
| NE Lancaster | | NE Grant, NE Greeley, NE Hall, NE | |
| Non-SMSA Counties | 1.9 | Hamilton, NE Harlan, NE Hayes, | |
| NE Butler, NE Fillmore, NE Gage, | | NE Hitchcock, NE Holt, NE Hooker, | |
| NE Jefferson, NE Johnson, NE Nemaha, | | NE Howard, NE Kearney, NE Keith, | |
| NE Otoe, NE Pawnee, NE Polk, NE | | NE Keya Paha, NE Lincoln, NE Logan, | |
| Richardson, NE Saline, NE Seward, | | NE Loup, NE McPherson, NE Merrick, | |
| NE Thayer, NE York | | NE Nance, NE Nuckolls, NE Perkins, | |
| 143 Omaha, NE: | | NE Phelps, NE Red Willow, NE Rock, | |
| SMSA Counties: | | NE Sherman, NE Thomas, NE Valley, | |
| 5920 Omaha, NE-IA | 7.6 | NE Webster, NE Wheeler | |
| IA Pottawattamie, NE Douglas, | | 145 Scottsbluff, NE: | |
| NE Sarpy | | Non-SMSA Counties | 5.3 |
| | | NE Banner, NE Box Butte, NE Chey- | |
| | | enne, NE Dawes, NE Deuel, NE | |
| | | Garden, NE Kimball, NE Morrill, | |
| | | NE Scotts Bluff, NE Sheridan, NE | |
| | | Sioux, WY Goshen | |

GOALS AND TIMETABLES FOR FEMALE PARTICIPATION IN EACH TRADE

| Timetables | Goals (Percent) |
|---|----------------------------|
| From April 1, 1980 until further notice | 6.9 |

These goals are applicable to all the Contractor's construction work (whether or not it is Federal or federally assisted) performed in the covered area. If the contractor performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the contractor also is subject to the goals for both its federally involved and nonfederally involved construction.

The Contractor's compliance with the Executive Order and the regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a), and its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, the Executive Order and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The Contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs within 10 working days of award of any construction subcontract in excess of \$10,000 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address and telephone number of the subcontractor; employer identification number of the subcontractor; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the subcontract is to be performed.
4. As used in this Notice, and in the contract resulting from this solicitation, the "covered area" is by county.

November 3, 1980

**STANDARD FEDERAL EQUAL EMPLOYMENT OPPORTUNITY
CONSTRUCTION CONTRACT SPECIFICATIONS
(EXECUTIVE ORDER 11246)**

1. As used in these specifications:
 - a. "Covered area" means the geographical area described in the solicitation from which this contract resulted;
 - b. "Director" means Director, Office of Federal Contract Compliance Programs, United States Department of Labor, or any person to whom the Director delegates authority;
 - c. "Employer Identification Number" means the Federal Social Security number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941.
 - d. "Minority" includes:
 - (i) Black (all persons having origins in any of the Black African racial groups not of Hispanic origin);
 - (ii) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish Culture or origin, regardless of race);
 - (iii) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands); and
 - (iv) American Indian or Alaskan Native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).
2. Whenever the Contractor, or any Subcontractor at any tier, subcontracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of \$10,000 the provisions of these specifications and the Notice, which contains the applicable goals for minority and female participation and which is set forth in the solicitations from which this contract resulted.
3. If the Contractor is participating (pursuant to 41 CFR 60-4.5) in a Hometown Plan approved by the U.S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the Plan area (including goals and timetables) shall be in accordance with that Plan for those trades which have unions participating in the Plan. Contractors must be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each Contractor or Subcontractor participating in an approved Plan is individually required to comply with its obligations under the EEO clause, and to make a good faith effort to achieve each goal under the Plan in each trade in which it has employees. The overall good faith performance by other Contractors or Subcontractors toward a goal in an approved Plan does not excuse any covered Contractor's or Subcontractor's failure to take good faith efforts to achieve the Plan goals and timetables.
4. The Contractor shall implement the specific affirmative action standards provided in paragraphs 7a through p of these specifications. The goals set forth in the solicitation from which this contract resulted are expressed as percentages of the total hours of employment and training of minority and female utilization the Contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. Covered Construction contractors performing construction work in geographical areas where they do not have a Federal or federally assisted construction contract shall apply the minority and female goals established for the geographical area where the work is being performed. Goals are published periodically in the **Federal Register** in notice form, and such notices may be obtained from any Office of Federal Contract Compliance Programs office or from Federal procurement contracting officers. The Contractor is expected to make substantially uniform progress in meeting its goals in each craft during the period specified.
5. Neither the provisions of any collective bargaining agreement, nor the failure by a union with whom the Contractor has a collective bargaining agreement, to refer either minorities or women shall excuse the Contractor's obligations under these specifications, Executive Order 11246, or the regulations promulgated pursuant thereto.
6. In order for the nonworking training hours of apprentices and trainees to be counted in meeting the goals, such apprentices and trainees must be employed by the Contractor during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor.

7. The Contractor shall take specific affirmative actions to ensure equal employment opportunity. The evaluation of the Contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its action. The Contractor shall document these efforts fully and shall implement affirmative action steps at least as extensive as the following:
 - a. Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which the Contractor's employees are assigned to work. The Contractor, where possible, will assign two or more women to each construction project. The Contractor shall specifically ensure that all foremen, superintendents, and other on-site supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at such sites or in such facilities.
 - b. Establish and maintain a current list of minority and female recruitment sources, provide written notification to minority and female recruitment sources and to community organizations when the Contractor or its unions have employment opportunities available, and maintain a record of the organizations' responses.
 - c. Maintain a current file of the names, addresses and telephone numbers of each minority and female off-the-street applicant and minority or female referral from a union, a recruitment source or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the Contractor by the union or, if referred, not employed by the Contractor, this shall be documented in the file with the reason therefor, along with whatever additional actions the Contractor may have taken.
 - d. Provide immediate written notification to the Director when the union or unions with which the Contractor has a collective bargaining agreement has not referred to the Contractor a minority person or woman sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.
 - e. Develop on-the-job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the Department of Labor. The Contractor shall provide notice of these programs to the sources compiled under 7b above.
 - f. Disseminate the Contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EEO obligations; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc.; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.
 - g. Review, at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination or other employment decisions including specific review of these items with on-site supervisory personnel such as Superintendents, General Foremen, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.
 - h. Disseminate the Contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and female news media, and providing written notification to and discussing the Contractor's EEO policy with other Contractors and Subcontractors with whom the Contractor does or anticipates doing business.
- Direct its recruitment efforts, both oral and written, to minority, female and community organizations, to schools with minority and female students and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the Contractor shall send written notification to organizations such as the above, describing the openings, screening procedures, and tests to be used in the selection process.
- Encourage present minority and female employees to recruit other minority persons and women and, where reasonable, provide after school, summer and vacation employment to minority and female youth both on the site and in other areas of a Contractor's work force.

- k. Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR Part 60-3.

Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., such opportunities.
 - m. Ensure that seniority practices, job classifications, work assignments and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel and employment related activities to ensure that the EEO policy and the Contractor's obligations under these specifications are being carried out.
 - n. Ensure that all facilities and company activities are nonsegregated except that separate or single-user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.
 - o. Document and maintain a record of all solicitations of offers for subcontracts from minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.
 - p. Conduct a review, at least annually, of all supervisors' adherence to and performance under the Contractor's EEO policies and affirmative action obligations.
8. Contractors are encouraged to participate in voluntary associations which assist in fulfilling one or more of their affirmative action obligations (7a through p). The efforts of a contractor association, joint contractor-union, contractor-community, or other similar group of which the contractor is a member and participant, may be asserted as fulfilling any one or more of its obligations under 7a through p of these Specifications provided that the contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the Contractor's minority and female work force participation, makes a good faith effort to meet its individual goals and timetables, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the Contractor. The obligation to comply, however, is the Contractor's and failure of such a group to fulfill an obligation shall not be a defense for the Contractor's noncompliance.
 9. A single goal for minorities and a separate single goal for women have been established. The Contractor, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and non-minority. Consequently, the Contractor may be in violation of the Executive Order if a particular group is employed in a substantially disparate manner (for example, even though the Contractor has achieved its goals for women generally, the Contractor may be in violation of the Executive Order if a specific minority group of women is underutilized).
 10. The Contractor shall not use the goals and timetables or affirmative action standards to discriminate against any person because of race, color, religion, sex, or national origin.

The contractor shall not enter into any Subcontract with any person or firm debarred from Government contracts pursuant to Executive Order 11246.
 12. The Contractor shall carry out such sanctions and penalties for violation of these specifications and of the Equal Opportunity Clause, including suspension, termination and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations, by the Office of Federal Contract Compliance Programs. Any Contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246, as amended.
 13. The Contractor, in fulfilling its obligations under these specifications, shall implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph 7 of these specifications, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Contractor fails to comply with the requirements of the Executive Order, the implementing regulations, or these specifications, the Director shall proceed in accordance with 41 CFR 60-4.8.
 14. The Contractor shall designate a responsible official to monitor all employment related activity to ensure that the company EEO policy is being carried out, to submit reports relating to the provisions hereof as may be required by the Government and to keep records. Records shall at least include for each employee the name, address, telephone numbers, construction trade, union affiliation if any, employee identification number when assigned, social security number, race, sex, status (e.g., mechanic, apprentice, trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the

work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, contractors shall not be required to maintain separate records.

15. Nothing herein provided shall be construed as a limitation upon the application of other laws which establish different standards of compliance or upon the application of requirements for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

Supplemental Reporting Requirements

- A. The contractor will keep such records as are necessary to determine compliance with the contractor's equal employment opportunity obligations. The records kept by the contractor will be designed to indicate the number of minority and non-minority group members and women employed in each work classification on the project.
- B. All such records must be retained for a period of three years following completion of the contract work and shall be available at reasonable times and places for inspection by authorized representatives of the State Highway agency and the Federal Highway Administration.
- C. The Contractor and each covered subcontractor will submit to the State Highway agency, for the month of July, for the duration of the project, a report (Form PR-1391) "Federal-aid Highway Construction Contractors Annual EEO Report), indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. If on-the-job training is being required by "Standard Federal Equal Employment Opportunity Specifications" the contractor will be required to furnish (Form FHWA 1409) "Federal-aid Highway Construction Contractor's Semi-Annual Training Report".

Equal Employment Opportunity Policy

The contractor will accept as his operating policy the following statement which is designed to further the provision of equal employment opportunity to all persons without regard to their race, color, religion, sex, or national origin, and to promote the full realization of equal employment opportunity through a positive continuing program:

It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, color, or national origin. Such action shall include: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship, preapprenticeship, and/or on-the-job training.

GENERAL DECISION **NE020002** 03/01/02 NE2
 General Decision Number **NE020002**

Superseded General Decision No. NE010002

State: Nebraska

Construction Type:
 HEAVY
 HIGHWAY

County(ies):

| | | |
|-----------|-----------|--------------|
| ADAMS | FURNAS | NANCE |
| ANTELOPE | GAGE | NEMAHA |
| ARTHUR | GARDEN | NUCKOLLS |
| BANNER | GARFIELD | OTOE |
| BLAINE | GOSPER | PAWNEE |
| BOONE | GRANT | PERKINS |
| BOX BUTTE | GREELEY | PHELPS |
| BOYD | HALL | PIERCE |
| BROWN | HAMILTON | PLATTE |
| BUFFALO | HARLAN | POLK |
| BURT | HAYES | RED WILLOW |
| BUTLER | HITCHCOCK | RICHARDSON |
| CEDAR | HOLT | ROCK |
| CHASE | HOOVER | SALINE |
| CHERRY | HOWARD | SAUNDERS |
| CHEYENNE | JEFFERSON | SCOTTS BLUFF |
| CLAY | JOHNSON | SEWARD |
| COLFAX | KEARNEY | SHERIDAN |
| CUMING | KEITH | SHERMAN |
| CUSTER | KEYA PAHA | SIOUX |
| DAKOTA | KIMBALL | STANTON |
| DAWES | KNOX | THAYER |
| DAWSON | LANCASTER | THOMAS |
| DEUEL | LINCOLN | THURSTON |
| DIXON | LOGAN | VALLEY |
| DODGE | LOUP | WAYNE |
| DUNDY | MADISON | WEBSTER |
| FILLMORE | MCPHERSON | WHEELER |
| FRANKLIN | MERRICK | YORK |
| FRONTIER | MORRILL | |

HEAVY CONSTRUCTION PROJECTS (does not include water well drilling); HIGHWAY CONSTRUCTION PROJECTS (excluding tunnels, building structures in rest area projects, and railroad construction; bascule, suspension & spandrel arch bridges; bridges designed for commercial navigation; bridges involving marine construction; other major bridges)

SAUNDERS COUNTY (WEST OF HWY. #109 EXTENDED NORTH AND SOUTH TO THE COUNTY LINE)

| | |
|---------------------|------------------|
| Modification Number | Publication Date |
| 0 | 03/01/2002 |

COUNTY(ies):

| | | |
|-------|--------|-------|
| ADAMS | FURNAS | NANCE |
|-------|--------|-------|

| | | |
|-----------|-----------|--------------|
| ANTELOPE | GAGE | NEMAHA |
| ARTHUR | GARDEN | NUCKOLLS |
| BANNER | GARFIELD | OTOE |
| BLAINE | GOSPER | PAWNEE |
| BOONE | GRANT | PERKINS |
| BOX BUTTE | GREELEY | PHELPS |
| BOYD | HALL | PIERCE |
| BROWN | HAMILTON | PLATTE |
| BUFFALO | HARLAN | POLK |
| BURT | HAYES | RED WILLOW |
| BUTLER | HITCHCOCK | RICHARDSON |
| CEDAR | HOLT | ROCK |
| CHASE | HOOVER | SALINE |
| CHERRY | HOWARD | SAUNDERS |
| CHEYENNE | JEFFERSON | SCOTTS BLUFF |
| CLAY | JOHNSON | SEWARD |
| COLFAX | KEARNEY | SHERIDAN |
| CUMING | KEITH | SHERMAN |
| CUSTER | KEYA PAHA | SIOUX |
| DAKOTA | KIMBALL | STANTON |
| DAWES | KNOX | THAYER |
| DAWSON | LANCASTER | THOMAS |
| DEUEL | LINCOLN | THURSTON |
| DIXON | LOGAN | VALLEY |
| DODGE | LOUP | WAYNE |
| DUNDY | MADISON | WEBSTER |
| FILLMORE | MCPHERSON | WHEELER |
| FRANKLIN | MERRICK | YORK |
| FRONTIER | MORRILL | |

SUNE2002E 06/16/1999

| | Rates | Fringes |
|------------------------------------|-------|---------|
| CARPENTER | 13.30 | |
| CEMENT FINISHER | 12.50 | |
| ELECTRICIAN | 11.90 | |
| FLAGGER | 7.60 | |
| FORM SETTER | 10.80 | |
| LABORER | 8.30 | |
| MANHOLE BUILDER | 10.20 | |
| MECHANIC | 12.95 | |
| PAINTER | 8.35 | |
| PILE DRIVER LEADPERSON | 8.35 | |
| POWER EQUIPMENT OPERATORS: | | |
| Asphalt distributor | 9.65 | |
| Asphalt paving machine | 12.35 | |
| Asphalt paving machine (screed) | 10.45 | |
| Asphalt roller, self-propelled | 11.20 | |
| Backhoe excavator (track type) | 12.55 | |
| Concrete finishing machine or slip | | |
| form paver | 12.80 | |
| Concrete saw operator | 11.20 | |
| Concrete cure machine | 9.20 | |
| Concrete texture machine | 9.20 | |
| Bulldozer or push tractors: | | |
| Less than 115 drawbar h.p. | 11.60 | |
| 115 drawbar h.p. and over | 12.80 | |
| Material stockpiler | 10.20 | |

| | |
|--|-------|
| Motor grader (finisher) | 13.15 |
| Motor grader (rough) | 10.90 |
| Power broom operator | 9.15 |
| Roller or compactor, earthwork, self-propelled | 10.05 |
| Scraper | 12.40 |
| Traveling plant stabilization | 11.60 |
| Water tankers: | |
| Under 6000 gallons | 9.65 |
| 6000 gallons and over | 11.20 |
| All purpose spreader | 9.50 |
| Clamshell, dragline, crane, pile driver/shovel | 13.60 |
| Dredge pump | 9.50 |
| Front end loaders: | |
| 4 cu. yds. or less | 11.40 |
| Over 4 cu. yds. | 12.10 |
| Hydrohammer | 9.60 |
| Loader/backhoe (rubber-tired) | 9.85 |
| Power grader machine (trimmer & profiler) | 12.80 |
| Skid steer loader | 9.50 |
| Tractor (farm type) | 9.50 |
| Trenching machine | 9.85 |
| Stationary plant (base or stabili- zation) | 11.75 |
| Stationary plant (asphalt or concrete) | 12.75 |
| Crusher (including those with integral screening plant) | 11.75 |
| TRUCK DRIVERS: | |
| Single axle | 8.40 |
| Tandem axle | 9.65 |
| Semi-trailer or lowboy | 10.85 |
| Transit mix | 9.65 |
| WELDER | 12.25 |

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29 CFR 5.5(a)(1)(v)).

In the listing above, the "SU" designation means that rates listed under that identifier do not reflect collectively bargained wage and fringe benefit rates. Other designations

indicate unions whose rates have been determined to be prevailing.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a

position on a wage determination matter
* a conformance (additional classification and rate)
ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U. S. Department of Labor
200 Constitution Avenue, N. W.
Washington, D. C. 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N. W.
Washington, D. C. 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U. S. Department of Labor
200 Constitution Avenue, N. W.
Washington, D. C. 20210

4.) All decisions by the Administrative Review Board are final.
END OF GENERAL DECISION

**SPECIAL PROVISIONS
FOR
FEDERAL AID
PROJECT NO. EACSTPD-4-5(103)**

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 October 10, 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 Contract Provisions, Form FHWA 1273, (Rev. 4-93), and the Notice of Requirement for Affirmative Action to Ensure Equal Employment Opportunity and Standard Federal Equal Employment Opportunity Construction Contract Specifications dated November 3, 1980, are attached to and are a part of this proposal form. The Standard Labor Classifications and Descriptions for Highway Construction dated September 1, 1996, are made a part of these special provisions, through reference.

The General Wage Decision issued under the Davis-Bacon and Related Acts is attached to and is a part of this proposal form.

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

GROUPS 1, 4, 4A, 4B, 5, 6, 7, 9 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 BITUMINOUS.

**DISADVANTAGED BUSINESS ENTERPRISES
(S1-8-0801)**

A. Policy

The Contractor agrees to ensure that disadvantaged business enterprises as defined in 49 CFR Part 26 shall have a "level playing field" and equal opportunity to participate in the performance of contracts financed in whole or in part with Federal funds under this contract. Consequently, the disadvantaged business requirements of 49 CFR Part 26 are hereby made a part of and incorporated by this reference into this contract.

B. Disadvantaged Business Enterprises Obligation

The Contractor agrees to ensure that disadvantaged business enterprises as defined in 49 CFR Part 26 have a “level playing field” and equal opportunity to participate in the performance of contracts and subcontracts financed in whole or in part with Federal funds provided under this agreement. In this regard, the Contractor shall take all necessary and reasonable steps in accordance with 49 CFR Part 26 to ensure that disadvantaged business enterprises have a “level playing field” and equal opportunity to compete for and perform contracts. The Contractor shall not discriminate on the basis of race, color, national origin, or sex in the award and performance of FHWA assisted contracts.

Failure of the Contractor to carry out the requirements set forth above shall constitute breach of contract and, after the notification of the FHWA, may result in termination of the agreement or contract by the State or such remedy as the State deems appropriate.

**USE OF DISADVANTAGED BUSINESS ENTERPRISES
(S1-9-0801)**

I. INTRODUCTION: The specific requirements of the use of Disadvantaged Business Enterprises, hereinafter referred to as DBEs, are set forth in these Required Contract Provisions and are imposed pursuant to 49 CFR Part 26.

A. Definitions:

1. Whenever “NDR” is used within these special provisions it shall refer to the Nebraska Department of Roads.
2. For the purpose of these special provisions, the following definitions will apply:
 - a. Disadvantaged Business Enterprise (DBE) means a for profit small business concern, as defined pursuant to Section 3 of the Small Business Act and Small Business Administration regulations implementing it, which is independently owned and controlled by one or more socially and economically disadvantaged individuals.
 - b. Owned and controlled means a business:
 - (1) Which is at least 51 percent (51%) owned by one or more socially and economically disadvantaged individuals or women, or, in the case of a public owned business, such individuals must own at least 51 percent (51%) of each class of voting stock and 51 percent of the aggregate of all stock outstanding.
 - (2) Whose management and daily business operations are controlled by one or more of the socially and economically disadvantaged owners.

