

**BID BOOKLET  
FOR HIGHWAY CONSTRUCTION**



**LINN COUNTY ROAD DEPARTMENT  
ALBANY, OREGON**

**STRUCTURE REHABILITATION AND PAINTING  
NORTH SANTIAM RIVER (MILL CITY) BRIDGE**

**FIRST AVENUE**

**LINN COUNTY**

**APRIL 21, 2020**

**CLASS OF PROJECT FEDERAL-AID**

**CLASS OF WORK BRIDGES AND STURCTURES, AND PAINTING**

**BID OF \_\_\_\_\_**

**North Santiam River (Mill City) Bridge  
Structure Rehabilitation and Painting**

**DESCRIPTION OF WORK**

Structure Rehabilitation and Painting  
North Santiam River (Mill City) Bridge  
First Avenue  
Linn County

**TIMES AND PLACES OF RECEIVING BIDS (BID CLOSING)**

Bid Closing for the work described above will be 9:00:00 a.m. on the 21st day of April, 2020.

Before 9:00:00 a.m. on the day of Bid Closing, Bids shall be submitted to:

Ralph Wyatt, County Administrative Officer, Linn County Courthouse, 300 Fourth Avenue S.W.,  
Room 201, Albany, Oregon 97321

Bids, Bid modifications, and Bid withdrawals will not be accepted on or after 9:00:00 a.m. on the day of Bid Closing.

**PLACE, TIME, AND DATE OF READING BIDS (BID OPENING)**

Bid Opening for the work described above will be opened and read at the Linn County Courthouse, Board of Commissioners, 300 Fourth Avenue S.W., Room 201, Albany, Oregon, beginning at approximately 9:35 a.m. on the day of Bid Closing.

**COMPLETION TIME LIMIT**

See Special Provisions Subsection 00180.50(h).

**CLASS OF PROJECT**

This is a Federal-Aid Project. First Avenue is classified as a Rural Major Collector.

**CLASS OF WORK**

The Class of Work for this Project is the combination of:

- 1) Bridges and Structures; and
- 2) Painting

**APPLICABLE SPECIAL PROVISIONS**

The Special Provisions booklet applicable to the above-described work, for which Bids will be opened at the place, time, and date stated above, is that which contains the exact information as shown above on this page.

Bidders are cautioned against basing their Bids on a booklet bearing any different description, date(s), class of project, or class(es) of work.

## North Santiam River (Mill City) Bridge Structure Rehabilitation and Painting

### INSTRUCTIONS FOR MODIFYING BID

**General** - Bid modifications must be received in writing by hand delivery, mail, parcel delivery service, or by electronic facsimile (FAX) transmission prior to the time designated for Bid Closing. Bid modifications received after Bid Closing will not be considered. **Incomplete or late transmittals will not be accepted, regardless of reason.**

Bids will be modified at the Bid Opening according to the information received.

**Instructions and Format** - Make modifications to Bids according to the "Letter Format for Modifying Bid" document located in this Bid Booklet and the following:

- Prepare the modifications on the Bidder's letterhead stationery.
- Include the Project title and the Bidder's company name.
- Make changes (increase/decrease statement) for each affected Bid Item. (*Lumping the changes into one Bid Item may result in the Bid Item being unbalanced, causing the Bid to be considered irregular and constituting grounds for Bid rejection.*)
- List all decreased-in-Bid items in numerical order first, then list all increased-in-Bid items.
- Show the total difference in the Bid last. (*Do not refer to your original Bid total. Do not show a new Bid total. Do not include a new Bid Schedule.*)
- Print name and sign the letter by an individual authorized to execute Bids.

**Hand Delivery, Mail, or Parcel Delivery Service** - If delivering by hand, mail or parcel delivery service deliver to:

Ralph Wyatt, County Administrative Officer, Linn County Courthouse, 300 Fourth Avenue S.W., Room 201, Albany, Oregon 97321

**FAX Transmittals** - If using FAX as transmission, send them according to the following:

- Send the FAX to the FAX telephone number 541-926-8228. FAX transmittals will be accepted only at this number. (*Contractors will be responsible for the payment for the transmission of Bid modifications.*)
- The time of receipt of FAX transmittals by the County will be determined by the time which is electronically imprinted upon the Bid change by the County facsimile machine.
- The Agency is not responsible for any failed or partial FAX transmissions of Bid changes, caused by whatever reason, mechanical failure or otherwise.
- **Complete Bids will not be accepted by FAX.**

**North Santiam River (Mill City) Bridge  
Structure Rehabilitation and Painting**

**LETTER FORMAT FOR MODIFYING BID**

(NOTE: Text shown as "italic-underline" are instructions for preparing the letter for modifying Bids.)

(Prepare on Bidders Letterhead Stationery)

(Bid Opening Date)

Attn: Ralph Wyatt, County Administrative Officer

Hand Delivery, Mail, or Parcel Delivery Service Address:

Linn County Courthouse  
300 Fourth Avenue S.W., Room 201  
Albany, Oregon 97321

SUBJECT: Modifications to Bid

(Project Title)

(Bidders Company Name)

**(For a decrease in a Bid amount: Copy and paste the following line for each Bid Item reduction.)**

Reduce Bid Item No. \_\_\_\_\_ by \$\_\_\_\_\_ per \_\_\_\_\_ (Indicate unit of measurement, e.g., ton, cu. yd., sq. ft., etc.)

**(For an increase in a Bid amount: Copy and paste the following line for each Bid Item increase.)**

Increase Bid Item No. \_\_\_\_\_ by \$\_\_\_\_\_ per \_\_\_\_\_ (Indicate unit of measurement, e.g., ton, cu. yd., sq. ft., etc.)

This will (increase/decrease) our total Bid by \$\_\_\_\_\_. (Only show the total increase or decrease of your Bid. Do not show a new Bid total.)

\_\_\_\_\_  
(Printed name of individual signing below.)

\_\_\_\_\_  
(Signed by an individual authorized to sign Bids and execute documents.)

**SPECIAL PROVISIONS  
FOR HIGHWAY CONSTRUCTION**



**LINN COUNTY ROAD DEPARTMENT  
ALBANY, OREGON**

**STRUCTURE REHABILITATION AND PAINTING  
NORTH SANITIAM RIVER (MILL CITY) BRIDGE**

**FIRST AVENUE**

**LINN COUNTY**

**APRIL 21, 2020**

**North Santiam River (Mill City) Bridge  
Structure Rehabilitation and Painting**

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North Santiam River (Mill City) Bridge  
First Avenue  
Linn County

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**START DATE**

No work included in this contract shall begin prior to the Preconstruction Meeting. Other Job Site Restrictions may apply as shown in Section 130.80 of these Specifications.

**COMPLETION TIME LIMIT**

See Subsection 00180.50(h).

**CLASS OF PROJECT**

This is a Federal-Aid Project. First Avenue is classified as a Rural Major Collector.

**CLASS OF WORK**

The Class of Work for this Project is the combination of:

- 1) Bridges and Structures; and
- 2) Painting

**North Santiam River (Mill City) Bridge  
Structure Rehabilitation and Painting**

**PROJECT INFORMATION**

Information pertaining to this Project may be obtained from the following:

Daineal Malone, P.E., Project Manager, Linn County Road Department,  
3010 Ferry St, S.W., Albany, Oregon 97322; Phone 541-967-3919, Fax 541-924-0202.  
email: [daineal.malone@co.linn.or.us](mailto:daineal.malone@co.linn.or.us)

Kevin Groom, P.E., Civil Engineer, Linn County Road Department,  
3010 Ferry St, S.W., Albany, Oregon 97322; Phone 541-967-3919, Fax 541-924-0202.  
email: [kgroom@co.linn.or.us](mailto:kgroom@co.linn.or.us)

Chuck Knoll, P.E., Linn County Engineer, Linn County Road Department,  
3010 Ferry Street, S.W., Albany, Oregon 97322; Phone 541-967-3919, Fax 541-924-0202.  
email: [cknoll@co.linn.or.us](mailto:cknoll@co.linn.or.us)

**North Santiam River (Mill City) Bridge  
Structure Rehabilitation and Painting**

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Structure Rehabilitation and Painting**

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**ATTACHMENTS**

A. Employment and Materials Preference for Appalachian Development Highway System or Appalachian Local Access Road Contracts (included in Appalachian contracts only)

**I. GENERAL**

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under Title 23 (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services).

The applicable requirements of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Form FHWA-1273 must be included in all Federal-aid design-build contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services). The design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Contracting agencies may reference Form FHWA-1273 in bid proposal or request for proposal documents, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract).

2. Subject to the applicability criteria noted in the following sections, 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 piecework, station work, or by subcontract.

3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.

4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors.

**II. NONDISCRIMINATION**

The provisions of this section related to 23 CFR Part 230 are applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR 60, 29 CFR 1625-1627, Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The contractor and all subcontractors must comply with: the requirements of the Equal Opportunity Clause in 41 CFR 60-1.4(b) and, for all construction contracts exceeding \$10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR 60, and 29 CFR 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with Title 23 USC Section 140, the Rehabilitation Act of 1973, as amended (29 USC 794), and Title VI of the Civil Rights Act of 1964, as amended, and related regulations including 49 CFR Parts 21, 26 and 27; and 23 CFR Parts 200, 230, and 633.

The following provision is adopted from 23 CFR 230, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements.

**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, 29 CFR 1625-1627, 41 CFR 60 and 49 CFR 27) 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 provisions of the Americans with 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 contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the contract.

b. The contractor will accept as its 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, pre-apprenticeship, and/or on-the-job training."

**2. EEO Officer:** The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program 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 minorities and women.

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 minorities and women 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 minorities and women. To meet this requirement, the contractor will identify sources of potential minority group employees, and establish with such identified sources procedures whereby minority and women 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, the contractor is expected to observe the provisions of that agreement to the extent that the system meets the contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal nondiscrimination provisions.

c. The contractor will encourage its present employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such 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 its 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 their avenues of appeal.

**6. Training and Promotion:**

a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are

applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.

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. In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).

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 employees who are minorities and women 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 good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. 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 good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.

b. The contractor will use good faith 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 contracting agency 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 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 minorities and women. The failure of a union to provide sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

**8. Reasonable Accommodation for Applicants / Employees with Disabilities:** The contractor must be familiar

with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established there under. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.

**9. 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. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.

a. The contractor shall notify all potential subcontractors and suppliers and lessors of their EEO obligations under this contract.

b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.

**10. Assurance Required by 49 CFR 26.13(b):**

a. The requirements of 49 CFR Part 26 and the State DOT's U.S. DOT-approved DBE program are incorporated by reference.

b. The contractor or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the contracting agency deems appropriate.

**11. 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 the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.

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

(1) The number and work hours 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; and

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women;

b. The contractors and subcontractors will submit an annual report to the contracting agency 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](#). The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor

will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

### III. NONSEGREGATED FACILITIES

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more.

The contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location, under the contractor's control, where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms, and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

### IV. DAVIS-BACON AND RELATED ACT PROVISIONS

This section is applicable to all Federal-aid construction projects exceeding \$2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size). The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. Contracting agencies may elect to apply these requirements to other projects.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 "Contract provisions and related matters" with minor revisions to conform to the FHWA-1273 format and FHWA program requirements.

#### 1. Minimum wages

a. All laborers and mechanics 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 issued by the Secretary of Labor under the Copeland Act (29 CFR part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions

of paragraph 1.d. of this section; also, 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 29 CFR 5.5(a)(4). 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. The wage determination (including any additional classification and wage rates conformed under paragraph 1.b. of this section) and the Davis-Bacon poster (WH-1321) 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.

b. (1) The contracting officer shall require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(ii) The classification is utilized in the area by the construction industry; and

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) If the contractor and the laborers and mechanics to be employed in the classification (if known), 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 Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The 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.

(3) In the event the contractor, the laborers or mechanics to be employed in the 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. The Wage and Hour 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.

(4) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs 1.b.(2) or 1.b.(3) of this section, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

c. 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 shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

d. If the contractor does not make payments to a trustee or other third person, the contractor may consider as 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.

## 2. Withholding

The contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor 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, so 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 contracting agency 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.

## 3. Payrolls and basic records

a. Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of 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. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) 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 shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

b.(1) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the contracting agency. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). The required weekly payroll information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at <http://www.dol.gov/esa/whd/forms/wh347instr.htm> or its successor site. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the contracting agency for transmission to the State DOT, the FHWA or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the contracting agency..

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

(i) That the payroll for the payroll period contains the information required to be provided under §5.5 (a)(3)(ii) of Regulations, 29 CFR part 5, the appropriate information is being maintained under §5.5 (a)(3)(i) of Regulations, 29 CFR part 5, and that such information is correct and complete;

(ii) That each 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 Regulations, 29 CFR part 3;

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(3) 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 3.b.(2) of this section.

(4) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under section 1001 of title 18 and section 231 of title 31 of the United States Code.

c. The contractor or subcontractor shall make the records required under paragraph 3.a. of this section available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, 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 FHWA may, after written notice to the contractor, the contracting agency or the State DOT, take such action 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.

#### 4. Apprentices and trainees

##### a. Apprentices (programs of the USDOL).

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 U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, or if a person is employed in his or 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 Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice.

The allowable ratio of apprentices to journeymen 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 worker 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 on 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 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's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed.

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 journeymen 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 determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination.

In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

##### b. Trainees (programs of the USDOL).

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 U.S. Department of Labor, Employment and Training Administration.

The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration.

Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman 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 wage rate on the wage determination which provides for less than full fringe benefits for apprentices. 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.

In the event the Employment and Training Administration withdraws approval of a training program, the contractor 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. Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR part 30.

d. 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.

**5. Compliance with Copeland Act requirements.** The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract.

**6. Subcontracts.** The contractor or subcontractor shall insert Form FHWA-1273 in any subcontracts and also require the subcontractors to include Form FHWA-1273 in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

**7. Contract termination: debarment.** A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

**8. Compliance with Davis-Bacon and Related Act requirements.** All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract.

**9. Disputes concerning labor standards.** Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 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 U.S. Department of Labor, or the employees or their representatives.

**10. Certification of eligibility.**

a. By entering into this contract, the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

c. The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

**V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT**

The following clauses apply to any Federal-aid construction contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchmen and guards.

**1. Overtime requirements.** No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

**2. Violation; liability for unpaid wages; liquidated damages.** In the event of any violation of the clause set forth in paragraph (1.) of this section, the contractor and any subcontractor responsible therefor shall be liable for the 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 or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1.) of this section, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1.) of this section.

**3. Withholding for unpaid wages and liquidated damages.** The FHWA or the contracting agency shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys 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 (2.) of this section.

**4. Subcontracts.** The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (1.) through (4.) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (1.) through (4.) of this section.

## VI. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System.

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 contracting agency. 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 635.116).

a. The term "perform work with its own organization" refers to workers employed or leased 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 or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions:

(1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;

(2) the prime contractor remains responsible for the quality of the work of the leased employees;

(3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and

(4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.

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 or propose 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 VI 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 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 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 contracting agency has assured that each subcontract is

evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract.

5. The 30% self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements.

## VII. SAFETY: ACCIDENT PREVENTION

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

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 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. 3704).

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.3704).

## VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

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, Form FHWA-1022 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:

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 under this title or imprisoned not more than 5 years or both."

#### **IX. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT**

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

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

1. That any person who is or will be utilized in the performance of this contract is not prohibited from receiving an award due to a violation of Section 508 of the Clean Water Act or Section 306 of the Clean Air Act.

2. That the contractor agrees to include or cause to be included the requirements of paragraph (1) of this Section X in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements.

#### **X. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION**

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost \$25,000 or more – as defined in 2 CFR Parts 180 and 1200.

##### **1. Instructions for Certification – First Tier Participants:**

a. By signing and submitting this proposal, the prospective first tier 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 first tier 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 first tier 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 contracting agency determined to enter into this transaction. If it is later determined that the prospective participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the contracting agency may terminate this transaction for cause of default.

d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier 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," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

f. The prospective first 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 entering into this transaction.

g. The prospective first tier 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 Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold.

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 is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (<https://www.epls.gov/>), which is compiled by the General Services Administration.

i. Nothing contained in the foregoing shall be construed to require the establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of the prospective 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.

\* \* \* \* \*

## **2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – First Tier Participants:**

a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:

(1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency;

(2) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment 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;

(3) 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 (a)(2) of this certification; and

(4) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

b. Where the prospective 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 Participants:**

(Applicable to all subcontracts, purchase orders and other lower tier transactions requiring prior FHWA approval or estimated to cost \$25,000 or more - 2 CFR Parts 180 and 1200)

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," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

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 exceeding the \$25,000 threshold.

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 is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (<https://www.epls.gov/>), which is compiled by the General Services Administration.

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 Participants:**

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 participating in covered transactions 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.

\* \* \* \* \*

**XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING**

This provision is 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 its bid or proposal that the participant 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.

**ATTACHMENT A - EMPLOYMENT AND MATERIALS  
PREFERENCE FOR APPALACHIAN DEVELOPMENT  
HIGHWAY SYSTEM OR APPALACHIAN LOCAL ACCESS  
ROAD CONTRACTS**

This provision is applicable to all Federal-aid projects funded under the Appalachian Regional Development Act of 1965.

1. During the performance of this contract, the contractor undertaking to do work which is, or reasonably may be, done as on-site work, shall give preference to qualified persons who regularly reside in the labor area as designated by the DOL wherein the contract work is situated, or the subregion, or the Appalachian counties of the State wherein the contract work is situated, except:

a. To the extent that qualified persons regularly residing in the area are not available.

b. For the reasonable needs of the contractor to employ supervisory or specially experienced personnel necessary to assure an efficient execution of the contract work.

c. For the obligation of the contractor to offer employment to present or former employees as the result of a lawful collective bargaining contract, provided that the number of nonresident persons employed under this subparagraph (1c) shall not exceed 20 percent of the total number of employees employed by the contractor on the contract work, except as provided in subparagraph (4) below.

2. The contractor shall place a job order with the State Employment Service indicating (a) the classifications of the laborers, mechanics and other employees required to perform the contract work, (b) the number of employees required in each classification, (c) the date on which the participant estimates such employees will be required, and (d) any other pertinent information required by the State Employment Service to complete the job order form. The job order may be placed with the State Employment Service in writing or by telephone. If during the course of the contract work, the information submitted by the contractor in the original job order is substantially modified, the participant shall promptly notify the State Employment Service.

3. The contractor shall give full consideration to all qualified job applicants referred to him by the State Employment Service. The contractor is not required to grant employment to any job applicants who, in his opinion, are not qualified to perform the classification of work required.

4. If, within one week following the placing of a job order by the contractor with the State Employment Service, the State Employment Service is unable to refer any qualified job applicants to the contractor, or less than the number requested, the State Employment Service will forward a certificate to the contractor indicating the unavailability of applicants. Such certificate shall be made a part of the contractor's permanent project records. Upon receipt of this certificate, the contractor may employ persons who do not normally reside in the labor area to fill positions covered by the certificate, notwithstanding the provisions of subparagraph (1c) above.

5. The provisions of 23 CFR 633.207(e) allow the contracting agency to provide a contractual preference for the use of mineral resource materials native to the Appalachian region.

6. The contractor shall include the provisions of Sections 1 through 4 of this Attachment A in every subcontract for work which is, or reasonably may be, done as on-site work.

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**AFFIRMATIVE ACTION REQUIREMENTS**

Pursuant to 41 CFR 60-4.6 the following notice shall be included in, and shall be a part of, all solicitations for offers and bids on all Federal and federally assisted construction contracts or subcontracts in excess of \$10,000 to be performed (see also 41 CFR 60-4.2(a)).

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 WORKFORCE IN EACH TRADE ON ALL CONSTRUCTION WORK IN THE COVERED AREA, ARE AS FOLLOWS:

<b>TIME- TABLES</b>	<b>GOALS FOR MINORITY PARTICIPATION FOR EACH TRADE</b>	<b>GOALS FOR FEMALE PARTICIPATION IN EACH TRADE</b>
<b>April 1, 1980 until further notice</b>	<b>3.8%</b>	<b>6.9 %</b>

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 (INSERT DESCRIPTION OF THE GEOGRAPHICAL AREAS WHERE THE CONTRACT IS TO BE PERFORMED GIVING THE STATE, COUNTY AND CITY, IF ANY).

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**EQUAL OPPORTUNITY CLAUSES**

**41 CFR 60-1.4**

DURING THE PERFORMANCE OF THIS CONTRACT, THE CONTRACTOR AGREES AS FOLLOWS:

(1) THE CONTRACTOR WILL NOT DISCRIMINATE AGAINST ANY EMPLOYEE OR APPLICANT FOR EMPLOYMENT BECAUSE OF RACE, COLOR, RELIGION, SEX, OR NATIONAL ORIGIN. THE CONTRACTOR WILL TAKE AFFIRMATIVE ACTION TO ENSURE THAT APPLICANTS ARE EMPLOYED, AND THAT EMPLOYEES ARE TREATED DURING EMPLOYMENT, WITHOUT REGARD TO THEIR RACE, COLOR, RELIGION, SEX, OR NATIONAL ORIGIN. SUCH ACTION SHALL INCLUDE, BUT NOT BE LIMITED TO THE FOLLOWING: 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. THE CONTRACTOR AGREES TO POST IN CONSPICUOUS PLACES, AVAILABLE TO EMPLOYEES AND APPLICANTS FOR EMPLOYMENT, NOTICES TO BE PROVIDED BY THE CONTRACTING OFFICER SETTING FORTH THE PROVISIONS OF THIS NONDISCRIMINATION CLAUSE.

(2) THE CONTRACTOR WILL, IN ALL SOLICITATIONS OR ADVERTISEMENTS FOR EMPLOYEES PLACED BY OR ON BEHALF OF THE CONTRACTOR, STATE THAT ALL QUALIFIED APPLICANTS WILL RECEIVE CONSIDERATION FOR EMPLOYMENT WITHOUT REGARD TO RACE, COLOR, RELIGION, SEX, OR NATIONAL ORIGIN.

(3) THE CONTRACTOR WILL SEND TO EACH LABOR UNION OR REPRESENTATIVE OF WORKERS WITH WHICH HE HAS A COLLECTIVE BARGAINING AGREEMENT OR OTHER CONTRACT OR UNDERSTANDING, A NOTICE TO BE PROVIDED BY THE AGENCY CONTRACTING OFFICER, ADVISING THE LABOR UNION OR WORKERS' REPRESENTATIVE OF THE CONTRACTOR'S COMMITMENTS UNDER SECTION 202 OF EXECUTIVE ORDER 11246 OF SEPTEMBER 24, 1965, AND SHALL POST COPIES OF THE NOTICE IN CONSPICUOUS PLACES AVAILABLE TO EMPLOYEES AND APPLICANTS FOR EMPLOYMENT.

(4) THE CONTRACTOR WILL COMPLY WITH ALL PROVISIONS OF EXECUTIVE ORDER 11246 OF SEPTEMBER 24, 1965, AND OF THE RULES, REGULATIONS, AND RELEVANT ORDERS OF THE SECRETARY OF LABOR.

(5) THE CONTRACTOR WILL FURNISH ALL INFORMATION AND REPORTS REQUIRED BY EXECUTIVE ORDER 11246 OF SEPTEMBER 24, 1965, AND BY THE RULES, REGULATIONS, AND ORDERS OF THE SECRETARY OF LABOR, OR PURSUANT THERETO, AND WILL PERMIT ACCESS TO HIS BOOKS, RECORDS, AND ACCOUNTS BY THE CONTRACTING AGENCY AND THE SECRETARY OF LABOR FOR PURPOSES OF INVESTIGATION TO ASCERTAIN COMPLIANCE WITH SUCH RULES, REGULATIONS, AND ORDERS.

(6) IN THE EVENT OF THE CONTRACTOR'S NON-COMPLIANCE WITH THE NONDISCRIMINATION CLAUSES OF THIS CONTRACT OR WITH ANY OF SUCH RULES, REGULATIONS, OR ORDERS, THIS CONTRACT MAY BE CANCELED, TERMINATED OR SUSPENDED IN WHOLE OR IN PART AND THE CONTRACTOR MAY BE DECLARED INELIGIBLE FOR FURTHER GOVERNMENT CONTRACTS IN ACCORDANCE WITH PROCEDURES AUTHORIZED IN EXECUTIVE ORDER 11246 OF SEPTEMBER 24, 1965, AND SUCH OTHER SANCTIONS MAY BE IMPOSED AND REMEDIES INVOKED AS PROVIDED IN EXECUTIVE ORDER 11246 OF SEPTEMBER 24, 1965, OR BY RULE, REGULATION, OR ORDER OF THE SECRETARY OF LABOR, OR AS OTHERWISE PROVIDED BY LAW.

(7) THE CONTRACTOR WILL INCLUDE THE PROVISIONS OF PARAGRAPHS (1) THROUGH (7) IN EVERY SUBCONTRACT OR PURCHASE ORDER UNLESS EXEMPTED BY RULES, REGULATIONS, OR ORDERS OF THE SECRETARY OF LABOR ISSUED PURSUANT TO SECTION 204 OF EXECUTIVE ORDER 11246 OF SEPTEMBER 24, 1965, SO THAT SUCH PROVISIONS WILL BE BINDING UPON EACH SUBCONTRACTOR OR VENDOR. THE CONTRACTOR WILL TAKE SUCH ACTION WITH RESPECT TO ANY SUBCONTRACT OR PURCHASE ORDER AS MAY BE DIRECTED BY THE SECRETARY OF LABOR AS A MEANS OF ENFORCING SUCH PROVISIONS INCLUDING SANCTIONS FOR NONCOMPLIANCE: *PROVIDED, HOWEVER*, THAT IN THE EVENT THE CONTRACTOR BECOMES INVOLVED IN, OR IS THREATENED WITH, LITIGATION WITH A SUBCONTRACTOR OR VENDOR AS A RESULT OF SUCH DIRECTION, THE CONTRACTOR MAY REQUEST THE UNITED STATES TO ENTER INTO SUCH LITIGATION TO PROTECT THE INTERESTS OF THE UNITED STATES.