- c. Socially and economically disadvantaged individual means a person who is a citizen (or lawful permanent resident) of the United States, and who is:
- (1) "African American," which includes persons having origins in any of the Black racial groups of Africa;
 - (2) "Hispanic American," which includes persons of Mexican, Puerto Rican, Cuban, Dominican, Central or South American, or other Spanish or Portuguese culture or origin, regardless of race;
 - (3) "Native American," which includes persons who are American Indians, Eskimos, Aleuts, or Native Hawaiians;
 - (4) "Asian-Pacific American," which includes persons whose origins are from Japan, China, Taiwan, Korea, Burma (Myanmar), Vietnam, Laos, Cambodia (Kampuchea), Thailand, Malaysia, Indonesia, the Philippines, Brunei, Samoa, Guam, the U.S. Trust Territories of the Pacific Islands (Republic of Palau), the Commonwealth of the Northern Marianas Islands, Macao, Fiji, Tonga, Kiribati, Juvalu, Nauru, Federated States of Micronesia, or Hong Kong;
 - (5) "Subcontinent Asian American," which includes persons whose origins are from India, Pakistan, Bangladesh, Bhutan, the Maldives Islands, Nepal or Sri Lanka;
 - (6) A Woman;
 - (7) Any additional groups whose members are designated as socially and economically disadvantaged by the SBA, at such time as the SBA designation becomes effective.

II. DBE CONTRACT GOALS:

- A. DBE goals are set by the NDR for specific contracts. The specific DBE contract goals are stated on the Required DBE Participation Form included in the proposal. The Contractor must meet or exceed the goal or demonstrate good faith efforts to meet the goal. Requirements for submission of DBE good faith effort information are contained in Section IV of these special provisions.
- B. A current list of certified DBE Contractors will be posted on the NDR website (www.dor.state.ne.us). Only the DBE firms whose names appear on the list will be considered in meeting the contract goal for this project. The DBE firms will be considered only for the items of work listed under the heading, "Nature of Business". DBE firms may request to have additional items of work added to their "Nature of Business"; however, no items of work will be added after 5:00 p.m., ten (10) calendar days preceding the letting.
- C. Contractors shall, as a minimum, seek DBE subcontractors in the same geographic area in which they seek subcontractors generally for a given solicitation. If the contractor

cannot meet the DBE goals using DBEs from the normal area, the contractor will expand its search to a reasonably greater geographic area.

- D. Contractors are required to make good faith efforts to replace a DBE subcontractor that is unable to perform with another DBE. In order to ensure compliance with this requirement, any substitution of DBE subcontractors after execution of the contract must be approved by the NDR.
- E. Contractors are also encouraged to use the services of banks owned and controlled by minorities and women; however, this will not be counted toward the contract DBE goal.

III. MEETING DBE CONTRACT GOAL CRITERIA: The award of the contract will be made upon satisfaction of the requirements of these special provisions. The apparent low bidder must either meet or exceed the DBE goals for the contract or satisfy the NDR that good faith efforts were made to meet the goals.

- A. REQUIRED DBE PARTICIPATION INFORMATION: All bidders are required to submit to the NDR the "Required DBE Participation Form" with their bid proposal on the form provided in this proposal.

B. THE REQUIRED DBE PARTICIPATION FORM SHALL INCLUDE:

1. The names and addresses of the DBE subcontractors that will actually participate in meeting the contract goal.
2. A complete description (by item number or group, etc.) of the work each named DBE subcontractor will perform.
3. The dollar amount of participation by each named DBE subcontractor.
4. Written and signed documentation from the bidder of commitment to use a DBE subcontractor whose participation it submits to meet a contract goal.
5. The apparent low bidder must submit written and signed confirmation from each DBE that it is participating in the contract as provided in the prime contractor's commitment, BY 5:00 P.M. ON THE FIRST WEDNESDAY FOLLOWING THE LETTING. IF THE WEDNESDAY FALLS ON A STATE HOLIDAY, THE TIME WILL BE EXTENDED UNTIL 10:00 A.M. ON THE NEXT OFFICIAL WORKING DAY OF THE NEBRASKA DEPARTMENT OF ROADS.
6. If the contract goal is not met, evidence of good faith efforts.

- C. THE PROPOSAL WILL NOT BE READ IF THE "REQUIRED DBE PARTICIPATION FORM" IS NOT INCLUDED.

IF NO DBE PARTICIPATION IS INTENDED, THE FORM MUST INDICATE THAT GOOD FAITH EFFORT DOCUMENTATION WILL BE SUBMITTED. A BLANK FORM THAT IS SIGNED WILL BE INTERPRETED AS MEANING NO DBE PARTICIPATION IS INTENDED AND WILL BE READ.

LISTING OPTIONS AND/OR ALTERNATES FOR DBE SUBCONTRACTORS AND/OR ITEMS OR GROUPS OF WORK TO BE PERFORMED IS NOT ALLOWED, AND WILL

CAUSE THIS BID TO BE DECLARED NON-RESPONSIVE.

REQUIRED DBE INFORMATION SHALL NOT BE SUBJECT TO REVISION AFTER BIDS ARE OPENED.

- D. The information submitted on the DBE Participation Form will be verified by the NDR. Errors in addition will be treated in accordance with current NDR specifications and procedures.
- E. If the use of non-certified firms or the use of DBE firms not certified for the type of work indicated results in under achievement of the goal, the bid will be declared non-responsive.
- F. If, at any time prior to execution of the contract, previously undetected errors result in under-achievement of the goal, the low bidder, along with the other bidders on the project, will be given 5 days from receipt of notification by the NDR to submit good faith information as outlined in Section IV of these specifications.
- G. REQUIRED BIDDERS LIST INFORMATION: All bidders must provide to the NDR the identity of all firms who bid or quote subcontracts on DOT-assisted projects, including both DBEs and non-DBEs. This information must be provided with the bid proposal on a form provided to the contractors by the NDR Contracts Office.

IV. GOOD FAITH DETERMINATION: It is the low bidder's responsibility to meet the DBE contract goals or to provide sufficient information to enable the NDR to determine that, prior to bidding, the low bidder actually made good faith efforts to meet such goals.

- A. The NDR will, in the "Apparent Low Bidder" listing (available 24 hours after bid opening) identify all projects which contain a DBE goal. The listing will indicate the apparent low bidder's status in attaining the goal, i.e. "Contractor Meets DBE Goal," or "Contractor Requires Good Faith Determination."
- B. If the low bidder's "Required DBE Participation Form" submitted with the bid indicates the DBE contract goal will be met, and the NDR concurs, the contract will proceed toward award and the low bidder need not submit any further DBE information prior to award.
- C. Good Faith Information Submittal: If the contract DBE goals have not been met, the "Apparent Low Bidders" listing will reflect that the apparent low bidder is required to submit good faith effort information. Complete and accurate documented information to support a good faith efforts determination MUST BE SUBMITTED BY 5:00 P.M. ON THE FIRST WEDNESDAY FOLLOWING THE LETTING. IF THE WEDNESDAY FALLS ON A STATE HOLIDAY, THE TIME WILL BE EXTENDED UNTIL 10:00 A.M. ON THE NEXT OFFICIAL WORKING DAY OF THE NEBRASKA DEPARTMENT OF ROADS.
- D. Any other bidder on the contract who requires a good faith effort submittal must also follow the time frames set forth in "C" above if they wish to be considered for award of the contract. Any bidder who does not meet the submittal deadlines, WILL BE NOT BE ELIGIBLE FOR AWARD OF THE CONTRACT. (The only exception is a case where the apparent low bidder who met the goal initially is declared ineligible for the award for reasons other than DBE goal attainment.) If this results in a new apparent low bidder who did not initially meet the goal, ALL other bidders on the contract indicating good faith

effort will be notified, and given 5 days after receipt, to submit complete information to support their good faith efforts. Bidders are cautioned by the NDR to retain documentation of their good faith efforts until an award is made, or all bids are rejected.

- E. The NDR will review all information submitted to determine whether the apparent low bidder actually made good faith efforts to meet the contract goal. The decision as to whether the good faith efforts are acceptable will be made jointly by a committee comprised of the NDR' Highway Civil Rights Coordinator, the Contracts Letting Manager, and the Legal Counsel.

A NDR determination that the low bidder's information failed to show acceptable good faith efforts shall be cause for declaring the low bid non-responsive. In making a determination, information submitted by other bidders will be considered. If the low bid is declared non-responsive, the above procedure will be applied to the next lowest bid, and other higher bids if necessary, until a bid is found that meets the goal, or establishes that good faith efforts were made to meet it. NDR reserves the right to reject all bids and readvertise the contract if none of the bids result in a satisfactory level of DBE participation at a reasonable price.

- F. Establishing Good Faith Efforts: To demonstrate good faith efforts to meet the DBE contract goals, documentation shall be maintained and submitted to the NDR as set forth above. Such documentation may include any or all of the following: (This list is not intended to be a mandatory checklist, nor is it intended to be exclusive or exhaustive. Other factors or types of efforts may be relevant in appropriate cases.)

1. Soliciting through all reasonable and available means (e.g. attendance at pre-bid meetings, advertising and/or written notices) the interest of all Certified DBE firms that have the capability to perform the work of the contract. The bidder must solicit this interest within sufficient time to allow the DBE firms to respond to the solicitation. The bidder must determine with certainty if the DBE firms are interested, by taking steps to follow up initial solicitations.
2. Selecting portions of the work to be performed by DBE firms in order to increase the likelihood that the DBE goals will be achieved. This includes, where appropriate, breaking out contract work items into economically feasible units to facilitate DBE participation, even when the prime contractor might otherwise prefer to perform work items with its own workforce.
3. Providing interested DBE firms with adequate information about the plans, specifications, and requirements of the contract in a timely manner to assist them in responding to a solicitation.
4. (1) Negotiating in good faith with interested DBE firms. It is the bidder's responsibility to make a portion of the work available to DBE subcontractors and suppliers, and to select those portions of the work or material needs consistent with the available DBE subcontractors and suppliers, so as to facilitate DBE participation. Evidence of such negotiation should include the names, addresses, and telephone numbers of DBE firms that were considered; a description of the information provided regarding the plans and specifications for the work selected for subcontracting; and evidence as to why additional agreements could not be reached for DBE firms to perform the work.

(2) A bidder using good business judgement would consider a number of factors in negotiating with subcontractors, including DBE subcontractors, and would take a firm's price and capabilities as well as contract goals into consideration. However, the fact that there may be some additional costs involved in finding and using DBE firms, is not in itself sufficient reason for a bidder's failure to meet the contract DBE goal, as long as such costs are reasonable. Also, the ability or desire of a prime contractor to perform the work of a contract with its own organization does not relieve the bidder of the responsibility to make good faith efforts. Prime contractors are not, however, required to accept higher quotes from DBE firms if the price difference is excessive or unreasonable.

5. Not rejecting DBE firms as being unqualified without sound reasons based on a thorough investigation of their capabilities. The contractor's standing within its industry, membership in specific groups, organizations, or associations and political or social affiliations (for example union vs. non-union employee status) are not legitimate causes for the rejection, or non-solicitation of bids in the contractor's efforts to meet the project DBE goal.
 6. Making efforts to assist interested DBE firms in obtaining bonding, lines of credit, or insurance as required by the recipient or contractor.
 7. Making efforts to assist interested DBE firms in obtaining necessary equipment, supplies, materials, or related assistance or services.
 8. Effectively using the services of available minority/women community organizations; minority/women contractors' groups; local, state, and Federal minority/women business assistance offices; and other organizations as allowed on a case-by-case basis to provide assistance in the recruitment and placement of DBEs.
- G. If the NDR's preliminary finding is that the bidder did not demonstrate a satisfactory effort to meet the contract goal, the bidder may appeal the decision by submitting a written request for reconsideration within three (3) days of the decision. The bidder may then present information either in a written narrative supporting its good faith effort submittal, or may appear in person. Any new information not included in the original submittal will not be used in the final determination. The appeal will be heard by a Hearing Officer appointed by the NDR' Director. The Hearing Officer will be an individual who is knowledgeable about the DBE Program and its good faith efforts provision, but who had no part in the initial decision.

The Hearing Officer will hear the appeal within five (5) days of receipt of the written request, and will issue a written decision within three (3) days after the appeal. The reconsideration process is administratively final and has no further appeal.

V. COMMERCIALY USEFUL FUNCTION:

- A. A contractor may count toward its DBE goals only expenditures to DBE firms that perform a commercially useful function in the work of a contract. A DBE firm is considered to perform a commercially useful function when it is responsible for the execution of a distinct element of the work of a contract, and carrying out its responsibilities by actually performing, managing, and supervising the work involved. The DBE firm must also be responsible for materials and supplies used on the contract, for negotiating price, determining quality and quantity, ordering the material, installing (where applicable), and paying for the material.

Guidelines:

1. As a general rule, it is expected that workers on a DBE subcontract shall be regular employees of the DBE subcontractor, and shall be listed on the subcontractor's payroll. A regular employee is a person who would normally be working for the DBE firm on any other subcontract with any other prime contractor, and whose immediate past employment has not been with the prime contractor on the present project, or with the renter-lessor of equipment being used on the present project.
2. On DBE subcontracts, the DBE must perform or exercise responsibility for at least 30 percent of the total cost of its contract with its own work force, or the DBE will not be considered to be performing a commercially useful function. (If a DBE subcontracts part of its work to another firm, the value of the subcontracted work may be counted toward DBE goals only if the DBE's subcontractor is itself a DBE. Work that a DBE subcontracts to a non-DBE firm does not count toward DBE goals.)

Operators of leased specialized equipment are included under this provision. In any case, all employees shall be listed on the DBE firm's payroll and paid by that firm.
3. In addition, a DBE subcontractor shall be required to designate a project superintendent/foreman who is a regular employee of the subcontractor, and who shall be active in the day-to-day management of the project.
4. DBE subcontractors who purchase supplies and materials from the prime contractor, which are to be incorporated into the project WILL NOT count toward the established DBE contract goals.
5. TWO PARTY CHECKS: The NDR does not prohibit the practice of a DBE firm and a prime contractor using two party checks, so long as the prime contractor acts solely as a guarantor, and the funds do not come from the prime contractor. Two party checks cannot be used unless formal written requests to do so from the DBE firm and the prime contractor are delivered to the NDR Disadvantaged Business Enterprise Office and the NDR DBE Office gives its written approval to do so. The NDR will closely monitor the use of two party checks to avoid abuse of this practice.

VI. PROHIBITED PRACTICES:

- A. An area of special concern is exclusive arrangements between the prime contractor and DBE subcontractors. The DBE subcontractors must be willing to contract with more than one prime contractor.
- B. Any subcontracting arrangement which artificially inflates DBE participation is not acceptable. Of utmost concern are the interjection of DBE middlemen or passive conduits and arrangements in which a DBE subcontractor is acting essentially as a broker.

VII. ADMINISTRATION OF THE DBE PROGRAM:

- A. The Nebraska Department of Roads intends to achieve its annual overall DBE participation goal with a "narrowly tailored" DBE Program that meets the "strict scrutiny" requirements as defined by case law. The NDR will adhere to all of the rules and regulations of the DOT's DBE Program Regulations as contained in CFR 49 part 26.

It is the intention of the NDR that DBE subcontractors be independent companies, and function in the same capacity as majority contractors. It is not the intention of the NDR to be involved with "in name only" DBE subcontractors who are not providing a commercially useful function to the highway industry. The following will be used in administering the DBE Program.

Situation #1:

Prime Contractor "A" subcontracts to a DBE subcontractor, who performs the work with its own workforce (the employees work on a full-time basis for the DBE firm, or were hired from a union hall, employment service, or other hiring sources by the DBE firm, and are supervised by a full-time employee of the DBE), and uses its own equipment, or equipment rented or leased from an equipment dealer. Prime Contractor "A" is not involved in the DBE firm's operation, other than coordinating when the work is to be performed, and/or other normal industry practices of contracts between a prime contractor and a subcontractor.

THIS IS THE IDEAL SITUATION, IS TOTALLY ACCEPTABLE, AND IS WITHIN THE INTENT OF THE DBE PROGRAM.

Situation #2:

Prime Contractor "A" subcontracts to a DBE firm, that performs the work with its own workforce, (the employees work on a full-time basis for the DBE firm, or were hired from a union hall, employment service, or other sources by the DBE firm for the project, and are supervised by a full-time employee of the DBE). The DBE firm uses equipment owned by a majority contractor, (either Prime Contractor "A", or some other majority contractor), on a long-term rent or lease arrangement at rates consistent with normal industry standards, and not leased on an "as equipment is needed" basis. This situation would be no different than the DBE firm leasing or renting equipment from a commercial equipment supplier. Many majority contractors lease equipment, and the action is standard industry practice. THIS IS TOTALLY ACCEPTABLE, AND IS WITHIN THE INTENT OF THE DBE PROGRAM.

Situation #3:

A DBE firm is a subcontractor to Prime Contractor "A", on a NDR' project. When it is time for the subcontract work to be performed, the work is actually performed using Prime Contractor "A's" equipment, work force, and supervisory personnel. The DBE firm then makes a certified payroll using the names of Prime Contractor "A's" employees. Basically, the subcontract work was performed by Prime Contractor "A". While the NDR cannot tell the DBE subcontractor who to hire, or where to obtain equipment, we find this to be a very close association with the prime contractor, and the DBE's owner is not considered to be in control of the DBE firm, or the project in question. This situation described is not considered to be a commercially useful function, and may be subject to any of the administrative actions as cited in Section VIII, C. below.

Note: If a DBE subcontractor is performing work on a project with his own equipment, workforce and supervisory personnel, and an equipment failure or unusual circumstance occurs, and the prime contractor rents or loans equipment and/or employees on a short-term basis to the DBE, the NDR could find this acceptable as long as this only occurs occasionally and is kept to an absolute minimum.

Situation #4:

A DBE firm is a subcontractor to Prime Contractor "A" on a NDR project. When it is time for the subcontract work to be performed, the work is actually done using the workforce, equipment, and supervisory personnel of a majority contractor, Contractor "B". The DBE firm makes a certified payroll showing Contractor "B's" employees. While the NDR cannot tell the DBE subcontractor who to hire, or where to obtain equipment, this condition is not considered to be within the intent of the DBE Program. In reality, majority Contractor "B" is the one that performed the work. The NDR does not consider this to be a commercially useful function, as Prime Contractor "A" is actually subcontracting to majority Contractor "B", in an unapproved status, rather than the DBE firm. This situation described is not considered to be a commercially useful function, and may be subject to any of the administrative actions as cited in Section VIII, C. below.

Situation #5:

Prime Contractor "A" is buying supplies from a DBE supplier or contractor to fulfill the DBE goal. This is only acceptable if the DBE firm is a true supplier. The mere fact that the DBE firm purchases the material from another supplier, then adds some cost and sells the material to a prime contractor, does not constitute the DBE as being a supplier. A supplier must have an inventory and be generally recognized as a material supplier. This situation described may be subject to any of the administrative actions as cited in Section VIII, C. below.

Situation #6:

A DBE firm is a subcontractor to Prime Contractor "A". When it is time for the subcontract work to be performed, the DBE firm brings in its workforce to do the work, and uses equipment already at the site that belongs to Prime Contractor "A". The DBE subcontractor says it is leasing the equipment from Prime Contractor "A". The NDR will closely review this arrangement. This situation resembles a "specific equipment lease" where the equipment is made available on a convenience basis to the DBE firm. The test is whether or not the DBE firm can use the equipment at the DBE's convenience, and not be tied to the availability of the equipment by Prime Contractor "A". If the equipment lease arrangement indicates the DBE firm has total control of the equipment, but in fact Prime Contractor "A" controls the equipment, the NDR would question the relationship to determine whether or not a commercially useful function had been provided. This situation described may be subject to any of the administrative actions cited in Section VIII, C. below.

The above situations are very broad and general. While it is known that many different situations may arise, these are basic guidelines used to administer the DBE Program.

The NDR is more than willing to discuss particular situations with either DBE firms or prime contractors prior to a letting in the hope of developing DBE firms.

VIII. INVESTIGATORY POWERS, ADMINISTRATIVE PROCEDURES FOR ENFORCEMENT AND PENALTIES

A. INVESTIGATORY POWERS:

1. The NDR specifically reserves the right and power to investigate, monitor and/or review all actions taken, statements made, documents submitted, by any contractor, subcontractor or DBE firm under the terms of these provisions.

B. ADMINISTRATIVE PROCEDURES FOR ENFORCEMENT:

Whenever the NDR believes a contractor, subcontractor or DBE firm may not be operating in compliance with the terms of these provisions, the NDR will conduct an investigation. If the NDR finds any person or entity not in compliance with these provisions, the NDR will notify such person or entity in writing as to the specific instances or matters found to be in non-compliance. At the option of the NDR, the person or entity shall then be allowed a reasonable time to correct any deficiencies noted, and to come into compliance. In the event that the person or entity cannot, thereafter, come into compliance, or fails or refuses to do so, then the NDR may impose one or more of the penalties hereafter provided for. It is specifically provided by the NDR that any person or entity will be found to be out of compliance with these provisions if an investigation reveals any violation or act of such serious or compelling nature that the violation or act indicates a serious lack of business integrity or honesty.