THE APPLICANT HEREBY AGREES THAT IT WILL INCORPORATE OR CAUSE TO BE INCORPORATED INTO ANY CONTRACT FOR CONSTRUCTION WORK, OR MODIFICATION THEREOF, AS DEFINED IN THE REGULATIONS OF THE SECRETARY OF LABOR AT 41 CFR CHAPTER 60, WHICH IS PAID FOR IN WHOLE OR IN PART WITH FUNDS OBTAINED FROM THE FEDERAL GOVERNMENT OR BORROWED ON THE CREDIT OF THE FEDERAL GOVERNMENT PURSUANT TO A GRANT, CONTRACT, LOAN INSURANCE, OR GUARANTEE, OR UNDERTAKEN PURSUANT TO ANY FEDERAL PROGRAM INVOLVING SUCH GRANT, CONTRACT, LOAN, INSURANCE, OR GUARANTEE, THE FOLLOWING EQUAL OPPORTUNITY CLAUSE:

DURING THE PERFORMANCE OF THIS CONTRACT, THE CONTRACTOR AGREES AS FOLLOWS:

(1) THE CONTRACTOR WILL NOT DISCRIMINATE AGAINST ANY EMPLOYEE OR APPLICANT FOR EMPLOYMENT BECAUSE OF RACE, COLOR, RELIGION, SEX, OR NATIONAL ORIGIN. THE CONTRACTOR WILL TAKE AFFIRMATIVE ACTION TO ENSURE THAT APPLICANTS ARE EMPLOYED, AND THAT EMPLOYEES ARE TREATED DURING EMPLOYMENT WITHOUT REGARD TO THEIR RACE, COLOR, RELIGION, SEX, OR NATIONAL ORIGIN. SUCH ACTION SHALL INCLUDE, BUT NOT BE LIMITED TO THE FOLLOWING: 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. THE CONTRACTOR AGREES TO POST IN CONSPICUOUS

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PLACES, AVAILABLE TO EMPLOYEES AND APPLICANTS FOR EMPLOYMENT, NOTICES TO BE PROVIDED SETTING FORTH THE PROVISIONS OF THIS NONDISCRIMINATION CLAUSE.

(2) THE CONTRACTOR WILL, IN ALL SOLICITATIONS OR ADVERTISEMENTS FOR EMPLOYEES PLACED BY OR ON BEHALF OF THE CONTRACTOR, STATE THAT ALL QUALIFIED APPLICANTS WILL RECEIVE CONSIDERATIONS FOR EMPLOYMENT WITHOUT REGARD TO RACE, COLOR, RELIGION, SEX, OR NATIONAL ORIGIN.

(3) THE CONTRACTOR WILL SEND TO EACH LABOR UNION OR REPRESENTATIVE OF WORKERS WITH WHICH HE HAS A COLLECTIVE BARGAINING AGREEMENT OR OTHER CONTRACT OR UNDERSTANDING, A NOTICE TO BE PROVIDED ADVISING THE SAID LABOR UNION OR WORKERS' REPRESENTATIVES OF THE CONTRACTOR'S COMMITMENTS UNDER THIS SECTION, AND SHALL POST COPIES OF THE NOTICE IN CONSPICUOUS PLACES AVAILABLE TO EMPLOYEES AND APPLICANTS FOR EMPLOYMENT.

(4) THE CONTRACTOR WILL COMPLY WITH ALL PROVISIONS OF EXECUTIVE ORDER 11246 OF SEPTEMBER 24, 1965, AND OF THE RULES, REGULATIONS, AND RELEVANT ORDERS OF THE SECRETARY OF LABOR.

(5) THE CONTRACTOR WILL FURNISH ALL INFORMATION AND REPORTS REQUIRED BY EXECUTIVE ORDER 11246 OF SEPTEMBER 24, 1965, AND BY RULES, REGULATIONS, AND ORDERS OF THE SECRETARY OF LABOR, OR PURSUANT THERETO, AND WILL PERMIT ACCESS TO HIS BOOKS, RECORDS, AND ACCOUNTS BY THE ADMINISTERING AGENCY AND THE SECRETARY OF LABOR FOR PURPOSES OF INVESTIGATION TO ASCERTAIN COMPLIANCE WITH SUCH RULES, REGULATIONS, AND ORDERS.

(6) IN THE EVENT OF THE CONTRACTOR'S NONCOMPLIANCE WITH THE NONDISCRIMINATION CLAUSES OF THIS CONTRACT OR WITH ANY OF THE SAID RULES, REGULATIONS, OR ORDERS, THIS CONTRACT MAY BE CANCELED, TERMINATED, OR SUSPENDED IN WHOLE OR IN PART AND THE CONTRACTOR MAY BE DECLARED INELIGIBLE FOR FURTHER GOVERNMENT CONTRACTS OR FEDERALLY ASSISTED CONSTRUCTION CONTRACTS IN ACCORDANCE WITH PROCEDURES AUTHORIZED IN EXECUTIVE ORDER 11246 OF SEPTEMBER 24, 1965, AND SUCH OTHER SANCTIONS MAY BE IMPOSED AND REMEDIES INVOKED AS PROVIDED IN EXECUTIVE ORDER 11246 OF SEPTEMBER 24, 1965, OR BY RULE, REGULATION, OR ORDER OF THE SECRETARY OF LABOR, OR AS OTHERWISE PROVIDED BY LAW.

(7) THE CONTRACTOR WILL INCLUDE THE PORTION OF THE SENTENCE IMMEDIATELY PRECEDING PARAGRAPH (1) AND THE PROVISIONS OF PARAGRAPHS (1) THROUGH (7) IN EVERY SUBCONTRACT OR PURCHASE ORDER UNLESS EXEMPTED BY RULES, REGULATIONS, OR ORDERS OF THE SECRETARY OF LABOR ISSUED PURSUANT TO SECTION 204 OF EXECUTIVE ORDER 11246 OF SEPTEMBER 24, 1965, SO THAT SUCH PROVISIONS WILL BE BINDING UPON EACH SUBCONTRACTOR OR VENDOR. THE CONTRACTOR WILL TAKE SUCH ACTION WITH RESPECT TO ANY SUBCONTRACT OR PURCHASE ORDER AS THE ADMINISTERING AGENCY MAY DIRECT AS A MEANS OF ENFORCING SUCH PROVISIONS, INCLUDING SANCTIONS FOR NONCOMPLIANCE: *PROVIDED, HOWEVER,* THAT IN THE EVENT A CONTRACTOR BECOMES INVOLVED IN, OR IS THREATENED WITH, LITIGATION WITH A SUBCONTRACTOR OR VENDOR AS A RESULT OF SUCH DIRECTION BY THE ADMINISTERING AGENCY THE CONTRACTOR MAY REQUEST THE UNITED STATES TO ENTER INTO SUCH LITIGATION TO PROTECT THE INTERESTS OF THE UNITED STATES.

THE APPLICANT FURTHER AGREES THAT IT WILL BE BOUND BY THE ABOVE EQUAL OPPORTUNITY CLAUSE WITH RESPECT TO ITS OWN EMPLOYMENT PRACTICES WHEN IT PARTICIPATES IN FEDERALLY ASSISTED CONSTRUCTION WORK: *PROVIDED,* THAT IF THE APPLICANT SO PARTICIPATING IS A STATE OR LOCAL GOVERNMENT, THE ABOVE EQUAL OPPORTUNITY CLAUSE IS NOT APPLICABLE TO ANY AGENCY, INSTRUMENTALITY OR SUBDIVISION OF SUCH GOVERNMENT WHICH DOES NOT PARTICIPATE IN WORK ON OR UNDER THE CONTRACT.

THE APPLICANT AGREES THAT IT WILL ASSIST AND COOPERATE ACTIVELY WITH THE ADMINISTERING AGENCY AND THE SECRETARY OF LABOR IN OBTAINING THE COMPLIANCE OF CONTRACTORS AND SUBCONTRACTORS WITH THE EQUAL OPPORTUNITY CLAUSE AND THE RULES, REGULATIONS, AND RELEVANT ORDERS OF THE SECRETARY OF LABOR, THAT IT WILL FURNISH THE ADMINISTERING AGENCY AND THE SECRETARY OF LABOR SUCH INFORMATION AS THEY MAY REQUIRE FOR THE SUPERVISION OF SUCH COMPLIANCE, AND THAT IT WILL OTHERWISE ASSIST THE ADMINISTERING AGENCY IN THE DISCHARGE OF THE AGENCY'S PRIMARY RESPONSIBILITY FOR SECURING COMPLIANCE.

THE APPLICANT FURTHER AGREES THAT IT WILL REFRAIN FROM ENTERING INTO ANY CONTRACT OR CONTRACT MODIFICATION SUBJECT TO EXECUTIVE ORDER 11246 OF SEPTEMBER 24, 1965, WITH A CONTRACTOR DEBARRED FROM, OR WHO HAS NOT DEMONSTRATED ELIGIBILITY FOR, GOVERNMENT CONTRACTS AND FEDERALLY ASSISTED CONSTRUCTION CONTRACTS PURSUANT TO THE EXECUTIVE ORDER AND WILL CARRY OUT SUCH SANCTIONS AND PENALTIES FOR VIOLATION OF THE EQUAL OPPORTUNITY CLAUSE AS MAY BE IMPOSED UPON CONTRACTORS AND SUBCONTRACTORS BY THE ADMINISTERING AGENCY OR THE SECRETARY OF LABOR PURSUANT TO PART II, SUBPART D OF THE EXECUTIVE ORDER. IN ADDITION, THE APPLICANT AGREES THAT IF IT FAILS OR REFUSES TO COMPLY WITH THESE UNDERTAKINGS, THE ADMINISTERING AGENCY MAY TAKE ANY OR ALL OF THE FOLLOWING ACTIONS: CANCEL, TERMINATE, OR SUSPEND IN WHOLE OR IN PART THIS GRANT (CONTRACT, LOAN, INSURANCE, GUARANTEE); REFRAIN FROM EXTENDING ANY FURTHER ASSISTANCE TO THE APPLICANT UNDER THE PROGRAM WITH RESPECT TO WHICH THE FAILURE OR REFUND OCCURRED UNTIL SATISFACTORY ASSURANCE OF FUTURE COMPLIANCE HAS BEEN RECEIVED FROM SUCH APPLICANT; AND REFER THE CASE TO THE DEPARTMENT OF JUSTICE FOR APPROPRIATE LEGAL PROCEEDINGS.

SUBCONTRACTS - EACH NONEXEMPT PRIME CONTRACTOR OR SUBCONTRACTOR SHALL INCLUDE THE EQUAL OPPORTUNITY CLAUSE IN EACH OF ITS NONEXEMPT SUBCONTRACTS.

INCORPORATION BY REFERENCE - THE EQUAL OPPORTUNITY CLAUSE MAY BE INCORPORATED BY REFERENCE IN ALL GOVERNMENT CONTRACTS AND SUBCONTRACTS, INCLUDING GOVERNMENT BILLS OF LADING, TRANSPORTATION

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REQUESTS, CONTRACTS FOR DEPOSIT OF GOVERNMENT FUNDS, AND CONTRACTS FOR ISSUING AND PAYING U.S. SAVINGS BONDS AND NOTES, AND SUCH OTHER CONTRACTS AND SUBCONTRACTS AS THE DEPUTY ASSISTANT SECRETARY MAY DESIGNATE.

INCORPORATION BY OPERATION OF THE ORDER - BY OPERATION OF THE ORDER, THE EQUAL OPPORTUNITY CLAUSE SHALL BE CONSIDERED TO BE A PART OF EVERY CONTRACT AND SUBCONTRACT REQUIRED BY THE ORDER AND THE REGULATIONS IN THIS PART TO INCLUDE SUCH A CLAUSE WHETHER OR NOT IT IS PHYSICALLY INCORPORATED IN SUCH CONTRACTS AND WHETHER OR NOT THE CONTRACT BETWEEN THE AGENCY AND THE CONTRACTOR IS WRITTEN.

ADAPTATION OF LANGUAGE - SUCH NECESSARY CHANGES IN LANGUAGE MAY BE MADE IN THE EQUAL OPPORTUNITY CLAUSE AS SHALL BE APPROPRIATE TO IDENTIFY PROPERLY THE PARTIES AND THEIR UNDERTAKINGS.

### 41 CFR 60-4.3

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 7 A 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.

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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 ACTIONS. 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 ONSITE 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.

I. 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

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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.

J. 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.

L. 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 WORKFORCE 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.

11. 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

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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).

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**DISADVANTAGED BUSINESS ENTERPRISE (DBE) SUPPLEMENTAL  
REQUIRED CONTRACT PROVISIONS**

**01.00 DBE Policy and Authorities:**

**(a) DBE Policy, Required Assurance, and Applicability** - As required by 49 CFR Part 26, the Linn County Road Department and the Contractor agree to abide by and take all necessary and reasonable steps to comply with the policy set out below:

**(1) DBE Policy** - It is the policy of the United States Department of Transportation (USDOT) to practice nondiscrimination on the basis of race, color, sex and/or national origin in the award and administration of USDOT assisted contracts. Consequently, the Disadvantaged Business Enterprise (DBE) requirements of 49 CFR part 26 apply to this agreement.

**(2) DBE Required Assurance** - The Contractor or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The Contractor shall carry out applicable requirements of 49 CFR part 26 in the award and administration of USDOT-assisted contracts. Failure by the Contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the Agency deems appropriate. Each subcontract the Contractor signs with a subcontractor must include the assurance in this paragraph (see 49 CFR 26.13(b)).

**(3) DBE Applicability** - This applies to all public improvement projects financed in whole or in part with federal funds received from FHWA, FTA and FAA. The Agency and its Contractors shall conform to all applicable civil rights laws, orders, and regulations. The Agency and its Contractors shall not discriminate on the basis of race, age, sex, color, religion, national origin, mental or physical disability, political affiliation, or marital status in the award and performance of Linn County contracts.

**(b) Authorities** - These DBE Supplemental Required Contract Provisions are authorized by the following laws, rules, regulations and guidelines, which, in conjunction with any pertinent policy memoranda or procedures issued by the FHWA, all of which are incorporated by reference into the provisions, govern the Agency's administration of the DBE Program.

The USDOT Regulations (49 CFR Part 26) published in the Federal Register, effective March 4, 1999, established a requirement that all recipients of USDOT funds establish a DBE Program. The regulations are applicable both to ODOT's Federal-aid construction and to its non-construction activities.

The USDOT's legal authority for its DBE regulations includes Executive Order 11625 (October 13, 1971), which required that federal executive agencies develop comprehensive plans and programs to encourage minority business participation. USDOT requires ODOT to establish a DBE Program as a condition for receiving USDOT federal funds.

Title VI, Civil Rights Act of 1964. This Act concerns non-discrimination in federally assisted programs or activities on the grounds of race, color, sex or national origin.

The Program is also subject to the following laws: Section 30 of the Airport and Airway Development Act of 1970 and Section 520 of the Airport and Airway Improvement Act of 1982, as amended by the Airport and Airway Safety Capacity Expansion Act of 1987; Section 905 of the Railroad Act of 1978 (45 USC 903); and Section 19 of the Urban Mass Transportation Act of 1964, as amended (Public Law 95-599).

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Oregon Revised Statutes, Chapters 200 and 279.

Oregon Administrative Rules, Chapter 123, Division 200, Certification Procedures.

The Contractor agrees that these Disadvantaged Business Enterprise (DBE) Supplemental Required Contract Provisions (including all references) shall be incorporated into all subcontracts, regardless of tier, and into any agreements with Committed DBEs, regardless of form of agreement.

**02.00 Abbreviations and Definitions** - Abbreviations and definitions of words and phrases used in connection with the DBE Program are as follows:

**(a) Abbreviations:**

**COBID** - Certification Office of Business Inclusion and Diversity, which is authorized to certify DBE firms according to federal regulations

**DBE** - Disadvantaged Business Enterprise

**FAA** - Federal Aviation Administration  
**FHWA** - Federal Highway Administration

**FTA** - Federal Transit Administration

**ODOT** - Oregon Department of Transportation

**USDOT** - United States Department of Transportation

**(b) Definitions:**

**Assigned DBE Contract Goal** - An assigned numerical percentage value of the total dollar amount of a Contract Award that is allocated solely for DBE participation.

**Broker** - A business firm that provides a bona fide service, such as professional, technical, consultant or managerial services and assistance in the procurement of essential personnel, facilities, equipment, materials, or supplies required for the performance of the contract.

**Certification Directory of DBEs** - A publication (available in paper or Internet) listing all DBEs which are currently certified by the COBID. The Directory is provided to the Contractor for use in identifying DBE firms whose participation on a contract may be counted toward achievement of the assigned DBE contract goal.

**Certified Disadvantaged Business Enterprise (DBE)** - A business firm certified by the COBID, indicating that it:

- Meets the criteria outlined in 49 CFR part 26 regarding certification as a DBE; and
- Possesses the required resources and expertise to perform designated types of work.

**Commercially Useful Function (CUF)** - Commercially useful function and related DBE crediting rules are set out fully in 49 CFR 26.55. In part, 49 CFR 26.55(c) defines commercially useful function as follows:

A DBE performs a commercially useful function when it is responsible for execution of the work of the contract and is carrying out its responsibilities by actually performing, managing, and

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supervising the work involved. To perform a commercially useful function, the DBE must also be responsible, with respect to materials and supplies used on the contract, for negotiating price, determining quality and quantity, ordering the material, and installing (where applicable) and paying for the material itself. To determine whether a DBE is performing a commercially useful function, you must evaluate the amount of work subcontracted, industry practices, whether the amount the firm is to be paid under the contract is commensurate with the work it is actually performing and the DBE credit claimed for its performance of the work, and other relevant factors.

**Committed DBE** - A Committed DBE firm is one that was identified by the Contractor to meet an assigned DBE contract goal as a condition of Contract Award, and includes any substitute DBE that has subsequently been committed work to meet the assigned DBE contract goal. A non-Committed DBE is one that was hired on a race- and gender-neutral basis and has not been identified as a substitute Committed DBE.

**Commodity Codes** - Codes assigned by the COBID to indicate the standard types of work the DBE provides.

**Contractor's DBE Liaison Officer** - The individual designated by the Contractor to assist the Contractor in meeting the Contractor's responsibility of compliance with the legal requirements of the DBE program and with the contractual obligations imposed by these supplementary provisions including but not limited to assuring that the DBE subcontractors on this project perform a commercially useful function.

**DBE Eligibility** - A firm is eligible to participate as a DBE if it meets the criteria as established by the federal DBE regulations in 49 CFR part 26 and enforced by the certifying agency, COBID. A firm will no longer be able to participate as a DBE on current or future contracts when it receives notification of decertification, denial of recertification, or notice of graduation by the certifying agency.

**Equipment** - All machinery, tools, and apparatus needed to complete the contract.

**Federal-Aid Contract** - For the purposes of these Disadvantaged Business Enterprise (DBE) Supplemental Required Contract Provisions, any contract including consultant agreements or modifications of a contract between Linn County and a Contractor which is paid for in whole or in part with USDOT financial assistance from FHWA, FTA or FAA.

**Good Faith Efforts** - Efforts required to obtain and support DBE participation that could reasonably be expected to produce and maintain a level of DBE participation sufficient to meet the assigned DBE contract goal. Good faith efforts are required before Bid Opening, upon Contract Award, and continue throughout the performance of the contract to maximize DBE participation.

**Joint Venture DBE** - An ODOT certified enterprise consisting of two or more businesses formed to jointly carry out a single highway construction project, one or more of which is a certified DBE (see Section 8.00).

**Managerial Control** - Consistent with normal industry practice, management shall include scheduling work operations, ordering equipment and materials (if materials are part of the contract), preparing and submitting payrolls and all other required reports and forms, and hiring and firing employees, including supervisory employees.

**Manufacturer** - A firm that operates or maintains a factory or establishment that produces on the premises the materials or supplies obtained by the Contractor.

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**Operational Control** - Consistent with normal industry practice, the DBE shall supervise the daily operations of the work contracted. There are only two acceptable ways for the DBE to supervise the daily operations. The DBE owner may act as superintendent and directly supervise the work or a skilled and knowledgeable superintendent employed by and paid wages by the DBE shall directly supervise the work. If the latter is used, the DBE owner shall be actively involved in making the operational and managerial decisions of the firm.

**Regular Dealer** - A DBE firm that owns, operates, or maintains a store, warehouse, or other establishment in which the materials or supplies required for the performance of a contract are bought, kept in stock, and regularly sold to the public in the usual course of business. To be a regular dealer, the DBE firm shall engage in, as its principal business and in its own name, the purchase and sale of the products in question. A regular dealer in such items as steel, cement, gravel, stone, and petroleum products need not keep such products in stock if it owns and operates distribution equipment. Any supplementing of a 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, and such equipment shall be operated by the DBE's own employees. Brokers and packagers shall not be regarded as regular dealers within the meaning of this definition.

**Subcontract** - A subcontracting arrangement is generally considered to exist when a person or firm assumes an obligation to perform a part of the contract work and the following conditions are present:

- Compensation for performance of work is on a unit price or lump sum basis.
- The subcontractor exercises full control and authority over the subcontracted work, including the furnishing of labor and equipment and choice of work methods, with only general supervision being exercised by the Contractor.
- Personnel involved in the operation are under the direct supervision of the subcontractor and are included on the subcontractor's payroll.
- The Agency has provided written consent to the subcontract arrangement, regardless of tier.

All conditions involved should be considered and no one condition alone will normally determine whether a subcontract actually exists. (See 00180.21.)

**Type of Work** - Specific descriptions of work which the DBE is certified in the Certification Directory of DBEs as having the expertise and resources necessary to perform.

**03.00 Assigned DBE Contract Goal** - In order to increase DBE participation on Agency contracts, for any project with an assigned DBE contract goal for DBE participation, the Contractor is required to select a portion of work available on the project for DBE participation. The Contractor may use DBE subcontractors, suppliers, manufacturers or professional service providers to fulfill the assigned DBE contract goal as long as the DBE is certified in the types of work selected. The assigned DBE contract goal on a project remains in effect throughout the life of the contract. Dollar values of participation shall be credited toward meeting the assigned DBE contract goal based on DBE gross earnings.

According to 49 CFR 26.87(j)(2), if a Contractor has executed a subcontract with a firm before the Agency notifies the firm of its ineligibility, the Contractor may continue to use the firm on the contract and may continue to receive credit toward its assigned DBE contract goal for the firm's work. If the Agency awards the contract to a DBE prime Contractor that is later ruled ineligible, the portion of the ineligible firm's performance of the contract remaining after the Agency issued the notice of ineligibility shall not count toward the Agency overall goal, but may count toward the assigned DBE contract goal. Under 49 CFR 26.87(j)(3) there is an exception: if the DBE's ineligibility is caused solely by its

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having exceeded the size standard during the performance of the contract, the Agency may continue to count its participation on the contract toward overall and assigned DBE contract goals.

In determining whether a DBE Contractor has met an assigned DBE contract goal, only the work the DBE has committed with its own forces as well as the work that it has committed to be performed by DBE subcontractors and DBE suppliers will be counted.

According to 49 CFR 26.71(n), DBE firms are certified only for specific types of work. If a DBE firm has not been certified prior to Bid Opening, for the type of work it is intending to perform on a given contract, then the firm's participation on that contract cannot count toward assigned DBE contract or overall goals.

The assigned DBE contract goal for the project is listed under the "Assigned DBE Contract Goal" section in the Project bid booklet.

### **04.00 Subcontracting Limitations:**

**(a) DBE Subcontractors** - All DBE subcontractors committed to perform a function or service as a condition of contract award, or for replacing the performance of a Committed DBE, shall perform a commercially useful function according to Section 09.00. If it is determined by the Agency that the DBE subcontractor is unable to perform a commercially useful function, The Agency will notify the Contractor prior to subcontract approval. The Contractor shall either provide evidence that the DBE subcontractor is able to perform a commercially useful function, or replace the DBE subcontractor with another DBE who has been certified to perform the bid item subcontracted according to Section 10.00(c). If the Contractor cannot provide sufficient evidence the DBE subcontractor has the ability to perform a CUF, and/or refuses to replace the DBE, the Contractor may be declared in default and the contract could be terminated according to the General Conditions for Construction for the Linn County Road Department subsection 00180.90(a).

**(b) Second Tier DBE Subcontracts** - Second tier DBE subcontracts may be counted toward the Contractor's assigned DBE contract goal provided the subcontract was listed in the original DBE commitment prior to bid award.

### **05.00 DBE Subcontract, Sub-Subcontract(s), and Other Agreement Documents:**

**(a) Committed DBEs** - All work committed to a DBE toward meeting an assigned DBE contract goal, including work to be performed by a substitute Committed DBE, shall be performed under a written agreement according to 00160.01 and 00180.21. The agreement shall fully describe any partial pay item work committed to be performed by DBE firms.

**(b) Non-Committed DBEs** - Work to be performed by a non-Committed DBE shall be in accordance with 00160.01, 00180.20, and 00180.21.

**06.00 Good Faith Efforts Requirements** - The Contractor is required to exercise good faith efforts during the entire life of the contract to meet the assigned DBE contract goal and to maximize DBE participation and performance on the contract. Good faith efforts shall be made to secure DBE participation sufficient to meet the assigned DBE contract goal. The Contractor shall also make every reasonable effort during the course of the project to enable DBE firms to perform those portions of the contract work for which they have been committed.

The Contractor shall make good faith efforts to replace with another DBE, a DBE who is unable or unwilling to perform, unable to perform a commercially useful function, or has changed its ownership

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and/or control. Section 10.00 discusses the procedures that shall be followed to terminate a Committed DBE and replace the firm with a substitute.