C. PENALTIES:

1. In the event the NDR finds any contractor, subcontractor, or DBE firm, to be out of compliance with these provisions, the NDR may impose one or more of the following sanctions:
 - a. Termination of the contract.
 - b. The DBE firm may be decertified and/or suspended from participating in the NDR' DBE Program.
 - c. The prime contractor may not be able to count the work performed toward his project DBE goal, and if possible to do so, may need to subcontract other work on the project to DBE subcontractors to achieve the goal.
 - d. The contract items involved may be considered for a monetary reduction equal to the amount of work not done by the DBE subcontractor.
 - e. The prime contractor may be suspended and/or debarred.
 - f. If at any time during the life of the contract, it is determined that the contractor is out of compliance with these provisions, the NDR may withhold payment of progress payments.
 - g. If at the completion of the project, the contractor is determined to be out of compliance, the NDR may sustain damages, the exact extent of which would be difficult or impossible to ascertain and, therefore, in order to liquidate such damages, the monetary difference between the amount stated by the contractor and the amount actually paid to the DBEs will be deducted from the contractor's payment as liquidated damages. These damages would be in addition to any liquidated damages assessed in accordance with Subsection 108.08 of the Standard Specifications.
 - h. Referral to the Attorney General for possible prosecution for fraud.
 - i. Other action as appropriate, within the discretion of the NDR.

**DISADVANTAGED BUSINESS ENTERPRISE (DBE) GOAL
(S1-9-0801)**

ALL BIDDERS SHALL SUBMIT WRITTEN ASSURANCE THAT THE MINIMUM GOAL FOR DISADVANTAGED BUSINESS ENTERPRISE (DBE) PARTICIPATION WILL BE MET. THE REQUIRED DBE PARTICIPATION FORM INCLUDED IN THIS PROPOSAL SHALL BE USED. The bidder shall submit the name and address of the DBE(s), a complete description of the participation by the DBE(s), and the dollar value of the participation. If the bidder cannot meet the minimum goal for DBE participation, as specified herein, the bidder shall submit complete documentation of its efforts, following the time limits set forth in IV. A., "Good Faith Information Submittal". These efforts shall include but not be limited to those stated previously in IV. E., "Establishing Good Faith Efforts".

Bidders that fail to meet DBE goals or fail to demonstrate sufficient good faith efforts shall be declared non-responsive and ineligible for award of the contract.

Bidders shall assume the responsibility of determining if they are the apparent low bidders by contacting the Nebraska Department of Roads, Contract Lettings Section in Lincoln, Nebraska. Such information is made public 24 hours after the announced time for opening bids. This information is available from the NDR' Internet web site (<http://www.dor.state.ne.us/>).

The contract shall be awarded to the lowest responsive responsible bidder.

The standard NDR' procedure concerning subcontractors and suppliers shall apply.

The DBE firms identified at the time of bid opening are the firms to whom subcontracts will be issued. The work subcontracted to be done, and the amount to be paid for the work, shall be as identified at the time of bid opening.

If the prime contractor desires to alter this list after execution of the contract, it must demonstrate to the NDR that the listed DBE firm(s) is unable to perform, and provide the necessary written justification for approval. Justification must also include written documentation from the affected DBE firm(s) stating their position on the prime contractor's request. There must be a solid basis for any change.

Any substitution of the named DBE firms must be approved by the Department of Roads Disadvantaged Business Enterprise Office. Substitution of DBE's will only be allowed when the DBE firm(s) is not able to perform because of default or over-extension on other jobs or other similar justification. A prime contractor's ability to negotiate a more advantageous contract with another subcontractor is not considered as a valid basis for change.

PRIOR TO FINAL PAYMENT THE FOLLOWING FORMS MUST BE COMPLETED AND SUBMITTED TO THE NDR DISADVANTAGED BUSINESS ENTERPRISE OFFICE.

- A. DR Form 441, DBE I. This form shall be filled out by the prime contractor, indicating the DBE firms used, actual work performed, and actual amount of money paid to the DBE Firms.
- B. DR Form 442, DBE II. This form shall be filled out by the DBE subcontractor, indicating the name of the DBE firm, actual work performed, and actual amount of money received from the prime contractor.
- C. The above referenced forms are available from the NDR' Disadvantaged Business Enterprise Office, upon request. The forms are also available electronically from the NDR' Internet web site (<http://www.dor.state.ne.us/>).

The Code of Federal Regulations, Title 49, Part 26 and the Nebraska Department of Roads' Disadvantaged Business Enterprise (DBE) Program, are hereby made a part of and incorporated by this reference into this proposal. Copies of these documents are available, upon request, from the Nebraska Department of Roads, Disadvantaged Business Enterprise Office, P.O. Box 94759, Lincoln, Nebraska 68509-4759.

SUBLETTING OR ASSIGNING OF CONTRACT (S1-9-0801)

Prior to beginning work, a copy of all executed subcontracts, written agreements and/or lease agreements used to meet DBE goals shall be submitted to the construction engineer for forwarding to the minority business office. These copies must contain prices.

PROMPT PAYMENT CLAUSE:

The prime contractor shall include a "Prompt Payment Clause" as a part of every subcontract (including second tier subcontracts) for work and material. The "Prompt Payment Clause" will require payment to all subcontractors for all labor and material, for work completed, within twenty (20) calendar days of receipt of progress payments from the NDR for said work. The "Prompt Payment Clause" will also stipulate the return of retainage within thirty (30) calendar days after the subcontractor achieves the specified work as verified by payment from the NDR.

The failure by the prime contractor to carry out the requirements of the "Prompt Payment Clause" and/or timely return of retainage, without just cause, is a material breach of this contract, which may result in the NDR withholding the amount of payment from the prime contractor that should have been paid to the subcontractor, termination of this contract, or other such remedy as the NDR deems appropriate.

NOTE: The prime contractor may withhold payment only for just cause, and must notify the NDR in writing of its intent to withhold payment prior to actually withholding payment. The prime contractor shall not withhold, delay or postpone payment without first receiving written approval from the NDR.

DBE GOAL CREDIT (S1-9-0801)

It is the intent of the NDR to assure eligible DBE firms have a "level playing field" and equal opportunity to participate in federal-aid contracts, and maintain the integrity of the DBE program. DBE participation is counted toward goals as follows:

When a DBE firm participates in a contract, only the value of the work actually performed by the DBE firm counts toward the goal.

1. The entire amount of that portion of a construction contract that is performed by the DBE firm's own forces is counted toward the goal. This includes the cost of supplies and materials obtained by the DBE firm for the work of the contract, including supplies purchased or equipment leased by the DBE, but not supplies or equipment the DBE purchases or leases from the prime contractor or its affiliate.

Example: A DBE firm furnishing and erecting steel or concrete superstructure members, furnishing and driving piling for bridge structures, furnishing and placing prestressed concrete deck panels, and furnishing and placing panels for retained earth walls will be considered a commercially useful function for attaining contract goals for disadvantaged business enterprise (DBE) participation unless the supplies or materials are purchased from the prime contractor or its affiliate.

When a DBE subcontractor is responsible for substantially constructing a complete structure the total value of the subcontract may be credited to the DBE goal.

Paragraph 8.a. (5) of Subsection 109.07 in the 1997 English Edition of the Standard Specifications is void and superseded by the following:

When applicable a DR Form 441, "Identification of DBE Goal Achievement".

B. Manufacturers, Suppliers, and Haulers:

DBE Manufacturers may be given 100% credit towards the DBE goal for products they produce for the contract.

DBE Suppliers may be given 60% credit towards the DBE goal for products they furnish for the contract.

DBE Haulers may be given 100% credit towards a DBE goal for the delivery fees charged.

A DBE firm certified as both a supplier and hauler may be given 60% credit for supplying a given product and 100% credit for hauling that same product.

See the DBE Goal Credit Table for a guide to DBE credit.

DESCRIPTIONS (S1-9-0801)

Manufacturer - To be certified as a manufacturer, a DBE firm must operate or maintain a factory or establishment that produces, on the premises, the materials, supplies, articles or equipment required under the contract and of the general character described by the specifications.

Supplier - A DBE supplier, or regular dealer, is a firm that owns, operates, or maintains a store, warehouse, or other establishment in which the materials, supplies, articles, or equipment of the general character described by the specifications, and required under the contract are bought, kept in stock, and regularly sold or leased to the public in the usual course of business. To be a supplier or regular dealer, the firm must be an established, regular business that engages, as its principal business and under its own name, in the purchase and sale or lease of the products in question.

A DBE firm may be a supplier or regular dealer in such bulk products as petroleum products, steel, cement, gravel, stone, or asphalt without owning a place of business if the DBE firm both owns and operates distribution equipment for the products. Any supplementing of a DBE

supplier's or regular dealer's own distribution equipment shall be by a long-term lease agreement and not on an ad hoc or contract-by-contract basis.

Hauler - The DBE firm must be responsible for the management and supervision of the entire trucking operation for which it is responsible on a particular contract. There cannot be a contrived arrangement for the purpose of meeting DBE goals.

The DBE firm must itself own and operate at least one fully licensed, insured, and operational truck used on the contract.

The DBE firm receives credit for the total value of the transportation services it provides on the contract using trucks it owns, insures, and operates using drivers it employs.

The DBE firm may lease trucks from another DBE firm, including an owner-operator who is certified as a DBE. The DBE firm that leases trucks from another DBE firm receives credit for the total value of the transportation services the lessee DBE firm provides on the contract.

The DBE firm may also lease trucks from a non-DBE firm, including an owner-operator. The DBE firm that leases the trucks from a non-DBE firm is entitled to credit only for the fee or commission it receives as a result of the lease agreement. The DBE firm does not receive credit for the total value of the transportation services provided by the lessee, since these services are not provided by a DBE firm.

For the purposes of the above paragraphs, a lease must indicate that the DBE firm has exclusive use of, and control over the truck. This does not preclude the leased truck from working for others during the term of the lease with the consent of the DBE firm, so long as the lease gives the DBE firm absolute priority for the use of the leased truck. Leased trucks must display the name and identification number of the DBE firm.

If a DBE firm performs in the manner outlined above, it will be performing a commercially useful function.

Pass-throughs and/or brokering will not be tolerated. A pass-through/brokering situation is one in which a DBE firm contracts to haul materials for a project, then hires another hauler to actually perform on the contract.

CERTIFICATION (S1-9-0801)

Certain DBE's may be certified in multiple classifications as manufacturers, suppliers, and haulers. The certification will be limited by the products being manufactured, supplied, or hauled.

For example, a manufacturer of certain steel products or aggregates, may also be a supplier of products they store or deliver, but do not manufacture.

A supplier of bulk products, such as aggregates or fuel, may also be certified as a hauler.

DBE GOAL CREDIT TABLE

| | Type of firm used as source of construction materials: | | | |
|--|--|---|--|--|
| | DBE Manufacturer | DBE Supplier (Regular Dealer) NOT BULK PRODUCTS | DBE Supplier (Regular Dealer) BULK PRODUCTS | Non-DBE Manufacturer or Supplier |
| Delivered by: | Amount of DBE credit allowed, expressed as percentage of cost: | | | |
| Non-DBE Delivery Firm (Hauler) | 100% of Materials 0% of Hauling | 60% of Materials 0% of Hauling | No Credit | No Credit |
| Another DBE Delivery Firm (Hauler) | 100% of Materials 100% of Hauling | 60% of Materials 100% of Hauling | 60% of Materials 100% of Hauling | 100% of Hauling |
| Manufacturer or Supplier is also certified to haul | 100% of All | 60% of Materials 100% of Hauling | 60% of Materials 100% of Hauling | Not Applicable |

CERTIFICATION FOR FEDERAL-AID CONTRACTS (S1-11-0801)

The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

- (1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
- (2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, Title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

The prospective participant also agrees by submitting his or her bid or proposal that he or she shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such subrecipients shall certify and disclose accordingly.

STATUS OF UTILITIES

The following information is current as of July 3, 2002.

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.

Kinder Morgan: Has an existing 2" gas line that crosses the highway at approx. Sta. 9+55 and parallels the south side of the highway.

Kaneb Pipe Line Company: Has an existing 6" gas line that crosses the highway at approx. Sta. 78+29.

Glenwood Telecommunications: Has cable TV within the project area.

Glenwood Telephone Membership Corp: Has a fiber optic and copper cable that parallel and under crosses the highway.

Alltel Communications: Has a fiber optic and copper cable that parallel and under crosses the highway.

Village of Lawrence: Has water and sanitary sewer facilities that parallel and crosses the highway. The Village has placed their proposed plans in with the state plans to enable our contractor to do the work.

South Central Public Power District: Has an existing 69kv transmission line that parallels the south side of the highway. This transmission line is being relocated west of the Village of Lawrence paralleling the county road. A distribution line parallels the highway on the north side.

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 |
|--------------------------|--------------|--|-----------------------|
| 42 | None | Septic tank, 26' X 100' concrete floor of silo | Pay Item |
| 6, 9, 34, 44 – condemned | None | None | None |
| 48 – negotiating | None | None | None |

Signs still remain on Tracts 15 and 42 and at Milepost 79.6 NB that will either be removed by the owners or state maintenance forces prior to construction.

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.

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.

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 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.)

PLANS AND WORKING DRAWINGS (S1-41-0801)

The last sentence in Paragraph 5. of Subsection 105.02 in the Standard Specifications is void and superseded by the following:

The Contractor shall furnish the Engineer as many copies of working drawings as are required in each Division specifying submission of working drawing, or seven copies (8 copies if the submission is a precast structure or element), if the quantity is not specified.

Paragraph 6.c. of Subsection 105.02 is void and superseded by the following:

- c. (1) The project number, structure number, control number and project location as it appears on the plans, shall be shown on each sheet of all shop drawings.

SPECIAL PROSECUTION AND PROGRESS (Migratory Birds)

Cliff swallows may inhabit the area and may appear in mid-March and inhabit the area through the summer. To avoid the problem of cliff swallows nesting on the structures contained in this project, the Contractor can either net the exposed surfaces or remove early nesting material by high-pressure spraying, twice a week, through the nesting season. Once work is completed on an exposed surface, that area no longer needs to be netted or sprayed. The work of netting or spraying the structures will not be measured for payment, but shall be considered subsidiary to other items of work for which direct payment is made.

SPECIAL PROSECUTION AND PROGRESS (Phasing)

2003 WORK

- I. In 2003, the Contractor's work, which shall be performed under closed road-local traffic only conditions, shall be limited to the following:

1. Constructing the portion of the project from Sta. 25+00 to Sta. 73+00. This work shall include grading, culverts, box culverts, bridge, new surfacing, drives and field entrances, and earth shoulders. The temporary road to the cemetery shall be completed and open to traffic prior to closing highway N-4.

The Contractor shall have three options available for handling excess excavation from Sta. 25+00 to Sta. 73+00:

- a. The excess excavation may be placed as embankment from Sta. 11+75 to Sta. 25+00 and from Sta. 73+00 to Sta. 105+50 along with the associated culvert work in these areas in 2003.
 - b. Grading narrower ditches and steeper backslopes and then, in 2004, placing the excess excavation as embankment from Sta. 11+75 to Sta. 25+00 and from Sta. 73+00 to Sta. 105+50.
 - c. A combination of a. and b.
2. Constructing the portion of the project from Sta. 118+00 to Sta. 148+50. This work shall include grading, culverts, box culverts, new surfacing, drives and field entrances, and earth shoulders.

3. The portion of the project between Sta. 2+94 and Sta. 11+75 may be constructed in either 2003 or 2004. This work shall be constructed under traffic maintained conditions.
- II. Those areas of work described in Sections I.1. and I.2. shall be completed and open to two-lane, two-way traffic by November 1, 2003. Highway N-4 shall be open to traffic over the winter months. Failure to complete this work as specified shall result in the assessment of an internal liquidated damage as described elsewhere in this proposal.
- III. Once Sections I.1. and I.2. are completed and open to traffic, the count of working days will be suspended until March 29, 2004. The Contractor may work on other portions of the project, between the completion of Sections I.1. and I.2. and March 29, 2004, without the charge of working days. However, any work performed during this period shall be accomplished under traffic maintained conditions.

2004 WORK

- I. Work shall resume on March 29, 2004, or as directed by the Engineer. It is assumed that traffic will be detoured at this time in order to begin 2004 work.
- II. The Contractor shall schedule his work in 2004 so that traffic is returned to Highway N-4 as quickly as possible. In the overlay areas and the reconstructed areas, the placement of the top lift of asphaltic concrete surfacing, earth shouldering and all remaining work shall be completed under traffic maintained conditions.

SPECIAL PROSECUTION AND PROGRESS (Internal Liquidated Damage)

The length of the detour required for this project (28 miles) and the adverse travel time associated with the detour are considered severe for the traveling public.

Therefore, the Contractor's failure to have two-lane, two-way traffic returned to Highway N-4 by November 1, 2003, as described in the provision titled "SPECIAL PROSECUTION AND PROGRESS (Phasing), 2003 WORK, Sections I.1., I.2., and II." shall result in the assessment of a \$1,420 per calendar day internal liquidated damage assessment. This assessment shall begin on November 2, 2003, and shall continue per calendar day until, and including, the day Highway N-4 is reopened to traffic.

This internal liquidated damage assessment is determined according to the following formula:

$$\begin{aligned}\text{Internal Liquidated Damage} &= \text{ADT} \times \text{Delay (in minutes)} \times \text{Cost Factor} \\ &= 317 \times 28 \text{ minutes} \times \$0.16 \\ &= \$1,420.16 \text{ (Use \$1,420)}\end{aligned}$$

This internal liquidated damage shall be considered in addition to other liquidated damage assessments that are described elsewhere in this proposal or in the Standard Specifications.

SPECIAL PROSECUTION AND PROGRESS (Hauling and Spreading)

The Contractor will be required to begin the overlay portion of the project no later than 7 calendar days after completing the lime stabilization portion of the project.

Should the overlay operation begin later than 7 calendar days after completion of the lime stabilization operation, any pavement structure deterioration that, in the opinion of the Engineer, occurs after this 7 calendar day period, will be repaired by the Contractor at no additional cost.

Exceptions to this requirement will be considered only when the delaying circumstances are, in the opinion of the Engineer, beyond the control of the Contractor.

SPECIAL PROSECUTION AND PROGRESS (Double Silt Fence)

The Contractor shall erect the double silt fence (high porosity) shown on Sheet 2-N1 in the plans, due to the possible presence of the Topeka Shiner in the Moorehouse Creek and Walnut Creek. This work shall be done as the first order of work before the construction of the culverts begins at these locations.

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).

$$D = P - 1.10P(b), \text{ but not less than zero.}$$

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

$$D = P - .90P(b), \text{ but not greater than zero.}$$

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.

GENERAL CLEARING AND GRUBBING (S2-2-0801)

Paragraph 1. of Subsection 202.03 in the Supplemental Specifications is amended to provide that General Clearing and Grubbing shall include all tree removal.

Paragraphs 2.a., b., and c. of Subsection 202.03 in the Supplemental Specifications are void.

Paragraph 3. of Subsection 202.04 in the Supplemental Specifications is void and superseded by the following:

3. All tree removal is subsidiary to the pay item "General Clearing and Grubbing".

CONSTRUCTION AND OBLITERATION OF TEMPORARY ROAD

The 600 mm culvert pipe for temporary road shall 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 roads is included in the pay quantity of Excavation shown in Group 1.

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

The flared end sections to be installed in the Phase 2 or 3 construction shall be stockpiled near each location. These flared ends shall then be installed by the grading contractor when the temporary road is removed. This work will not be paid for directly but shall be considered subsidiary to the item "Excavation (Established Quantity)."

The culvert pipes used for the temporary road when removed shall be stockpiled at the east end of the project near the Junction of Highway N-4/N-14 as directed by the engineer and will be picked up by State Forces.

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

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

CLEAR TRACT

Section 203 in the Standard Specifications is amended to provide that the work of clearing tract left of Sta. 142+50 to 144+50 shall consist of removing a septic tank and laterals.

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.

BITUMINOUS FOUNDATION COURSE

Paragraph 2. of Subsection 307.02 in the Standard Specifications is void and superseded by the following:

Material used in constructing Bituminous Foundation Course 100 mm , shall be obtained from the Cold Milling operation on the project.

All salvaged bituminous material that is to be used in the bituminous foundation course, whether from an existing stockpile or from the contractors' stockpile on the project, shall be reprocessed just prior to the placement on the subgrade so that all material shall pass a 1 ½ inch (37.5 mm) sieve.

SECTION 02620

POTABLE WATER DISTRIBUTION SYSTEM

PART 1 GENERAL

1.1 WORK INCLUDED

- A. Constructing or relocating water system lines.
- B. Pipe and fittings.
- C. Thrust restraints.
- D. Trenching, installation of system and connection to water source; testing, and backfilling.

1.2 RELATED WORK

- A. Refer to Standard Specifications for Highway Construction - Nebraska Department of Roads 1997 Addition.