The Engineer may request the Contractor to submit evidence of Good Faith Efforts at any time during the course of the contract and the Contractor shall promptly submit such evidence.

**07.00 DBE Work Plan Proposal Form** - The Contractor shall require each DBE participating on the project as a subcontractor and each Committed DBE, regardless of work type or form of agreement, to complete the "Disadvantaged Business Enterprise Work Plan Proposal - Form 3A" (Form 734-2165A). The form shall be filled-in electronically, then printed, and signed by an authorized representative of the DBE and of the Contractor. The Contractor shall submit the completed form to the Engineer. Form 734-2165A is available on the ODOT Office of Civil Rights website at:

<http://www.oregon.gov/ODOT/CS/CIVILRIGHTS/Pages/forms.aspx>

For Committed DBEs, the Contractor shall submit the completed DBE Work Plan Proposals to the Engineer at or before the pre-construction conference. For non-Committed DBE subcontractors, the Contractor shall submit the completed forms to the Engineer in time for review of the Contractor's request for consent to use the DBE subcontractor on the project.

The purpose of the DBE Work Plan Proposal is to preview whether the proposed activities and type of work identified will comply with DBE program regulations, particularly with respect to commercially useful function and crediting rules. The Contractor shall ensure the form is completed with sufficient information about the DBE's intended work, personnel, equipment, materials, and performance to allow the Agency to determine whether the DBE's proposed performance will meet commercially useful function requirements. Additional information and documentation may be requested by the Agency as needed to alleviate program compliance concerns and must be provided promptly according to 49 CFR 26.109.

The DBE Work Plan Proposal specifically solicits information regarding the following:

**(a) Type of Work** - List the types of work the DBE will perform.

**(b) Personnel Required** - List the names and/or craft classifications for personnel who will perform. Indicate whether the individual is regularly employed by the DBE, or the source from which the individual was or is to be recruited.

**(c) Equipment Required** - List the items of equipment that will be used on the project. Indicate whether the equipment is owned, rented or leased. If rented or leased, consent to the rental or lease shall be obtained from the Agency prior to beginning of the work.

**(d) Supplies and Materials Required** - List the supplies and materials that will be used on the project. Indicate the source, by name, address, and phone number, from which supplies and materials will be obtained. For a DBE supplier committed to meet an assigned DBE contract goal, attach documentation showing how the DBE meets manufacturer, regular dealer, or broker requirements, as applicable to the credit being claimed and provide any additional explanation needed regarding ordering, scheduling, and delivery according to subsection (f) below.

**(e) Prime Contractor Resources** - Discuss any plans for the DBE to share any resources of the Contractor, e.g. personnel, equipment, tools, or facilities.

## **North Santiam River (Mill City) Bridge Structure Rehabilitation and Painting**

**(f) Additional Information** - Provide comments or explanation of any of the information provided above. Include information related to joint check arrangements or any plans the DBE has to subcontract work to a lower tier or perform work through a specialty contractor.

The Engineer will review the proposals and may provide written comments as to whether the activities and type of work identified in the proposals complies with program regulations. In those instances where proposed activity and type of work violates applicable regulations, written comments will be offered as to corrective action required in order to comply with the regulations.

**08.00 Contractor Pre-construction Conference Reporting** - The Contractor shall deliver the following information to the Engineer at or before the Pre-construction Conference:

- The name of the DBE liaison officer who will administer the Contractor's DBE program. Said officer or the officer's designee shall attend the conference.
- Contractor's project schedule showing the work commencement date and estimated completion date for each DBE that will perform work on the project.
- "Disadvantaged Business Enterprise Work Plan Proposal - Form 3A" for all Committed DBEs that are performing work on the project regardless of contracting tier.

**09.00 Commercially Useful Function** - The Contractor is responsible for ensuring that DBE firms working on the project perform a commercially useful function (CUF). The Contractor shall receive credit toward meeting the assigned DBE contract goal and payment for DBE commercially useful function performed work only.

An on-site review will be used to ascertain whether the DBE is actively performing, managing, and supervising the work. It shall employ a labor force which is separate and apart from that employed by the Contractor, and which is independently recruited by the DBE according to standard industry practice. The DBE shall supervise and manage the work or independently hire a supervisor, who may not be a supervisor employed by the Contractor or any other subcontractor on the project.

With regard to the Federal-aid share, if an investigation reveals that there has been a violation of the CUF provisions, that portion of the work found to be in violation would not be counted toward goal achievement for either the Contractor or the Agency.

When a DBE is presumed not to be performing a CUF as described in this section, the DBE may present evidence through the Contractor to the Agency to rebut that presumption.

**(a) The DBE (Not Some Other Business Entity) Shall Actually Perform the Subcontract** -

The DBE's utilization of labor, supervisory personnel, equipment and material in the performance of the subcontract shall be consistent with industry standards and shall demonstrate that the DBE and not some other business entity is actually performing the subcontract. For example, if a DBE associates itself too closely with another business entity or entities, in acquiring a labor force, supervisors, equipment or materials to an extent inconsistent with industry standards, the DBE can no longer be said to be actually performing the subcontract because a partnership or joint venture, of which the DBE is a member, is the actual performer of the subcontract.

**(b) DBE's Work Force** - The DBE shall solicit, hire, place on its payroll, direct, and control all workers performing work under its contract. The DBE owner or its superintendent shall, on a full-time basis, supervise and control the work of the contract. The DBE may with the prior written consent of the Engineer augment its work force with personnel of another firm. The Engineer shall approve the request only when:

- Specialized skills are required, and

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- The use of such personnel is for a limited time period.

**(c) DBE Equipment** - The DBE is expected to perform the work with equipment that is owned, being purchased, or leased by the DBE under a written lease agreement that has been consented to by the Engineer prior to the DBE starting work. No credit will be given, nor payment made for the cost of equipment leased or rented and used in the DBE firm's work when payment for those costs is made by a deduction from the Contractor's payment(s) to the DBE firm.

The DBE may lease specialized equipment, provided a written rental agreement, separate from the subcontract specifying the terms of the lease arrangement, is consented to by the Engineer prior to the DBE starting work. The Engineer will consent to the lease agreement only when:

- The equipment is of a specialized nature,
- The equipment is readily available at the job site,
- The operation of the equipment is under the full control of the DBE,
- The lease arrangement is for a short term,
- The lease arrangement for the specialized equipment in question is a normal industry practice, and
- The DBE shall hire, direct, supervise, control and carry the operator of the equipment on the DBE payroll.

**(d) DBE Trucking Firms** - Whenever a DBE trucking firm has been committed to meet an assigned DBE contract goal, the Contractor shall ensure that the Committed DBE individually identifies each truck intended for use on the Project on its "Disadvantaged Business Enterprise Work Plan Proposal - Form 3A" or an attached list.

The Contractor shall furnish a daily log of all trucking work performed under the Committed DBE's subcontract. The "Daily DBE Trucking Log" (Form 734-2916), (or an approved equal that contains all the information on the ODOT form, including the certification) shall be completed for each day work is performed under the DBE's subcontract. The Daily DBE Trucking Log shall identify all trucks under the management and supervision of the DBE subcontractor used on the Project.

The Contractor shall submit the Daily DBE Trucking Log to the Engineer on a weekly basis and no later than 14 Calendar Days after the first recorded date in the logs. For owner-operator trucks, the Contractor shall comply with 00170.65(b-4).

The following factors will be used to determine if a DBE Trucking firm is performing a CUF:

- The DBE shall be responsible for the management and supervision of the entire trucking operation for which it is responsible on a particular contract, and there cannot be a contrived arrangement for the purpose of meeting DBE goals.
- The DBE shall itself own and operate at least one fully licensed, insured and operational truck used on the contract.
- The DBE 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 may lease trucks from another DBE firm, including an owner-operator who is certified as a DBE. The DBE who leases trucks from another DBE receives credit for the total value of the transportation services the lessee DBE provides on the contract.
- According to 49 CFR 26.55(d)(5) the DBE may also lease trucks from a non-DBE firm, including an owner-operator. The DBE who leases trucks from a non-DBE is entitled to credit for the total value of the transportation services provided by the non-DBE lessees not

## **North Santiam River (Mill City) Bridge Structure Rehabilitation and Painting**

to exceed the value of transportation services provided by DBE-owned trucks on the contract. Additional participation by non-DBE lessees receives credit only for the fee or commission it receives as a result of the lease arrangements.

- For the purposes of this paragraph, a lease shall indicate that the DBE 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, so long as the lease gives the DBE absolute priority for use of the leased truck. Leased trucks shall display the name and identification number of the DBE.

**(e) DBE Flagging Firms** - DBE flagging firms shall be responsible for ensuring all their dispatched employees meet the required certification and licensing requirements and for furnishing their employees with equipment (in this case, paddles and radios) to perform the committed work. This does not preclude the DBE's employees from supplementing with their own equipment.

**10.00 Termination and Substitution of DBEs** - The Contractor shall notify the Engineer in writing of the termination or substitution of any DBE participating on the project. For Committed DBEs, the Contractor shall obtain written consent from the Engineer before terminating and, if required to meet the assigned DBE contract goal, replacing a Committed DBE with a substitute. Written consent for terminating the performance of any Committed DBE will be granted only where the Contractor can demonstrate good cause that the DBE is unable, unwilling or ineligible to perform. Such written consent to terminate any DBE shall concurrently constitute written consent to substitute or replace the terminated DBE. Termination or replacement of a Committed DBE will not be consented to based solely on a Contractor's ability to negotiate a more advantageous contract with another subcontractor.

**(a) Contractor Notice of Termination of a Non-Committed DBE** - The Contractor shall notify the Agency in writing of plans to terminate a non-Committed DBE. Include the name of the non-Committed DBE to be terminated, a brief explanation of the reason for termination, and the adjusted DBE subcontract or agreement amount.

**(b) Contractor Written Request to Terminate a Committed DBE** - All Contractor requests to terminate, substitute or replace a Committed DBE, including a partial termination or substitution of work committed to a DBE, shall be in writing and shall include the following information:

- Date the Contractor determined the DBE to be unwilling, unable or ineligible to perform.
- Projected date Contractor will require substitution or replacement DBE to commence work if consent is granted to the request.
- Brief statement of facts describing and citing specific actions or inaction by the DBE giving rise to the Contractor's assertion that the DBE is unwilling, unable or ineligible to perform.
- Brief statement of the affected DBE's capacity and ability to perform the work as determined by Contractor.
- Brief statement of facts regarding actions taken by Contractor that are believed to constitute good faith efforts toward enabling the DBE to perform.
- To date percentage of work completed on each bid item by the DBE.
- The total dollar amount paid, per bid item, to date for work performed by the DBE.
- The total dollar amount, per bid item, remaining to be paid to the Committed DBE for work completed, but for which the DBE has not received payment and with which the Contractor has no dispute.
- The total dollar amount, per bid item, remaining to be paid to the DBE for work completed, but for which the DBE has not received payment and over which the Contractor and/or the DBE have dispute.

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- A written, signed statement from the DBE, provided the DBE concurs with request to terminate, indicating its unwillingness or inability to perform.

**(c) Contractor Written Notice to Committed DBE of Pending Request to Terminate and Substitute with Another DBE** - The Contractor shall send a copy of the request to terminate and substitute letter to the affected Committed DBE in conjunction to submitting the request to the Engineer. The affected DBE firm may submit a response letter to the Engineer within five Calendar Days of receiving the notice from the Contractor. The affected DBE firm may explain its position concerning performance on the committed work. The Engineer will consider both the Contractor's request and DBE's response and explanation before approving the Contractor's termination and substitution request. If the Contractor is unsuccessful in notifying the affected DBE firm, after trying its best to deliver a copy of its request letter, the Agency may determine that the affected Committed DBE is unable or unwilling to continue the contract and a substitution will be immediately approved by the Engineer.

**(d) Proposed Substitution of Another Certified DBE** - When a Committed DBE substitution shall occur, the Contractor may submit another eligible DBE firm to replace the original committed firm in writing. The Contractor shall submit the name of the DBE firm, the proposed work to be performed, and the dollar amount of the work. The Contractor shall give pertinent information including bid item, item description, bid quantity and unit, unit price, and total price. In addition, the Contractor shall submit a written DBE Work Plan for the requested substitute DBE according to Section 07.00. The dollar value of work to be performed by the substitute DBE shall be in an amount equal to the dollar value of the amount committed to the terminated DBE, minus the value of work performed to date by the DBE, prior to the request for substitution. Should the Contractor be unable to commit the required dollar value to the substitute DBE, the Contractor shall provide written evidence of good faith efforts made to obtain the substitute value requirement. The Agency will review the quality and intensity of those efforts. Efforts that are merely superficial are not good faith efforts to meet the assigned DBE contract goal. The Contractor shall document the steps taken to obtain participation which demonstrate the good faith efforts outlined below:

- Evidence that the Contractor attended any pre-solicitation or prebid meetings that were scheduled by the Agency to inform DBE firms of contracting and subcontracting or material supply opportunities available on the project;
- Evidence that the Contractor identified and selected specific economically feasible units of the project to be performed by DBE firms in order to increase the likelihood of participation by DBE firms;
- Evidence that the Contractor advertised in general circulation, trade association, minority and trade oriented, women-focus publications, concerning the subcontracting or supply opportunities;
- Evidence that the Contractor provided written notice to a reasonable number of specific DBE firms, identified from the DBE Directory of Certified Firms for the selected subcontracting or material supply work, in sufficient time to allow the enterprises to participate effectively;
- Evidence that the Contractor followed up initial solicitations of interest by contacting the enterprises to determine with certainty whether the enterprises were interested. The Contractor should provide the following information as evidence:
  - The names, addresses, and telephone numbers of DBE firms who were contacted, the dates of initial contact and whether initial solicitations of interest were followed up by contacting the DBE firms to determine with certainty whether the DBE firms were interested;
  - A description of the information provided to the DBE firms regarding the plans and specifications and estimated quantities for portions of the work to be performed;

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- Documentation of each DBE contacted, but rejected and the reasons for the rejection.
- Evidence that the Contractor provided interested DBE firms with adequate information about the plans, specifications and requirements for the selected subcontracting or material supply work;
- Evidence that the Contractor negotiated in good faith with the enterprises, and did not without justifiable reason reject as unsatisfactory bids prepared by any DBE;
- Evidence that the Contractor advised and made efforts to assist interested DBE firms in obtaining bonding, lines of credit, or insurance required by the Agency or Contractor;
- Evidence that the Contractor's efforts to obtain DBE participation were reasonably expected to produce a level of participation sufficient to meet the assigned DBE contract goal or requirements of the Agency;
- Evidence that the Contractor used the services of minority community organizations, minority organizations identified by the Advocate for Minority and Women Business that provide assistance in the recruitment and placement of disadvantaged, minority, or women business enterprises; and
- Evidence that the Contractor used the services of ODOT's Supportive Services Contractor(s).

**11.00 Changes in Work Committed to DBEs** - The Agency will consider the impact on DBE participation in instances where the Agency changes, reduces, or deletes work committed to a DBE at the time of contract award. In such instances, the Contractor shall not be required to replace the work but is encouraged to do so. If the prime Contractor proposes any changes that involve a Committed DBE, the Contractor shall notify the affected DBE of the proposed change, reduction, or deletion of any work committed at the time of contract award prior to executing the change order. The Contractor shall enable the affected DBE to participate in the change order request and will make every effort to maintain the Committed DBE percentage that was the condition of contract award. Documentation of this effort and a letter from the DBE agreeing to the change shall be included with the request.

### **12.00 Contractor Payments to Subcontractors and Suppliers:**

**(a) DBE-Related Records** - The Contractor shall maintain records of all subcontracts or other agreements entered into with DBE firms and records of materials purchased from DBE suppliers. Such records shall show the name and business address of each DBE subcontractor or vendor and the total dollar amount actually paid to each DBE subcontractor or vendor.

**(b) Prompt Payment and Release of Retainage** - The Contractor shall pay each subcontractor for satisfactory performance of its contract no later than ten Calendar Days from receipt of each payment the Contractor receives from the Agency. The Contractor shall also return retainage payments to each subcontractor within ten Calendar Days after the subcontractor's work is satisfactorily completed. Any delay or postponement of payment from the above referenced time frame may occur only for good cause following written approval of the Engineer. This policy applies to both DBE and non-DBE contractors.

**(c) Paid Summary Reports** - The Contractor shall submit a "Paid Summary Report" (Form 734-2882) to the Engineer certifying payments made to all of the following:

- All subcontractors
- Committed DBE suppliers

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- Non-Committed DBE suppliers and service providers with estimated total payments for the Project over \$10,000.

The Contractor shall submit the completed and signed Paid Summary Report to the Engineer within 20 days of receipt of payment from the Agency for each month in which payments were made to each subcontractor, each Committed DBE supplier, and each non-Committed DBE supplier or service provider with estimated total payments for the Project over \$10,000. At the completion of the project, submit Form 734-2882 recapping the total amounts paid to each subcontractor, and each Committed DBE supplier, and each non-Committed DBE supplier or service provider with estimated total payments for the Project over \$10,000.

The Contractor shall require each subcontractor at every tier to comply with the requirement to submit Form 734-2882 within 20 days of receipt of payment from its controlling contractor and provide a recap of the total amounts paid at the completion of the project or completion of their Work.

Forms shall be submitted to an email address provided to the Contractor at the Preconstruction Conference.

***The participation of a DBE subcontractor will not be credited towards the Contractor's assigned DBE contract goal, or the overall goal, until the amount being counted toward the goal, and any retainage held by the Contractor has been paid to the DBE.***

**13.00 Remedies** - Failure of any Contractor to meet the requirements cited in Section 01.00(b) constitutes a breach of contract for which the imposition of the following sanctions could occur:

- Temporarily withholding progress payments until the Contractor complies with these provisions through future performance.
- Permanently withholding payment for work already performed in a manner that constitutes a breach of contract.
- Suspension of work according to the General Conditions for Construction for the Linn County Road, subsections 00150.00 and 00180.70.

Any Bidder or Contractor or subcontractor on a public contract that violates the provisions of ORS 200.075 shall have its right to bid on or participate in any public contract suspended for up to 90 days for a first violation, up to one year for a second violation and up to five years for a third violation.

Each violation shall remain on record for five years. After five years, the violation shall no longer be considered in reviewing future violations.

Failure of a Bidder, Contractor, or subcontractor to comply with the requirements cited in Section 01.00(b) when there appears to be evidence of criminal conduct, shall be referred to the Oregon Department of Justice and/or the FHWA Inspector General for criminal investigation, and if warranted, prosecution.

**14.00 Records and Reports** - The Contractor shall keep such project records as are necessary to determine compliance with these DBE Supplemental Required Contract Provisions, including but not limited to records on equipment usage, fuel consumption, invoicing, and payments. Such records shall include written reports from the Agency to the Contractor as to the performance of the committed DBE and its performance of a commercially useful function. Contractor shall provide the Engineer with records on equipment and fuel logs and other records needed to verify compliance with commercially useful function and DBE crediting requirements.

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**15.00 Further Information** - The Disadvantaged Business Enterprise Supplemental Required Contract Provisions shall be incorporated into and attached to all agreements and contracts on projects financed in whole or in part with federal funds.

For further information concerning Disadvantaged Business Enterprise participation, including confirmation of certification for type of work, contact, in writing, the DBE Program Manager not later than one week prior to the project Bid Opening at [ocrinforequest@odot.state.or.us](mailto:ocrinforequest@odot.state.or.us).

Other requests may be directed to the individuals identified in the Special Provisions under "Project Information".

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**ASSIGNED DBE CONTRACT GOAL**

The minimum Assigned **DBE** Contract Goal for this Project is **0%**.

A Certification Directory of DBEs is available by telephone at 503-986-0075 or from the Certification Office of Business Inclusion and Diversity (COBID) website at:

<https://oregon4biz.diversitysoftware.com/FrontEnd/VendorSearchPublic.asp>

**PROJECT WAGE RATES**

**Minimum Wage Requirements** - This Project is subject to both Federal and State prevailing wage rate requirements. Not less than the higher of the applicable Federal or State prevailing wage rates shall be paid to workers according to 00170.65(b) and 00170.65(e).

**Applicable Wages** - Prevailing wage rates published in the wage determinations and any applicable modifications or amendments apply to this Project and are incorporated by reference:

(1) U.S. Department of Labor, "General Wage Determinations Issued under the Davis-Bacon and Related Acts: Oregon Highway Construction Projects", and

(2) Oregon Bureau of Labor and Industries (BOLI), "Prevailing Wage Rates for Public Works Contracts in Oregon".

The applicable Federal prevailing wage rates and State prevailing wage rates last published prior to the time of Bid Opening, which is stated on the Description of Work page, apply to this Project.

**Wage Rates are Internet-Accessible** - The applicable Davis-Bacon wage rates can be found on the US Department of Labor website at: <https://www.wdol.gov/dba.aspx>

The BOLI wage rates can be found on the Oregon Bureau of Labor and Industries website at: <http://www.oregon.gov/boli/WHD/PWR/Pages/index.aspx>

**Wage Rates are Subject to Change** - Modifications or amendments to the Davis-Bacon and BOLI wage rates applicable to this Project may occur at any time before Bid Opening. Bidders are responsible to monitor the respective web page(s) for modifications and amendments up until Bid Opening.

**WEB SITE ADDRESSES**

**General Conditions for Construction for the Linn County Road Department:**

<http://www.co.linn.or.us/Roads/ContractConst.asp> - Project Title

**Plan Holder Registration (00120.05):**

<http://www.co.linn.or.us/Roads/Register.asp>

**Addenda Letters (00120.30):**

<http://www.co.linn.or.us/Roads/ContractConst.asp> - Project Title

**Notice of Intent to Award (00130.10):**

<http://www.co.linn.or.us/Roads/ContractConst.asp> - Project Title

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### **FIRST-TIER SUBCONTRACTOR DISCLOSURE FORM INSTRUCTIONS**

#### **Instructions for Submitting Form**

Submit the First-Tier Subcontractor Disclosure form not later than two working hours after the time set for Bid Closing (For example, before 11:00 a.m. after a 9:00 a.m. Bid Closing.) by any of the following methods:

- By filling out the Subcontractor Disclosure Form included in the Bid Booklet and submitting it together with the Bid at the time designated for receipt of Bids.
- Hand delivering it to: The Linn County Courthouse, 300 Fourth Avenue S.W., Room 201, Albany, OR 97321, or
- FAX it to 541-924-0202

The Department is not responsible for partial, failed, illegible, or partially legible FAX transmissions or electronic submissions.

#### **Instructions for First-Tier Subcontractor Disclosure**

Without regard to the amount of a Bidder's Bid, if the Agency's cost range for a public improvement Project in the "Notice to Contractors", or in other advertisement or solicitation documents is greater than \$100,000 Bidders are required to disclose information about first-tier Subcontractors that will furnish labor or labor and materials (See ORS 279C.370). Specifically, when the contract amount of a first-tier Subcontractor is greater than or equal to: (1) 5% of the total project Bid, but at least \$15,000, or (2) \$350,000 regardless of the percentage of the total project Bid, you must disclose the following information about that Subcontractor not later than two working hours after the time set for opening Bids:

- The name of the Subcontractor
- The category of work that the Subcontractor will be performing
- The dollar amount of the subcontract

Total all work for each Subcontractor in making this determination.

If the Agency's cost range is greater than \$100,000 and you will not be using any first-tier Subcontractors, you are still required to submit the form, with the appropriate box checked or enter "NONE" on the first line.

If the Agency's cost range is greater than \$100,000 and you are not subject to the above disclosure requirements, you are still required to submit the form, with the appropriate box checked or enter "NONE" on the first line.

**THE AGENCY MUST REJECT BIDS if the Bidder fails to submit the disclosure form with this information by the stated deadline.**

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**COATING SYSTEM WARRANTY (36 MONTH)**

THIS WARRANTY, made by \_\_\_\_\_  
(Contractor)

\_\_\_\_\_ and  
of \_\_\_\_\_

\_\_\_\_\_ of \_\_\_\_\_

hereinafter called "Warrantors", in favor of the Linn County Road Department, hereinafter called "Agency";

**WITNESSETH:**

**RECITALS:**

1. Agency has contracted for preparing and coating structural steel and other metal surfaces on the \_\_\_\_\_.  
(Description of surfaces to be coated)

2. Under the provisions of Contract No. \_\_\_\_\_ pertaining in part to coating under said Contract of structural steel and other metal surfaces, entered into by Agency and \_\_\_\_\_ ("Contractor"), the Contractor is  
(Contractor)

required to and hereby furnishes to the Agency a written warranty for the coating system warranting against defects as provided in said Contract for a period of 36 months beginning at the issuance of the Second Notification under said Contract.

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NOW, THEREFORE, in consideration of the foregoing, Warrantors hereby agree and unconditionally warrant to the Agency that the coating system and all coating work, both above deck and below deck, are and shall be free from all defects as defined in the above-described Contract for a period of 36 months, and that if any such defects occur or are discovered within said 36 month period, Warrantors shall, forthwith upon receipt of written notification of any such defect or defects make repairs to the coating system necessary to meet the original Contract requirements, at no additional cost to the Agency, within the time limits as specified in the Contract. References herein to the warranty requirements of the Contract include, but are not limited to, the terms, conditions and requirements contained in the Specifications, including, but not limited to, subsections 00130.40, 00170.85(b)(1), and 00594.75 for the Contract, which are incorporated herein by this reference.

It is expressly understood and agreed that the warranty and obligations herein set forth are made and undertaken by Warrantors to and for the benefit of the Agency.

IN WITNESS WHEREOF, Warrantors have set their hands as of this \_\_\_\_day of \_\_\_\_\_, 20 \_\_\_\_.

ATTEST:

\_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

(Contractor)

**North Santiam River (Mill City) Bridge  
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**SUPPLEMENTAL PERFORMANCE BOND (36 MONTH WARRANTY PERIOD)**

KNOW ALL MEN BY THESE PRESENTS, That we \_\_\_\_\_  
as principal, and \_\_\_\_\_  
as Surety, a corporation duly organized and existing under and by virtue of the laws of the State of \_\_\_\_\_ and duly authorized to transact the business of Surety in the State of Oregon, are jointly and severally held and bound unto the State of Oregon in the sum of \_\_\_\_\_ (\$ \_\_\_\_\_) Dollars, for the payment of which we jointly and severally bind ourselves, our heirs and executors, administrators, successors and assigns firmly by these presents.

**THE CONDITION OF THIS BOND IS SUCH**

That, whereas, the principal herein has, on or about the \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, made and entered into a certain Contract with the Linn County Road Department, by and through the Linn County Board of Commissioners, which agreement is more fully described as \_\_\_\_\_, Contract No. \_\_\_\_\_, under which Contract the principal agrees to furnish certain materials and to perform certain work which it agrees to do in accordance with the terms, conditions and requirements as set out in said Contract, and whereas, in connection with said Contract, the principal and others have executed a written warranty, a copy of which warranty is attached hereto and by this reference made a part hereof;

And, whereas, the principal also agrees to furnish materials and perform work according to all authorized modifications of the Contract which increase the amount of work and amount of Contract. Notice to the Surety of any of the immediately foregoing is waived.

And, whereas, the principal has therein undertaken to warrant the work of preparing and coating structural steel and other metal surfaces against any defects, as therein defined, for a period of at least 36 months beginning at the issuance of the Second Notification.

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NOW, THEREFORE, if the principal herein shall faithfully and truly observe and comply with the terms of such warranty and shall well and truly perform all matters and things by it undertaken to be performed under said warranty upon the terms proposed therein and shall do all things required of said principal by the laws of this state and shall indemnify and save harmless the Linn County Road Department, the Linn County Board of Commissioners and their respective members, officers, employees, and agents against any direct or indirect damages of every kind and description that shall be suffered or claimed to be suffered in connection with or arising out of the performance of the said warranty by the Contractor or Subcontractors, then this obligation is to be void, otherwise to remain in full force and effect.

In no event shall the obligations under this bond be terminated without written consent of the Linn County Road Department, by and through its County Board of Commissioners.

Nonpayment of the bond premium will not invalidate this bond nor shall the Linn County Road Department, by and through its County Board of Commissioners, be obligated for the payment thereof.

Signed and sealed this \_\_\_\_ day of \_\_\_\_\_, 20 \_\_\_\_.

SURETY \_\_\_\_\_

Attorney-in-fact

PRINCIPAL \_\_\_\_\_

BY \_\_\_\_\_

BY \_\_\_\_\_

(Official Capacity)

Countersigned:

\_\_\_\_\_

Resident Agent

Attest: \_\_\_\_\_

Secretary

**North Santiam River (Mill City) Bridge  
Structure Rehabilitation and Painting**

LINN COUNTY ROAD DEPARTMENT

SPECIAL PROVISIONS

FOR

Structure Rehabilitation and Painting  
North Santiam River (Mill City) Bridge  
First Avenue  
Linn County

**PROFESSIONAL OF RECORD CERTIFICATION(s):**

<p>Seal w/signature</p>  <p>EXPIRES: 06/30/21</p>	<p>I certify the Special Provision Section(s) listed below are applicable to the design for the subject project for the General Conditions, environmental. Modified Special Provisions were prepared by me or under my supervision.</p> <p>Sections 00110, 00120, 00130, 00140, 00150, 00160, 00165, 00170, 00180, 00190, 00195, 00196, 00197, 00199, 00280, 00290, 00295</p>
<p>Date Signed: <u>02/25/2020</u></p>	

**North Santiam River (Mill City) Bridge  
Structure Rehabilitation and Painting**

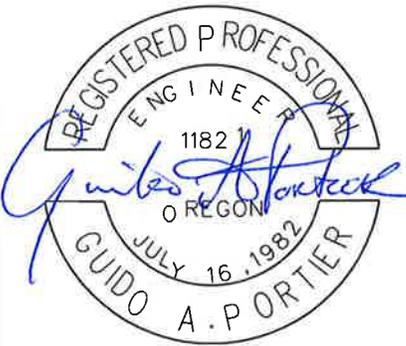
LINN COUNTY ROAD DEPARTMENT

SPECIAL PROVISIONS

FOR

Structure Rehabilitation and Painting  
North Santiam River (Mill City) Bridge  
First Avenue  
Linn County

**PROFESSIONAL OF RECORD CERTIFICATION(s):**

 <p>RENEWS: 12/31/2020</p>	<p>I certify the Special Provision Section(s) listed below are applicable to the design for the subject project for Temporary Features and Appurtenances, and Bridges. Modified Special Provisions were prepared by me or under my supervision.</p> <p>Sections 00253, 00255, 00294, 00296, 00501, 00510, 00530, 00538, 00540, 00541, 00542, 00560, 00565, 00566, 00571, 00582, 00585, 00587, 00594, 02001, 02015, 02040, 02050, 02060, 02080, 02440, 02510, 02530, 02560, 02690</p>
<p>Date Signed : <u>2-25-2020</u></p>	

**North Santiam River (Mill City) Bridge  
Structure Rehabilitation and Painting**

LINN COUNTY ROAD DEPARTMENT

SPECIAL PROVISIONS

FOR

Structure Rehabilitation and Painting  
North Santiam River (Mill City) Bridge  
First Avenue  
Linn County

**PROFESSIONAL OF RECORD CERTIFICATION(s):**

<p>Seal w/signature</p>  <p>Expires: 6/30/21</p>	<p>I certify the Special Provision Section(s) listed below are applicable to the design for the subject project for traffic control. Modified Special Provisions were prepared by me or under my supervision.</p> <p>Section 00210, 00220, 00225</p>
<p>Date Signed: <u>2/25/20</u></p>	

**North Santiam River (Mill City) Bridge  
Structure Rehabilitation and Painting**

**SPECIAL PROVISIONS**

**WORK TO BE DONE**

The Work to be done under this Contract consists of the following:

1. Paint structure
2. Replace bearings
3. Repair joints
4. Sidewalk replacement and strengthening
5. Miscellaneous concrete repair
6. Bent and pile replacement
7. Perform additional and incidental Work as called for by the Specifications and Plans

**APPLICABLE SPECIFICATIONS**

The Specifications that are applicable to the Work on this Project are the November 15, 2019 edition of the "General Conditions for Construction for the Linn County Road Department" and the 2018 edition of the "Oregon Standard Specifications for Construction", as modified by these Special Provisions. All Sections in Part 00100 apply, whether or not modified or referenced in the Special Provisions.

All number references in these Special Provisions shall be understood to refer to the Sections and subsections of the Standard Specifications bearing like numbers and to Sections and subsections contained in these Special Provisions in their entirety.

**CLASS OF PROJECT**

This is a Federal-Aid Project. First Avenue is classified as a Rural Major Collector.

**SECTION 00100 - GENERAL CONDITIONS**

Comply with Section 00100 of the General Conditions for Construction for the Linn County Road Department modified as follows:

**SECTION 00110 - ORGANIZATION, CONVENTIONS, ABBREVIATIONS AND DEFINITIONS**

Comply with Section 00110 of the Standard Specifications modified as follows:

**00110.05(e) Reference to Websites** - Add the following bullet list to the end of this subsection:

- American Traffic Safety Services Association (ATSSA)  
[www.atssa.com](http://www.atssa.com)
- ODOT Construction Section  
[www.oregon.gov/odot/construction/pages/index.aspx](http://www.oregon.gov/odot/construction/pages/index.aspx)
- ODOT Construction Section - Qualified Products List (QPL)  
[www.oregon.gov/ODOT/Construction/Pages/Qualified-Products.aspx](http://www.oregon.gov/ODOT/Construction/Pages/Qualified-Products.aspx)
- ODOT Estimating  
[www.oregon.gov/ODOT/Business/Pages/Steel.aspx](http://www.oregon.gov/ODOT/Business/Pages/Steel.aspx)
- Oregon Legislative Counsel  
[www.oregonlegislature.gov/lc](http://www.oregonlegislature.gov/lc)

## North Santiam River (Mill City) Bridge Structure Rehabilitation and Painting

- ODOT Procurement Office - Conflict of Interest Guidelines and Disclosure Forms  
[www.oregon.gov/ODOT/Business/Procurement/Pages/PSK.aspx](http://www.oregon.gov/ODOT/Business/Procurement/Pages/PSK.aspx)
- ODOT Procurement Office - Construction Contracts Unit prequalification forms  
[www.oregon.gov/odot/business/procurement/pages/bid\\_award.aspx](http://www.oregon.gov/odot/business/procurement/pages/bid_award.aspx)
- Oregon Secretary of State: State Archives  
[sos.oregon.gov/archives/Pages/default.aspx](http://sos.oregon.gov/archives/Pages/default.aspx)
- ODOT Traffic Control Plans Unit  
[www.oregon.gov/ODOT/Engineering/Pages/Work-Zone.aspx](http://www.oregon.gov/ODOT/Engineering/Pages/Work-Zone.aspx)
- ODOT Traffic Standards  
[www.oregon.gov/ODOT/Engineering/Pages/Signals.aspx](http://www.oregon.gov/ODOT/Engineering/Pages/Signals.aspx)

**00110.10 Abbreviations** - Add the following abbreviation:

TPAR -Temporary Pedestrian Access Route

### **SECTION 00120 - BIDDING REQUIREMENTS AND PROCEDURES**

Comply with Section 00120 of the Standard Specifications modified as follows:

**00120.05 Request for Plans, Special Provisions, and Bid Booklets** - Add the following to the end of this subsection:

The Plans, which are applicable to the Work to be performed under the Contract, bear title and date as follows:

“Structure Rehabilitation and Painting  
North Santiam River (Mill City) Bridge  
First Avenue  
ODOT Bridge No. 02058  
Federal Aid Number T17HC019  
Linn County  
April 2020”

**00120.10 Bid Booklet** - In the paragraph that begins "The Bid Section includes all pages after...", add the following bullet to the bullet list:

- Certificate of nondiscrimination regarding ORS 279A.110 and certificate regarding policy and practice against sexual harassment, sexual assault and discrimination against employees who are members of a protected class as required by ORS 279A.112 (House Bill 3060, 2017)

**00120.70 Rejection of Nonresponsive Bids** - Add the following bullet to the end of the bullet list:

- The Bidder has liquidated and delinquent debt owed to the State or any department or agency of the State.
- The Agency determines that any Pay Item is significantly unbalanced to the potential detriment of the Agency.

### **SECTION 00130 - AWARD AND EXECUTION OF CONTRACT**

Comply with Section 00130 of the Standard Specifications modified as follows:

**00130.40(f) Office of Civil Rights Forms** – Replace the sentence that begins “Submit the original directly....” with the following:

**North Santiam River (Mill City) Bridge  
Structure Rehabilitation and Painting**

Submit a copy directly to the Agency.

**SECTION 00140 - SCOPE OF WORK**

Comply with Section 00140 of the Standard Specifications.

**SECTION 00150 - CONTROL OF WORK**

Comply with Section 00150 of the Standard Specifications modified as follows:

**00150.30 Delivery of Notices** - Add the following to the end of this subsection:

For purposes of this subsection, the time zone is Pacific Standard Time (PST) to determine time of receipt of notices and other documents. For purposes of this subsection, non-business days are Saturdays, Sundays and legal holidays as defined by ORS 187.010 and 187.020.

Following Notice to Proceed, all notices and other documents submitted to the Contractor by the Engineer, or to the Engineer by the Contractor, electronically under 00170.08. Claims must be submitted on paper documents according to Section 00199.

Add the following subsection:

**00150.50(f) Utility Information (No Anticipated Relocations)** - Within the Project limits, there are no anticipated relocations with the Utilities listed below. The Contractor shall contact those Utilities having buried facilities and request that they locate and mark them for their protection prior to construction.

<b>Utility</b>	<b>Contact Person's Name, Address, Email, and Phone Number</b>
City of Mill City (Water and Sewer)	Russ Foltz, City of Mill City, PO Box 256, Mill City, OR 97360 PH: 503-930-8256; email: rfoltz@ci.mill-city.or.us
NW Natural Gas	Darrell Hammond, PH: 541-981-0164; email: d5h@nwnatural.com
Frontier Communications	John Bielec, 4155 SW Cedar Hills Blvd, Beaverton, OR 97005 PH: 503-367-5106; email: john.bielec@ftr.com
Wave Broadband	Mark Garcia, 669 Glatt Cir., Woodburn, OR 97071
Pacific Power & Light	Kristi Wheeler, PO Box 248, Albany, OR 97321 Ph: 541-967-6195; email: kristi.wheeler@pacificorp.com

The Contractor shall notify, in writing, the Utilities listed above, with a copy to the Engineer, at least 14 Calendar Days before beginning Work on the Project.

**(NW Natural) - Gas Utilities** - The Contractor shall coordinate with NW Natural to allow them access to disconnect support brackets during jacking of the bridge.

In the event of an emergency, and in addition to the calls required by the Utilities notification system, the Contractor shall call:

- Northwest Natural Gas 1-800-882-3377

**(City of Mill City) – Water and Sewer Utilities** – Prior to jacking at Pier 3, the Contractor shall remove the brackets from the structure to the north and south of Pier 2 that support the water and

## **North Santiam River (Mill City) Bridge Structure Rehabilitation and Painting**

sewer lines as shown on the plans or as directed. Prior to removing the brackets, a shim/block shall be placed on top of Pier 3 to support both the water and sewer lines.

The Contractor shall remove all exposed portions of the existing abandoned water line and dispose of it per 00295.

The Contractor shall coordinate to allow one Calendar Day access for the City to install corporation stops to the existing water and sewer lines attached to the upstream side of the structure.

**(Pacific Power & Light) - Power Suppliers** - The Contractor shall maintain at least 10 feet of safety clearance from energized power lines. Exceptions require written approval from Power Supplier(s) and will require an On-Site safety watcher at no cost to the Contractor. The Contractor shall provide the Engineer with a copy of the written approval of exception before beginning Work.

The power line crossing First Avenue at the north end of the bridge will be relocated by the utility company.

**00150.60(a) Load and Speed Restrictions for Construction Vehicles and Equipment** - Add the following bullet to the end of the bullet list:

- The Contractor shall restrict the combined weights of construction vehicles, Equipment, and Materials on Bridges according to 00220.45.

**00150.90(b) All Contract Work** – Replace the bullet that reads “The Contractor has removed...” with the following bullet:

- The Contractor has removed all Equipment, other than that incorporated into the Work; and

**00150.97 Responsibility for Materials and Workmanship** - Add the following to the end of this subsection:

(c) Full or partial termination of the Contract under 00180.90 shall not relieve the Contractor of responsibility for completed or performed Work, or relieve the Contractor's Surety of the obligation for any just claims arising from the completed or performed Work.

### **SECTION 00160 - SOURCE OF MATERIALS**

Comply with Section 00160 of the Standard Specifications modified as follows:

**00160.20 Preferences for Materials** - Add the following paragraph to the beginning of this subsection:

Section 1518 of Moving Ahead for Progress in the 21st Century Act provides that Buy America applies to all Contracts eligible for federal assistance under Title 23, United States Code, included within the scope of an applicable National Environmental Policy Act (NEPA) finding, determination or decision, regardless of the funding source of such Contracts, where at least one Contract is funded with Title 23 funds. This Contract includes Title 23 funds under such a NEPA finding, determination or decision and Buy America applies to this Contract.

**00160.21 Cargo Preference Act Requirements** - Add the following to the end of this subsection:

Additional information may be available at the following websites:

<https://www.fhwa.dot.gov/construction/cqit/cargo.cfm>

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<https://www.fhwa.dot.gov/construction/cqit/cargo/qa.cfm>.

**00160.30 Agency-Furnished Material** - Add the following to the end of this subsection:

The Agency will furnish the listed items at the Project Site:

- Two, type “OW12-2p” signs, to be installed by the Contractor on the First Avenue Bridge

**SECTION 00165 - QUALITY OF MATERIALS**

Comply with Section 00165 of the Standard Specifications.

**SECTION 00170 - LEGAL RELATIONS AND RESPONSIBILITIES**

Comply with Section 00170 of the Standard Specifications modified as follows:

Add the following subsection:

**00170.06 Federal-Aid Participation** - This Project is to be conducted according to the regulations applying to Federal-Aid Highway Projects.

**00170.70(a) Insurance Coverages** - Add the following to the end of this subsection:  
The following insurance coverages and dollar amounts are required pursuant to this subsection:

<b>Insurance Coverages</b>	<b>Combined Single Limit per Occurrence</b>	<b>Annual Aggregate Limit</b>
Commercial General Liability	\$1,000,000	\$2,000,000
Commercial Automobile Liability	\$1,000,000	(aggregate limit not required)
Employee Liability	\$1,000,000	(aggregate limit not required)
*Pollution Liability	\$1,000,000	(aggregate limit not required)

\*With Asbestos Liability Endorsement or separate coverage

\*With Lead Liability Endorsement or separate coverage

**SECTION 00180 - PROSECUTION AND PROGRESS**

Comply with Section 00180 of the Standard Specifications modified as follows:

**00180.20(c)(3) Submittals** – Replace the reference to “00180” with the reference “00189.20(a)”.

**00180.40(b) On-Site Work** - Add the following paragraph to the end of the subsection:

The Contractor shall not begin On-Site Work before a preconstruction conference has been held, unless approved by the Engineer.

Add the following subsection:

**00180.40(c) Specific Limitations** - Limitations of operations specified in these Special Provisions include, but are not limited to, the following:

<b>Limitations</b>	<b>Subsection</b>
Cooperation with Utilities .....	00150.50

**North Santiam River (Mill City) Bridge  
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On-Site Work .....	00180.40(b)
Contract Time .....	00180.50(h)
Closed Lanes .....	00220.40(e)(1)
Noise Control .....	00290.32

The Contractor shall be aware of and subject to schedule limitations in the Standard Specifications that are not listed in this subsection.

Add the following subsection:

**00180.50(h) Contract Time** - There is one Contract Time on this Project as follows:

The Contractor shall complete all Work to be done under the Contract not later than **November 18, 2020**.

**00180.70(b) Contractor’s Responsibility during and after Suspension** - In the paragraph that begins "During periods of suspension of the Work ...", replace the reference "00150.40(b)" to "00150.40".

**00180.85(b) Liquidated Damages** – Add the following:

The liquidated damages for failure to complete the Work on time required by 00180.50(h) will be \$1,670.00 per Calendar Day \*.

\*Calendar Day amounts are applicable when the Contract time is expressed on the Calendar Day or fixed date basis.

Add the following subsection:

**00180.85(c) Lane Closures** - Lane closures beyond the limits specified will inconvenience the traveling public and will be a cost to the Agency.

It is impractical to determine the actual damages the Agency will sustain in the event Traffic Lanes are closed beyond the limits listed in 00220.40(e). Therefore, the Contractor shall pay to the Agency, not as a penalty, but as liquidated damages, \$500 per 15 minutes, or for a portion of 15 minutes, per lane, for any lane closure beyond the limits listed in 00220.40(e). In addition to the liquidated damages, all added cost for traffic control measures, including flagging, required to maintain the lane closures beyond the allowed time limits, will be at no additional cost to the Agency. The required traffic control measures will be as determined by the Engineer.

The Engineer will determine when it is safe to reopen lanes to traffic. Assessment of liquidated damages will stop when all lanes have been safely reopened. Any liquidated damages assessed under these provisions will be in addition to those listed in 00180.85(b).

**SECTION 00190 - MEASUREMENT OF PAY QUANTITIES**

Comply with Section 00190 of the Standard Specifications.

**SECTION 00195 - PAYMENT**

Comply with Section 00195 of the Standard Specifications modified as follows:

## **North Santiam River (Mill City) Bridge Structure Rehabilitation and Painting**

**00195.12(d) Steel Materials Pay Item Selection** - Add the following paragraph to the end of this subsection:

No Pay Items under this Contract qualify for the steel escalation/de-escalation program for this Project.

**00195.50(b) Retainage** – Replace this Subsection, except for the Subsection number and title, with the following:

The Agency reserves the right in its sole discretion to not withhold retainage from progress payments or to begin withholding retainage at any time. If the Agency withholds retainage from progress payments, the amount to be retained from progress payments will be 2.5% of the value of Work accomplished, and will be retained in one of the forms specified in Subsection (c) below. If the Agency determines that satisfactory progress is not being made on the Work, the Agency may withhold up to 5% of the value of Work accomplished from subsequent progress payments. No retainage will be withheld from Work performed as Force Account Work, escalation/de-escalation, bonuses, or other items decided by the Agency.

As provided in 00170.65(b)(3) in addition to any retainage, a withholding of 25% of amounts earned will be withheld and released according to ORS 279C.845 when the Contractor fails to file the certified statements required in ORS 279C.845, FHWA Form 1273, and 00170.65.

**00195.50(c) Forms of Retainage** - Replace the paragraph that begins "Forms of acceptable retainage are specified below ..." with the following paragraph:

If the Agency withholds retainage, forms of acceptable retainage are specified below in Subsections (1) through (3). Unless the Contractor requests and the Agency accepts a form of retainage under Subsections (2) or (3), the Agency will use the "Cash, Alternate A" in this Subsection. If the Agency incurs additional costs as a result of the Contractor's election to use a form of retainage other than Cash, Alternate A, the Agency may recover such costs from the Contractor by a reduction of the final payment.

**00195.50(c)(1) Cash, Alternate A** - Replace the paragraph that begins "The Agency will deposit the cash retainage ..." with the following two paragraphs:

Except as otherwise provided, the Agency will deposit the cash retainage withheld in an interest-bearing escrow account as required by ORS 279C.570(2). The Contractor shall execute such documentation and instructions respecting the interest-bearing escrow account as the Agency may require to protect its interests, including but not limited to a provision that no funds may be paid from the account to anyone without the Agency's advance written authorization. Interest earned on the account shall accrue to the Contractor. Amounts retained and interest earned will be included in the final payment made according to 00195.90, unless otherwise specified in the Contract.

For a contract over \$500,000, if the Contractor requests that the Agency deposit the retainage in an interest-bearing account under ORS 279C.560(5), the Agency will use the "Cash, Alternate A" in this Subsection. For a contract \$500,000 or less, if the Contractor requests that the Agency deposit the retainage in an interest-bearing account under ORS 279C.560(5), the Agency will use an interest-bearing account (in a bank, savings bank, trust company, or savings association) as provided under ORS 279C.560(5).

**00195.50(c)(2) Cash, Alternate B (Retainage Surety Bond)** - Replace the paragraph that begins "Upon receipt of an approved retainage surety ..." with the following paragraph:

## **North Santiam River (Mill City) Bridge Structure Rehabilitation and Painting**

Upon receipt of an approved retainage surety bond, the Agency will limit the amount of cash retainage withheld to \$10,000, which will be deposited in an interest-bearing escrow account as described in (1) above. The surety bond must be in the bond form provided by the Agency. The bond must be provided by the same Surety that provides the Performance and Payment Bonds.

Replace the paragraph that begins "Amounts of retainage withheld under ..." with the following paragraph:

Amounts retained and interest earned will be included in the final payment made according to 00195.90, unless otherwise specified in the Contract.

**00195.50(d) Release of Retainage** - Add the following paragraph to the end of this Subsection:

The Contractor shall comply with all applicable legal requirements for withholding and releasing retainage and for prompt payments, including but not limited to those in ORS Chapters 279C and 701, and 49 CFR 26.29.

**00195.50(e) Withholding Payments** - Add the following bullet to the bullet list:

- Paid all liquidated and delinquent debt owed to the State or any department or agency of the State. (In addition to Agency's other rights and remedies, the Agency may also undertake collection by administrative offset, or garnishment if applicable, of all monies due to recover such debt. Offsets or garnishment may be initiated after the Contractor has been given notice if required by law.)

Replace the bullet that begins "Complied with all orders issued..." with the following two bullets:

- Complied with all orders and directives issued by the Engineer under or pursuant to the Contract;
- Corrected or cured its failure to comply with the Contract; and

Replace the paragraph that begins "Notwithstanding ORS 279C.555 or ORS 279C.570..." with the following paragraph:

Notwithstanding ORS 279C.555 or ORS 279C.570 or 00195.50(d), if a Contractor is required to file statements on the prevailing rate of wages, but fails to do so, the Agency will withhold 25% of any amount earned as required in 00170.65.

**00195.50(f) Prompt Payment Policy** - Replace the paragraph that begins "Payments shall be made promptly ..." with the following paragraph:

Payments shall be made promptly according to ORS 279C.570, ORS 279C.580 and other applicable legal requirements.

### **SECTION 00196 - PAYMENT FOR EXTRA WORK**

Comply with Section 00196 of the Standard Specifications.

### **SECTION 00197 - PAYMENT FOR FORCE ACCOUNT WORK**

Comply with Section 00197 of the Standard Specifications.

**North Santiam River (Mill City) Bridge  
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**SECTION 00199 - DISAGREEMENTS, PROTESTS, AND CLAIMS**

Comply with Section 00199 of the Standard Specifications.

**SECTION 00210 - MOBILIZATION**

Comply with Section 00210 of the Standard Specifications.

**SECTION 00220 - ACCOMMODATIONS FOR PUBLIC TRAFFIC**

Comply with Section 00220 of the Standard Specifications modified as follows:

**00220.03(b) Closures** - Replace the "Roads" bullet with the following bullet:

- **Roads** - A minimum of 14 Calendar Days before closure. Notify in writing all affected emergency services, school districts, US Postal Service and Cherriots public transit services a minimum of 14 Calendar Days before the closure

**00220.40(e)(1) Closed Lanes** - Replace this subsection, except for the subsection number and title, with the following:

One or more Traffic Lanes may be closed on the First Avenue Bridge when allowed, shown, or directed during the following periods of time:

- June 15, 2020 to September 4, 2020.