1.3 REFERENCES

- A. AWWA C104/A21.4 Cement-Mortar Lining for Ductile-iron and Gray-iron Pipe and Fittings for Water.
- B. AWWA C110/A21.10 Gray-iron and Ductile-iron Fittings, 3 inches (75 mm) through 48 inches (1.220 m) for Water and Other Liquids.
- C. AWWA C150/A21.50 Thickness Design of Ductile Iron Pipe.
- D. AWWA C151/A21.50 Ductile Iron Pipe, Centrifugally Cast in Metal Molds or Sand-lined Molds for Water or Other Liquids.
- E. AWWA C600 Installation of Gray and Ductile Cast Iron Water Mains and Appurtenances.
- F. AWWA C800 Thread for Underground Service Line Fittings with Appendix on Collected Standards for Service Line Materials.
- G. AWWA C900 Polyvinyl Chloride (PVC) Pressure Pipe, 4 inches through 12 inches for water.

1.4 SHOP DRAWINGS AND PRODUCT DATA

- A. Submit shop drawings and product data for all proposed materials.
- B. Submit manufacturer's installation instructions.

1.5 REGULATIONS

- A. Comply with all applicable Health Department and Plumbing Code requirements.

PART 2 PRODUCTS

2.1 PIPE MATERIALS

- A. PVC Water Main: PVC pipe shall be PVC 1120 DR 18, Class 150 with O.D. conforming to that of cast iron pipe. Pipe shall conform with AWWA Specification C-900-89 or latest edition, rubber compression ring joints conforming to ASTM F477. Pipe shall be Johns-Manville "Blue Brute" or approved equal.
- B. PVC Water Main: PVCO Pipe shall conform with AWWA C909 150 PVC (MO) pressure pipe and ASTM D1784. Joints shall conform to ASTM D3139. Pipe shall be Ultra-Blue or equal.
- C. DI Water Main Pipe: DI pipe shall conform to the requirements of ANSI A21.51. All pipe shall be Class 51 unless otherwise specified. The cement mortar lining shall be standard weight and conform to the requirements of ANSI A21-4. Unless otherwise specified, all pipe shall have push on joints.
- D. Fittings: Cast Iron or Ductile Iron Fittings conforming to AWWA C104/A21.4 or AWWA C153/A21.53. Provide thrust blocks for fittings.
- E. Gate Valve: Gate valves shall be Mueller or Kennedy cast iron body; resilient seat with cast iron gate and bronze stem with mechanical joint ends; conforming to AWWA C509-87 and C600-87 valve shall be American-80 "CRS", Mueller, Clow, or equal.
- F. Valve Box: Cast Iron, minimum wall thickness 3/16 inch (5 mm), Cast Iron Base and Cover, Cover shall have "Water" Cast thereon.
- G. Hydrants shall be three-way Traffic Model type conforming to AWWA Specification C502. They shall be 5.5' (1.680 m) bury, unless noted. Hose and

pumper nozzles shall conform to existing City hydrant sizes and thread types. Hydrants shall be Clow Medallion. Verify type with City prior to ordering hydrants.

2.2 FITTINGS

- A. Fittings for PVC or Ductile Iron Water Main: Ductile iron mechanical joint fittings conforming to AWWA C110. Provide thrust restraints and poured concrete thrust blocks for all main fittings where change of alignment occurs. Compact fittings will be acceptable on this project.
- B. Provide transition gaskets and adapters as needed for connecting plastic pipe to pipe fittings of different material.

2.3 THRUST BLOCKS

- A. Construct poured in place concrete thrust blocks per applicable portions of NDOR Specifications Cast-in-Place concrete, and in accordance with the plans and these specifications.

2.4 WATER SERVICE PIPE

1. 3/4" (19 mm) Service Pipe: Shall be CTS Polyethylene 200 PSI. Pipe shall conform with AWWA C901.

- 1. Fittings: AWWA C901, brass.
- 2. Joints: Compression with Stainless Stiffener.

B. 1" (25 mm) Service Pipe: Shall be CTS Polyethylene 200 PSI. Pipe shall conform with AWWA C901.

- 1. Fittings: AWWA C901, brass.
- 2. Joints: Compression with Stainless Stiffener.

C. 1 1/4" (32 mm) or Larger Service Pipe: Shall be CTS Poly 200 PSI.

- 1. Fittings, Brass
- 2. Joints, Compression with Stainless Steel Stiffeners.

2.5 CORPORATION STOPS AND SADDLES:

- A. 3/4" (19 mm) Service Saddles to be Mueller BR1 Series Bronze Saddles or Equal with AWWA Tapper thread.

- B. 1 ½" (38 mm) or Larger Service Saddles to be Mueller BR2 Series Bronze Saddles or Equal with AWWA Tapper thread
- C. ¾" (19 mm) to 1 ¼" (32 mm) Corporations: AWWA C800, brass body inlet to be AWWA taper, outlet compression Mueller H-15008 or equal.
- D. 1 ½" (38 mm) or Larger Corporations: to be 1" (25 mm) AWWA C800, brass body inlet to be AWWA taper, outlet compression Muller H-15008 all services unless otherwise noted on plans.

2.6 FITTINGS

- A. AWWA C800, Bronze Body, ASTM B62, Compression connection. Majority of existing services are ¾" (18 mm) copper.

PART 3 EXECUTION

3.1 PREPARATION

- A. Piping layout indicated is diagrammatic only. Route piping to avoid.
- B. Review layout requirements with other affected work. Coordinate locations of fittings to accommodate system.
- C. Protect landscaping and other features remaining as final work.
- D. Coordinate and schedule work with Owner at least 24 hours before commencing work.

3.2 TRENCHING

- A. Trench for water system piping per Standard Specifications for Highway Construction - Nebraska Department of Roads 1997 Addition.
- B. Keep trenches free of debris, material, or obstructions that may damage pipe.
- C. Backfill per Standard Specifications for Highway Construction - Nebraska Department of Roads 1997 Addition.

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3.3 INSTALLATION

- A. Install pipe and fittings in accordance with manufacturer's instructions and AWWA C600 and AWWA C900.

3.4 HANDLING

- A. Pipe, fittings, and accessories shall be handled in a manner that will insure installation in sound, undamaged condition. Equipment, tools, and methods used in handling pipe and fittings in which cement lining has been damaged shall be replaced. Small and readily accessible damaged areas may be repaired.

3.5 INSPECTION

- A. Pipe and fittings shall be carefully examined for cracks and other defects immediately before installation; spigot ends shall be examined with particular care. All defective pipe and fittings shall be removed from the site of the work.

3.6 LAYING WATER MAIN

- A. Alignment. Pipelines or runs intended to be straight shall be laid straight. Deflections from a straight line or grade shall not exceed the values stipulated in Tables 4 and 5 of AWWA C600, unless specially designed bells and spigots are provided.
- B. Either shorter pipe sections or fittings shall be installed where the alignment or grade requires them.

3.7 CUTTING PIPE

- A. Cuttings shall be done in a neat manner, without damage to the pipe. Cuts shall be smooth, straight, and at right angles to the pipe axis. After cutting the end of the pipe, it shall be dressed with a file to remove all roughness and sharp corners.

3.8 CLEANING

- A. The interior of all pipe and fittings shall be thoroughly cleaned of foreign material before being installed and shall be kept clean until the work has been accepted. Before jointing, all joint contact surfaces shall be wiped clean and kept clean until jointing is completed.

- B. Precautions shall be taken to prevent foreign material from entering the pipe during installation. Debris, tools, clothing, or other materials shall not be placed in or allowed to enter the pipe.
- C. Whenever pipe laying is stopped, the open end of the pipe shall be sealed with a watertight plug which will prevent trench water from entering the pipe.

3.9 LAYING PIPE

- A. Pipe shall be protected from lateral displacement by placing the specified pipe embedment material. Under no circumstances shall pipe be laid in water and no pipe shall be laid under unsuitable weather or trench conditions.
- B. Pipe shall be laid to line and grade with the bell ends facing the direction of laying except when reverse laying is specifically authorized by the Engineer.

3.10 FIELD JOINTS

- A. Joints in buried locations shall be push-on type unless otherwise indicated on the drawings.

3.11 PUSH-ON-JOINTS

- A. All instructions and recommendations of the pipe manufacturer, relative to gasket installation and other jointing operations, shall be followed by the Contractor. All joints surfaces shall be lubricated with heavy vegetable soap suitable for use in potable water, shall be stored in closed containers, and shall be kept clean. Each spigot end shall be suitably beveled to facilitate assembly.

3.12 REACTION ANCHORAGE AND BLOCKING

- A. All unplugged bell and spigot or all-bell tees, Y-branches, bends deflecting 22 1/2 degrees or more, and plugs which are installed in buried piping shall be provided with suitable reaction blocking, anchors, joint harness, or other acceptable means for preventing movement of the pipe caused by internal pressure.
- B. Concrete blocking shall extend from the fitting to solid undisturbed earth and shall be installed so that all joints are accessible for repair. The bearing area of concrete reaction blocking shall be shown on the drawings or as directed by the Engineer. If adequate support against undisturbed ground cannot be obtained, metal harness anchorages consisting of steel rods across the joint and securely anchored to pipe and fitting or other adequate anchorage facilities shall be installed to provide the necessary support. Should the lack of a solid vertical

excavation face be due to improper trench excavation, the entire cost of furnishing and installing metal harness anchorages in excess of the contract value of the concrete blocking replaced by such anchorages will be borne by the Contractor.

3.13 LEAKAGE

- A. All joints shall be watertight and free from leaks. Allowable leakage shall be the amount of leakage less than that specified in AWWA C600-87, Section 4.1.6. All visible leaks shall be repaired regardless of the amount of leakage. Each leak which is discovered within one (1) year after final acceptance of the work by the Owner shall be repaired by and at the expense of the Contractor.

3.14 HYDRANTS

- A. Hydrants shall be located as shown on the drawings or as directed by the Engineer.
- B. Drainage shall be provided at the base of the hydrant by placing coarse gravel or crushed stone mixed with coarse sand as shown on the drawings.
- C. All hydrants shall stand plumb and shall have the pumping connection set perpendicular to the street it is facing. Hydrants shall be set to the established grade on the plans, with nozzles at least 1'-6" (457 mm) minimum above the ground, as shown on the drawings or as directed by the Engineer.

3.15 TESTING

- A. Fill line and flush as needed to remove all trapped air.
- B. Hydrostatically test all portions of the new water line for leakage in accordance with AWWA C600, Section 4.
- C. Pressure test all portions of the line at 120 psig measured at the lowest point for 2 hours minimum.
- D. Repair any leaks and retest.
- E. Contractor shall be responsible for performing all required tests.

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3.16 DISINFECTION

- A. Disinfect all pipes, fittings, and open ends of existing pipes with 200 ppm chlorine solution and remain for no less than 24 hours. Alternate methods shall be in accordance with AWWA C-651.
- B. Contractor shall take and submit samples taken at 24 hr. intervals and provide bacteriological test results to the Engineer. Two consecutive zero's are required.
- C. Testing Laboratory: Approved for examination of drinking water in compliance with applicable State of Nebraska, Department of Health requirements.

3.17 SEWER LINE CONFLICT

- A. Water lines crossing sewer mains shall be laid to the grades indicated on the drawings. Special structural support for the water and sewer pipes may be required. At least 18" (457 mm) vertical separation between the sewer and water main shall be maintained with the sewer located below the water main. If the water can not meet this requirement the water main design shall be revised by the Engineer.
- B. If determined by the Engineer that the water main must be located below the sewer, an 18" (457 mm) separation shall be maintained and the sanitary sewer shall be encased in a concrete envelope 10'-0" (3.048 m) either side of the centerline of the water main. The concrete envelope shall provide a minimum of 8" (203 mm) of cover around the sewer. In lieu of the concrete envelope, the sewer line may be reconstructed of ductile iron pipe such that a 20 foot (6.100 m) length of ductile iron sewer is centered over the water main.
- C. Where a 10 foot (3.048 m) horizontal separation between a sewer manhole and the water main cannot be maintained, the water main shall be cut as required so that a 20 foot (6.100 m) length of pipe may be centered at the nearest point to the manhole.
- D. All water mains laid parallel to sewer mains shall maintain no less than 10 feet (3.048 m) of horizontal separation.

3.18 WATER FOR TESTING AND DISINFECTION

- A. The Owner will furnish water for purposes of testing and disinfection.

END OF SECTION

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SECTION 02622
SANITARY SEWER
POLYVINYL CHLORIDE PIPE (PVC)

PART 1 GENERAL

1.1 WORK INCLUDED

- A. Sewer Pipe.
- B. Fittings and jointing materials.

1.2 RELATED WORK

- A. Refer to Standard Specifications for Highway Construction - Nebraska Department of Roads 1997 Addition.

1.3 REFERENCES

- A. ASTM D3034 - Standard Specification for Type PSM PVC Sewer Pipe and Fittings.
- B. ASTM F679 - Standard Specification for PVC Large Diameter Plastic Gravity Sewer Pipe and Fittings.

1.4 SUBMITTALS

- A. Include data on pipe materials, pipe fittings, gasket material, and accessories.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Deliver products to site.
- B. Store and protect products.

PART 2 PRODUCTS

2.1 PIPE

- A. ASTM D3034, SDR26 for pipes 6" (150 mm) or larger, Schedule 40 for 4" (100 mm) service pipe.

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- B. Pipe shall be made of PVC plastic having a minimum cell classification of 12364C or 12454C as defined in ASTM D1784.

2.2 JOINTS

- A. ASTM D3212, stab type with elastomeric gaskets. Gaskets shall be in compliance with ASTM F477 and shall be suitable for sewage service. Solvent weld joints and couplings will not be permitted.

2.3 FITTINGS

- A. Cast iron with mechanical joints, ANSI 21.11, or PVC plastic fittings, cell classification 12364C or 12454C as defined in ASTM D1784.

2.4 PLAIN END COUPLINGS AND ADAPTERS FOR CONNECTION TO OTHER PIPE MATERIALS

- A. Can-Tex "C-T Adapters"; Fernco "PVC Donuts" or Flexible Couplings"; Nashua Pre-Cast Corporation "Flex-O-Joint"; or equal.

PART 3 EXECUTION

3.1 HANDLING

- A. Pipe, fittings, and accessories shall be handled in a manner that will insure installation in sound, undamaged condition. Equipment, tools, and methods used in handling and installing pipe and fittings shall not damage the pipe and fittings.
- B. Hooks inserted in ends of pipe shall have broad, well padded contact surfaces.

3.2 CUTTING PIPE

- A. Cuttings shall be done in a neat manner, without damage to the pipe.
- B. Cuts shall be smooth, straight, and at right angles to the pipe axis. After cutting, the end of the pipe shall be dressed with a file to remove all roughness and sharp corners.

3.3 CLEANING

- A. The interior of all pipe and fittings shall be thoroughly cleaned of foreign matter before being installed and shall be kept clean until the work has been accepted.
- B. Before jointing, all joint contact surfaces shall be wire brushed if necessary, wiped clean, and kept clean until jointing is completed.

- C. Precautions shall be taken to prevent foreign material from entering the pipe during installation. Debris, tools, clothing, or other materials shall not be placed in or allowed to enter the pipe.
- D. Whenever pipe laying is stopped, the open end of the pipe shall be sealed with a watertight plug which will prevent trench water from entering the pipe.

3.4 INSPECTION

- A. Pipe and fittings shall be carefully examined for cracks and other defects immediately before installation; spigot ends shall be examined with particular care.
- B. All defective pipe and fittings shall be removed from site of the work.

3.5 ALIGNMENT

- A. Pipelines or runs intended to be straight shall be laid straight and at uniform grade between changes in grade.
- B. Straight section of piping between manholes shall be lamped by the Engineer with assistance from the Contractor.

3.6 LAYING PIPE

- A. Pipe shall be protected from lateral displacement by placing the specified pipe embedment material.
- B. Under no circumstances shall pipe be laid in water and no pipe shall be laid under unsuitable weather or trench conditions.
- C. Pipe shall be laid with the bell ends facing the direction of laying except when reverse laying is specifically authorized by the Engineer.
- D. The Contractor shall erect substantial batter boards at intervals of not more than 50 feet (15.240 m). Batter boards shall be used to determine and check pipe subgrades. Not less than three (3) batter boards shall be maintained in proper position at all times when trench grading is in progress.
- E. Other methods of maintaining alignment and grade, such as use of laser beam equipment or surveying instruments, will be considered, provided complete information describing the proposed method is submitted to the Engineer for review before pipe laying is started.

- F. All instructions and recommendations of the joint manufacturer shall be followed. Immediately before joints are pushed together, all joint surfaces shall be lubricated with the lubricant furnished by the joint manufacturer.
- G. When material is encountered which will not, in the Engineer's opinion, provide a suitable bed for construction of the sewer; granular foundations and bedding shall be installed at the Engineer's direction.
- H. Embedment for all PVC Sewer Pipe shall be Class-B Modified, with moderate compaction at greater than 80% Proctor or 40% relative. See embedment sheet at end of this Section.
- I. PVC piping cast into a concrete manhole base shall be provided with manufacturer's recommended water stop collar or other suitable means of providing a watertight, structurally sound connection as recommended by the pipe manufacturer and approved by the Engineer.

3.7 DEFLECTION

- A. After backfilling is complete, and prior to acceptance of the Work, each reach of PVC sewer shall be checked for excessive deflection by pulling a mandrel through the pipe, or by other methods acceptable to the Engineer. Pipe with diametral deflection exceeding 5 percent of the inside diameter shall be uncovered, and the bedding and backfill replaced to prevent excessive deflection. Repaired pipe shall be retested.

3.8 CONNECTING WITH EXISTING PIPING

- A. Connections between new and existing piping shall be made with fittings suitable for the conditions encountered.

3.9 WATER MAIN CONFLICT

- A. Sewer lines crossing water mains shall be laid to the grades indicated on the drawings. At crossings, one full length of sewer pipe shall be located so both joints will be as far from the water main as possible. Special structural support for the water and sewer pipes may be required. At least an 18" (457 mm) separation between the sewer and water line shall be maintained. If the sewer can not meet this requirement the water main shall be relocated.
- B. Further, the sanitary sewer shall be encased in a concrete envelope 10'-0" (3.048 m) either side of the centerline of the water main. The concrete envelope shall provide a minimum of 8" (200 mm) of cover around the sewer. In lieu of the concrete envelope, the sewer line may be reconstructed of ductile iron pipe such that a 20 foot (6.100 m) length of ductile iron sewer is centered over the water main.

- C. Where a 10 foot (3.048 m) separation between a sewer manhole and the water main cannot be maintained, the water main shall be cut as required so that a 20 foot (6.100 m) length of pipe may be centered at the nearest point to the manhole.
- D. All sewer main shall be laid with at least 10 feet (3.048 m) horizontal separation from any water main.

3.10 TESTING

- A. The Contractor shall provide all necessary test equipment and temporary restraining and shall conduct a low-pressure air testing for determining the soundness and tightness characteristics of the PVC piping. The test shall be conducted for all piping installed and in the presence of the Engineer or his designated representative. Procedures for air testing and manhole testing shall be submitted to the Engineer for review before testing is started. The testing equipment provided shall be capable of isolating small sections of a sewer containing a break or leak.
- B. Low pressure air tests shall be conducted in accordance with the procedures as described in ASTM F-1417 - latest revision. Leakage shall not exceed 0.003 cfm per square foot of internal pipe wall at an average pressure of 3 psi. The time elapsed for a one psi drop in air pressure shall not be less than:

$$t = 0.472d; \quad \text{where: } t = \text{time in minutes} \\ d = \text{pipe diameter in inches}$$

Leaks shall be located by air testing short sections of pipe. Leaks shall be repaired and the reach of sewer retested.

3.11 SELECT FILL MATERIALS

- A. Select Fill: Inorganic subsoil containing less than 30 percent sand and/or gravel size particles (larger than No. 200 sieve size), free of debris, roots, organic matter, refuse, and rocks greater than 2 inches (50 mm) mean diameter.
- B. Coarse Gravel: Gravel or crushed stone of the following gradation:

| <u>Sieve Size</u> | <u>Percent Passing</u> |
|-------------------|------------------------|
| No. 4 | 95-100 |
| ½" (12 mm) | 20-55 |
| ¾" (19 mm) | 0 |

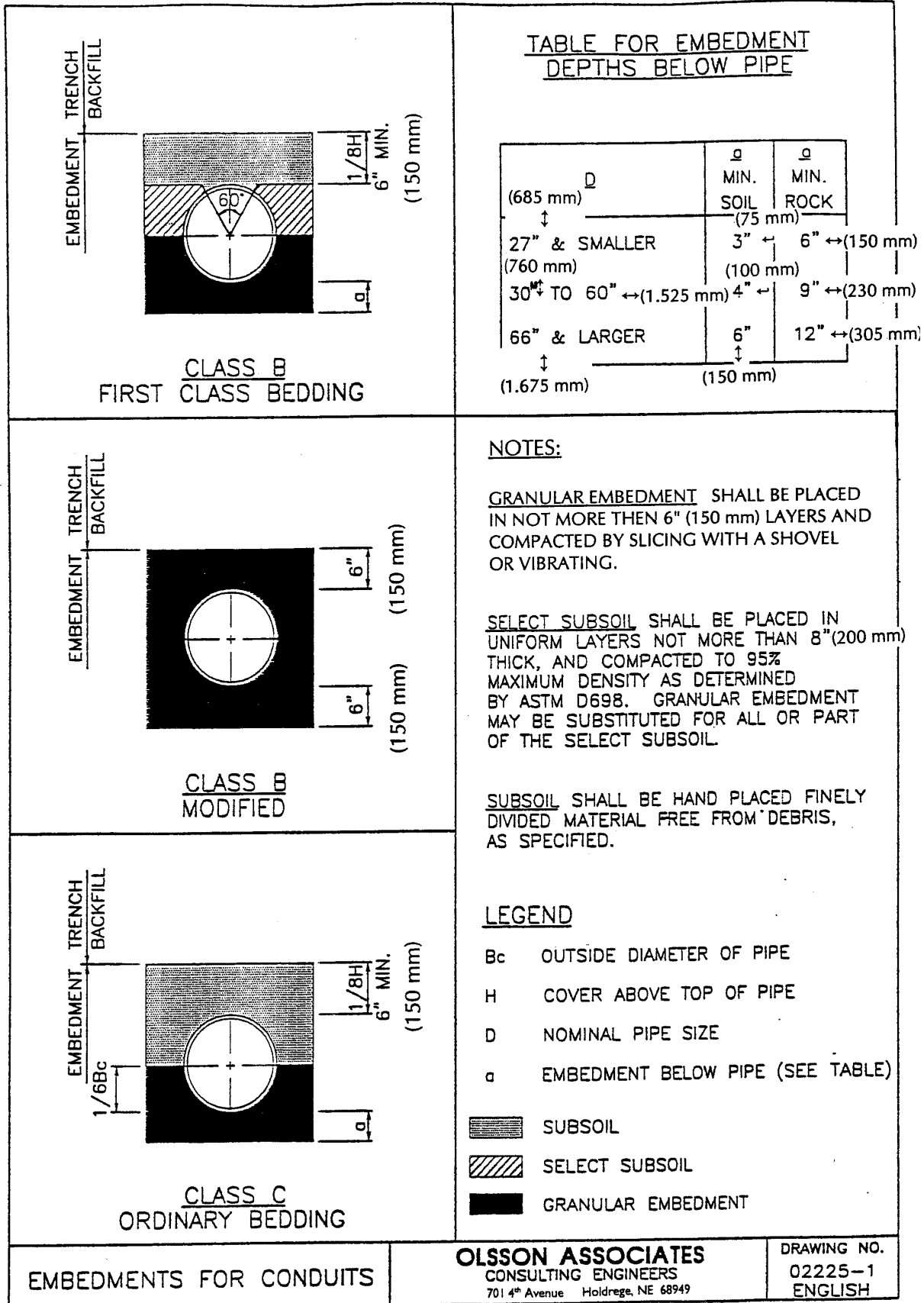
- C. Sand: Sand shall have an effective size of 0.3 to 1.2 mm and a uniformity coefficient of less than 5.0.

- D. Select Subsoil: Free of organic material, gravel larger than 1 inch (25 mm) size, and debris.

3.12 COMMON FILL MATERIALS

- A. Subsoil: Reused; free of gravel larger than 3 inch (75 mm) size, and debris.

END OF SECTION



SECTION 02631
SANITARY SEWER MANHOLES

PART 1 GENERAL

1.1 WORK INCLUDED

- A. Manholes.

1.2 RELATED WORK

- A. Refer to Standard Specifications for Highway Construction - Nebraska Department of Roads 1997 Addition.

1.3 SUBMITTALS

- A. Drawings and data covering pre-cast concrete sections shall be submitted for approval prior to delivery to the job site.

PART 2 PRODUCTS

2.1 MATERIALS

- A. Concrete: Materials, handling, forms, finishing, curing, and other work as specified in concrete section.
- B. Precast Sections: Circular precast concrete; ASTM C478.
 - 1. Diameter: 48 inches (1.220 m).
 - 2. Openings: Circular or horseshoe shaped boxout for each connecting pipe, with surfaces grooved or roughened to improve mortar bond.
- C. Portland Cement: ASTM C150.
- D. Fly Ash: Per the provisions of Section 03001 - Concrete.
- E. Hydrated Lime: ASTM C207, Type S.
- F. Mortar: One part Portland Cement, 1/2 part hydrated lime, 3 parts sand.

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- G. Gaskets:
 - 1. Mastic: Federal Specifications SS-S-210; American Colloid "waterstop-Rx."
 - 2. Rubber: Neoprene or other synthetic, 40 plus or minus 5 hardness when measured by ASTM D2240, Type A durometer.
- H. Coal Tar Paint: Koppers "Bitumastic Super-Service Black," Tnemec "450 Heavy Tenemicol," Porter "Tarmastic 103," or Sonneborn, "Hydrocide 700."
- I. Castings: Manhole covers and frames shall be iron castings which shall meet all the requirements of "Specifications for Gray Iron Castings," ASTM A-48, Class 30. All frames and covers shall be machined and fitted so as to prevent any rocking in the frame when installed. No casting will be accepted that is warped, cracked, that has swells, or that has been plugged or filled. All covers and frames shall be thoroughly coated at the foundry, inside and out, with two (2) coats of coal tar varnish and shall be as listed below.
 - 1. Heavy Duty Manhole Rings and Covers: Deeter Foundry "1010 Manhole Ring and Solid Cover."
- J. Sand: Concrete sand (fine aggregate) sieved through 8 mesh screen.
- K. Shrinkage-Correcting Aggregate: Master Builders "Embeco," Sike "Kemox," or Sonneborn "Ferrolith G-DS."
- L. Nonshrinking Mortar: Premixed or job mixed; job mixed shall be one part shrinkage-correcting aggregate, one part Portland Cement, one part sand.
- M. Manhole steps: Drill-in or cast in type, copolymer polypropylene plastic with 1/2 inch (12 mm) grade 60 steel reinforcement, M.A. Industries "PSI-PF Manhole Step", or approved equal.

2.2 DELIVERY

- A. Precast concrete sections shall not be delivered to the job until representative concrete control cylinders have attained a strength of at least 80 percent of the specified minimum.

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2.3 INSPECTION

- A. Precast concrete sections and concrete blocks shall be inspected when delivered and all cracks or otherwise visibly defective units rejected.

PART 3 EXECUTION

3.1 CONSTRUCTION

- A. Manholes shall be furnished and constructed as shown on the drawings.
- B. All mortar shall be used within 40 minutes after mixing. Mortar which has begun to take on initial set shall be discarded and shall not be mixed with additional cement or new mortar.
- C. In no case shall an invert section through a manhole be greater than that of the outgoing pipe. The shape of the invert shall conform exactly to the lower half of the pipe it connects. Side branches shall be connected with as large a radius of curve as practicable. All inverts shall be troweled to a smooth clean surface.
- D. Circular precast sections shall be provided with a rubber or mastic gasket to seal joints between sections. The space between connecting pipes and the wall of precast sections shall be completely filled with nonshrinking mortar. All mortar between connecting pipes and the wall of precast sections shall be completely filled with nonshrinking mortar. All mortar between manhole section joints shall be troweled to a smooth clean surface.
- E. Care shall be taken to neatly "point up" the holes provided in the ring sections for lifting prior to backfill. The interior wall surfaces of the manhole shall be smooth.
- F. Manholes shall be water tight.
- G. All manholes shall be adjusted to final grade as directed by the Engineer.
- H. All outside surfaces shall be coated with one coat of coal tar paint.

3.2 TESTING

- A. The Contractor shall test each manhole for determining the tightness characteristics of the manhole.

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- B. An exfiltration test shall be used by inserting a plumber's type plug in the inlet and outlet pipe of the manhole and filling the manhole with water. After the manhole concrete has been saturated, the water level in the manhole shall be observed for a period of four (4) hours. If after this period of time the difference in water elevation is not greater than ½ inch (12 mm), the manhole is considered acceptable.

BASIS OF PAYMENT

WATER MAIN AND SANITARY SEWER

This work consists of furnishing and installing the water main service in accordance with the details and specifications as shown in the plans, and as directed by the engineer.

All work shall conform to the Specifications, Codes and Regulations of the Utility Owner.

The following items required in the installation of the water service and sanitary sewer shall be measured and paid for by the following:

| Item | Units |
|--|----------------|
| Wet Tap Cut – In. | Ea |
| ***Corporation Stop | Ea |
| ***mm Water Service | m |
| Water Service Connection | Ea |
| Concrete Class ** for Blocks and Anchorage | m ³ |
| ***Water Main Pipe | m |
| ***Gate Valve and Box | Ea |
| Salvage Fire Hydrant | Ea |
| ***Sleeve | Ea |
| ***Tee | Ea |
| ***Degree Bend | Ea |
| ***Cap | Ea |
| ***Offset | Ea |
| Abandon Water Main | Ea |
| Remove Hydrant | Ea |
| ***Plug | Ea |

These prices shall be full compensation for furnishing and installing all materials, and for all labor, tools, equipment, salvaging and delivering hydrants and any incidentals necessary to complete the work.

END OF SECTION

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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.

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.

SURFACING UNDER GUARDRAIL (S5-4-0801)

Amend Section 503 in the Standard Specifications and Supplemental Specifications to include Surfacing Under Guardrail.

At the contractor's option, the surfacing may be constructed using Class “47B-3000” Concrete, Class “AX-3000” Concrete, Class “PR-3000” Concrete (Class 47B-20 Concrete, Class AX-20 Concrete, Class PR-20 Concrete), or any commercially produced hot mix asphaltic concrete, which has been approved by the Engineer. 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.

If concrete is used in the surfacing, it shall reach a minimum strength of 3000 psi (20 Mpa) before opening to traffic.

Amend Subsection 302.04 in the Standard Specifications to provide that the work of subgrade preparation for surfacing under guardrail will not be measured for payment, but shall be considered subsidiary to the item “Surfacing Under Guardrail”.

Subsection 503.05 in the Standard Specifications is amended to provide that P.G. binder used in the asphaltic concrete will not be measured for payment, but shall be considered subsidiary to the item “Surfacing Under Guardrail”.

Subsection 504.04 in the Standard Specifications 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 "Surfacing Under Guardrail".

The work and materials required for any drainage curb placed on surfacing under guardrail will not be measured and paid for, but will be considered subsidiary to the item "Surfacing Under Guardrail".

The work and materials required for surfacing under guardrail will be paid for at the contract unit price per square yard (square meter) for the item "Surfacing Under Guardrail". Payment will be full compensation for the work prescribed in these Special Provisions and the Standard Specifications.

ASPHALTIC CONCRETE (S5-5-0801)

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

ASPHALTIC CONCRETE (S5-7-0902)

Paragraph 11.a. in Subsection 503.04 of the 2001 Supplemental Specifications is void.

Paragraph 4. in Subsection 503.05 of the 1997 Standard Specifications is void.

The pay item "Asphalt Pavement Smoothness Testing" in Subsection 503.06 of the 1997 Standard Specifications is void.

ASPHALTIC CONCRETE PAVEMENT SMOOTHNESS (S5-7-0902)

Section 502 in the 1997 Standard Specifications for Highway Construction and the 2001 Supplemental Specifications is void and superseded by the following:

502.01 – General

1. This specification establishes a standard for asphaltic concrete pavement smoothness, and defines defective pavement smoothness. The intent of the specification is to produce a finished asphaltic concrete pavement driving surface with a Profile Index no greater than 12 inches per mile. Pavement smoothness will be evaluated as prescribed in this section.
2. When the pay item "Asphalt Pavement Smoothness Testing I/D" is included in the contract, all the requirements of the following sections including the incentive/disincentive provisions shall apply.
3. When the pay item "Asphalt Pavement Smoothness Testing" is included in the contract, the incentive/disincentive provisions of this section do not apply, but the smoothness

testing shall be performed as prescribed. The asphaltic concrete pavement shall be evaluated in accordance with Paragraph 11. b. of Subsection 503.04 in the 2001 Supplemental Specifications.

4. When the contract contains no item for smoothness testing, the asphaltic concrete pavement shall be evaluated in accordance with Paragraph 11. b. of Subsection 503.04 in the 2001 Supplemental Specifications.

502.02 – Equipment

1. The Contractor shall furnish a 25-ft California profilograph approved by the Nebraska Department of Roads.
2. The profilograph shall have multiple, non-uniformly spaced, articulated support wheels arranged such that no two wheels pass the same location on the pavement surface at the same time (ASTM Designation: E 1274, Paragraph 5.1.2)
3. The profilograph shall be equipped with a computerized system that will record, analyze, and print the test data.
4. The profilograph shall produce a printed pavement profile trace (profilogram) with a vertical scale of 1:1, and a horizontal scale of 1:300 (1" paper = 25' pavement). The profilogram shall include the following information:
 - a. Project number
 - b. Test date
 - c. Traffic lane
 - d. Test direction
 - e. Test path
 - f. Pass number (1 for initial test; 2, 3, etc. for repeat runs)
 - g. Operator's name
 - h. Project stations
 - i. Data filter values
 - j. Blanking (Null) band width
 - k. Profile counts for each test section
 - l. Profile Index for each test section
 - m. Bump locations for each test section

502.03 – Certification and Independent Assurance Testing

1. The Department shall calibrate and certify the Contractor's profilograph annually at a test site established by the Department.
 - a. The profilograph shall be inspected for compliance with general equipment requirements, including wheel configuration, effective length, data analysis system, guidance system, and overall condition.
 - b. The profilograph shall be calibrated for distance measurement by moving it over the prescribed path of a premeasured test distance at walking speed, and determining its distance calibration factor.

- c. The profilograph shall be checked for vertical measurement accuracy by placing a 1-inch and 2-inch calibration block, measured to the nearest 0.01 inch, under the sensing wheel while the profilograph is stationary. The vertical measurement indicated by the profilograph shall be within 4.0% tolerance of the actual premeasured block height.
 - d. The profilograph shall be checked for overall performance by moving it over the prescribed path of a pre-measured pavement test section at walking speed.
 - e. Distance measurement indicated by the profilograph shall be within 0.2% tolerance of the actual premeasured test section distance. To ensure accurate distance measurement during test runs, the air pressure of the distance measurement tire must always be maintained at the same level used for calibration.
 - f. The Profile Index reported by the profilograph for the test section shall be within 10.0% tolerance of the Profile Index reported by a Nebraska Department of Roads profilograph for the same test section.
 - g. A dated and signed decal will be placed on the profilograph to certify its acceptability for use on Nebraska Department of Roads pavement construction projects.
- 2. The Department shall certify the Contractor's profilograph operator at least every 5 years. The operator may be certified by presenting certification from another State Highway Agency or by completing certification training conducted by the Nebraska Department of Roads.
 - 3. The Department shall schedule and perform Independent Assurance tests for the Contractor's profilographs and operators at least once per construction season. Independent Assurance testing shall be conducted at a randomly selected time on an active construction project. The criteria for the test will be similar to those used for certification.

502.04 – Profilograph Test Procedures

- 1. The Contractor shall perform all pavement smoothness specification tests except the 10-foot straight edge testing as shown in Paragraph 16. below:
- 2. The Engineer shall furnish a report form to the Contractor identifying all required test sections.
 - a. The pavement surface shall be divided into lane-width segments that end at a bridge, railroad crossing, or other designated termini.
 - b. The lane-width segments shall be further divided into individual 528 feet (0.10 mile) long test sections in the direction of project stationing. The last test section in a segment is usually shorter than 528 feet.
 - c. If a test section is less than 300 feet long, it shall be combined with the preceding 528 feet long test section for analysis.

3. The Contractor's certified profilograph operator shall perform smoothness specification tests in the Engineer's presence. Smoothness testing shall be performed during normal daylight working hours unless otherwise approved by the Engineer. If the Contractor notifies the Engineer of a proposed test and the Engineer elects not to be present, then the Contractor may proceed unaccompanied.
4. The Contractor shall report test results to the Engineer within 2 NDR workdays after initial asphaltic concrete placement or surface corrective work. The Contractor shall report additional test results to the Engineer as soon as possible, but not later than 7 calendar days after completion of the mainline pavement.
5. The asphaltic concrete pavement surface temperature shall be 150 degrees F. or lower when smoothness tests are performed.
6. The profilograph operator shall perform pavement smoothness measurements in the right-hand or left-hand wheel path of all driving lanes, as directed by the Engineer, including climbing and fly-by lanes. In urban areas, where inlet block-outs or manholes are in the right or left-hand wheel path, the pavement smoothness measurements shall be made in a location determined by the Engineer. All wheels of the profilograph shall be on the new pavement for which the Contractor is responsible.
7. The Contractor shall remove all objects and foreign material from the pavement surface before testing.
8. The profilograph operator shall guide the profilograph along the specified wheel path of each traffic lane at walking speed. Propulsion may be by personnel pushing manually, or by a suitable propulsion unit that does not exceed a speed of 4 miles per hour. Excessive speed can produce erratic test results.
9. A lateral location indicator shall be used to keep the profilograph in the required test path during testing. Pavement edges, longitudinal joints, or longitudinal pavement markings may be used as reference lines. An additional person may be required to hold the back end of the profilograph on the required path on horizontal curves.
10. Before testing, the profilograph operator shall lower the profilograph's recording wheel to the pavement surface and move the profilograph forward to the beginning location of a test section to stabilize the measurement system. To ensure consistent distance measurement, the profilograph operator shall also check and adjust the recording wheel tire pressure several times a day.
11. All station references on the profilograms and report forms shall be actual project stations. Stations shall be accurately noted on the profilogram at least every 200 feet.
12. The profilograph operator and the Engineer shall sign the profilograms immediately after completion of the tests. If the Engineer was not present at the time of the tests, then the absence shall be noted on the profilograms.
13. The Engineer shall perform or schedule verification tests on at least 10 percent of the pavement surface, using a profilograph owned by the Department.

14. If the verification test, Independent Assurance tests, or other observations indicate that the Contractor's procedures and/or results are not acceptable or accurate, the Engineer may do any of the following:
 - a. require the Contractor to calibrate the profilograph and re-run the tests.
 - b. disqualify the Contractor's equipment and/or operator.
 - c. perform the tests for part, or all, of the project with a profilograph owned by the Department, and charge the Contractor \$500.00 per lane mile for all testing done by the Department.
15. The following areas of pavement shall be excluded from the Profile Index, unless otherwise specified in the Special Provisions.
 - a. Pavement on horizontal curves having a centerline radius of curvature of less than 1,000 feet, and pavement within the superelevation transition of such curves.
 - b. Pavement within 50 feet of a transverse joint that separates the pavement from an approach slab to a bridge deck or existing pavement not constructed under the contract.
 - c. Pavement for truck weigh stations or rest areas, acceleration/deceleration lanes, and interchange ramps and loops.
 - d. Pavement within 50 feet of railroad crossings and associated transitions.
 - e. Pavement with a posted speed limit of 45 miles per hour or less.
 - f. Pavement where the Engineer requires the contractor to open an area prematurely to cross traffic at intersections and driveways.
 - g. Additional exceptions shown on the summary sheet in the plans.
16. Excluded pavement sections shall be measured for bumps with either a profilograph or a 10-foot straight edge. If the profilograph is used, the deviation shall not exceed 0.40 inch. The deviation of the surface shall not exceed 1/8 inch, if a 10-foot straightedge is used.

502.05 – Evaluation

1. The Contractor shall determine a Profile Index and number of correctable bumps and dips for each test section, record the information on the report form, and provide a copy of the report, along with the corresponding profilograms, to the Engineer.
 - a. The Profile Index shall be calculated by adding the absolute value of the vertical deviations (inches) outside of a 0.1 inch blanking band and dividing the sum by the length of the test section (miles). The resulting Profile Index is in units of inches per mile.

- b. Correctable bumps shall be separately identified on the profilograms. They appear as high points on the profilogram and correspond to high points on the pavement surface. Correctable bumps are vertical deviations on the pavement surface that exceed 0.40 inch in height above a base line span of 25 feet.
- c. Correctable dips shall be separately identified on the profilograms. They appear as low points on the profilogram and correspond to low points on the pavement surface. Correctable dips are vertical deviations on the pavement surface that exceed 0.40 inch in depth below a base line span of 25 feet.