Dated bridge closure signs shall be installed for a minimum period of 14 Calendar Days prior to and during the bridge closure.

One Traffic Lane may be closed on First Avenue Bridge when allowed, shown, or directed during the following periods of time:

- May 1, 2020 to November 4, 2020.

One or more Traffic Lanes may be closed on Wall Street, as shown, when allowed or directed during the following periods of time:

- June 15, 2020 to September 4, 2020.

Dated road closure signs shall be installed for a minimum period of 14 Calendar Days prior to and during the road closure.

**00220.40(e)(2) Opened Lanes** - Delete this subsection in its entirety.

Add the following subsection:

**00220.42 Bridge Site Road Closure** - The road may be closed to traffic at the bridge site during painting and/or rehabilitation Work of the bridge. Do not close the road until all materials and equipment are on hand or guaranteed to be delivered so that the work can be done in an efficient manner with a minimum period of road closure.

The road closure will not be allowed until the area and the detour route are signed according to the TCP and the requirements of Section 00225.

Add the following subsection:

## North Santiam River (Mill City) Bridge Structure Rehabilitation and Painting

**00220.45 Load Restrictions on Bridges** - Limit the combined weight of Equipment, vehicles, and supplies placed in a closed Traffic Lane or Shoulder on the Bridge according to 00253.46.

### SECTION 00225 - WORK ZONE TRAFFIC CONTROL

Comply with Section 00225 of the Standard Specifications modified as follows:

**00225.02(a) Temporary Signs** - Add the following to the end of the bullet list:

- Five Calendar Days before closing the sidewalks on the First Avenue Bridge, place a "SIDEWALK CLOSED, Full Time" (CW11-4) sign in advance of each future closure point. Locate the sign so it is legible from the nearest alternate pedestrian pathway facing incoming pedestrian traffic. The sign may be mounted between the panels of a Type II barricade or on a single-post TSS. Do not place the sign or sign support such that it narrows the pedestrian pathway to a width of less than 4 feet.
- Before opening the TPAR, place TPAR signing and other TCM as shown, or as directed. Maintain the "SIDEWALK CLOSED, Full Time" (CW11-4) signs while the TPAR is open to pedestrian traffic.
- Install "ROAD WORK AHEAD" (W20-1-48) signs on First Avenue, according to the "TCD Spacing Table" shown on the Standard Drawings or as modified by the Plans.
- Install beyond each end of the Project, facing outgoing traffic, an "END ROAD WORK" (CG20-2A-24) sign a distance of  $(A \div 2)$  according to the "TCD Spacing Table" shown on the Standard Drawings or as modified by the Plans.
- When the horizontal clearance for the Roadway is less than 19 feet, install horizontal clearance (CW21-12-48) signs, identifying the narrowest width of the Roadway. Locate these horizontal clearance signs as shown or as directed.
- When the vertical clearance is less than 15 feet 6 inches, install low clearance (W12-2-48) and (OW12-2-36) signs. The clearance shown on the signs shall be 4 inches less than the shortest height of the opening. Locate these low clearance signs as shown or as directed.

**00225.02(b) Traffic Safety and Operations** – Prior to opening the bridge to traffic, install the Agency furnished Low Clearance "14 Feet, 11 Inches" (OW12-2P) sign on each end of the First Avenue Bridge.

**00225.32(b) Traffic Control Inspection Without TCS** - Add the following bullet(s) to the end of the bullet list:

- Shall report to the Project Site within 1 hour after being notified in the event of a Work Zone incident during non-work periods.

Add the following subsection:

**00225.41(b)(6) Existing Facility Sign Supports** - When mounting temporary signs on existing facilities, install signs as shown on the Standard Drawings or other mounting methods approved by the Engineer.

Add the following subsection:

**00225.41(g) Temporary Speed Zone Reduction** - Install a temporary regulatory speed zone, as directed. Use regulatory signs for all required temporary speed zone signage.

**00225.42(e) Work Zone Fencing** - Add the following paragraphs:

## **North Santiam River (Mill City) Bridge Structure Rehabilitation and Painting**

Delineate all Work area(s), not delineated by barriers, with orange plastic mesh fencing.

Delineate the areas located below the bridge from water's edge to the bridge abutment, so as to be 10 feet beyond the width of the bridge work area, with orange plastic mesh fencing.

**00225.88(a) Flaggers** - Replace this subsection, except for the subsection number and title, with the following:

No measurement will be made for flaggers.

**00225.95 Traffic Signals** - Replace the sentence beginning with "No separate or additional payment will..." with the following paragraph:

No separate or additional payment will be made for:

- Removing and replacing damaged portable traffic signal
- Illumination and associated appurtenances shown on traffic signal poles.

**00225.98 Flaggers and Traffic Control Supervisors** - Replace this subsection, except for the subsection number and title, with the following:

No separate or additional payment will be made for flaggers.

### **SECTION 00253 - TEMPORARY WORK ACCESS AND CONTAINMENT**

Comply with Section 00253 of the Standard Specifications modified as follows:

**00253.00 Scope** - Add the following paragraph to the end of this subsection:

On Structure No. 02058, provide temporary work access and containment, heating, and ventilating systems for bearing replacement, concrete repair and painting on spans 3 and 4.

**00253.01 General** - Add the following paragraph to the end of this subsection:

Work platforms and containment are allowed on the bridge only May 15, 2020 and November 4, 2020.

Add the following subsection:

**00253.02 Definitions:**

**Basic Wind Speed** - Three-second gust speed at 33 feet above ground in open terrain with scattered obstructions not over 30 feet high.

**Dead Load** - Self-weight of a structure, such as a work platform, scaffolding, and containment.

**Factor of Safety** - Component ultimate failure load divided by the maximum working load combination applied to the component.

**Fundamental Frequency** - Lowest natural frequency of vibration for a structure, measured in Hz.

**Live Load** - The weight of personnel, equipment, materials, debris, and vehicles.

**Point Load** - A force applied to a structure at a single point.

## North Santiam River (Mill City) Bridge Structure Rehabilitation and Painting

**Projected Area** - The area of a structure exposed to the wind. For winds parallel to the roadway, the projected area of containment is the width of the containment multiplied by its height. For winds transverse to the roadway, projected area is the length of the containment multiplied by its height.

**Span** - A section of bridge superstructure between piers.

**Wind Load** - Forces imparted on a structure, such as a bridge or containment, by wind pressure and structural dynamic response to wind.

**00253.03 Submittals** - Add the following paragraph and bullets to the end of this subsection:

Submit the following:

- Stamped design calculations assuring that the bridge structural members can safely resist the combined effects of dead loads, live loads, and wind loads
- Stamped work platform and scaffolding Working Drawings, specifications and design calculations
- Stamped heating and ventilating Working Drawings, specifications and design calculations. Include in the Working Drawings a view showing the size (length by width by height) and location of each containment to be used, and identifying the heating and air moving equipment (manufacturer, model, and capacity in cubic feet per minute), for each containment.
- Stamped calculations showing that equipment, vehicles, and supplies placed in a closed lane do not exceed the equivalent of HS20 loading

**00253.05 Containment Requirements** Replace the paragraph that begins "Contain work debris that is generated from dry abrasive blasting..." with the following paragraph:

Contain work debris that is generated from dry abrasive blasting, and arc spray metallizing operations according to the Class 1A requirements of SSPC-Guide 6, with the following limits:

Replace the paragraph that begins "Contain work debris that is generated from hand tool or power tool..." with the following paragraph:

Contain work debris that is generated from hand tool or power tool operations according to the Class 1P requirements of SSPC-Guide 6. For hand tool cleaning or vacuum shrouded power tool cleaning, ground covers or free-hanging tarpaulins are an acceptable alternate means of containment provided the debris is captured and controlled to the same degree as Class 1P.

Add the following to the end of this subsection:

When field painting over a body of water with brushes, rollers, or daubers, contain paint drips with rigid containment floor decking or free-hanging tarpaulins, provided that the tarpaulins capture and control paint drips to the same degree as the Class 1P containment requirements of SSPC-Guide 6. When field painting over a body of water with air spray (conventional) or airless spray, contain painting operations according to Class 1A requirements of SSPC-Guide 6.

Comply with the requirements of 00290.30.

Add the following subsection:

**00253.09 Work Platform, Scaffolding and Containment Structural Design Requirements** - Design work platforms, scaffolding, and containment structures for dead load, live

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load, and wind load with a basic wind speed of 72 mph, applied in the most critical direction. For structures with fundamental frequency less than 1 Hz, design for wind loads accounting for structural dynamic effects.

Provide designs with a factor of safety of at least six for wire ropes and connecting hardware and at least four for all other components for containment structure and work platform components.

Verify structural adequacy of the bridge with added loading from containment structures and work platforms using AASHTO Standard Specifications for Highway Bridges, Group II, III, V, and VI load combinations.

Containment and work platforms do not extend more than 15 feet below bottom of existing structure. For movable containment structures, provide positive restraint to prevent movement except when containment structures are being relocated.

If removal of containment walls is used to comply with projected area limits at high wind speed, removal is required when actual wind speed or predicted wind speed exceeds allowable limits. 24-hour weather watch is required during non-work times. Predicted wind speeds are obtained from:

[forecast.weather.gov/MapClick.php?lat=44.754984&lon=-122.47750&unit=0&lg=english&FcstType=graphical](http://forecast.weather.gov/MapClick.php?lat=44.754984&lon=-122.47750&unit=0&lg=english&FcstType=graphical)

Actual wind speeds are measured using a handheld wind speed measuring instrument with certified accuracy 3% of reading.

**00253.42 Safety Requirements** - Replace the paragraph that begins “Follow approved procedures for evacuating...” with the following paragraph:

Follow approved procedures for evacuating and securing work platforms and containment systems if wind speeds or predicted wind speeds exceed design limits. For concrete removal and repair work, comply with all applicable requirements of OSHA Standard Number 1926.1153, Respirable Crystalline Silica, including Table 1.

Bridge No. 02058 may not be closed to marine traffic.

**00253.46 Staging Area** - When lane or shoulder closures are allowed, equipment, vehicles, and supplies may be placed in the closed traffic lane or shoulder on the bridge. Within a closed lane, one vehicle operating under D.O.T. overload permit will be allowed on each bridge span and the combined effect of all loads in the closed lane will be limited to the equivalent of HS20 loading on each bridge span.

### **SECTION 00255 - TEMPORARY BRIDGE JACKING**

Section 00255, which is not a Standard Specification, is included in this Project by Special Provision.

#### **Description**

**00255.00 Scope** - This Work consists of temporarily raising and supporting the existing spans located at Pier 3 with a jacking system for the purpose of bearing and sill replacement. Once the Work is completed, the span will be lowered back into place and the jacking system removed.

This Work also consists of jacking Bent 7 for the purpose of timber pile repair.

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The term “jacking system” includes jacking equipment, temporary support seat, falsework jacking bent or temporary corbel.

**00255.02 Plans** - Plans for the existing structure are available from the Engineer. Prints of these plans are available upon request.

**00255.03 Submittals** - Submit a stamped and detailed Bridge jacking work plan according to 00150.35, to the Engineer for review four weeks prior to Bridge jacking work. Design the work plan in accordance with the current AASHTO LRFD Bridge Design Specifications and jacking load diagram shown on the Plans. Design the temporary support to carry all structure dead loads, live loads if allowed and construction loads.

Include the following information in the submittal:

- The proposed method of the jacking, and shoring.
- Descriptions of equipment to be used
- Descriptions and values of all loads, including construction equipment loads
- Justification for allowable bearing stresses used to support the falsework bent.
- Complete details and calculations for jacking and supporting the existing structure

This review does not relieve the Contractor of the responsibility for the safety of the method or Equipment. Do not perform Work until the work plan has been approved by the Engineer and all comments are adequately addressed.

**00255.04 Methods and Monitoring System** - The Bridge jacking work plan includes, but is not limited to, the following:

- Detailed time schedule of the planned operations.
- Details to temporarily strengthen the existing Bridge members. Provide temporary supports to bear directly on girder stems or bent caps or bear on support sills which are structurally adequate to transmit the load to the stems or cap without overstressing any member of the new or existing structure. Design temporary supports not to induce permanent forces into the completed structure or produce cracking.
- Contingency plans to address potential malfunctions or interruptions in the work plan.
- Details to ensure stability of the Bridge while the Bridge is being raised, during the removal of the existing bearings, installation of the new bearing and lowering of the Bridge.
- Details of how secondary supports, such as blocking and cribbing, will be installed after the Bridge has been raised.
- Lateral stability of the Bridge and jacking system.
- Equipment that ensures uniform lifting of the Bridge.
- Provide a redundant system of supports during the entire jacking operation for backup should any of the jacks fail. Include stacks of steel plates added as necessary to maintain the redundant supports at each jack location within 1/4 inch of the jacking sill or corbels.
- Descriptions of the displacement monitoring system. Include in the displacement monitoring system, but not limited to:
  - Equipment to be used,
  - Location of control points,
  - Method and schedule of taking measurements,

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- Provisions to jack the structure if settlement occur in the temporary supports during construction.

### Construction

#### 00255.50 Jacking Operations:

**(a) General** - Control and monitor the jacking operations to ensure that the jacking loads are applied simultaneously to prevent distortion and excessive stresses that would damage the structure. Jack the superstructure as necessary to maintain the total vertical displacements at control points to less than 1/4 inch from the elevations recorded prior to jacking or as modified by the Engineer.

Remove attachments from the existing structure and concrete surfaces to restore to original conditions, except where permanent alterations are shown on the plans.

**(b) Unanticipated Displacements** - If, during construction, unanticipated displacements, cracking or other damage occur, do the following:

- Discontinue the construction until corrective measures satisfactory to the Engineer are performed.
- Repair damage to the structure as a result of the Contractor's operations.

### Measurement

**00255.80 Measurement** - No measurement of quantities will be made for Work performed under this Section.

### Payment

**00255.90 Payment** - The accepted quantities of Work performed under this Section will be paid for at the Contract Lump Sum amount for the items "Bridge Jacking at Pier 3" and "Bridge Jacking at Bent 7".

Payment will be payment in full for furnishing the bridge jacking work plan, furnishing and placing all Materials, and for furnishing all Equipment, labor, and Incidentals necessary to complete the Work as specified.

No separate or additional payment will be made for designing, constructing, maintaining, inspecting, and removing the temporary bridge jacking.

## SECTION 00280 - EROSION AND SEDIMENT CONTROL

Comply with Section 00280 of the Standard Specifications modified as follows:

**00280.00 Scope** - Add the following paragraph to the end of this subsection:

Erosion and sediment control is not anticipated for this project. However, if ground disturbance is found to be necessary, an Agency approved ESCP will be required prior to any disturbance.

**00280.80 Measurement** – Replace this subsection, except for the subsection number and title, with the following:

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No measurement of quantities will be made for Erosion and Sediment Control. This Work is considered incidental to the Pollution Control Plan.

**00280.90 Payment** - Replace this subsection, except for the subsection number and title, with the following:

No payment will be made for Erosion and Sediment Control. This Work is considered incidental to the Pollution Control Plan.

### **SECTION 00290 - ENVIRONMENTAL PROTECTION**

Comply with Section 00290 of the Standard Specifications modified as follows:

**00290.10 Staging and Disposal Sites** – Replace the paragraph that begins "Locate staging areas and disposal..." with the following paragraphs:

Locate staging areas and disposal sites in previously improved or disturbed sites, including existing Roadways, pullouts, turnouts, parking lots, and storage yards that have been compacted, and graveled or paved unless otherwise specified in Section 00236 or Section 00237 or approved, in writing, by the Engineer,

Do not stage Equipment, park Equipment or store Materials in any City, County, State, or Federal park, wayside or recreational facility, unless approved, in writing, by the Engineer.

**00290.20(c)(1) General** - Replace the paragraph that begins "Segregate all demolition debris according to..." with the following paragraph:

Segregate all demolition and construction debris according to its intended end use (reuse, recycle, or dispose). If required, store in designated areas in a manner that prevents contamination to Soil and water and prevents fugitive dust emissions. Remove all waste materials recovered from the site unless otherwise approved, in writing. Retain disposal and recycling facility receipts for wastes generated on site for at least 1 year after completion of the Project. Provide copies of the receipts to the Engineer within 7 Calendar Days of the disposal or recycling.

**00290.20(c)(2) Clean Fill** - Add the following paragraph to the end of this subsection:

Manage all excavated soil that does not meet the definition of clean fill according to Section 00294.

**00290.20(c)(3) Reuse, Recycle and Dispose of Materials** - Replace the title of this subsection with "Reuse, Recycle, Compost and Dispose of Materials".

**(3) Reuse, Recycle, Compost and Dispose of Materials** – Replace the three bullets with the following bullets:

- Reuse demolition and construction debris.
- Recycle demolition and construction debris.
- Compost or mulch yard waste material from lawn and landscape maintenance.
- If it is not feasible to reuse, recycle, or compost, ("feasible" is defined as a facility that is capable of handling the material, will take the material and the cost of transportation plus the cost to reuse or recycle the material is equal to or less than the costs of disposal) dispose of waste material according to the following:

**00290.30(a) Pollution Control Measures** - Add the following subsections and bullets:

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### (7) Water Quality:

- Do not discharge contaminated or sediment-laden water, including drilling fluids and waste, or water contained within a work area isolation, directly into any waters of the State or U.S. until it has been satisfactorily treated (using a best management practice such as a filter, settlement pond, bio-bag, dirt-bag, or pumping to a vegetated upland location).
- Do not use permanent stormwater quality treatment facilities to treat construction runoff unless prescribed by an ESCP approved under Section 00280
- If construction discharge water is released using an outfall or diffuser port, do not exceed velocities more than 4 feet per second, and do not exceed an aperture size of 1 inch.
- Implement containment measures adequate to prevent pollutants or construction and demolition materials, such as waste spoils, fuel or petroleum products, concrete cure water, silt, welding slag and grindings, concrete saw cutting by-products and sandblasting abrasives, from entering waters of the State or U.S.
- Implement containment measures adequate to prevent flowing stream water from coming into contact with concrete or grout within the first 24 hours after placement.
- Cease project operations under high flow conditions that may result in inundation of the project area, except for efforts to avoid or minimize resource damage.
- The Engineer retains the authority to temporarily halt or modify the Work in case of excessive turbidity or damage to natural resources.
- If Work activities violate permit conditions or any requirement of this subsection, stop all in-water work activities and notify the Engineer.
- Do not cause a visible sediment plume in waters of the State or U.S.

**00290.30(b) Pollution Control Plan** - Replace the paragraph that begins “Develop and submit a PCP...” with the following:

Develop a PCP using ODOT Form 734-2445 and submit it for approval 10 Calendar Days before the preconstruction conference. Maintain a copy of the PCP on-site at all times during construction activities, readily available to employees and Inspectors. Ensure that all employees comply with the provisions of the PCP.

Delete the paragraph that begins “A “Pollution Control Plan...”.

**00290.32 Noise Control** - Add the following paragraphs to the end of this subsection:

- Do not perform construction operations, including staging, within 1000 feet of any occupied dwelling unit on Sundays, legal holidays and between the hours of 8:00 p.m. and 7:00 a.m. on weekdays and between the hours of 8:00 p.m. and 8:00 a.m. on Saturdays, unless otherwise approved by the Engineer.

**00290.34(a) Regulated Work Areas** - Add the following to the end of this subsection:

The regulated work area is the area at or below the ordinary high water (OHW) elevation shown on the plans.

For this Project, the regulated work area is the area at or below 797.0 feet elevation.

**00290.36(a) Migratory Birds** - Add the following paragraphs to the end of this subsection:

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Bird management activities to comply with the Migratory Bird Treaty Act (16 U.S.C. 703 712) will be performed by the Agency. Ensure that the Agency and its permitted agents have access to the project area, including existing work platforms, as needed to prevent migratory bird nesting. Nesting prevention may include daily bird harassment and the installation and maintenance of devices that exclude birds.

Notify the Engineer, in writing, a minimum of 10 calendar days prior to starting activities that could harm nesting birds. Avoid disturbing migratory bird nesting habitat (shrubs, trees, and structures) from March 1 to September 1 of each year. If avoidance is not possible, obtain approval from the Engineer before falling trees or clearing vegetation that could disturb migratory bird nesting habitat between March 1 and September 1.

### **00290.41 Protection of Wetlands – Replace the title of this subsection with “Protection of Waters of the U.S. or State”**

Delete the paragraph that begins “For the purposes of this Section...”.

### **00290.41(a) Identifying Wetlands – Replace the title of this subsection with “Identifying Waters of the U.S. or State, Including Wetlands”**

Add the following subsection:

### **00290.42 Work Containment Plan - A Work Containment Plan (WCP) is required on this Project for painting, bridge rehabilitation and CFRP strengthening activity(ies).**

Develop and submit a WCP for approval at least 28 Calendar Days prior to mobilization for painting, bridge rehabilitation and CFRP activity(ies). Maintain a copy of the WCP on the Project Site at all times during construction, readily available to employees and inspectors. Ensure that all employees comply with the provisions of the WCP. Design the WCP to avoid or minimize disturbance to protected features (sensitive cultural or natural resources, Regulated Work Areas, aquatic life or habitat in Regulated Work Areas) related to Contractor operations.

Before developing the WCP, meet with Agency to review the Contractor’s activities that require the WCP to ensure that all parties understand the locations of protected features to be avoided and the measures needed to avoid and protect them.

Notify the Project Manager at least 10 Calendar Days before beginning work access or containment construction activities.

The Agency reserves the right to stop work and require the Contractor to change the WCP methods and equipment before any additional Contract work, at no additional cost to the Agency, if and when, in the opinion of the Agency, such methods jeopardize sensitive cultural or natural resources, Regulated Work Areas, or aquatic life or habitat in Regulated Work Areas.

The WCP shall identify how the Contractor's construction operations will protect regulated features during mobilization, construction, maintenance, and demolition. Include a narrative describing compliance with Section 00290 as related to construction, operation, and demolition activities specified in Section 00253.

Design, construct, maintain, and remove temporary work access and containment systems according to Section 00253.

### **00290.90 Payment - Add the following paragraphs to the end of this subsection:**

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No separate or additional payment will be made for orange plastic mesh fencing.

### **SECTION 00294 - CONTAMINATED MEDIA**

Section 00294, which is not a Standard Specification, is included in this Project by Special Provision.

#### **Description**

**00294.00 Scope** - In addition to the requirements of Section 00290 and these specifications, this work consists of the following:

- Prepare a Health and Safety Plan (HASP) for work within the contaminated areas of the Project.
- Prepare a written lead compliance plan for work within contaminated areas of the Project.

**00294.03 Submittals** - Submit the following documents:

- A site specific HASP, approved and signed by a Certified Industrial Hygienist (CIH), at least 10 Calendar Days before the pre-construction conference.
- The name and qualifications of the CIH.
- Modifications to the HASP that are requested by the Engineer or the CIH within seven Calendar Days of the request.
- Current employee training certificates and medical surveillance information before beginning work within the contaminated areas.
- A Lead Compliance Plan per Section 00296

Submit the following documents within 48 hours of removal of contaminated media:

- Permits, permit applications, and documentation of compliance.
- All reuse, recycled, and disposal receipts.
- Final quantities of material reused, recycled, and disposed and their final location.
- All analytical test results.

#### **Labor**

**00294.30 Personnel Qualifications** - Provide employees meeting the following requirements:

**Hazardous Waste Operations and Emergency Response (HAZWOPER) trained workers (29 CFR 1910.120) that:**

- Have completed a 40 hour HAZWOPER training course.
- Have completed an 8 hour HAZWOPER refresher training course within the last 12 months.
- Participates in the HAZWOPER Medical Surveillance Program.
- A Supervisor that:
  - Has at least two years of experience cleaning up and managing contaminated Soil or groundwater in Oregon.
  - Meets the HAZWOPER training requirements plus completed an 8 hour HAZWOPER supervisor training course.
- A Certified Industrial Hygienist (CIH) that:
  - Has at least three years' experience in hazardous waste site work.
  - Meets the HAZWOPER training requirements.

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- An Oregon Registered Geologist or Professional Engineer who has experience handling contaminated media.

**Measurement**

**00294.80 Measurement** - Work performed under this Section will be measured according to the following:

No measurement of quantities will be made for the following:

- HASP
- Lead compliance plan

**Payment**

**00294.90 Payment** - The accepted quantities of work performed under this Section will be paid for at the Contract unit price, per unit of measurement, for the following items:

Pay Item	Unit of Measurement
(a) Health and Safety Plan .....	Lump Sum
(b) Lead Compliance Plan.....	Lump Sum

For items (a) and (b), partial Payments will be made as follows:

- When the initial HASP and Lead Compliance Plans are approved.....20%
- When 30 percent of the Contract is complete, excluding advances on materials...20%
- When 60 percent of the Contract is complete, excluding advances on materials...20%
- When 90 percent of the Contract is complete, excluding advances on materials...20%
- At completion of the Contract and all waste is removed from the Project site and all reports, receipts, and documents have been submitted.....20%

Payment will be payment in full for removing and disposing of all Materials, and for furnishing all Equipment, labor, plans, test results, and Incidentals necessary to complete the Work as specified.

**SECTION 00295 - ASBESTOS MATERIALS**

Section 00295, which is not a Standard Specification, is included in this Project by Special Provision.

**Description**

**00295.00 Scope** - In addition to the requirements of Section 00290, remove asbestos according to these specifications.

Remove asbestos from the following locations:

Location/Address	Material Description	Quantity (ft. or sq.ft.)	Percent Asbestos	Friable or Non-Friable
Located under bridge overhanging sidewalk	pipe wrap covering abandoned water line	Approx. 300 feet	35% chrysotile	Non-Friable
Located under bridge on east side	pipe wrap covering water line	Approx. 10 feet	35% chrysotile	Non-Friable

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Located under bridge on east side	pipe wrap covering sewer line	Approx. 10 feet	35% chrysotile	Non-Friable
On top of the 2 timber piling to be repaired located at Bent 7	fabric covering	Approx. 8 sq.ft.	10% chrysotile	Non-Friable

The September 2019 Report completed by Cascade Earth Sciences for Linn County Road Department, titled Modified Hazardous Materials Corridor Study Mill City First Avenue Bridge, Key # 21457 documenting the asbestos identified within the Project is available from the Engineer. Maintain a copy of this report and all additional asbestos survey results on site at all times and readily available to employees and inspectors during demolition and repair activities.