502.06 – Pavement Surface Correction

1. The Contractor shall locate and perform all required pavement surface corrective work, with the approval of and in the presence of, the Engineer.
2. Corrective work may be required for any bump, dip, or a combination of bumps and dips or other roughness that, in the opinion of the Engineer, produces an objectionable ride. Corrective work shall be accomplished at no cost to the Department.
 - a. When the initial Profile Index of a test section is 21 in/mi or less, bump and dip correction is the only corrective work allowed for that section.
 - b. When the Profile Index of a test section exceeds 21 in/mi, corrective work shall be performed.
 - c. The Contractor shall retest all corrected test sections with the profilograph.
3. All bumps, as defined in Subsection 502.05, Paragraph 1.b., and all test sections with a Profile Index exceeding 21 in/mi shall be corrected by diamond grinding.
 - a. Bumps shall be considered corrected when they are at or below the 0.40 inch maximum height.
 - b. Sections with a Profile Index exceeding 21 in/mi shall be considered corrected when the Profile Index for that section has been reduced to a value of 21 in/mi or less.
4. All dips, as defined in Subsection 502.05, Paragraph 1.c., shall be corrected until they are at or below the 0.40 inch maximum depth. The Contractor shall have the following options:
 - a. diamond grind on either or both sides of the dip,
 - b. with the approval of the Engineer, remove and replace a sufficient length of the surface layer to correct the deficiency, under the following conditions:
 - (1) The Contractor shall furnish replacement material that meets the original specifications for the material removed.
 - (2) Removal and replacement shall be for the full lane width.
 - c. a combination of the grinding and removal and replacement methods, or

- d. with the approval of the Engineer, elect to leave an uncorrected or partially corrected dip in place for a monetary deduction.
- 5. Diamond grinding equipment used for surface correction shall be power driven, self-propelled units specifically designed to grind and texture pavements. The cutting head shall be at least 36 inches wide and consist of many diamond blades with spacers. The Engineer may approve equipment with a narrower width for irregular and confined areas, which will not accommodate larger equipment, and for bumps of limited number and area.

502.07 - Traffic Control

The Contractor shall provide all traffic control for smoothness testing and corrective work at no cost to the Department.

502.08 - Method of Measurement

- 1. "Asphalt Pavement Smoothness Testing I/D" and "Asphalt Pavement Smoothness Testing" shall be measured on a lump sum basis.
- 2. a. When the pay item "Asphalt Pavement Smoothness Testing I/D" is included in the contract, the unit price of the accepted quantity of asphaltic concrete pavement and performance graded binder in the surface layer of each profilograph test section shall be adjusted according to the schedule in Table 502.01, subject to the limitations in Paragraphs 3 and 4 of this Subsection. Pavement sections excluded from this smoothness specification shall not qualify for incentive pay.
- b. When the pay item "Asphalt Pavement Smoothness Testing " is included in the contract, the incentive/disincentive provisions of this Subsection do not apply.

Table 502.01

| Payment Adjustment Schedule | |
|---|---------------------------------------|
| Profile Index Inches Per Lane Mile | Percent of Contract Prices |
| 0 to 2 | 107 |
| Greater than 2 to 4 | 105 |
| Greater than 4 to 6 | 103 |
| Greater than 6 to 8 | 102 |
| Greater than 8 to 12 | 100 |
| Greater than 12 to 14 | 98 |
| Greater than 14 to 16 | 96 |
| Greater than 16 to 18 | 94 |
| Greater than 18 to 20 | 92 |
| Greater than 20 to 21 | 90 |
| Greater than 21 | Corrective Work Required |

3. When the initial Profile Index of a test section is 21 in/mi or less, that value shall determine the percent of incentive pay for the section unless bump and dip correction performed in that section increases the percent of pay.
4. When the initial Profile Index of a test section is greater than 21 in/mi, corrective work performed in that section may increase the percent of pay up to the level indicated in Table 502.01.

502.09 – Basis of Payment

1. When the pay item “Asphalt Pavement Smoothness Testing I/D” is included in the contract, the overall pay factor for the accepted quantity of asphaltic concrete and performance graded binder in the surface layer of all profilograph test sections shall be determined according to the formula in Table 502.02.

Table 502.02

| Pay Factor Formula | |
|--|--|
| $PF = \frac{A(1.07) + B(1.05) + C(1.03) + D(1.02) + E(1.00) + F(0.98) + G(0.96) + H(0.94) + I(0.92) + J(0.90)}{A + B + C + D + E + F + G + H + I + J}$ | |
| Where: | |
| A | = Length of pavement with a Profile Index of 0 to 2 inches per mile. |
| B | = Length of pavement with a Profile Index greater than 2 to 4 inches per mile. |
| C | = Length of pavement with a Profile Index greater than 4 to 6 inches per mile. |
| D | = Length of pavement with a Profile Index greater than 6 to 8 inches per mile. |
| E | = Length of pavement with a Profile Index greater than 8 to 12 inches per mile. |
| F | = Length of pavement with a Profile Index greater than 12 to 14 inches per mile. |
| G | = Length of pavement with a Profile Index greater than 14 to 16 inches per mile. |
| H | = Length of pavement with a Profile Index greater than 16 to 18 inches per mile. |
| I | = Length of pavement with a Profile Index greater than 18 to 20 inches per mile. |
| J | = Length of pavement with a Profile Index greater than 20 to 21 inches per mile. |

2. The Contractor shall be assessed \$500 each for all uncorrected or partially corrected dips left in place.
3. The work of Asphalt pavement Smoothness Testing I/D” and “Asphalt Pavement Smoothness Testing” shall be paid at the lump sum contract unit price. This price shall be full compensation for all smoothness testing as set forth in this specification.

COLD MILLING CLASS 3 & COLD MILLING CLASS 4

Under no circumstance shall the Contractor mill a greater depth from the roadway than is shown in the plans.

Salvaged material produced on this project is the property of the State, but shall be furnished for use on this project at no cost to the Contractor.

Salvaged material shall be stockpiled at a site provided by the State. The State provided stockpile site is located at the northeast corner of the Jct. N-14 and N-4 at Reference Post 84.76, as directed by the Engineer.

PREPARATION OR REMOVAL OF EXISTING STRUCTURE

Scrape samples of paint were taken from the existing structure located at Station 48+40.8, and were analyzed for the presence of toxic metals. Analysis of the samples shows that the existing paint contains the metals lead and chromium, and may also contain other toxic metals. Analysis indicates a concentration of 95,000 PPM (parts per million) total lead and 530 PPM total chromium.

Removal of paint containing hazardous metals at the levels indicated by this analysis could create exposure conditions above regulatory limits for health and safety requirements.

Any test results provided by the Department are for bidding purposes only. The Contractor is required to conduct their own monitoring at project start-up, and adjust worker protection and work practices according to the results.

CONCRETE BRIDGE FLOORS (S7-8-1102)

Paragraph 2.b. of Subsection 706.03 in the Standard Specifications is void and superseded by the following:

- b. Bridge floor concrete shall not be placed when the ambient air or concrete temperature is above 90°F (32°C).

Table 706.01 in Subsection 706.03 is void and superseded by the following:

Table 706.01

| Temperature and Wind Velocity Limitations | |
|--|------------------------------|
| Air Temperature in the Shade | Maximum Wind Velocity |
| 90°F (32°C) | 10 mph (16 kph) |
| 77°F (25°C) | 16 mph (25 kph) |
| 68°F (20°C) | 22 mph (35 kph) |
| 59°F (15°C) | 28 mph (45 kph) |
| 50°F (10°C) | 40 mph (65 kph) |

SEEDING

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

| Type "A" | Minimum Purity (%) | Broadcast or Hydraulic Seeder Application Rate in kg of Pure Live Seed/ha | Approved Mech. Drill Application Rate in kg of Pure Live Seed/ha |
|--|--------------------|---|--|
| Western Wheatgrass – Barton, Flintlock | 85 | | 4.5 |
| Intermediate Wheatgrass – Slate | 85 | | 4.5 |
| Eastern Gamagrass – Pete | 90 | | 2.25 |
| Switchgrass – Pathfinder, Blackwell | 90 | | 1.5 |
| Indiangrass – NE-54, Oto | 75 | | 3.5 |
| Big Bluestem – Pawnee | 60 | | 3.5 |
| Little Bluestem – Blaze | 60 | | 3.5 |
| Sideoats Grama – Trailway | 75 | | 3.5 |
| Purple Prairie Clover – Kaneb | 90 | | 1.5 |
| Ill. Bundle Flower – Inoculated | 90 | | 0.5 |
| Partridge Pea – Platte | 90 | | 0.8 |
| Blackeyed Susan | 90 | | 1 |
| Upright Prairie Coneflower | 90 | | 1 |
| Pitcher Sage | 90 | | 0.8 |
| Purple Coneflower – E. Angustifolia | 90 | | 0.7 |
| Shell-Leaf Penstemon – P. Grandiflorus | 90 | | 0.25 |
| Liatris – Punctata or Spicata | 90 | | 0.2 |
| Plains Coreopsis | 90 | | 0.5 |
| Gold Yarrow | 90 | | 0.14 |
| Type "B" | | | |
| Perennial Ryegrass – Linn | 85 | | 9 |
| K-31 Fescue | 85 | | 15 |
| Sheeps Fescue | 85 | | 4.5 |
| Western Wheatgrass-Barton, Flintlock | 85 | | 11 |
| Buffalograss – Sharps 2, Cody | 80 | | 5.5 |
| Blue Grama – NE, KS, CO | 35 | | 2.25 |
| Purple Poppy Mallow – Native | 90 | | 0.25 |
| Oats/Wheat | 90 | | 15 |

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 ₂ O 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 |
|----------------------------------|-------|

SEEDING

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

| Type "C" | 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 |
|---------------------------------|--------------------------|--|---|
| Pasture Mix | | | |
| Intermediate Wheatgrass – Slate | 85 | | 5 |
| Western Wheatgrass – Barton | 85 | | 9 |
| Sideoats Grama – Trailway | 75 | | 4.5 |
| Buffalograss – Sharps 2, Cody | 80 | | 5.5 |
| Blue Grama – NE, KS, CO | 35 | | 2.25 |
| Oats | 90 | | 12 |

Mulch and inorganic fertilizer are required for the pasture mix.

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 ₂ O ₅) ----- | 102 or 107 kg |

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

| | |
|----------------------------------|------|
| Nitrogen (total available) ----- | 0 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) ----- | 0 kg |
|----------------------------------|------|

SEEDING

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

| Type "Temporary" | 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 |
|------------------|--------------------------|--|---|
| Oats | 90 | 100 | 100 |

Temporary seed requires inorganic fertilizer only.

Mulch for temporary seeding shall be soil guard, spray mat, conwed 3000, or approved equal. The application rate is 3900 kg/ha.

Temporary seeding is done on the temporary road embankments and other places as shown on the plans or as directed by the engineer. The seeding and mulching shall be done as soon as the embankment is done. Seeding seasons do not apply to temporary seeding.

Temporary Seeding shall be measured and paid for by the hectare (ha) for the item "Temporary Seeding". This price shall be full compensation for all work prescribed.

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) ----- | 67 or 67 kg |
| Available Phosphoric Acid (P ₂ O ₅) ----- | 0 or 0 kg |

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

| | |
|----------------------------------|------|
| Nitrogen (total available) ----- | 0 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) ----- | 0 kg |
|----------------------------------|------|

EROSION CONTROL

Subsection 807.02 in the 1997 Metric Edition of the Standard Specifications is amended to include the following:

| | Minimum Purity (%) | Application rate in kg of Pure Live Seed/1000 m ² |
|---|-----------------------|--|
| For all Erosion Control use the same seed mix and rate as shown for Type A seeding. | | |

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

Rate of application of inorganic fertilizer shall be:

| | Rate of Application Per 1000 m ² (Min.) |
|--|---|
| Available Nitrogen (N ₂) ----- | 4 or 5 kg |
| Available Phosphoric Acid (P ₂ O ₅) ----- | 12 or 13 kg |

Rate of application of granular sulphur coated urea fertilizer or urea-formaldehyde fertilizer shall be:

| | |
|----------------------------------|---|
| | Rate of Application Per 1000 m ² (Min.) |
| Nitrogen (Total Available) ----- | 10 kg |

COVERCROP SEEDING

Subsection 812.02 in the Standards Specification is void and superseded by the following:

812.02 – Material Requirements

1. The covercrop seed shall comply with the following requirements and shall be applied at the rates shown in Table 812.01.

| Table 812.01 | | | | |
|--|--------------------|-------------------------|--|--|
| Covercrop Seed Requirements | | | | |
| Covercrop Seed and Limitations | Minimum Purity (%) | Minimum Germination (%) | Approved Broadcast or Hydraulic Seeder Application Rate (Pounds per acre/ha) | Approved Mech. Drill Application Rate (pounds per acre/ha) |
| Oats: Jan. 1 – Aug. 31 | 80 | 60 | 96/107 kg | 96/107 kg |
| Pearl Millet or Foxtail Millet: May 2 – July 15 | 80 | 60 | 25/27 kg | 25/27 kg |
| Winter Wheat: Sept. 1 – Dec. 31 | 80 | 60 | 120/134 kg | 120/134 kg |
| Annual Ryegrass, Urban Areas: Jan. 1 – Dec. 31 | 80 | 80 | 50/55 kg | 50/55 kg |

2. The seed for covercrop shall be delivered in bags and tagged with the purity and germination shown on the tag. Bulk seed may be used on this project also, but it too will need a current purity and germination test.
3. Fertilizer is required for covercrop seeding. Rate of application of commercial inorganic fertilizer shall be:

Rate of Application per ha – per acre

| | | |
|-------------------------|-------|---------|
| Available Nitrogen (N2) | 73 kg | 66 lbs. |
|-------------------------|-------|---------|

Subsection 812.03 2.b. in the Standard Specifications is void and superseded by the following:

2.b. The covercrop seeding shall be drilled except where the design of the right-of-way is such that seeding equipment cannot be safely operated. In those instances and only those instances can the covercrop seed be broadcast or hydro seeded. The covercrop seed may also be broadcast and harrowed on this project. If the seed is broadcast and harrowed the covercrop shall be considered "guaranteed to grow". If replanting is necessary due to failure to obtain an erosion controlling stand of covercrop where broadcasted and harrowed, the reseeding shall be done at the contractor's expense.

Subsection 812.03 is amended to include the following:

The fertilizer shall be applied prior to seeding and incorporated into the soil.

The Contractor shall apply the seed at the rate shown in Table 812.01.

EROSION CONTROL, TYPE A & AA (S8-15-0801)

This work shall consist of placing a soil retention blanket, filter fabric, seed, fertilizer, and soil fill at the locations shown in the plans. The installation shall be as shown in the plans and as directed by the engineer.

Paragraph 1. of Subsection 807.02 in the Standard Specifications is void and superseded by the following:

The soil retention blanket for Erosion Control "A & AA" shall be as shown on the approved products list for Erosion Control A & AA.

The filter fabric shall be from the approved products list for Erosion Control Type A, Type AA, or Erosion check or approved equal. Place the erosion control material with the filter fabric attached over the prepared area. Pin the area. Seed and fertilize and then soil fill. The soil fill shall be fine enough to fill the voids and cover all of the seed. If the filter fabric is not attached to the erosion control material, the installation is as follows: prepare the area, lay out the filter fabric, pin the filter fabric, lay out the erosion control material and pin, seed and fertilize and soil fill.

Paragraph 2. of Subsection 807.02 of the Standard Specifications is void and superseded by the following:

The pins for the filter fabric shall be made of No. 11 gauge (3 mm diameter) steel wire. The pins shall be "U" pins with a one-inch (25 mm) throat and at least six inches (150 mm) long.

The pins for the "A & AA" mat shall be a minimum of 8 or 9 gauge (4 mm diameter) wire, u-shaped pins with 8"-10" (200 mm to 250 mm) legs and a 1" or 2" (25 mm or 50 mm) throat. The 11 gauge (3 mm diameter) 6 inch (150 mm) "U" pins may be used in lieu of the 8 or 9 gauge (4 mm diameter) pins if the 11 gauge (3 mm diameter) pins are machine placed and one-third more pins are used.

EROSION CONTROL, TYPE "AAA"
(S8-16-0801)

This work shall consist of placing a soil retention blanket, filter fabric, seed, fertilizer, and soil fill at the locations shown in the plans. The installation shall be as shown in the plans and as directed by the engineer.

Paragraph 1. of Subsection 807.02 in the Standard Specifications is void and superseded by the following:

The soil retention blanket for Erosion Control "AAA" shall be as shown on the approved products list for Erosion Control AAA.

The filter fabric shall be from the approved products list for Erosion Control Type A, Type AA, or Erosion check or approved equal. After the area around the culvert is shaped and graded, the filter fabric shall be placed and pinned. The filter fabric shall be placed under the pipe and the full length of the installation as shown in the plans. Place the Erosion Control "AAA" mat over the pipe to allow for a three foot (1 meter) \pm piece of material on top of the pipe. Cut out the hole for the pipe, leaving an area uncut that will be tucked under the culvert and in front of the culvert. Pin the mat as shown and trench in and compact the downstream end. Seed and fertilize the area and soil fill, raking the soil in well. Reseed and rake the area.

Paragraph 2. of Subsection 807.02 of the Standard Specifications is void and superseded by the following:

The pins for the filter fabric shall be made of No. 11 gauge (3 mm diameter) steel wire. The pins shall be "U" pins with a one-inch (25 mm) throat and at least six inches (150 mm) long.

The pins for the "AAA" mat shall be a minimum of 8 or 9 gauge (4 mm diameter) wire, u shaped pins with 8"-10" (200 mm to 250 mm) legs and a 1" or 2" (25 mm or 50 mm) throat.

EROSION CHECKS
(S8-18-0801)

Subsection 808.03 in the Supplemental Specifications is amended to include the following paragraph:

12.d. At the completion of the project, the temporary silt checks shall remain the property of the contractor.

TEMPORARY SILT CHECKS
(S8-19-1102)

Description

This work shall consist of furnishing and installing temporary silt checks at the locations shown in the plans, and as directed by the Engineer.

Material Requirements

The temporary silt checks shall be on the NDR Approved Products List.

Construction Methods

The temporary silt checks shall be installed in accordance with the manufacturer's recommendations at the locations shown in the plans, and as directed by the Engineer. The Contractor shall furnish the manufacturer's installation details to the Engineer before any temporary silt checks are installed.

The temporary silt checks shall be in place immediately after the rough grading is done in an area.

The temporary silt check shall be left in place until the finish grading begins. When the finish grading is done, they shall be replaced until the permanent erosion control is initiated.

At the completion of the project, any non-biodegradable temporary silt checks shall be removed and remain the property of the Contractor. Any biodegradable temporary silt checks may be left in place.

Method of Measurement

All work and materials as described herein, shall be included in the item "Temporary Silt Check". The temporary silt checks shall be measured by the linear foot (meter) for the initial installation. The removing or relocating of the temporary silt checks will not be measured for payment, but will be considered subsidiary to the initial installation.

Basis of Payment

| Pay Item | Pay Unit |
|----------------------|-------------------------------|
| Temporary Silt Check | Linear Foot (LF) Meter (m) |

FABRIC SILT FENCE (HIGH POROSITY AND LOW POROSITY)

Paragraph 4. of Subsection 809.03 in the 1997 Metric Edition of the Standard Specifications is amended to include the following:

At the completion of the project the silt fence shall be left in good working condition at the following locations Sta. 40+41.5 Lt., Sta. 88+54.5 Lt. and Sta. 91+78.4.

The silt fence shall be removed at the completion of the project and disposed of as directed by the engineer at all other locations on the project. These areas shall be graded to conform to the typical cross-sections or as directed by the engineer.

Subsection 809.05 is amended to include the item "Rental of Backhoe Fully Operated", measured and paid for by the hour (h).

**GUARDRAIL END TREATMENT, TYPE II
(S9-3-0202)**

Section 902 in the Standard Specifications is amended to include "Guardrail End Treatment, Type II".

This work consists of furnishing and installing a guardrail end treatment system according to the details and at the locations shown in the plans.

The Contractor has the option of installing one of the following systems:

- 1.) SRT-350; Manufactured by Trinity Industries, Inc.
2525 N. Stemmons Freeway
Dallas, TX 75207
(800) 644-7976
- 2.) FLEET; Manufactured by Road Systems, Inc.
3616 Old Howard County Airport
Big Springs, TX 79720
(915) 263-2435

The Contractor will be required to furnish two sets of shop plans to the Department of the system to be installed. The guardrail end treatment shall be installed in accordance with the recommendations of the manufacturer.

Payment shall be full compensation for all work required to provide and install the system.

**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. (mm²/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 $\pm 3^\circ$ 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 Reduction¹ Pay Factor of 0.75 | Determined by Engineer² Pay Factor of 0.50 or Removal |
| <u>Tests on Original Binder</u> Dynamic Shear, $G^*/\sin \delta$, kPa | 0.86-0.92 | < 0.86 |
| <u>Tests on Rolling Thin Film</u> <u>Oven Residue</u> Dynamic Shear, $G^*/\sin \delta$, kPa | 1.76-1.97 | < 1.76 |
| <u>Tests Pressure Aging Vessel</u> <u>Residue</u> Dynamic Shear, $G^*\sin \delta$, kPa | 5601-6200 | > 6200 |
| <u>Creep Stiffness</u> 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.

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

²The 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 |
| <u>Tests on Original Binder</u> Dynamic Shear, $G^*/\sin \delta$, kPa Min. 1.00 kPa | < 1.00 - 0.98 | 0.98 |
| | < 0.98 - 0.96 | 0.95 |
| | < 0.96 - 0.94 | 0.92 |
| | < 0.94 | 0.85 |
| <u>Tests on Rolling Thin Film</u> <u>Oven Residue</u> Dynamic Shear, $G^*/\sin \delta$, kPa Min. 2.20 kPa | < 2.20 - 2.156 | 0.98 |
| | < 2.156 - 2.09 | 0.95 |
| | < 2.09 - 2.024 | 0.92 |
| | < 2.024 | 0.85 |
| <u>Tests Pressure Aging Vessel</u> <u>Residue</u> Dynamic Shear, $G^*\sin \delta$, kPa Max. 5000 kPa | < 5000 - 5100 | 0.98 |
| | < 5100 - 5250 | 0.95 |
| | < 5250 - 5400 | 0.92 |
| | < 5400 | 0.85 |
| m-Value Min. 0.300 | < 0.300 - 0.298 | 0.98 |
| | < 0.298 - 0.293 | 0.95 |
| | < 0.293 - 0.290 | 0.92 |
| | < 0.290 | 0.85 |
| <u>Creep Stiffness</u> S, MPa Max. 300 MPa | < 300 - 306 | 0.98 |
| | < 306 - 315 | 0.95 |
| | < 315 - 324 | 0.92 |
| | < 324 | 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 SP2 shall use the 12.5 gradation band.

Paragraph 2.b. of Subsection 503.06 of the Supplemental Specifications is amended to include Asphaltic Concrete Type SP6.

Section 1028 is amended to include Asphaltic Concrete Type SP6.

Paragraph 2. a. of Subsection 1028.01 is void and superseded by the following:

Before production of asphaltic concrete, the Contractor shall submit, in writing, a tentative job mix formula on the NDOR Mix Design Submittal Form for approval to the NDR Flexible Pavement Engineer at the Lincoln, Nebraska Central Laboratory.

Paragraph 2. b. of Subsection 1028.01 is void and superseded by the following:

The job mix formula shall identify the virgin mineral aggregates, RAP, if used, and mineral filler, if needed, with the value of the percent passing each specified sieve for the individual and blended materials.

Paragraph 2. c. (1) of Subsection 1028.01 is void and superseded by the following:

The Contractor shall submit six – 95 mm and two – 75 mm gyratory pucks compacted to $7\% \pm 1\%$ air voids for testing and 3 proportioned 22 lb. (10,000-gram) samples of the blended mineral aggregates to be used in the mixture to the NDR Materials and Research Central Laboratory at least 15 NDR working days before production of asphaltic concrete. These samples will be used to validate the Contractor's Superpave mix design test results and mix properties.

Paragraph 2. c. (3) of Subsection 1028.01 is amended to include the following:

- (ix) Dust to Binder Ratio

Paragraph 2. c. (3) (i) of Subsection 1028.01 is void and superseded by the following:

The bulk specific gravity of the blended aggregate. Whenever RAP is used it shall be processed through an ignition oven and then combined proportionally with the virgin aggregate. The bulk specific gravity shall be determined for the blend from an unwashed sample of the - #4 and a washed sample of + #4 material in accordance with AASHTO T 84 and AASHTO T 85 respectively.

Table 1028.01 is amended to include the following:

Table 1028.01

| Asphaltic Concrete Type | Percent, Maximum RAP |
|------------------------------------|-----------------------------|
| SP6 | 15 |

Paragraph 4. f, (2), (i) of Subsection 1028.01 is void and superseded by the following:

The quality control technicians shall report directly to the Program Administrator and shall perform all sampling and quality control tests as required by the contract.

Paragraph 4. h. (3) of Subsection 1028.01 is void and superseded by the following:

All QC test results shall be documented on NDR Forms by the Contractor with a copy provided to the Engineer within 1 week after the tests are complete. Daily review by the Engineer will be allowed if requested.

Paragraph 4. i. (3) (ii) of Subsection 1028.01 is amended to include the following:

- (VII) Dust to Binder Ratio

Paragraph 4. i. (3) (iii) of Subsection 1028.01 is amended to include the following:

- (IV) Tearing
- (V) Irregular surface due to mix tenderness

Paragraph 2.e. of Subsection 1028.02 is void and superseded by the following:

e. Crushed rock (Limestone) and Dolomite shall conform to the requirements of Subsection 1033.02 of the Standard Specifications, Paragraph 4.a. (4), (5) and (6). Sampling size and frequency shall adhere to the current NDR Materials Sampling Guide. (Some aggregate can be adversely affected by ignition ovens resulting in erroneous reading for asphalt content and gradation unless corrected for.)

Paragraph 2.h. of Subsection 1028.02 of the Supplemental Specifications is void and superseded by the following:

The coarse aggregate angularity value of the blended aggregate material shall meet or exceed the minimum values for the appropriate asphaltic concrete type as shown in Table 1028.02.

Table 1028.02 is void and superseded by the following:

Table 1028.02
Coarse Aggregate Angularity
(ASTM D 5821)

| Asphaltic Concrete Type | Course Aggregate Angularity |
|--|------------------------------------|
| SPS | 35 |
| SP0 | 55 |
| SP1 | 55 |
| SP2 | 65 |
| SP3 | 75 |
| SP4 | 85/80* |
| SP5 | 95/90* |
| SP6 | 95/90* |

* Denotes two faced crushed requirements

Paragraph 2.h.(1) of Subsection 1028.02 is void.

Paragraph 2.i. of Subsection 1028.02 is void and superseded by the following:

The fine aggregate angularity value of the blended aggregate material shall meet or exceed the minimum values for the appropriate asphaltic concrete type as shown in Table 1028.03.

Note: The specific gravity for calculation of the Fine Aggregate Angularity (FAA) shall be based on material passing the No. 8 (2.36 mm) sieve and retained on the No. 100 (150 µm) sieve.

Table 1028.03 is void and superseded by the following:

**Table 1028.03
Fine Aggregate Angularity
(AASHTO T304 Method A)**

| Asphaltic Concrete Type | Fine Aggregate Angularity |
|--|----------------------------------|
| SPS | -- |
| SP0 | -- |
| SP1 | 40.0 |
| SP2 | 43.0 |
| SP3 | 43.0 |
| SP4 | 45.0 |
| SP5 | 45.0 |
| SP6 | 45.0 |

Paragraph 2.i.(1) of Subsection 1028.02 is void.

Table 1028.04 is amended to include the following:

**Table 1028.04
Flat And Elongated Particles
(ASTM D 4791)**

| Asphaltic Concrete Type | Percent, Maximum |
|--|-------------------------|
| SP6 | 10 |

Table 1028.05 is amended to include the following:

**Table 1028.05
Clay Content
(AASHTO T 176)**

| Asphaltic Concrete Type | Sand Equivalent, Minimum |
|------------------------------------|-------------------------------------|
| SP6 | 50 |

Paragraph 2.l (1). of Subsection 1028.02 is void and superseded by the following:

It is recommended that the selected blended aggregate gradation does not pass through the restricted zones as specified in the following control points for nominal size. The plot of the blended aggregate gradation of Superpave mix designs with FAA values of less than 43.0 will not enter the limits of the restricted zone. The plot of the blended aggregate gradation of Superpave mix designs with FAA values of 43.0 to less than 45.0 passing through the restricted zone must intersect both the upper and lower limits of the restricted zone between 1) any two consecutive sieves used to define the restricted zone limits, or 2) two vertical lines plotted between the #8 and #50 sieve a distance apart no greater than 1/3 the horizontal distance between the #8 (2.36-mm) and #50 (300-µm) sieves. Superpave mix designs with FAA values of 45.0 or greater will not be restricted from passing through the restricted zone.

The note following table 1028.08 is void and superseded by the following:

- * Dust to binder ratio is the ratio of the percentage by weight of aggregate finer than the No. 200 (75 μ m) sieve to the asphalt content expressed as a percent by weight of total mix. The dust to binder ratio shall be between 0.60 and 1.20. This shall be verified during mix design approval.

Table 1028.09 is amended to include the following:

- * see note following Table 1028.08

Paragraph 3. b. (3). of Subsection 1028.02 is void and superseded by the following:

Rice equipment specified in AASHTO T 209, procedure 9.5.1, Weighing in Water. The thermometer being used to measure water temperature will be as specified in T 209.

Paragraph 3. b. (11). of Subsection 1028.02 is void and superseded by the following:

Personal Computer capable of running NDR software and Color Printer.

Paragraph 1. a. of Subsection 1028.03 is void and superseded by the following:

The job mix formula shall be determined from a mix design for each mixture. A volumetric mixture design in accordance with AASHTO PP 28 as modified within this special provision, will be required. However, the mixture for the Superpave specimens and maximum specific gravity mixture shall be short-term aged for two hours.

Paragraph 1. c. of Subsection 1028.03 is void and superseded by the following:

The Contractor shall inform the Engineer when changes in the types or sources of aggregates or PG Binders are made. These changes may require a new job mix formula, mix design and moisture susceptibility test. The new proposed job mix formula shall be in accordance with the requirements as stated above and submitted 5 working days prior to use for verification.

Paragraph 1. d. of Subsection 1028.03 is void and superseded by the following:

Each Superpave mixture shall be tested for moisture susceptibility in accordance with AASHTO T 283. The loose mixture shall be short-term aged for two hours in accordance with AASHTO PP 2. The 6-inch (152-mm) specimens shall be compacted in accordance with AASHTO T 312 to seven percent air voids at 95-mm in height and evaluated to determine if the minimum Tensile Strength Ratio (TSR) of 80 percent has been met. If the mixture has not met the minimum TSR value, an anti-stripping additive shall be added at a dosage rate, such that the mix will meet the minimum TSR of 80 percent. All data shall be submitted with the mix design verification request. For mixtures containing an anti-stripping additive; during production of Lot #1, the Contractor shall provide to the NDR Central laboratory properly prepared gyratory samples for AASHTO T 283 testing. A TSR test result of less than 80 percent will require mixture modification(s) and a sample from subsequent lots will be tested until a TSR value of at least 80 percent is achieved. Moisture susceptibility testing is not required for Asphaltic Concrete Type SPS.

Paragraph 1. d. (1) of Subsection 1028.03 is void and superseded by the following:

When tests indicate the need for an anti-striping additive the Contractor shall be compensated for the cost of the anti-strip additive needed at the invoice price of the additive. If the Contractor elects to use a liquid anti-strip additive it shall be added to the PG Binder by the PG Binder Supplier.

Table 1028.11 is amended to include the following:

Table 1028.11
Gyratory Compaction Effort
(Average Design High Air Temperature = < 39 degrees C)

| Asphaltic Concrete Type | Nini | Ndes | Nmax |
|--------------------------------|-------------|-------------|-------------|
| SP6 | 9 | 126 | 204 |

Table 1028.12 is void and superseded by the following:

Table 1028.12

| Mix Criteria | SPS,SP0,SP1 | SP2 | SP3,SP4,SP5,SP6 |
|----------------------------|--------------------|------------|------------------------|
| Voids In Mineral Aggregate | See Table 13 | | |
| Voids Filled with Asphalt | See Table 14 | | |
| %Gmm at Nini | 91.5* | 90.5 | 89.0 |
| %Gmm at Nmax | 98.0* | 98.0 | 98.0 |

* No specification requirement for SPS, only %Gmm at Ndes = 95 to 98.5

Table 1028.14 is amended to include the following:

Table 1028.14
Voids Filled With Asphalt
Criteria at Ndes

| Asphaltic Concrete Type | Design VFA, Percent |
|--------------------------------|----------------------------|
| SP6 | 65 – 75 |

Paragraph 3. c. of Subsection 1028.03 is void and superseded by the following:

c. The adjustment values in Table 1028.15 will be the tolerances allowed for adjustments from the NDR verified mix design “Combined Gradation” target values which resulted from production or mix design adjustments, but cannot deviate from Superpave gradation criteria, or violate restricted zone criteria specified in paragraph 2. I. (1) of Subsection 1028.02. Mix adjustments for individual aggregates, including RAP, greater than 25% of the original verified mix design proportion may require the Contractor to submit a new mix design, as determined by the Engineer

Paragraph 4.c.(4) of Subsection 1028.03 is void and superseded by the following:

At the project start-up and when a substantial aggregate proportion or other major mix change has been made, at least 1 sample shall be taken between the first 110 tons (100 Mg) and 300 tons (270 Mg) of production. This sample, when other than at start-up, will be in lieu of the next scheduled random sample location.

Paragraph 4.c. (5) of Subsection 1028.03 is amended to include the following:

When both ignition oven and cold feed cold feed samples are being tested the taking of the samples shall be timed such that each sample represents, as close as possible, the same aggregate being fed into the plant.

Paragraph 4. c. (6) of Subsection 1028.03 is void and superseded by the following:

For projects using RAP material the FAA and CAA shall be established as follows:

A RAP sample will be processed though an ignition oven and then combined with the proportioned amount of virgin aggregate defined by the mix design and then proceeding with FAA and CAA testing.

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

Bulk Specific Gravity (Gmb) shall be determined for each specimen in accordance with AASHTO T 166- Bulk Specific Gravity of Compacted Bituminous Mixtures Using Saturated Surface Dry Specimens.

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

At the Contractor's request, upon evidence that the 3 Bulk Specific Gravity specimens are exhibiting consistency in their results, The Materials and Research Central Laboratory or Branch Manager may reduce the number of specimens to 2.

Paragraph 4. f. (3) (i) of Subsection 1028.03 is void and superseded by the following:

The Blended Aggregate Bulk Specific Gravity (Gsb) shall be determined from a combined aggregate blend, including any RAP following ignition burn-off, on the + #4 and - #4 material.

Paragraph 4. f. (5) of Subsection 1028.03 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 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 4. h. (3) of Subsection 1028.03 is amended to include the following:

(x) Dust to Binder ratio to the nearest 0.01

The table of paragraph 4. i. (3) (i) of Subsection 1028.03 is void and superseded by the following:

| Test | Tolerance |
|----------------------------------|-----------|
| Asphalt Content by Ignition Oven | 0.5% |
| Gyratory Density | 0.020 |
| Maximum Specific Gravity | 0.015 |
| Bulk Dry Specific Gravity (Gsb) | 0.020 |
| FAA | 0.5% |
| CAA | 10.0% |
| Field Core Density | 0.020 |

Paragraph 5.b. of Subsection 1028.03 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 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.

Paragraph 7.b. of Subsection 1028.03 is amended to include SP6.

Paragraph 9. a. of Subsection 1028.03 is void and superseded by the following:

Density tests will be performed by the Contractor under direct observation of NDR personnel. The Contractor will establish the method of testing in the preconstruction conference and shall be tested in accordance with the AASHTO T 166 or NDR T 587. The Contractor will insure that the proper adjustment bias and/or correction factors are used and accessible to NDR personnel along with all other inputs when NDR T 587 is selected. All correlation factors and test results shall be generated and reported on the NDOR Density spreadsheet. All disputed values determined using NDR T 587 shall be resolved using AASHTO T 166.

The “**Note**” in paragraph 9.b. of Subsection 1028.03 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.

Paragraph 9. h. 3 (i) of Subsection 1028.03 is void and superseded by the following:

If requested by the Contractor, check tests for all density tests in the original set, taken no later than the working day following placement will be allowed in lots with a density pay factor of less than 1.00. Locations for checks tests will be determined by a new random sampling schedule provided by the Engineer. The average density obtained by the check tests shall be used to establish the density pay factor for the lot.

Subsection 1028.03 is amended to include Paragraph 10 as follows:

10. PG Binder Sampling

- a. At least one sample (2-1 quart cans) (2-1 liter cans) of PG Binder will be sampled by the Contractor’s QC Technician for every Lot (3750 tons) (3400 Mg) of asphalt concrete mixture produced.
- b. Samples will be taken in accordance with NDR Standard Method T 40.
- c. The QC Technician will include on the Sample Identification form all information required by the contract.

HYDRATED LIME SLURRY STABILIZATION (S10-9-0402)

Description

This work shall consist of constructing a Hydrated Lime Slurry base course. Produce the stabilized base course by milling the bituminous pavement, mixing the reclaimed bituminous pavement material with hydrated lime slurry and emulsified asphalt. Spread and compact the mixture in accordance with these specifications, as shown on the plans or directed by the Engineer.

Materials

The hydrated lime slurry shall be manufactured at the jobsite by slaking pebble quicklime. Pebble quicklime shall conform to the requirements listed in these Special Provisions. Each load of quicklime shall be accompanied by a certification stating the purity of that load.

The Emulsified Asphalt to be used shall be CSS-1H or CSS-1.

Water used for the hydrated lime slurry shall conform to the requirements of Section 1005 of the Standard Specifications.

PEBBLE QUICKLIME

Description

This Specification covers pebble quicklime that is suitable for treatment of soil and soil-aggregate mixtures for purposes of stabilization. Pebble quicklime is a calcined material, the major part of which is calcium oxide or calcium oxide in natural association with a lesser amount of magnesium oxide capable of slaking with water. This specification applies to limes made from calcium type limestone.

Requirements

Provide materials that comply with the requirements of AASHTO M 216 (ASTM C 977).

Basis of Acceptance

Receipt and approval of certification stating purity and type.

The milled bituminous material shall meet the following gradation requirements:

| <u>Sieve Size</u> | <u>Percent Passing</u> |
|---------------------|------------------------|
| 1.25 inch (31.5 mm) | 100 |

Mix Design

The Contractor shall have a mix design performed by a testing laboratory familiar with this type of recycling and shall be verified by the NDR.

The Contractor shall ensure that a technical representative from the bituminous material supplier is on the job site at the beginning of the project to ensure proper asphalt emulsion performance. The Contractor shall also ensure that the technical representative is available to check on the project and make adjustments to the asphalt emulsion formulation as needed.

Pebble quicklime shall be added by mass to the required quantity of water to provide uniform hydrated lime slurry having dry solids content of not less than 30 percent.

A minimum of 1.5 percent hydrated lime, based on the mass of dry RAP, shall be added to the RAP.

Approximately 1.5 percent asphalt emulsion, based on the mass of dry RAP, shall be added to the mixture.

Equipment

Cold Recycling shall consist of a unit or a combination of units, which will satisfactorily perform the following requirements:

A. Configuration

1. Slake pebble quicklime and transport the hydrated lime slurry to the milling operation.
2. Mill the bituminous pavement, add the hydrated lime slurry to the RAP, and pick up the RAP.
3. Process the RAP to meet the specified gradation.
4. Add the emulsified asphalt to the RAP and mix the RAP uniformly with the hydrated lime slurry and emulsified asphalt.
5. Deposit the mixture in a paver.

B. Performance

1. The slaking equipment shall be specifically manufactured for this purpose. Tank trucks or trailers used to transport hydrated lime slurry shall have mechanical agitators.
- 2.a. The milling unit shall be capable of milling the asphalt pavement to a depth shown in the plans and 12 feet (3.66 meters) wide in one pass, unless otherwise specified. It shall have automatic controls capable of maintaining uniform grade and cross-slope.
- 2.b. The milling chamber shall have a spray bar to incorporate hydrated lime slurry into the RAP. The metering device for the spray bar shall be calibrated to, and controlled by, the continuous weighing system for the RAP.
3. The RAP processing unit shall be a crusher with a scalper screen, or other approved devices capable of reducing the RAP to the specified gradation.
4. The mixing unit shall have a continuous weighing system for the RAP, coupled with meters to maintain the proper proportion of RAP material, hydrated lime slurry and emulsified asphalt. The mixing unit shall be capable of producing a homogenous mixture of processed RAP material, hydrated lime slurry and emulsified asphalt and depositing the recycled mixture into a paver, without segregation.
5. The liquid metering systems shall deliver the additive to within 0.2 percentage points of the desired application rate, and shall shut off automatically if the delivery of RAP material is stopped.
6. Positive means shall be provided for calibration of the weighing and metering devices.

Construction Requirements:

Cold mill the existing bituminous surfacing in such a manner that does not disturb the underlying material in the existing roadway.

Spreading and finishing

The RAP, lime and emulsion mixture shall be delivered to the paver immediately after mixing the lime with the RAP. The recycled material shall be spread and finished true to crown and grade, in one or more lifts with a bituminous paver meeting the requirements of Section 503 or other equipment approved by the Engineer.

Compaction and Density Requirements

NDR personnel shall monitor the stabilized base density with a nuclear gauge. As a minimum, one nuclear density determination will be taken every 0.5 miles (0.8 kilometers).

Compaction and density requirements for this project shall be a minimum of 97 percent of the target density obtained on a test strip compacted under the following conditions: The Mix temperature of the test strip shall be 50 degrees F (10° C) or higher. At least two test strips shall be completed to determine the target density and optimum sequence of rollers. These test strips will remain in place as part of the completed work. The depth of the lift shall be representative of the project.

Target density shall be the highest density achieved on the test strip using the rolling procedure approved by the Engineer. The rolling procedure, used on the test strip, shall have a minimum of six roller coverage's. The Engineer will use a nuclear gauge to establish a density growth curve for each procedure. Rolling shall be discontinued when four consecutive coverage's of the rollers fail to increase the density 1 pound per cubic foot (16 kg per cubic meter).