**00295.03 Submittals - The following forms and reports are required:**

- Completed and signed DEQ Waste Shipment Report Form according to the following:
  - Send the form along with the asbestos waste to the disposal facility.
  - Provide a copy of the form to the Engineer within 48 hours of transportation of the asbestos waste.
  - Obtain the final signed form from the disposal facility along with the disposal receipts and submit them to the Engineer within three Calendar Days after receiving them from the waste disposal facility.

**Labor**

**00295.30 Personnel Qualifications - Provide employees meeting the following requirements:**

- A current Oregon DEQ Asbestos Abatement Contractor license.
- A current Oregon DEQ Certified Supervisor meeting the requirements of OAR 340-248-0130.
- Current Oregon DEQ Certified asbestos workers meeting the requirements of OAR 340-248-0130
- A current Oregon DEQ Certified Supervisor meeting the requirements of OAR 340-248-0130.
- Workers trained according to 29 CFR 1926.1101.

When a DEQ Certified Supervisor is required, ensure the Supervisor is on site and overseeing the work whenever asbestos materials are disturbed or removed.

**Construction**

**00295.40 Asbestos Removal - Comply with 29 CFR 1910, 29 CFR 1926.1101, 40 CFR 61, 40 CFR 763, OAR 340-248, ORS 468A and the following:**

- Before beginning asbestos removal work, sign and submit all notifications and pay all fees to DEQ. Provide copies to the Engineer.
- Complete and sign all manifests and bill-of-lading forms for transporting and disposing the ACM.
- Maintain the ACM in an undamaged and non-friable condition by keeping the material wet during demolition or by using methods approved by DEQ.
- Keep material sealed during transport to the disposal facility. Transport and dispose of all ACM according to OAR 340-248-280 and OAR 340-248-290.
- Do not crush asbestos containing pipe and do not cut or break each pipe section into more than 3 pieces.

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- Handle asbestos containing pipe according to the DEQ Publications "Asbestos Advisory for those who work with AC Water Pipe" and "How to Remove Asbestos (AC) Water Pipe – A Guide for Meeting DEQ Rules".

### Measurement

**00295.80 Measurement** – No measurement of quantities for removing asbestos containing materials performed under this Section.

### Payment

**00295.90 Payment** - The accepted quantities of removing asbestos containing materials will be paid for at the Contract lump sum amount for the item "Remove Asbestos Material - Fabric and Wrap".

Payment will be payment in full for removing and disposing of all Materials, and for furnishing all Equipment, labor, manifests, and Incidentals necessary to complete the Work as specified.

## SECTION 00296 - PAINT AND PAINTED MATERIALS

Section 00296, which is not a Standard Specification, is included in this Project by Special Provision.

### Description

**00296.00 Scope** - In addition to the requirements of Section 00290, remove lead, chromium, and cadmium based paints, and materials coated with lead, chromium, and cadmium based paints, according to these specifications.

Lead, chromium and cadmium-based paints coat the metal on the North Santiam River (Mill City) Bridge (Structure No. 02058). Analysis of paint samples collected from this bridge detected the following concentrations of total lead, cadmium, and chromium in the metal paint:

Sample Location and Material	Total Lead (mg/kg)	Total Chromium (mg/kg)	Total Cadmium (mg/kg)
Green Paint from First Avenue Bridge	56,000	520	110

The September 2019 Report completed by Cascade Earth Sciences for Linn County Road Department, titled Modified Hazardous Materials Corridor Study Mill City First Avenue Bridge, Key # 21457 documenting these analyses, is available from the Engineer.

Unless otherwise tested, assume that all coatings contain lead, chromium, and cadmium and handle paint and painted materials accordingly during demolition.

**00296.03 Submittals** - Submit the following documents:

- A job specific written compliance program, according to 29 CFR 1926.62(e)(2), at least 10 Calendar Days before the pre-construction conference. When applicable, include compliance procedures for cadmium and chromium VI, according to 29 CFR 1926.1127 and 29 CFR 1926.1126.
- Modifications to the written compliance program within 7 Calendar Days of the modifications.
- Current employee training certificates and medical surveillance information before beginning work that disturbs paint containing lead, cadmium or chromium.
- Within 48 hours of completing or receiving them:
  - Disposal and recycling facility permits.

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- Transport manifests and bill-of-ladings.
- All reuse, recycling, and disposal receipts.
- All analytical test results.

**00296.04 Documentation** - Include paint and painted materials management and planned reuse, recycling, and disposal information in the pollution control plan. Obtain Engineer approval for the specific reuse, recycling, and disposal methods for all materials before beginning demolition work. Complete, sign and pay all required fees for all required permits, manifests, and bill-of-lading forms for transport and disposal of the paint and painted materials.

### **Labor**

**00296.30 Personnel Qualifications** - Provide employees trained in lead awareness, according to 29 CFR 1926.62(l), and also trained according to 29 CFR 1926.1126(j)(2) for chromium and 29 CFR 1926.1127(m)(4) for cadmium, during demolition of painted portions of the structures.

### **Construction**

**00296.40 Handling** - Minimize employee exposure to the metals contained in the paint. Provide containment that prevents release of paint chips to the environment. Do not remove or separate paint from painted substrates, unless required to accomplish repair activities.

**00296.46 Hazardous Waste Paint Management** - When hazardous waste paint is separated from its substrate, store all the separated paint waste in labeled, sealed, watertight containers and handle the hazardous waste according to 00290.20(d).

### **Measurement**

**00296.80 Measurement** - No measurement of quantities will be made for work performed under this Section.

### **Payment**

**00296.90 Payment** - No separate or additional payment will be made for work performed under this Section. Payment will be included in payment made for the appropriate items under which this work is required.

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**Attachment A**

**Lead, Chromium, and Cadmium Based Paint Acknowledgement Form**

[Contractor] \_\_\_\_\_

[Bridge Identification] \_\_\_\_\_

[Description of Scrap Metal] \_\_\_\_\_

\_\_\_\_\_ [Recipient] acknowledges that they are aware that metal and materials received from \_\_\_\_\_ [Contractor] on \_\_\_\_\_ [Date(s)] may contain lead, chromium, or cadmium based paint. Recipient further acknowledges that it is aware of the risk to human health and the environment posed by exposure to lead, chromium and cadmium based paint. All storage, use, sale, and disposal of materials containing lead, chromium or cadmium based paint and any removal of lead, chromium, or cadmium based paint from the materials by Recipient will be conducted in compliance with all applicable Federal and State statutes and regulations, including but not limited to 40 CFR 262 through 265 and OAR Chapter 340, Divisions 100 through 106. Recipient acknowledges that they are solely responsible for any liability or damages resulting from the storage, use, sale, and disposal of the materials and removal of lead, chromium or cadmium based paint by Recipient and Recipient will indemnify and hold harmless the Contractor and the Oregon Department of Transportation from any such claims of liability or damages.

\_\_\_\_\_ [Signature]

\_\_\_\_\_ [Title]

\_\_\_\_\_ [Date]

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**SECTION 00501 - BRIDGE REMOVAL**

Comply with Section 00501 of the Standard Specifications modified as follows:

**00501.00 Scope** - Add the following paragraph to the end of this subsection:

This Work also consists of salvaging a 10 ft portion of the historic bridge rail, including one pilaster, and delivering that section to the Mill City Maintenance building on NE Wall Street.

Add the following subsection:

**00501.02 Plans** - Plans of the existing structure are available for viewing at the office of the Engineer. Prints of these plans are available upon request.

Add the following subsection:

**00501.03 Submittals** - Provide unstamped bridge removal plans according to 00150.35 15 calendar days before beginning removal work.

Include the following information in the submittal:

- Removal sequence, including contractor staging and traffic staging.
- Detailed schedule of sidewalk removal work.
- Type of equipment that will be used, including size and capacity.
- Equipment location during removal operations.

Do not begin bridge removal work until the bridge removal plans have been approved.

**00501.80 Measurement** - Add the following to the end of this subsection:

No measurement of quantities will be made for Work performed for salvaging a portion of the historical railing.

No measurement of quantities will be made for Work performed for removing exposed portions of the existing abandoned water line.

**00501.90 Payment** - Add the following three paragraphs to the end of this subsection:

The accepted quantities of Work performed to salvage a portion of historical bridge rail will be paid for at the Contract Lump Sum amount for the item "Salvaging Historical Railing".

Payment will be payment in full for furnishing all Equipment, labor, and Incidentals necessary to complete the Work as specified.

No payment will be made for removal of all exposed portions of the existing abandoned water line.

**SECTION 00510 - STRUCTURE EXCAVATION AND BACKFILL**

Comply with Section 00510 of the Standard Specifications modified as follows:

**00510.13 Granular Structure Backfill** - Replace this subsection, except for the subsection number and title, with the following:

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Furnish granular structure backfill meeting the requirements of 02630.10 and the following:

- (1) **Material Passing No. 200 Sieve** - The amount of Materials passing the No. 200 sieve shall not exceed 15 percent by weight. Test according to AASHTO T 11.
- (2) **Plasticity Index** - The plasticity index of the Material passing the No. 40 sieve shall not exceed 6. Test according to AASHTO T 90.

**00510.41 Structure Excavation** - Replace the paragraph that begins “If the Plans show...” with the following paragraph

Where the Plans show concrete in footings placed against undisturbed material, make excavation for footings as nearly as possible to the limits shown. Fill the space between the footing and remaining undisturbed material to the top of the footing with footing concrete or granular structure backfill material, as directed. Compact the granular structure backfill to 97 percent of maximum density, according to 00330.43.

**00510.48(a) General** - In the paragraph that begins “Place backfill and riprap...” replace the last sentence with the following sentence:

Prevent large lateral or wedging compaction forces from occurring directly against the concrete; for sloped excavations, step the slope or use other approved means to prevent the wedge action.

**00510.48(b) Bridge Abutments and Retaining Walls** - Replace this subsection with the following subsection:

**00510.48(b) Bridge Abutments, Wing Walls, Retaining Walls, and End Panels** - Backfill, at a minimum, to the pay limits shown. Backfill abutments, wing walls, retaining walls, and end panels with specified backfill to the pay limits shown, and as follows:

(1) **Placement at Abutments** - Do not place backfill at Bridge abutments until Superstructure elements are set, pinned and tensioned. Place backfill required at the front face of retaining walls and wing walls before backfilling behind the wall unless shown otherwise. For single span Bridges with abutments, keep the backfill heights within 2 feet of each other.

(2) **Placement at Weep Holes** - Place granular wall backfill at all weep holes.

(3) **Compaction Within 3 Feet Behind Abutments and Walls** – Within 3 feet behind abutments, wing walls, and retaining walls, provide walk behind vibratory roller compactor with a single smooth drum, vibratory plate compactor, or rammer/tamper plate compactor; each with a gross static weight of not more than 1,000 pounds and a total compaction static plus dynamic force of not more than 5,000 pounds. Compact backfill to 95 percent of maximum density using the required number of passes determined according to the test pad method, and not less than three compaction Equipment passes.

a. **Test Pad Method** - Before placing the wall backfill, determine the number of Passes necessary to achieve the specified density by constructing a test pad that is at least 5 feet wide, 15 feet long, and 3 feet in final depth. Construct test pad fill in layers no more than 8 inches thick using the same Equipment and methods that will be used to compact the wall backfill. Perform at least one density test according to AASHTO T 310 on each test pad layer. Construct and test a new test pad when changes in Material occur or different Equipment is used during the construction of the wall backfill.

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**(4) Compaction More Than 3 Feet Behind Abutments and Walls** - Greater than 3 feet behind abutments, wing walls, and retaining walls, provide vibratory roller compactor with a single smooth drum, vibratory plate compactor, or rammer/tamper plate compactor. Compact backfill to 95 percent of maximum density. Unless otherwise specified, test in-place field density according to AASHTO T 310. Test at the frequency required in the ODOT Manual of Field Test Procedures.

**(5) End Panels** - Place and compact foundation for end panels as shown and according to 00510.46(a).

**00510.80 Structure Excavation** - Replace this subsection, except for the subsection number and title, with the following:

No measurement of quantities will be made for Work performed under this Section.

**00510.90 Structure Excavation** - Replace this subsection, except for the subsection number and title, with the following:

No separate or additional payment will be made for Work performed under this Section. Work performed under this Section will be considered incidental to the "Timber Pile Repair" item to which it is applied.

### SECTION 00530 - STEEL REINFORCEMENT FOR CONCRETE

Comply with Section 00530 of the Standard Specifications modified as follows:

**00530.30 Mechanical Splice Installers** - In the paragraph that begins "Provide splice samples that meet...", add the following sentence after the first sentence:

For stainless steel reinforcement, provide splice samples that meet the requirements of 02513.20.

**00530.42(c)(1) General** – Replace the paragraph that begins "When approved, dowels may be replaced..." with the following paragraph:

For staged construction, dowels may be replaced by reinforcing bars with threaded sleeve mechanical splice couplers embedded in the portion of concrete placed first and threaded reinforcing bars inserted in the couplers after forms are removed. Approval by the Engineer is required for the substitution. Construct assemblies that develop 125 percent of the specified minimum yield strength of the dowels shown or specified. Construct reinforcing bars that have effective splice or development lengths equal to the replaced dowels.

**00530.42(c)(3) Installation** – Replace this subsection, except for the subsection number and title, with the following:

Install splices in the presence of the Engineer. Splices made without the Engineer present will be rejected.

Do not place stirrups and other reinforcing bars between a mechanical splice sleeve and the surface of the concrete where it would impair the specified clearance. Instead, place additional reinforcement as necessary at no additional cost to the Agency.

**00530.45 Inspection and Repair of Epoxy Coated Rebar** – Replace the sentence that begins "Before installation, patch all visual defects..." with the following sentence:

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Before installation, patch all visual defects in the coating with a manufacturer recommended patching material according to ASTM A775.

**00530.47(c) Installation** – Replace the paragraph that begins “When using epoxy coated reinforcing bars...” with the following paragraph:

When using epoxy coated reinforcing bars, coat heads prior to installation according to ASTM A775. After the heads are attached to the rebar, coat exposed areas of bare steel and seal the rebar to head interface with a manufacturer recommended patching material according to ASTM A775.

**00530.80(a) Lump Sum** - Add the following to the end of this subsection:

The estimated quantity of reinforcement is:

Location	Uncoated Reinforcement Quantity (Pound)	Coated Reinforcement Quantity (Pound)
Structure 02058	Grade 60	Grade 60
Sidewalk & curbs	10,900	1,000
Pier 3 cap backwall	100	0

The weight of miscellaneous metal, based on weights listed in 00530.80(b) and Project quantities, is included in the estimated quantity of uncoated reinforcement.

**00530.90 Payment** - Replace this subsection, except for the subsection number and title, with the following:

The accepted quantities of reinforcement will be paid for at the Contract unit price, per unit of measurement, for the following items:

Pay Item	Unit of Measurement
(a) Reinforcement, Grade 60.....	Lump Sum
(b) Coated Reinforcement, Grade 60 .....	Lump Sum

Item (a) includes fabricating and placing uncoated reinforcement as specified.

Item (b) includes placing epoxy coated reinforcement as specified.  
Payment for reinforcement will be made when the reinforcement is incorporated into the concrete.

Payment will be payment in full for furnishing and placing all Materials, and for furnishing all Equipment, labor, and Incidentals necessary to complete the Work as specified,

No separate or additional payment will be made for clips, wire, separators, wire chairs, and other Material used in fastening the reinforcement in place.

**SECTION 00538 - CRACK INJECTING EXISTING BRIDGES**

Comply with Section 00538 of the Standard Specifications.

**SECTION 00540 - STRUCTURAL CONCRETE**

Comply with Section 00540 of the Standard Specifications modified as follows:

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**00540.17(a) Aggregate** - Replace this entire subsection, including 00540.17(a)(1) and 00540.17(a)(2), with the following subsection:

**00540.17(a) Aggregate** - Acceptance of aggregate will be according to 02690.12.

**00540.17(c)(2) Actual Strength Test Value** - Replace this subsection, except for the subsection number and title, with the following:

The ASTV at 28 Days is the average compressive strength of the three cylinders tested. Discard all specimens that show definite evidence, other than low strength, of improper sampling, molding, handling, curing, or testing. The average strength of the remaining cylinders shall then be considered the test result.

**00540.49(a)(1) Hot Weather** - Replace the paragraph that begins "Maintain the concrete temperature..." with the following paragraph:

Maintain the concrete temperature during hot weather as specified. When concrete temperatures approach the maximum allowable temperature according to 02001.20(d), take appropriate action to lower the concrete temperature.

**00540.51(a) General Requirements** - Replace the paragraph that begins "Cure cast-in-place concrete..." with the following paragraph:

Cure cast-in-place concrete surfaces with water, wet burlap, and a layer of 4 mil polyethylene film, except polypropylene fabric may be used in place of wet burlap on horizontal surfaces. Begin curing as soon after placement as possible without damaging the freshly placed concrete. Continue curing for 7 Calendar Days (14 Calendar Days for bridge decks) after placement.

Add the following paragraph to the end of this subsection:

If the ambient temperature falls below 50 °F, or is forecasted to be below 50 °F, provide a 24-hour continuous recording thermometer and place it directly on the surface of the concrete. Once placed, the thermometer shall remain in place for the duration of the cure period. Use methods approved by the Engineer to maintain a concrete temperature of at least 50 °F during the cure period.

**00540.53(b) Class 1 Surface Finish (Ground and Coated)** - Replace this subsection with the following subsection:

**00540.53(b) Class 1 Surface Finish (Ground, Sacked, and Coated)** - After completion of the general surface finish, grind the surface with a power grinder or an equivalent method to remove laitance and surface film. Sack the surface to fill all holes using a paste of fine mortar sand, cement, water, and bonding agent. The ratio of bonding agent to water shall be one part bonding agent to two parts water, or as recommended by the manufacturer. Apply coating according to 00540.53(d).

**00540.80(a)(1) Lump Sum** - Add the following to the end of this subsection:

The estimated quantity of concrete for Bridge No. 02058 is:

<b>Type and Class</b>	<b>Quantity (Cu. Yd.)</b>
Sidewalk and Curb Concrete, Class 4000	90
Pier 3 cap backwall Concrete, Class 4000	1

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**FALSEWORK DESIGN CHECKLIST**

**Instructions** - This checklist was developed to facilitate the design, review, and erection of falsework to be used for Oregon Department of Transportation bridge construction projects. This checklist is intended to act as a reminder to design or check for specific important aspects of this construction. It is not a substitute for plan and/or design criteria or specification requirements.

The Checklist is to be completed and signed by the Falsework Design Engineer. Answer every question. Attach to the Checklist an explanation of any negative responses.

Submit the Checklist according to 00540.41(a).

	YES	NO	N/A
<b>A. Contract Plans, Specifications, Permits, Etc.</b>			
1. Are the falsework plans prepared, stamped and signed by an engineer registered to practice in Oregon?	_____	_____	_____
2. Have three complete sets (five if railroad approval is required) of the design calculations been included with the falsework drawings submittal?	_____	_____	_____
3. Are falsework plans in compliance with the requirements of the construction plans general notes?	_____	_____	_____
4. Are falsework plans in compliance with contract plan structural details?	_____	_____	_____
5. Are falsework plans in compliance with the requirements of the Oregon Standard Specifications for Construction, subsection 00150.35?	_____	_____	_____
6. Are all existing, adjusted or new utilities in proximity with the proposed falsework shown on the falsework plans and is protection of these utilities addressed?	_____	_____	_____
7. Are clearance requirements satisfied and shown on the falsework plans?	_____	_____	_____
8. For construction in or over navigable waters have all requirements for construction of falsework that are called for in the Coast Guard Permit been incorporated in the falsework design?	_____	_____	_____
9. Has possible damage from traffic been considered in the falsework design?	_____	_____	_____
10. Has damage from stream drift been considered in the falsework design?	_____	_____	_____
11. Is the concrete placing sequence shown and is it consistent with the contract plans?	_____	_____	_____

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**B. Foundation Requirements**

- |    |  |       |       |       |
|----|--|-------|-------|-------|
| 1. | Are driven falsework piling provided as called for on the contract plans?  | _____ | _____ | _____ |
| a. | Is a minimum pile tip elevation or penetration indicated on the drawings?  | _____ | _____ | _____ |
| b. | If timber falsework piles are specified, are the recommended order lengths sufficient to virtually eliminate the possibility of pile splices?                              | _____ | _____ | _____ |
| c. | Is a detailed static pile capacity analysis included in the calculations?  | _____ | _____ | _____ |
| d. | If lateral loads are applied to the piling by equipment, dead loads, flowing water, or drift, is a detailed lateral load analysis included in the calculations?            | _____ | _____ | _____ |
| e. | When piling are in an active waterway, have the potential effects of scour on axial and lateral pile support been addressed in the calculations?                           | _____ | _____ | _____ |
| f. | Does the proposed falsework pile hammer meet the minimum field energy requirements as listed in 00520.20(d)(2)?  | _____ | _____ | _____ |
| g. | Will a driving criteria graph [FHWA Gates Equation, in 00520.42(b)] plotting blow count versus stroke for an acceptable pile hammer be provided for the project inspector? | _____ | _____ | _____ |
| 2. | Is falsework supported on spread footings or mud sills?  | _____ | _____ | _____ |
| a. | Are the spread footing elevations shown on the drawings?   | _____ | _____ | _____ |
| b. | Has a rational method for determining the ultimate bearing capacity of the foundation materials been presented and described in the calculations?                          | _____ | _____ | _____ |

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- c. Have the soil parameters used in calculating the ultimate bearing capacity been listed and confirmed by the designer? \_\_\_\_\_
- d. Has an appropriate Factor of Safety been used for calculating the allowable bearing capacity of the foundation materials? \_\_\_\_\_
- e. Are spread footing settlement estimates included in the calculations? \_\_\_\_\_
- f. Have effective stresses been used in the calculations, when applicable? \_\_\_\_\_
- g. When spread footings are founded near the top of a slope or in a slope, have the ultimate bearing capacity calculations been modified accordingly? \_\_\_\_\_
- h. When spread footings may be subjected to flowing water, have the potential effects of scour on ultimate bearing capacity been addressed in the calculations? \_\_\_\_\_

**C. Loads**

- 1. Are the magnitude and location of all loads, equipment and personnel that will be supported by the falsework shown and noted on the falsework plans? \_\_\_\_\_
- 2. Has the mass of specific equipment units to be supported by the falsework been included in the calculations or on the falsework plans? \_\_\_\_\_
- 3. Is the deck finishing machine supported in a manner that will not impose load on concrete forms except deck overhang brackets? \_\_\_\_\_
- 4. Are design loads and material properties used to determine design stresses for each different falsework member shown on the falsework plans? \_\_\_\_\_
- 5. Is the worst loading and member property condition, rather than the average condition, used to obtain design loads? \_\_\_\_\_
- 6. Are deck forms for concrete box girders supported from the girder stem and not from the bottom slab? \_\_\_\_\_
- 7. Are diaphragm loads or other concentrated loads included in the analysis of supporting beams? \_\_\_\_\_
- 8. If sloping structural members exert horizontal forces on the falsework, is bracing or ties used to resist these loads? \_\_\_\_\_

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**D. Allowable Stresses**

- 1. Has the method used for falsework design of all members except for manufactured assemblies been noted in the design calculations? \_\_\_\_\_
- 2. Are manufactured assemblies identified as to manufacturer, model, rated working capacity and ultimate capacity? \_\_\_\_\_
- 3. Is the allowable stress and the calculated stress listed in the summary for each different falsework member, except for manufactured assemblies? \_\_\_\_\_

**E. Timber Falsework Construction**

- 1. Are timber grades consistent with material to be delivered to the construction site, and noted on falsework drawings, and in accompanying calculations for all timber falsework material? \_\_\_\_\_
- 2. If "rough" lumber is specified for falsework by the falsework designer are the actual lumber dimensions used in calculations shown? \_\_\_\_\_
- 3. If plywood spans are governed by the strength of the plywood, are the allowable stress and the calculated stress shown on the submitted calculations? \_\_\_\_\_
- 4. If plywood spans are governed by the allowable spacing of supporting joists, are the allowable and the proposed spacing shown on the falsework plans? \_\_\_\_\_
- 5. Have timber stringers been checked for bending, shear, bearing stresses, and 1/240 of the span length deflection? \_\_\_\_\_
- 6. Are joists identified as being continuous over 3 or more spans when they are not analyzed as simple spans? \_\_\_\_\_
- 7. Have stringers and cap beams been checked for bearing stresses perpendicular to the grain as well as for bending and shear stresses? \_\_\_\_\_
- 8. Have posts been checked as columns as well as for compression parallel to the grain? \_\_\_\_\_

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**F. Steel Falsework Construction**

- 1. Are steel structural shapes and plates identified by ASTM number on the falsework plans and in the calculations? \_\_\_\_\_
- 2. Have steel beams been checked for bending, shear, web crippling and buckling of the compression flange? \_\_\_\_\_
- 3. Has horizontal plane bracing been shown where required to limit compression flange buckling? \_\_\_\_\_

**G. Deflections and Settlement**

- 1. Is falsework deflection for concrete dead load shown on the plans for all falsework spans? \_\_\_\_\_
- 2. Is falsework deflection from concrete dead load limited to 1/240 of the span length for all falsework spans? \_\_\_\_\_
- 3. Do stringers supporting cast-in-place concrete compensate for estimated camber? \_\_\_\_\_
- 4. For beam spans with cantilevers, has the upward deflection of the cantilevers due to load placed on the main spans been investigated? \_\_\_\_\_
- 5. Are provisions shown for taking up falsework settlement? \_\_\_\_\_