The Contractor shall have, as a minimum, the following self-propelled rollers for use on the project: a double drum vibratory steel roller and a pneumatic tire roller. The vibratory roller shall meet the requirements of Subsection 503 of the Standard Specifications and also have a minimum operating weight of 18,000 pounds (8165 kg) and a drum width of not less than 66 inches (1.68 meters). The vibratory roller may be used in the static mode. The pneumatic tired roller shall weigh at least 30 tons (27 Mg) and have a minimum tire pressure of 90 pounds per square inch (psi) (620 kPa). The air pressure in each of the pneumatic tires will be within 5 (psi) (34 kPa) of each other. The Contractor shall supply a suitable tire pressure gauge. The rollers shall have watering systems to keep drums and tires wetted as required to prevent mixture pickup.

When there is a significant change in mix proportions, weather conditions or other controlling factors the Engineer may require construction of another test strip(s) to check target density.

Stabilization will not be performed when the ambient air temperature is less than 50 degrees F (10 degrees C). Also, the weather must not be foggy or rainy. The above requirement may be waived, but only in writing by the Engineer.

CHECKING PERCENT SOLIDS OF LIME SLURRY

When requested by the Engineer, the Contractor shall determine the solids content of the hydrated lime slurry using Table 1, Table 2 and the Slurry Worksheet. The Contractor shall provide and use the standard weight per 83.205-ml Gardner cup meeting the requirements of ASTM D 244.

After a batch of lime slurry has been produced, use the following procedures to verify that the intended percent solids have been achieved.

Table 2, "Correction Factors to Adjust Density of Temperature", for accurate measurement of solids if slurry is not at 24 degrees C.

1. Fill a quart container 3/4 full with lime slurry. Samples can be taken from ports located at either end of the vessel. Do not use glass.
2. Weigh a dry, empty Gardner (WPG) cup and cover to the nearest 0.01 of a gram. Record this weight.
3. Shake the lime slurry sample well. Immediately fill the WPG cup.
4. Tap the WPG cup lightly on an immovable object to allow for the escape of air bubbles.
5. Slowly turn the cap of the WPG cup until it is completely seated. If the cover is pushed on quickly, lime slurry will squirt out through the hole in the center. Be sure to point the top of the WPG away from you (or others) while putting on the cap.
6. Hold the WPG cup by the top and bottom with thumb and forefinger. Be sure to cover the hole in the cap.
7. Rinse the WPG cup under running water to remove any lime from the outside of the cup.
8. Dry the outside of the cup thoroughly.
9. Weigh the dry, filled WPG cup to the nearest 0.01 of a gram. Record this weight.
10. Promptly remove the cover and insert thermometer. Record temperature.
11. Subtract the empty cup weight (step 2) from the filled cup weight (step 9). Record the difference.
12. Multiply the difference by 0.1. This number is the density (lbs./gallon) of the lime slurry. Record this number.
13. Look up the temperature correction in Table 2. Record.
14. Multiply the slurry density times the temperature correction. This is the adjusted slurry density. Record on the slurry worksheet.

15. Find the nearest density to that recorded above on the "Slurry Solids Chart" on Table 1, Slurry Solids Chart - 24 degrees C. The corresponding number is the percent solids of the lime slurry sample. Record on worksheet.

Preparation of Roadway

Remove vegetation from cracks, joints and other areas such as along edges of the roadway to prevent the contamination of the reclaimed asphalt pavement during the milling operation. If foreign matter or debris exists (dirt, leaves, etc.), the roadway shall be cleaned by power brooming.

Patching

The Contractor will repair all areas in the recycled roadway, which develop cracking and/or settlement after the cold recycling process. These areas shall be repaired by deep patching and completed prior to placement of the asphaltic concrete surfacing. The existing asphalt surfacing material, base and subgrade soil as required, shall be removed and replaced with the type of asphaltic concrete being produced on the project at that time and properly compacted to produce a stable repair.

Method of Measurement

Patching shall be measured for payment in accordance with Subsection 516.05 of the Standard Specifications.

Hydrated Lime Slurry Stabilization shall be measured for payment by the station of completed and accepted work measured along the project centerline.

The Hydrated Lime will be measured by the Ton (Mg) of hydrated lime used in the slurry. Using the relationship of Pure Quicklime (CaO) $\times 1.32 = \text{Hydrated Lime Ca(OH}_2\text{)}$, the basis of pay for jobsite slaked hydrated lime shall be the "calculated method" using the certified lime purity for each load as follows:

$$\begin{aligned}\text{Quicklime Delivered} \times \% \text{ purity} \times 1.32 &= A \\ \text{Quicklime Delivered} \times \% \text{ inert material} \times 1.0 &= B \\ A+B &= \text{Total Hydrated Lime Produced (Pay Quantity)}\end{aligned}$$

Emulsified Asphalt for Hydrated Lime Slurry Stabilization shall be measured for payment by the gallon (liter). The refinery certified volume shall be used as a basis of measurement if the entire shipment is used.

Basis of Payment

"Hydrated Lime Slurry Stabilization" shall be paid for at the Contract unit price per station. This price shall include the milling, processing, addition and mixing of the lime slurry and emulsified asphalt, shaping, compaction, finishing, vegetation removal, roadway sweeping, tests strips and for all equipment, labor, tools, and incidentals necessary to complete the work.

The accepted quantity of "Hydrated Lime" will be paid at the Contract unit price per ton (Mg).

The accepted quantity of "Emulsified Asphalt for Hydrated Lime Slurry Stabilization" will be paid at the Contract unit price per gallon (liter). If the actual type of Emulsified Asphalt used

is different than that shown in these provisions, the unit price will be adjusted, up or down, by the difference in the invoice price of the material.

Patching, measured as provided herein, shall be paid for in accordance with Subsection 516.06 of the Standard Specifications.

Water used in the hydrated lime slurry will not be measured for payment but shall be considered subsidiary to the item "Hydrated Lime".

Table 1, Page 1
Slurry Solids Chart – 24°C

| Density lbs./gal. | Slurry Solids % | Density lbs./gal. | Slurry Solids % | Density lbs./gal. | Slurry Solids % | Density lbs./gal. | Slurry Solids % |
|----------------------|-----------------------|----------------------|-----------------------|----------------------|-----------------------|----------------------|-----------------------|
| 9.108 | 15.1 | 9.402 | 20.1 | 9.715 | 25.1 | 10.050 | 30.1 |
| 9.114 | 15.2 | 9.406 | 20.2 | 9.722 | 25.2 | 10.057 | 30.2 |
| 9.120 | 15.3 | 9.414 | 20.3 | 9.728 | 25.3 | 10.064 | 30.3 |
| 9.128 | 15.4 | 9.420 | 20.4 | 9.735 | 25.4 | 10.071 | 30.4 |
| 9.131 | 15.5 | 9.426 | 20.5 | 9.741 | 25.5 | 10.078 | 30.5 |
| 9.137 | 15.6 | 9.433 | 20.6 | 9.748 | 25.6 | 10.085 | 30.6 |
| 9.143 | 15.7 | 9.439 | 20.7 | 9.755 | 25.7 | 10.092 | 30.7 |
| 9.148 | 15.8 | 9.445 | 20.8 | 9.761 | 25.8 | 10.099 | 30.8 |
| 9.154 | 15.9 | 9.451 | 20.9 | 9.768 | 25.9 | 10.106 | 30.9 |
| 9.160 | 16.0 | 9.457 | 21.0 | 9.774 | 26.0 | 10.113 | 31.0 |
| 9.166 | 16.1 | 9.463 | 21.1 | 9.781 | 26.1 | 10.120 | 31.1 |
| 9.171 | 16.2 | 9.469 | 21.2 | 9.787 | 26.2 | 10.127 | 31.2 |
| 9.177 | 16.3 | 9.476 | 21.3 | 9.794 | 26.3 | 10.134 | 31.3 |
| 9.183 | 16.4 | 9.482 | 21.4 | 9.800 | 26.4 | 10.141 | 31.4 |
| 9.189 | 16.5 | 9.488 | 21.5 | 9.807 | 26.5 | 10.148 | 31.5 |
| 9.195 | 16.6 | 9.494 | 21.6 | 9.814 | 26.6 | 10.155 | 31.6 |
| 9.200 | 16.7 | 9.500 | 21.7 | 9.820 | 26.7 | 10.163 | 31.7 |
| 9.206 | 16.8 | 9.506 | 21.8 | 9.827 | 26.8 | 10.170 | 31.8 |
| 9.212 | 16.9 | 9.513 | 21.9 | 9.833 | 26.9 | 10.177 | 31.9 |
| 9.218 | 17.0 | 9.519 | 22.0 | 9.840 | 27.0 | 10.184 | 32.0 |
| 9.224 | 17.1 | 9.525 | 22.1 | 9.847 | 27.1 | 10.191 | 32.1 |
| 9.230 | 17.2 | 9.531 | 22.2 | 9.853 | 27.2 | 10.198 | 32.2 |
| 9.235 | 17.3 | 9.538 | 22.3 | 9.860 | 27.3 | 10.205 | 32.3 |
| 9.241 | 17.4 | 9.544 | 22.4 | 9.867 | 27.4 | 10.212 | 32.4 |
| 9.247 | 17.5 | 9.550 | 22.5 | 9.873 | 27.5 | 10.220 | 32.5 |
| 9.253 | 17.6 | 9.556 | 22.6 | 9.880 | 27.6 | 10.227 | 32.6 |
| 9.259 | 17.7 | 9.563 | 22.7 | 9.887 | 27.7 | 10.234 | 32.7 |
| 9.265 | 17.8 | 9.569 | 22.8 | 9.894 | 27.8 | 10.241 | 32.8 |
| 9.271 | 17.9 | 9.575 | 22.9 | 9.900 | 27.9 | 10.248 | 32.9 |
| 9.277 | 18.0 | 9.581 | 23.0 | 9.907 | 28.0 | 10.255 | 33.0 |
| 9.282 | 18.1 | 9.588 | 23.1 | 9.914 | 28.1 | 10.263 | 33.1 |
| 9.288 | 18.2 | 9.594 | 23.2 | 9.920 | 28.2 | 10.270 | 33.2 |
| 9.294 | 18.3 | 9.600 | 23.3 | 9.927 | 28.3 | 10.277 | 33.3 |
| 9.300 | 18.4 | 9.607 | 23.4 | 9.934 | 28.4 | 10.284 | 33.4 |
| 9.306 | 18.5 | 9.613 | 23.5 | 9.941 | 28.5 | 10.292 | 33.5 |
| 9.312 | 18.6 | 9.619 | 23.6 | 2.948 | 28.6 | 10.299 | 33.6 |
| 9.318 | 18.7 | 9.626 | 23.7 | 9.954 | 28.7 | 10.306 | 33.7 |
| 9.324 | 18.8 | 9.632 | 23.8 | 9.961 | 28.8 | 10.314 | 33.8 |
| 9.330 | 18.9 | 9.638 | 23.9 | 9.968 | 28.9 | 10.321 | 33.9 |
| 9.336 | 19.0 | 9.645 | 24.0 | 9.975 | 29.0 | 10.328 | 34.0 |
| 9.342 | 19.1 | 9.651 | 24.1 | 9.982 | 29.1 | 10.335 | 34.1 |
| 9.348 | 19.2 | 9.658 | 24.2 | 9.988 | 29.2 | 10.343 | 34.2 |
| 9.354 | 19.3 | 9.664 | 24.3 | 9.995 | 29.3 | 10.350 | 34.3 |
| 9.360 | 19.4 | 9.670 | 24.4 | 10.002 | 29.4 | 10.358 | 34.4 |
| 9.366 | 19.5 | 9.677 | 24.5 | 10.009 | 29.5 | 10.365 | 34.5 |
| 9.372 | 19.6 | 9.683 | 24.6 | 10.016 | 29.6 | 10.372 | 34.6 |
| 9.378 | 19.7 | 9.690 | 24.7 | 10.023 | 29.7 | 10.380 | 34.7 |
| 9.384 | 19.8 | 9.696 | 24.8 | 10.030 | 29.8 | 10.387 | 34.8 |
| 9.390 | 19.9 | 9.703 | 24.9 | 10.037 | 29.9 | 10.394 | 34.9 |
| 9.396 | 20.0 | 9.709 | 25.0 | 10.044 | 30.0 | 10.402 | 35.0 |

Table 1, Page 2
Slurry Solids Chart – 24°C

| Density lbs./gal. | Slurry Solids % | Density lbs./gal. | Slurry Solids % | Density lbs./gal. | Slurry Solids % | Density lbs./gal. | Slurry Solids % |
|----------------------|-----------------------|----------------------|-----------------------|----------------------|-----------------------|----------------------|-----------------------|
| 10.409 | 35.1 | 10.795 | 40.1 | 11.210 | 45.1 | 11.658 | 50.1 |
| 10.417 | 35.2 | 10.803 | 40.2 | 11.218 | 45.2 | 11.667 | 50.2 |
| 10.424 | 35.3 | 10.811 | 40.3 | 11.227 | 45.3 | 11.677 | 50.3 |
| 10.432 | 35.4 | 10.819 | 40.4 | 11.236 | 45.4 | 11.686 | 50.4 |
| 10.439 | 35.5 | 10.827 | 40.5 | 11.244 | 45.5 | 11.695 | 50.5 |
| 10.447 | 35.6 | 10.835 | 40.6 | 11.253 | 45.6 | 11.705 | 50.6 |
| 10.454 | 35.7 | 10.843 | 40.7 | 11.262 | 45.7 | 11.714 | 50.7 |
| 10.462 | 35.8 | 10.851 | 40.8 | 11.270 | 45.8 | 11.724 | 50.8 |
| 10.469 | 35.9 | 10.859 | 40.9 | 11.279 | 45.9 | 11.733 | 50.9 |
| 10.477 | 36.0 | 10.867 | 41.0 | 11.288 | 46.0 | 11.743 | 51.0 |
| 10.484 | 36.1 | 10.875 | 41.1 | 11.297 | 46.1 | 11.752 | 51.1 |
| 10.492 | 36.2 | 10.883 | 41.2 | 11.305 | 46.2 | 11.762 | 51.2 |
| 10.499 | 36.3 | 10.892 | 41.3 | 11.314 | 46.3 | 11.771 | 51.3 |
| 10.507 | 36.4 | 10.900 | 41.4 | 11.323 | 46.4 | 11.781 | 51.4 |
| 10.514 | 36.5 | 10.908 | 41.5 | 11.332 | 46.5 | 11.790 | 51.5 |
| 10.522 | 36.6 | 10.916 | 41.6 | 11.341 | 46.6 | 11.800 | 51.6 |
| 10.530 | 36.7 | 10.924 | 41.7 | 11.349 | 46.7 | 11.809 | 51.7 |
| 10.537 | 36.8 | 10.932 | 41.8 | 11.358 | 46.8 | 11.819 | 51.8 |
| 10.545 | 36.9 | 10.941 | 41.9 | 11.367 | 46.9 | 11.828 | 51.9 |
| 10.552 | 37.0 | 10.949 | 42.0 | 11.376 | 47.0 | 11.838 | 52.0 |
| 10.560 | 37.1 | 10.957 | 42.1 | 11.385 | 47.1 | 11.848 | 52.1 |
| 10.568 | 37.2 | 10.965 | 42.2 | 11.394 | 47.2 | 11.857 | 52.2 |
| 10.575 | 37.3 | 10.974 | 42.3 | 11.403 | 47.3 | 11.867 | 52.3 |
| 10.583 | 37.4 | 10.982 | 42.4 | 11.412 | 47.4 | 11.877 | 52.4 |
| 10.591 | 37.5 | 10.990 | 42.5 | 11.421 | 47.5 | 11.886 | 52.5 |
| 10.599 | 37.6 | 10.998 | 42.6 | 11.430 | 47.6 | 11.896 | 52.6 |
| 10.606 | 37.7 | 11.007 | 42.7 | 11.439 | 47.7 | 11.906 | 52.7 |
| 10.614 | 37.8 | 11.015 | 42.8 | 11.447 | 47.8 | 11.915 | 52.8 |
| 10.622 | 37.9 | 11.023 | 42.9 | 11.456 | 47.9 | 11.925 | 52.9 |
| 10.629 | 38.0 | 11.032 | 43.0 | 11.465 | 48.0 | 11.935 | 53.0 |
| 10.637 | 38.1 | 11.040 | 43.1 | 11.475 | 48.1 | 11.945 | 53.1 |
| 10.645 | 38.2 | 11.048 | 43.2 | 11.484 | 48.2 | 11.954 | 53.2 |
| 10.653 | 38.3 | 11.057 | 43.3 | 11.493 | 48.3 | 11.964 | 53.3 |
| 10.661 | 38.4 | 11.065 | 43.4 | 11.502 | 48.4 | 11.974 | 53.4 |
| 10.668 | 38.5 | 11.074 | 43.5 | 11.511 | 48.5 | 11.984 | 53.5 |
| 10.676 | 38.6 | 11.082 | 43.6 | 11.520 | 48.6 | 11.994 | 53.6 |
| 10.684 | 38.7 | 11.090 | 43.7 | 11.529 | 48.7 | 12.004 | 53.7 |
| 10.692 | 38.8 | 11.099 | 43.8 | 11.538 | 48.8 | 12.014 | 53.8 |
| 10.700 | 38.9 | 11.107 | 43.9 | 11.547 | 48.9 | 12.023 | 53.9 |
| 10.707 | 39.0 | 11.116 | 44.0 | 11.556 | 49.0 | 12.033 | 54.0 |
| 10.715 | 39.1 | 11.124 | 44.1 | 11.566 | 49.1 | 12.043 | 54.1 |
| 10.723 | 39.2 | 11.133 | 44.2 | 11.575 | 49.2 | 12.053 | 54.2 |
| 10.731 | 39.3 | 11.141 | 44.3 | 11.584 | 49.3 | 12.063 | 54.3 |
| 10.739 | 39.4 | 11.150 | 44.4 | 11.593 | 49.4 | 12.073 | 54.4 |
| 10.747 | 39.5 | 11.158 | 44.5 | 11.602 | 49.5 | 12.083 | 54.5 |
| 10.755 | 39.6 | 11.167 | 44.6 | 11.612 | 49.6 | 12.093 | 54.6 |
| 10.763 | 39.7 | 11.175 | 44.7 | 11.621 | 49.7 | 12.103 | 54.7 |
| 10.771 | 39.8 | 11.184 | 44.8 | 11.630 | 49.8 | 12.113 | 54.8 |
| 10.779 | 39.9 | 11.193 | 44.9 | 11.639 | 49.9 | 12.123 | 54.9 |
| 10.787 | 40.0 | 11.201 | 45.0 | 11.649 | 50.0 | 12.134 | 55.0 |

Table 2
Correction Factor to Adjust Slurry Densities for Temperature

| Temp (C) | Factor | Temp (C) | Factor |
|-----------------|---------------|-----------------|---------------|
| 20 | 0.99927 | 61 | 1.01176 |
| 21 | 0.99944 | 62 | 1.01218 |
| 22 | 0.99962 | 63 | 1.01262 |
| 23 | 0.99981 | 64 | 1.01305 |
| 24 | 1.00000 | 65 | 1.01349 |
| 25 | 1.00002 | 66 | 1.01394 |
| 26 | 1.00041 | 67 | 1.01439 |
| 27 | 1.00063 | 68 | 1.01485 |
| 28 | 1.00085 | 69 | 1.01531 |
| 29 | 1.00109 | 70 | 1.01578 |
| 30 | 1.00132 | 71 | 1.01626 |
| 31 | 1.00157 | 72 | 1.01673 |
| 32 | 1.00182 | 73 | 1.01722 |
| 33 | 1.00208 | 74 | 1.01770 |
| 34 | 1.00234 | 75 | 1.01820 |
| 35 | 1.00261 | 76 | 1.01870 |
| 36 | 1.00289 | 77 | 1.01920 |
| 37 | 1.00318 | 78 | 1.01971 |
| 38 | 1.00347 | 79 | 1.02022 |
| 39 | 1.00376 | 80 | 1.02074 |
| 40 | 1.00407 | 81 | 1.02126 |
| 41 | 1.00438 | 82 | 1.02179 |
| 42 | 1.00469 | 83 | 1.02232 |
| 43 | 1.00501 | 84 | 1.02286 |
| 44 | 1.00534 | 85 | 1.02341 |
| 45 | 1.00567 | 86 | 1.02395 |
| 46 | 1.00601 | 87 | 1.02451 |
| 47 | 1.00635 | 88 | 1.02506 |
| 48 | 1.00670 | 89 | 1.02563 |
| 49 | 1.00706 | 90 | 1.02619 |
| 50 | 1.00742 | 91 | 1.02677 |
| 51 | 1.00779 | 92 | 1.02734 |
| 52 | 1.00816 | 93 | 1.02793 |
| 53 | 1.00854 | 94 | 1.02851 |
| 54 | 1.00892 | 95 | 1.02911 |
| 55 | 1.00931 | 96 | 1.02970 |
| 56 | 1.00970 | 97 | 1.03031 |
| 57 | 1.01010 | 98 | 1.03091 |
| 58 | 1.01051 | 99 | 1.03152 |
| 59 | 1.01092 | 100 | 1.03214 |
| 60 | 1.01134 | 101 | 1.03276 |

**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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