**H. Compression Members, Connections and Bracing**

- 1. Has general buckling been evaluated for all compression members? \_\_\_\_\_
- 2. Has bracing been provided at all points of assumed support for compression members? \_\_\_\_\_
- 3. Was bracing in each direction considered in establishing the effective length used to check post capacity? \_\_\_\_\_
- 4. Is bracing strength and stiffness sufficient for the intended purpose? \_\_\_\_\_
- 5. If temporary bracing is required during intermediate stages of falsework erection, is it shown on the falsework plans? \_\_\_\_\_
- 6. Have all connections been designed and detailed? \_\_\_\_\_
- 7. Are web stiffeners required on steel cap beams to resist eccentric loads? \_\_\_\_\_
- 8. Are wedges required between longitudinal beams and cap beams to accommodate longitudinal slope or to reduce eccentric loading? \_\_\_\_\_

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- |           |  |       |       |       |
|-----------|--|-------|-------|-------|
| 9.        | Has the width to height ratio of wedge packs been verified to fall within the limits given in the special provisions?  | _____ | _____ | _____ |
| 10.       | If overhang brackets are attached to unstiffened girder webs, has the need for temporary bracing to prevent longitudinal girder distortion been investigated?                  | _____ | _____ | _____ |
| 11.       | Have beams and stringers with height/width ratios greater than 2.5:1 been checked for stability?   | _____ | _____ | _____ |
| 12.       | Have sloping falsework members that exert horizontal forces on the falsework been braced or tied to resist these loads?  | _____ | _____ | _____ |
| 13.       | If beams supporting cast-in-place concrete have cantilever spans, have the falsework plans been noted to require the main spans be loaded before loading the cantilever spans? | _____ | _____ | _____ |
| 14.       | Have timber headers set on shoring towers been checked for eccentric loads, and for shear and bending stresses produced by the eccentricity?                                   | _____ | _____ | _____ |
| <br>      |  |       |       |       |
| <b>I.</b> | <b>Highway and Railroad Traffic Openings (For falsework over or adjacent to highway or railroad traffic openings.)</b>   |       |       |       |
| 1.        | Do falsework plans satisfy construction clearances shown on the contract plans?  | _____ | _____ | _____ |
| 2.        | Are posts designed for 150% of the calculated vertical loading and increased or readjusted for loads caused by prestressing forces?  | _____ | _____ | _____ |
| 3.        | Are mechanical connections 2,000 pounds minimum capacity shown at the bottom of posts to footing connections?  | _____ | _____ | _____ |
| 4.        | Are mechanical connections 1,000 pounds minimum capacity shown at the top of the post to cap connections?  | _____ | _____ | _____ |
| 5.        | Are beam tie downs 500 pounds minimum capacity shown for all beams?  | _____ | _____ | _____ |
| 6.        | Are 5/8 inch or larger diameter bolts used at connections for timber bracing?  | _____ | _____ | _____ |
| 7.        | Are temporary erection and removal bracing shown?  | _____ | _____ | _____ |

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**J. Additional Requirements for Railroad Traffic Openings**

- |    |  |       |       |       |
|----|--|-------|-------|-------|
| 1. | Do falsework plans show collision posts as shown on the contract plans?  | _____ | _____ | _____ |
| 2. | Do posts adjacent to the openings have a minimum section modulus of?   |       |       |       |
|    | a. steel - 9.5 cubic inches  | _____ | _____ | _____ |
|    | b. timber - 250 cubic inches   | _____ | _____ | _____ |
| 3. | Are soffit and deck overhang forming details shown?  | _____ | _____ | _____ |
| 4. | Are falsework bents within 20 feet of centerline of the track sheathed solid between 3 feet and 17 feet above top of rail with 5/8 inch thick minimum plywood and properly blocked at the edges? | _____ | _____ | _____ |
| 5. | Is bracing on the bents within 20 feet of the centerline of the track adequate to resist the required assumed horizontal load or minimum 5,000 pounds, whichever is greater?                     | _____ | _____ | _____ |

\_\_\_\_\_  
Designer's Signature                      Date

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**SECTION 00541 - SHOTCRETE CONSTRUCTION FACING**

Section 00541, which is not a Standard Specification, is included in this Project by Special Provision.

**00541.00 Scope** - Shotcrete facing and wall drainage work consists of furnishing all materials and labor required for reinforcing steel and shotcrete for the shotcrete construction facing. The work shall include any preparatory trimming and cleaning of soil/rock surfaces and shotcrete construction joints to receive new shotcrete for the wall shown on the plans.

Shotcrete shall comply with the requirements of ACI 506.2, "Specifications for Materials, Proportioning and Application of Shotcrete", except as otherwise specified in these special provisions. Provide quality control according to Section 00165.10. Shotcrete shall consist of an application of one or more layers of concrete conveyed through a hose and pneumatically projected at a high velocity against a prepared surface.

Shotcrete may be produced by either a wet-mix or dry-mix process. The wet-mix process consists of thoroughly mixing all the ingredients except accelerating admixtures, but including the mixing water, introducing the mixture into the delivery equipment and delivering it, by positive displacement, to the nozzle. The wet-mix shotcrete shall then be air jetted from the nozzle at high velocity onto the surface. The dry-mix process consists of shotcrete without mixing water conveyed pneumatically through a hose and mixed with water introduced at the nozzle. For additional descriptive information, the Contractor's attention is directed to the American Concrete Institute, ACI 506R "Guide to Shotcrete."

**00541.02 Contractor's Experience Requirements** - All workers, including foremen, nozzle men, and delivery equipment operators, shall be fully experienced to perform the work. All shotcrete nozzle men on this project shall have experience on at least 3 projects in the past 3 years in similar shotcrete application work and shall demonstrate the ability to satisfactorily place the shotcrete. In addition to the documented experience on at least three projects, initial qualification of nozzle men will be based either on previous ACI certification or satisfactory completion of preconstruction test panels. The requirement for nozzle men to shoot preconstruction qualification test panels will be waived for nozzle men who submit documented proof they have been certified in accordance with the ACI 506.3R "Guide to Certification of Shotcrete Nozzle men". The Certification shall have been done by an ACI recognized shotcrete testing lab and/or recognized shotcreting consultant, approved by the Agency, and have covered the type of shotcrete to be used (plain wet-mix, plain dry-mix or steel fiber reinforced). All nozzle men shall be required to periodically shoot production test panels during the course of the work at the frequency specified in these special provisions under Field Quality Control (00541.12).

Notify the Engineer not less than 2 days prior to the shooting of preconstruction test panels to qualify nozzle men without previous ACI certification. Provide same shotcrete mix and equipment to make qualification test panels as are to be used for the shotcrete facing. Initial qualification of the nozzle men will be based on the Engineer's visual inspection of the shotcrete density and void structure and on achieving the specified 3-day and 28-day compressive strength determined from test specimens extracted from the preconstruction test panels. Conduct preconstruction and production test panels, core extraction and compressive strength testing in accordance with ACI 506.2 and AASHTO T 24, unless otherwise specified in these special provisions. Nozzle men without ACI Certification will be allowed to begin production shooting based on satisfactory completion of the preconstruction test panels and passing 3-day strength test requirements. Continued qualification will be subject to passing the 28-day strength tests and satisfactory shooting during production test panels.

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**00541.03 Construction Submittals** - Submit 1 copy of the following information, in writing, to the Engineer for review and approval a minimum of 15 working days before the planned start of shotcrete placement.

**(a) Qualifications** - Written documentation of the nozzle men's qualifications including proof of ACI certification (if applicable) and proof of Contractor's experience in accordance with 00541.30.

**(b) Methods** - Proposed methods of shotcrete placement and of controlling and maintaining facing alignment and location and shotcrete thickness.

**(c) Mix Design** - Shotcrete mix design including:

- Type of Portland Cement.
- Aggregate source and gradation.
- Proportions of mix by weight and water-cement ratio.
- Proposed admixtures, manufacturer, dosage, technical literature.
- Previous strength test results for the proposed shotcrete mix completed within one year of the start of shotcreting may be submitted for initial verification of the required compressive strengths at start of production work.
- Trial batch test results.

### Materials

**00541.10 General** - Provide materials meeting the following requirements:

Portland Cement .....	02010.10, Type I, II, or III
Fine Aggregate.....	02690.30
Coarse Aggregate .....	02690.20
Water.....	02020.00
Accelerator .....	02040.00, Fluid type, applied at nozzle.
Water-reducer and Superplasticizer.....	02040.00
Retarders .....	02040.00
Fly Ash .....	02030.10
Microsilica Admixtures .....	02030.20
Welded Wire Fabric.....	02510.40
Reinforcing Bars.....	02510.10, Grade 420, deformed.
Concrete Repair Material ASTM C 928, .....	QPL (Prepackaged Shotcrete)

Materials shall be delivered, stored and handled to prevent contamination, segregation, corrosion or damage. Store liquid admixtures to prevent evaporation and freezing.

**00541.11 Shotcrete Mix Design** - Notification is required from the Engineer that the proposed mix design and method of placement are acceptable before shotcrete placement will be permitted to begin.

**(a) Aggregate** - Provide aggregate for shotcrete meeting the strength and durability requirements of Section 02690:

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<b>Sieve Size</b>	<b>Percent Passing by Mass</b>
1/2 inch	100
3/8" inch	90-100
#4	70-85
#8	50-70
#16	35-55
#30	20-35
#50	8-20
#100	2-10

**(b) Proportioning and Use of Admixtures** - Proportion the shotcrete to be pumpable with the concrete pump furnished for the work, with a cementing materials content of at least 390 kilograms per cubic meter and water/cement ratio not greater than 0.50. Do not use admixtures unless approved by the Engineer. Thoroughly mix admixtures into the shotcrete at the rate specified by the manufacturer. Accelerators (if used) shall be compatible with the cement used, be non-corrosive to steel and not promote other detrimental effects such as cracking or excessive shrinkage. The maximum allowable chloride ion content of all ingredients shall not exceed 0.10% when tested to AASHTO T 260.

**(c) Air Entrainment** - Air entrainment is not required for temporary shotcrete construction facings.

**(d) Strength Requirements** - Provide a shotcrete mix capable of attaining 2000 psi compressive strength in 3 days and 4000 psi in 28 days. The average compressive strength of each set of three test cores extracted from test panels or wall face must equal or exceed 85 percent of the specified compressive strength, with no individual core less than 75 percent of the specified compressive strength, in accordance with ACI 506.2.

**(e) Mixing and Batching** - Aggregate and cement may be batched by weight or by volume in accordance with the requirements of ASTM C 94 or AASHTO M 241/ASTM C 685. Mixing equipment shall thoroughly blend the materials in sufficient quantity to maintain placing continuity. Ready mix shotcrete shall comply with AASHTO M 157. Shotcrete shall be batched, delivered, and placed within 90 minutes of mixing. The use of retarding admixtures may extend application time beyond 90 minutes, if approved by the Engineer.

Premixed and packaged shotcrete mix may be provided for on-site mixing. The packages shall contain materials conforming to these special provisions. Placing time limit after mixing shall be per the manufacturers' recommendations.

**00541.12 Field Quality Control** - Test panels (for nozzlemen without previous ACI certification), production test panels, and test cores from the wall facing, are required. Shotcreting and coring of test panels and wall facing shall be performed by the Contractor's qualified personnel in the presence of the Engineer. The Contractor shall provide equipment, materials, and personnel as necessary to obtain shotcrete cores for testing including construction of test panel boxes, field curing requirements and coring. Compressive strength testing will be performed by the Contractor. Shotcrete final acceptance will be based on the 28-day compressive strength of five (5) test cores taken from the face of each soil nailed wall, and for a minimum of every 5000 ft<sup>2</sup> of wall facing, at locations designated by the Engineer.

Shotcrete production work will be permitted upon initial approval of the design mix and nozzlemen and continue if the specified 3-day and 28-day strengths are obtained. The shotcrete work by a crew will be suspended if the test results for their work does not obtain the specified strength requirements.

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The Contractor shall change all or some of the following: the mix, the crew, the equipment, or the procedures. Before resuming work, the crew shall shoot additional test panels, or wall facing, and demonstrate that the shotcrete in the panels, or wall facing, satisfies the specified strength requirements. The cost of all work required to obtain satisfactory strength tests, including test panels, testing of nozzleman, obtaining test samples and laboratory testing, will be borne by the Contractor.

**00541.13 Preconstruction Test Panels** - Each nozzleman without previous ACI certification shall perform at least one preconstruction test panel for each proposed mixture being considered and for each shooting position to be encountered on the job. Preconstruction test panels shall be made prior to the commencement of production work using the same equipment, materials, mixture proportions and procedures proposed for the job. Construct preconstruction test panels with minimum dimensions of 30 x 30 inch square and at least 4 inch thick. Slope the sides of preconstruction and production test panels at 45 degrees over the full panel thickness to release rebound.

**00541.14 Production Test Panels** - Perform at least one production test panel or, in lieu of production test panels, six 3 inch diameter cores taken from the shotcrete facing, during the first production application of shotcrete and for every 5000 ft<sup>2</sup> of shotcrete placed for the remainder of the project. Construct the production test panels simultaneously with the shotcrete facing installation at times designated by the Engineer. Construct production test panels with minimum dimensions of 18 inch x 18 inch square and at least 4 inch thick.

**00541.15 Test Panel Curing, Test Specimen Extraction and Testing** - Immediately after shooting, field moist cure the test panels by covering and tightly wrapping with a sheet of material meeting the requirements of ASTM C 171 until they are delivered to the testing lab or test specimens are extracted. Do not immerse the test panels in water. Do not further disturb test panels for the first 24 hours after shooting. Provide a minimum of six 3 inch diameter core samples cut from each preconstruction test panel and production test panel. The Contractor has the option of extracting test specimens from test panels in the field or transporting to another location for extraction. Keep panels in their forms when transported. Do not take cores from the outer 6 inches of test panels measured in from the top outside edges of the panel form. Trim the ends of the cores to provide test cylinders at least 3 inches long. If the Contractor chooses to take cores from the wall face in lieu of making production test panels, locations will be designated by the Engineer. Cores taken from the wall face will be free of steel reinforcement. Clearly mark the cores and container to identify the core locations and whether they are for preconstruction or production testing. If for production testing, mark the section of the wall represented by the cores on the cores and container. Immediately wrap cores in wet burlap or material meeting requirements of ASTM C 171 and seal in a plastic bag. Deliver cores to the testing lab within 48 hours of shooting the panels or wall face. The remainder of the panels will become the property of the Contractor. Compressive strength testing will be performed by the Contractor. Upon delivery to the testing lab, samples will be placed in the moist room until the time of test. When the test length of a core is less than twice the diameter, the correction factors given in AASHTO T 24 will be applied to obtain the compressive strength of individual cores. For each test panel, three cores will be tested at 3 days and three cores will be tested at 28 days in accordance with AASHTO T 24.

Fill core holes in the wall by dry-packing with non-shrink patching mortar after the holes are cleaned and dampened. Do not fill core holes with shotcrete.

### **Labor**

**00541.30 Qualifications** - Provide certified technicians in the following fields:

- Aggregate Testing
- Concrete Control Testing

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- Quality Control Testing

### Construction

#### 00541.40 Permanent Shotcrete Construction Facing:

**(a) Shotcrete Alignment and Thickness Control** - Minimum thickness of shotcrete required shall be as shown on the plans. Provide shooting wires, thickness control pins, or other devices acceptable to the Engineer to obtain required thickness. Install thickness control devices normal to the surface such that they protrude the required shotcrete thickness outside the surface. Construct the front face of the shotcrete so that shotcrete does not extend beyond the limits shown on the plans.

**(b) Surface Preparation** - Clean the face of the excavation, the ungrouted zone above the nail grout at the excavation cut face and other surfaces to be shotcreted of loose materials, mud, rebound, overspray or other foreign matter that could prevent, or reduce, shotcrete bond. Protect adjacent surfaces from overspray during shooting. Avoid loosening, cracking, or shattering the ground during excavation and cleaning. Remove any surface material which is loosened or damaged, to a sufficient depth to provide a base that is suitable to receive the shotcrete. Remove material that is loosened as the shotcrete is applied. Cost of additional shotcrete is incidental to the work. Divert water flow and remove standing water so that shotcrete placement will not be detrimentally affected by standing water. Do not place shotcrete on frozen surfaces or surfaces with flowing water.

**(c) Delivery and Application** - Maintain a clean, dry, oil-free supply of compressed air sufficient for maintaining adequate nozzle velocity at all times. The equipment shall be capable of delivering the premixed material accurately, uniformly, and continuously through the delivery hose. Control shotcrete application thickness, nozzle technique, air pressure, and rate of shotcrete placement to prevent sagging or sloughing of freshly-applied shotcrete.

Apply the shotcrete from the lower part of the area upwards to prevent accumulation of rebound. Orient nozzle at a distance, and approximately perpendicular, to the working face so that rebound will be minimal and compaction will be maximized. Ensure complete coverage and encapsulation of reinforcement. Do not work rebound back into the construction. Where shotcrete is used to complete the top ungrouted zone of the nail drill hole near the face, position the nozzle into the mouth of the drill hole to completely fill the void.

A clearly defined pattern of continuous horizontal or vertical ridges or depressions at the reinforcing elements after they are covered with shotcrete will be considered an indication of insufficient reinforcement cover or poor nozzle techniques. In this case the application of shotcrete shall be immediately suspended and the Contractor shall implement corrective measures before resuming the shotcrete operations. The shotcreting procedure may be corrected by adjusting the nozzle distance and orientation, by ensuring adequate cover over the reinforcement, by adjusting the water content of the shotcrete mix or other means. Adjustment in water content of wet-mix shall require requalifying the shotcrete mix.

**(d) Defective Shotcrete** - Repair shotcrete surface defects as soon as possible after placement. Remove and replace shotcrete which exhibits segregation, honeycombing, lamination, voids, or sand pockets. In-place shotcrete, determined not to meet the specified strength requirement will be subject to remediation, as determined by the Engineer. Possible remediation options include placement of additional shotcrete thickness or removal and replacement, at the Contractor's expense.

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**(e) Construction Joints** - Taper construction joints uniformly toward the excavation face over a minimum distance equal to the thickness of the shotcrete layer. Construction joints shall not be placed at reinforcement splice joints. Clean and wet the surface of a joint before adjacent shotcrete is applied. Where shotcrete is used to complete the top ungrouted zone of the nail drill hole near the face, clean and dampen the upper grout surface to receive shotcrete, to the maximum extent practical, similar to a construction joint.

**(f) Finish** - Shotcrete finish shall be a rough screeded finish. Remove shotcrete extending into the cast-in-place finish face section beyond the tolerances shown on the plans and specified in these special provisions.

**(g) Weather Limitations** - Protect the shotcrete if it must be placed when the ambient temperature is below 40°F and falling or when it is likely to be subjected to freezing temperatures before gaining sufficient strength. Maintain cold weather protection until the in-place compressive strength of the shotcrete is greater than 725 psi. The Contractor should take careful note of the requirements of Section 00598.42(b) on the required shotcrete strength before excavating the next underlying lift. Cold weather protection includes blankets, heating under tents, or other means acceptable to the Engineer. The temperature of the shotcrete mix, when deposited, shall be not less than 40°F nor more than 95°F.

Suspend shotcrete application during high winds and heavy rains unless suitable protective covers, enclosures or wind breaks are installed. Remove and replace newly placed shotcrete exposed to rain, or runoff, that washes out cement or otherwise makes the shotcrete unacceptable to the Engineer. Provide a polyethylene film, or equivalent, to protect the work from exposure to adverse weather.

**(h) Curing** - Curing is not required for temporary construction facings to be covered by a CIP facing or whose service life is less than 36 months.

**00541.60 Construction Facing Tolerances** - Construction tolerances for the temporary shotcrete construction facing are as follows:

Horizontal location of Wire Mesh and Rebar from Plan location, as measured normal from wall face:	± 0.6 inches
Spacing between reinforcing bars, from plan dimension:	± 1 inch
Reinforcing lap, from specified dimension:	± 1 inch
Nail head bearing plate, deviation from plan dimension:	5 degrees
Thickness of shotcrete (see following note):	± 0.4 inches

Shotcrete thickness tolerances are measurements between the finish shotcrete wall surface and the plan surface location. These are measurements of local irregularities in the finished shotcrete wall surface relative to the plan location. The Contractor is required to construct the full thickness of shotcrete to the plan dimensions as much as reasonably practical, as determined by the Engineer.

**00541.62 Safety Requirements** - Nozzlemen and helpers shall be equipped with gloves, eye protection, and adequate protective clothing during the application of shotcrete. The Contractor is responsible for meeting all federal, state and local safety code requirements.

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### Measurement

**00541.80 Shotcrete Facing** - No measurement of quantities will be made for Work performed under this Section.

### Payment

**00541.90 Shotcrete Facing** - No separate or additional payment will be made for Work performed under this Section. Work performed under this Section will be considered Incidental to the "Timber Pile Repair" item to which it is applied.

## SECTION 00542 - CONCRETE REPAIR

Section 00542, which is not a Standard Specification, is included in this Project by Special Provision.

### Description

**00542.00 Scope** - This Work includes, but is not limited to:

- Locating, marking and removing all damaged concrete and installing repair mortar.
- Removing the minimum quantity of sound concrete required to shape excavations for adequate patch retention. The depth of concrete damage, due to corrosion, is not substantially greater than the reinforcing bar depth + 1/2".
- Identifying damaged rebar, selecting rebar to be repaired, removing concrete to produce space for splice bars, repairing portions of corroded reinforcing bars substantially-weakened by corrosion by splicing in pieces of new rebar to restore strength.
- Cleaning all exposed metal and concrete surfaces to receive patching Materials.
- Installing anchors in the substrate for patches more than 1 inch thick
- Installing hand-troweled patching Material in concrete cavities up to 0.50 square foot surface area.
- Installing pumped repair mortar in concrete cavities greater than 0.50 square feet surface area.
- Installing additional concrete buildup over shallow rebar in damaged concrete areas.
- Installing resin buildup over shallow rebar in areas where additional concrete buildup cannot be done or areas that a buildup would affect the esthetic nature of structure.

#### **00542.01 Definitions:**

**Damaged Concrete** - Concrete that is spalled or delaminated due to corroded reinforcement or metal appurtenances such as bearing devices, drains, and conduits; concrete that is debonded from corroded reinforcing bars; concrete with near-surface rock pockets; unsound or delaminated existing patches; and concrete that has been drilled, excavated, or removed during prior maintenance work or during the Work of this Contract.

**Saturated Surface Dry Condition** - Surface condition where hardened concrete is thoroughly saturated with water but any free water has been removed from the surface.

**Shallow Rebar** - Steel reinforcement with 1/2 inch or less of concrete cover.

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**00542.02 Submittals:** - Submit the following according to 00150.37. Within 21 Calendar Days after receipt of submittals, the Engineer will review the submittals and designate them in writing as "approved", "approved as noted", or "returned for correction".

**(a) Concrete Repair Mortar** – Submit before concrete repair work the following:

- A description of all relevant constituents and properties of the material. Data published by manufacturer is acceptable unless certifications of the material characteristics are required by these Specifications.
- For prepackaged products, the manufacturer's certification that the contents include cement and Aggregate and do not include silica fume, fly ash, or any other porosity-reducing admixture. Provide the proportion (by weight) of Portland cement to Sand.
- The Specifications subsection with which each repair mortar complies.
- If proposing alternative repair mortar to those specified in 00542.10, test data demonstrating compliance with 00542.10.

For prepackaged product, take a sample of sufficient quantity for testing from the first delivery to the Project Site. Submit the sample to the Engineer. Do not use a prepackaged product until tests have confirmed that the contents meet the requirements of these Specifications, and the Engineer has approved the product.

For Approved Alternate repair mortar submit three 4 by 8-inch cylinders of patch Material cast in the presence of the Engineer using the proposed mix proportions, admixtures, and mixing and application Equipment, at least 10 Calendar Days before starting concrete repair Work. Cast and cure the cylinders according to AASHTO T 23 or T 39.

Submit records of mix proportions and which mix design was used in each repair location. Maintain and provide records that are complete enough to be able to match repaired areas with the mix records.

**(b) Concrete Repair Procedure** – Submit before concrete repair work a concrete repair procedure that includes the following:

For prepackaged products, submit the manufacturer's certification that the contents contain cement and Aggregate and do not include silica fume, fly ash, or any other porosity-reducing admixture. Provide the proportion (by weight) of portland cement to Sand according to the provisions of 00165.35(a), (b), and (c).

Include the following in the procedures for concrete repair Work:

- Manufacturer's specifications and operating instructions for all Equipment.
- Details of each step to accomplish the Work.
- Steps to regularly maintain quality control of all newly applied mortar.
- Plan to maintain records of verification of proportion (by weight) of Sand to portland cement and quantity of any additives for all mortar mixed on-site.
- Plan to maintain records identifying the mix design for each repaired area.

**(c) Repair Damaged Reinforcing Bars** – Submit a plan for accomplishing reinforcing bar repair that includes the following:

- Welder certifications according to AWS D1.4

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- Pre-approved welding procedure specification (WPS) or procedure qualification record / welding procedure specification (PQR/WPS)
- Detailed procedure for electrode control measures
- Detailed procedure for achieving, maintaining, and monitoring pre-heat and inter-pass temperatures.

**00542.03 Pre-welding Conference** - Before beginning concrete repair Work, meet with the Contractor's supervisory personnel, quality control manager, any concrete repair Subcontractors' supervisory personnel, the Contractor's certified welding inspector (CWI), and the Engineer at a mutually agreed upon time. The pre-welding conference will include discussion of the Contractor's quality control responsibilities, documentation requirements, welding procedures and Equipment, and demonstration of welder skills.

### Materials

#### 00542.10 Patch Material:

**(a) Pumped Repair Mortar** - Provide one of the following mortars with the required admixture as specified in 00542.15.

- Pumped BASF MasterEmaco S 440MC (formerly BASF LA Repair Mortar).
- Alternative PCC Material conforming to the following:
  - Non-polymer flowable micro-concrete
  - Suitable for pumping
  - At least 4,000 psi 28-Day compressive strength
  - "Low" potential for cracking and no cracking in 28 Calendar Days when tested according to ASTM C 1581, including Appendix
  - Electrical resistivity in the range of 2,000 to 20,000 ohm-cm

Submit proposed alternative Materials for approval according to 00542.17.

**(b) Hand Patch Material** - Provide hand patching Materials from section 02015.20, in the category "PCC Repair", of the QPL. Observe QPL remarks and follow the manufacturer's r for application.

**00542.11 Non-conductive Resin** - Non-conductive resin is acceptable for filling cavities of 0.05 square feet or less and for resin buildup over shallow rebar in sound concrete. Provide a non-conductive resin from the category "Concrete Anchor, Resin HS High Strength" of the QPL, mixed at a 1:1 ratio with clean abrasive blasting Material:

**00542.12 Abrasive** - Provide clean, dry, non-metallic grit abrasive material with no mineral constituents that break down and remain on the surface in visible quantity. Provide hard angular shaped abrasives from 16 - 30 mesh.

**00542.13 Water** - Provide potable water according to 02020.10(b).

**00542.14 Reinforcement and Added Steel** - Provide uncoated reinforcing bars conforming to 02510.10 (ASTM A706 Grade 60). Provide uncoated, ungalvanized welded wire fabric conforming to 02510.40. Other metal embedded in the mortar to facilitate concrete replacement shall be uncoated and ungalvanized.

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**00542.15 Admixtures** - Use only admixtures approved by the Engineer.

If using admixtures to reduce the water-cement ratio, or to retard or accelerate the development of strength, use only admixtures compatible with the mortar and at the rate specified by the patch Material manufacturer.

**000542.16 Hollow Wall Anchors** - Provide the following plastic hollow wall anchors, or an approved equal:

- Powers 2345 Nylon Zip-It
- Simpson Strong Tie SWN06 Nylon Sure Wall Drywall Anchor
- ITW Red Head EZP100 Nylon E-Z Drywall Anchor

### **Labor**

**00542.30 Welders** - Provide certified welders and welding inspectors according to AWS D1.4.

### **Construction**

**00542.40 Access; Containment; Disposal** - Provide Work access and debris containment according to Section 00253.

Dispose of waste according to 00290.20.

**00542.41 Locating and Marking** - Locate and mark the following:

- All concrete having visible spalling or delamination due to corrosion of reinforcement or metal appurtenances such as bearing devices, drains, and conduits. Include within the repair boundaries all damaged concrete at the edges of spalls.
- All visible unsound patches of material.
- All concrete that is visibly loose, or that becomes dislodged or loosened when struck with a 16-ounce masonry hammer or by other approved technique.

Verify the presence of steel with a metal detector.

The Contractor is advised that concrete containing aggregate larger than 2 inches can cause false readings. If no steel is present, readings in such areas should be disregarded.

Investigate all spots of rust visually and with a metal detector to determine if a metallic object is present. If a metal object is present mark the location.

In areas where spalling or delamination is not visually detectable, but is indicated by sounding, use a rebar locator and mark reinforcing bars and their minimum concrete cover. Remove a 4-inch wide (perpendicular to the bar) exploration area centered over the bar. The exploration boundary area shall have an initial length of 8 inches if splitting cracks are present directly over and parallel to reinforcing bar and suggest a potential for corrosion; remove as much splitting crack length as needed until clean bar is exposed. If rust scale or pitting is found on the exposed reinforcing bar, or if the remaining concrete is separated from the bar, mark the damaged concrete area for removal.

Do not use internal angles less than 45 degrees in defining the repair boundaries. Make all repairs at least 2 inches wide in each direction. Within these restrictions, mark boundaries such that repair areas can be efficiently sawed and excavated.

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Determine and mark the location and extent of each repair excavation. Do not begin concrete removal until location and extent have been verified by the Engineer.

The Engineer will perform verification surveys of selected sections of the Work and determine the final quantity of repairs. Do not begin excavation until the Engineer has completed the verification surveys.

**00542.42 Concrete Removal** - Saw-cut the boundaries of concrete to be removed, to a depth just missing the reinforcing bars with less than 1/2 inch concrete cover or to a minimum of 1/2 inch, whichever is less. Saw cuts shall not overrun at the corners of the marked boundaries. Saw cutting is not required if the Contractor can consistently provide, by another technique, a minimum 1/2 inch deep excavation surface that is uniformly perpendicular to the original concrete surface along the marked boundary.

Remove concrete within the marked boundaries with high-pressure waterjet blasting Equipment, pneumatic hammers, chipping guns, manual picks and chisels, or other Equipment approved by the Engineer. Do not use pneumatic hammers heavier than a nominal 15-pound class. Remove concrete in such a way that removal of sound concrete beyond established boundaries is kept to a minimum. When working around reinforcing bars, avoid loosening the reinforcement or fracturing the concrete around it beyond the repair area.

Remove all damaged concrete within the marked boundaries to the depth of sound concrete. In areas where the reinforcing bar lacks bond with the existing concrete, continue to excavate to 1/2 inch beyond the depth of the reinforcing bar. In areas where it is difficult to determine if the reinforcing bar lacks bond with the existing concrete do not excavate beyond the depth of the reinforcing bar if a 4-inch wide exploration area shows the reinforcing bar to be free of rust scale or pitting, and the reinforcing bar is not separated from the remaining concrete.

The depth of concrete damage, due to corrosion, in any member is not expected to be substantially greater than 1/2" inch beyond the depth of the reinforcing bar.  
Do not remove sound concrete over shallow rebar.

**00542.43 Repair Damaged Reinforcement Bars** - Repair reinforcing bar showing 50 percent or greater section loss according to the following:

- Remove all damaged concrete
- Remove sound concrete as necessary so that there is a minimum of 3/4-inch clearance between the concrete and splice bars over entire length of repair
- Blast-clean all exposed reinforcing steel and concrete
- If feasible, place splice bars so as to allow 1/2 inch of concrete cover without raising the concrete surface
- Perform all weld splicing according to ANSI/AWS D1.4, "Structural Welding Code - Reinforcing Steel". Since the carbon content of existing reinforcement is unknown, assume that preheating is required under ANSI/AWS D1.4. Limit the temperature of reinforcing bar at concrete interface to 500 °F or less, verified using an infrared thermometer.
- Remove any additional concrete that cracks or spalls during welding
- Keep the existing (spliced) bars in place and avoid gouging and loosening reinforcing bar or damaging sound concrete outside of splice areas
- Keep the splice bar in the proper position during placement of concrete cover

Repair round bars with new splice bars the same size as the original bars. Repair square bars with new round splice bars with a diameter equal to the thickness of the square bars.

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**00542.44 Shallow Rebar in Sound Concrete** - If shallow rebar exists in sound concrete and passes the sounding test, no concrete repair is necessary.

### **00542.45 Shallow Rebar in Damaged Concrete:**

Where directed, treat prefabricated mesh and other closely spaced shallow metals in the same manner as shallow rebar in damaged concrete. Place additional cover Material over shallow rebar in damaged concrete according to the following.

**(a) Mortar Buildup on Shallow Rebar** - Place additional mortar as needed to achieve at least 1/2 inch of cover over shallow rebar repairs.

**(b) Resin Buildup on Shallow Rebar** - In areas where additional buildup is not feasible, or where buildup would detract from the aesthetic appearance of the Structure, provide additional cover using non-conductive resin conforming to 00542.12. Apply the resin in 2-inch wide strips over the shallow rebar.

**00542.46 Surface Preparation** - Abrasive-blast or water-blast all concrete surfaces that are to receive additional mortar cover or patches, to remove all debris, loose concrete, concrete pulverized during removal, scale, and loose rust. Blast exposed reinforcing bars according to (SSPC) Standard SP6 "Commercial Blast Cleaning" or equivalent procedure. Do not allow prepared surfaces to remain exposed more than 36 hours before placing repair mortar.

Prepare surfaces that are to receive additional mortar or resin cover with a surface profile according to International Concrete Repair Institute (ICRI) Guideline 310.2R-2013 surface profile CSP 6 (1/8-inch surface profile).

Provide hollow wall anchors for concrete surfaces that are to receive more than 1 inch of repair mortar and have reinforcing bar spacing greater than 9 inches. Install anchors by drilling 1/4-inch diameter holes 1/2 to 3/4 inch deep on a 9-inch (maximum) grid in the concrete substrate. Apply non-conductive resin and insert anchors. Remove excess resin from the concrete substrate.

### **00542.48 Patch Installation:**

**(a) Forms** - Provide smooth-surfaced form Materials. Provide adequate support and bracing of forms to prevent deflection under the weight and pressure of new mortar, and to prevent vibration damage to mortar during setting and curing. Leave forms in place for a minimum of three days after mortar placement.

Provide watertight form Materials and a watertight form system to prevent loss of water during presoaking and repair mortar placement. Incorporate enough pumping ports to ensure consistent placement and enough vent holes or vent tubes to allow air to escape extreme surface irregularities and remote cavities. Limit port spacing to prevent mortar segregation.

Provide forms that can readily be removed and reinstalled for presoaking, flushing, blowdown, and for verification of surface saturated dry condition.

**(b) Pre-soak** - Saturate the substrate concrete for at least 24 hours before application of repair mortar, using either a watertight form kept full of water or saturated burlap or foam Material packed inside forms, in contact with the entire existing concrete surface, and soaked frequently, or any other method demonstrated to produce saturated surface dry condition.

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After the substrate has been saturated, temporarily remove the form and, immediately before placing mortar, remove all dust, dirt, and other debris by flushing the surface with water pressurized to at least 60 psi, followed by blasting with clean compressed air to remove excess water. Provide a damp surface free of standing water (saturated surface dry condition) and free of contaminants when applying repair mortar. Light surface rust that appears during the pre-soak stage does not need to be removed. When the concrete surface is in saturated surface dry condition and free of contaminants, and reinforcement is clean or has only light surface rust, immediately reinstall the forms and place mortar.

**(c) Mixing** - When a package of prepackaged repair mortar is opened, mix the entire contents of the package.

Mix repair mortar according to the manufacturer's instructions including, but not limited to, mixing speed, mixing time, and mixing Equipment.

**(d) Placing Repair Mortar** – Pump repair mortar and achieve thorough and uniform hydration without the use of excess water.

Do not place mortar before acceptance of saturated surface dry condition by the Engineer.

Do not place mortar during freezing weather or if temperatures are likely to drop below freezing during the cure period for the mortar. Do not apply mortar to frosted surfaces. Follow the manufacturer's recommendations regarding temperature and weather conditions during mortar placement.

Provide adequate pumping pressure into each port to ensure mortar completely fills the cavity and mortar is observed at all vents. Vibrate only if approved by the Engineer in advance.

**(e) Adjacent Surface Protection** - Protect surfaces outside the repair area from mortar overshoot and drip and remove the excess Material from these areas after the application has been completed.

**(f) Mix Records** - Record proportion (by weight) of Sand to portland cement and the quantity of any additives for all mortar mixed on-site at the start of each mortar placement operation and every time proportions or additives are changed. Keep a record of which mix is used for each repair area.

**00542.49 Curing** - Take care to avoid cracks in the new mortar due to excessive surface evaporation. Continuously cure all newly applied mortar according to the manufacturer's recommended curing schedule.

**00542.50 Finish** – Finish all exposed surfaces and surface defects to straight and true lines as shown. Provide a Class 2 surface finish according to 00540.53 on all exposed surfaces and a general surface finish according to 00540.53 on all other surfaces, with no coating on any surface unless otherwise directed.

**00542.51 Delamination Survey** - After mortar repair Work has cured, conduct a delamination survey of all repaired areas with the Engineer according to the following:

- Sound all repaired areas with a 1-pound masonry hammer or by other approved technique.
- Mark boundaries of all delaminations in the repaired areas.
- Identify the marked delamination that needs patching.

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Make repairs when delamination repair areas do not meet the acceptance criteria of 00542.52.

Upon completion of the survey, prepare and sign a survey report that identifies all areas to be patched. Submit the survey report for review and acceptance by the Engineer. Repair the identified areas in a manner satisfactory to the Engineer.

After patching the identified areas, repeat the delamination survey. Repeat the delamination survey and repair procedure until all areas of unsound concrete have been repaired and accepted.

Following the bond strength test of cores according to 00542.52(b), the Engineer will visually inspect the cores for sand pockets and voids. If sand pockets or voids are found, the area from which the core was taken will be marked by the Engineer to aid in the Contractor's delamination survey.

**00542.52 Production Quality Control Testing** - The Work performed under this Section will not be accepted if it does not pass the tests described in this subsection.

**(a) Compressive Test** - For each 100 square feet of mortar placed on the Bridge, but not less than once per production Work shift, cast at the same time and under the same conditions three 4 by 8-inch cylinders for testing. Cast the cylinders in single-use plastic molds. Cast and cure strength specimens according to AASHTO T 23 or AASHTO R 39. Test the cylinders for compressive strength according to AASHTO T 22 following a 28-Day cure.

The minimum acceptable 28-Day compressive strength ( $f_c$ ) of cylinders is 4000 psi.

**(b) Bond Strength Test** - Following a 7-Day cure of the mortar patch, core one test specimen from each 100 square feet of newly applied mortar placed on the Bridge surface, at locations designated by the Engineer. Locate cores to avoid damaging reinforcing bar. Core approximately 1/2 inch into the original concrete. Do not break cores free before testing. Perform Pull-off tests of the cores 14 to 24 Calendar Days after placement and in the presence of the Engineer.

Measure the core bond strength according to ASTM C 1583. Use pull-test dollies with the same diameter as the cores. Conduct the test until failure.

The minimum acceptable bond strength between the new and original concrete is 175 psi.

The minimum acceptable strength for failure in original concrete substrate is 100 psi.

Individually seal the cores taken from the Bridge in plastic bags and tag them for identification.

**00542.53 Deficient Repair Mortar** - Repair at no additional cost to the Agency all mortar patches that, after completion of blast cleaning according to 00542.46, show an alligator cracking in the surface or uncontrolled cracks visible without magnification. Perform additional testing as directed to determine the extent of deficient mortar in the production test area represented. If additional patches are found to be deficient, repair the production test area represented according to these Specifications at no additional cost to the Agency. Repairs include, but are not limited to, removal and replacement of patches found to be substandard.

Repair small crevices (a maximum of 0.4 inch deep and 0.1 inch wide at the edge of a patch) with non-conductive resin mixed with abrasive blasting Material or other approved patch Material, at no additional cost to the Agency. Cut out pockets or other defects and replace with new repair mortar according to this Section.

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**Measurement**

**00542.80 Measurement** - The quantities of Work performed under this Section will be measured according to the following:

**(a) Locate Damaged Concrete** - No measurement of quantities will be made for locating damaged concrete.

The estimated quantity of damaged concrete to be located is 4 square yards.

**(b) Repair Damaged Concrete** - Repair of damaged concrete will be measured on the area basis.

Measurement will be the outside measurement of the area of Work marked for concrete repair, not including areas marked for mortar buildup on shallow rebar, after locating damaged concrete and before concrete removal Work.

The area of Work marked for concrete repair does not include initially sound concrete that is damaged or micro-fractured by the Contractor's operations.

**(c) Mortar Buildup on Shallow Rebar** - No measurement of quantities will be made for mortar buildup on shallow rebar.

The area of Work marked for mortar buildup does not include initially sound concrete that is damaged or micro-fractured by the Contractor's operations.

**(d) Resin Buildup on Shallow Rebar** - No measurement of quantities will be made for resin buildup on shallow rebar.

**Payment**

**00542.90 Payment** - The accepted quantities of Work performed under this Section will be paid for at the Contract unit price per unit of measurement for the following item(s):

<b>Pay Item</b>	<b>Unit of Measurement</b>
(a) Locate Damaged Concrete .....	Lump Sum
(b) Repair Damaged Concrete .....	Square Yard

Payment will be payment in full for furnishing and placing all Materials, and for furnishing all Equipment, labor, and Incidentals necessary to complete the Work as specified.

**SECTION 00560 - STRUCTURAL STEEL BRIDGES**

Comply with Section 00560 of the Standard Specifications modified as follows:

**00560.29(a) General** - In the paragraph that begins "When shown or specified, assemble...", replace the words "AASHTO M 164 (ASTM A325)" with the words "ASTM F3125, Grade A325 or Grade F1852".

**00560.29(b) Washer Requirements** - In the second and third bullets in the bullet list, replace the words "AASHTO M 164 (ASTM A325)" with the words "ASTM F3125, Grade A325 or Grade F1852".

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**00560.29(c)(1) Coated Members** – In the paragraph that begins "Coat fasteners visible to the public as determined by...", replace the words "02560.40(b)" with the words "02560.40".

**00560.29(c)(2) Non-Coated Weathering Steel Members** – Add the following paragraph to the end of this subsection:

Prior to final bolting, ensure all steel-to-steel contact surfaces have maintained the minimum requirements of SSPC-SP 6 “Commercial Blast Cleaning”. The minimum appearance of the surface shall approximate Pictorial Standard Sa 2 of SSPC-VIS 1, Pictorial Surface Preparation Standards for Painting Steel Surfaces. Surfaces that do not meet the requirements of SSPC-SP 6 shall be hand tooled or re-blasted until the appearance of the blast-cleaned surface closely resembles Pictorial Standard Sa 2-1/2 of SSPC-VIS 1 as determined by the Engineer.

**00560.29(d) Verification Testing, Installation, and Inspection** - In the paragraph that begins "Verify correct lengths of all AASHTO...", replace the words "AASHTO M 164 (ASTM A325)" with the words "ASTM F3125, Grade A325 or Grade F1852".

**00560.29(d)(1) Direct Tension Indicator Tightening** – In the paragraph that begins "Test, install, and inspect direct tension indicators...", replace the words "02560.40(b)" with the words "02560.40".

**00560.29(d)(3)(c) Inspection** - In footnote 3 of Table 00560-3, replace the words "ASTM A325" with the words "ASTM F3125, Grade A325 or Grade F1852".

**00560.80 Measurement** - Add the following to the end of this subsection:

The estimated quantity of structural steel is:

Structure	Steel Type	Quantity (Pound)
Sidewalk Bracket	Grade 36	1,700
Cantilever Steel Channel Beam	Grade 36	300

**000560.90 Payment** – Add the following item to the pay item list:

Pay Item	Unit of Measurement
(i) Structural Steel.....	Lump Sum

**SECTION 00565 – CARBON FIBER REINFORCED POLYMER INSTALLATION**

Section 00565, which is not a Standard Specification, is included in this Project by Special Provision.

**Description**

**00565.00 Scope** - This work consists of the complete installation of a proprietary Fiber Reinforced Polymer (CFRP) material, applied to existing concrete surfaces shown on the plans (Bent 8 and 9). This work includes furnishing working drawings and alternative design calculations, all materials, equipment, tools, labor and incidentals for surface preparation, installing CFRP composite material, curing installed CFRP composite material, testing CFRP installations, applying final surface finish to installed CFRP areas and other areas as shown on the plans, and all other work necessary for constructing the CFRP strengthening system according to the plans and specifications.

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Provide CFRP laminates shown as a minimum based on the properties of the selected CFRP system. The CFRP manufacturer may choose to increase the actual number of CFRP layers.

Plans of the existing bridge are available for review at the Project Manager's office.

### **00565.01 Abbreviations and Definitions:**

CFRP - Carbon Fiber Reinforced Polymer

FRP - Fiber Reinforced Polymer

GFRP - Glass Fiber Reinforced Polymer

ICRI - International Concrete Repair Institute

JIS - Japanese Institute of Standards

**00565.02 Applicable Publications** – To the extent referenced, the following publications form a part of these Specifications:

ACI 546R-04, "Concrete Repair Guide"

ACI 224.1R-93, "Causes, Evaluation and Repair of Cracks in Concrete Structures"

ACI 440.2R-02, "Guide for the Design and Construction of Externally Bonded CFRP Systems for Strengthening Concrete Structures"

ACI 503R, "Use of Epoxy Compounds with Concrete"

ACI 503R-93, "Adhesive Strength of Concrete Test"

ICRI Guideline No. 03370, "Guideline for Surface Preparation for the Repair of Deteriorated Concrete Resulting from Reinforcing Steel Corrosion"

ASTM D 3039, "Standard Test Method for Tensile Properties of Polymer Matrix Composite Materials"

ASTM D 4541, "Test Method for Pull-Off Strength of Coating Using Portable Adhesion Tester"

JIS TS A 0020:2004 "Test Method for Bond Properties of CFRP Sheets with Concrete"

**00565.03 Alternative Designs** – The Contractor may propose another type of CFRP system or different member dimensions provided the following requirements are met:

Submit stamped working drawings for review. No CFRP materials may be incorporated into the work until the proposal has been reviewed. Review will be made within 14 calendar days after all the required information has been submitted. Acceptance or rejection of the alternative design will be at the sole discretion of the Engineer.

Follow the requirements under 00565.40(c) for the working drawings.

### **Materials**

**00565.10 General** – Only use a manufacturer and materials from the ODOT QPL list or pre-approved manufacturer(s) for CFRP materials used in the project.

**00565.11 Transfer of Material Warranties** - Upon completion of the project, transfer to the Agency the unexpired term(s) of any warranty(ies) that may be provided by the manufacturer(s) for CFRP materials used in the project.

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### Labor

**00565.30 Personnel Qualifications** – Provide only CFRP Application Supervisor(s), who has (have) been certified by the manufacturer of the CFRP material to have been trained in its use, and identified in the CFRP Material and Manufacturer Sheet. When work is in progress, an CFRP Application Supervisor shall exercise direct, on-site supervision of all aspects of the work covered under 00565.40 through 00565.44 of these specifications at all times.

### Construction

#### **00565.40 Required Submittals:**

**(a) Materials Certifications** - At least two weeks prior to scheduled start of work, provide manufacturer's material certifications for all CFRP materials.

**(b) Personnel Certification** - At the pre-construction conference, submit a manufacturer's certification for each CFRP Application Supervisor that you intend to use on this project, certifying that the person has been trained by the manufacturer on shear and flexural applications of the CFRP material the Contractor intends to use on this project, and that the person has CFRP application supervisory experience on three bridge and/or building projects in the last five years, using the CFRP material selected for use on this project. For each project, include:

- Project name
- Contract number
- Location
- Owner
- Date of contract acceptance (month and year)
- Manufacturer and material used
- Project owner contact person's name and telephone number

**(c) Working Drawings** - Submit stamped working drawings, according to 00150.35(b), for each installation of composite material detailing all information required for the proper construction of the CFRP system at each location. The drawings must be accompanied by the design calculations.

Include the following in the working drawings:

- Properties and locations of CFRP materials
- Number, thickness and fiber orientation of layers
- A separate drawing showing locations where each CFRP layer is discontinued, if thickness of the CFRP laminate is changed
- Details of joints and ends
- All precautions necessary to protect workers, the public and any open water from airborne, non-polymerized epoxy during surface roughening operations

Do not begin CFRP work until the stamped working drawings have been reviewed.

**(d) Material Information and Samples** - Submit the supplier's name, ranges of the applicable properties listed below, and test methods for materials to be used in the CFRP wrap. Include properties and test methods used to determine properties of all epoxy components, including additives.

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Material	Properties to be Furnished
Primary Fibers	Tensile strength, Elongation, Tensile Modulus, Surface Finishes
Transverse Fibers	Tensile Strength, Elongation, Tensile Modulus, (Perpendicular to Surface Finishes Primary Fibers)
Epoxy Resin	Tensile Strength, Elongation, Tensile Modulus, Coefficient of Thermal Expansion, Mix Ratio, Pot Life, Shelf Life
CFRP System	Tensile Properties, including method of reporting properties (net fiber or gross laminate), Test Methods used, and the statistical basis used for determining the properties

The CFRP manufacturer is to also submit:

- Installation instructions, inspection instructions, maintenance instructions, and general recommendations regarding each material to be used (Installation procedures should include surface preparation requirements);
- Manufacturer's Material Safety Data Sheet (MSDS) for all materials to be used;
- Quality-control procedure for tracking CFRP materials and material certifications;
- Durability test data for the CFRP system in the types of environments expected;
- Samples of the CFRP composite material with a certificate of compliance and calculations, as necessary, for the particular installation

Prior to approval of the working drawings for CFRP materials, prepare three samples of the final surface finish for each type of composite to be used. The samples are to not be less than 12 inches x 12 inches. The 'samples' texture is to match the texture of the existing concrete on the bridge, and their color is to be a shade darker than the existing finish color. Obtain the Engineer's approval of the visual qualities of the samples before proceeding with the work. Maintain the approved panels on-site in an undisturbed condition, suitably marked, for comparison with the completed work.

**(e) Acceptance** - Two types of tests are required for acceptance of the CFRP strengthening work:

**(1) Tensile Test** - Perform tensile test according to ASTM D 3039. Prepare two samples at the work site daily. The sample size is to be 6 inches x 18 inches. Samples must represent what is actually installed on the bridge as to fabric material, epoxy, number of layers, thickness and orientation of each layer, and curing method. Give prepared, labeled samples to an independent certified testing laboratory acceptable to the Engineer.

**(2) Bond Test** - Conduct bond tests to verify adhesion between CFRP laminate and the concrete surface. Prepare specimens at the work site, using the same CFRP materials, epoxy and number of CFRP plies used on each type of installation on the bridge. Tests are to comply with the requirements of ACI 503R and ASTM D 4541 or other approved method. Under the bond test, the bond between CFRP laminate and concrete is to be stronger than the shear strength of the concrete (the laminate should peel off with concrete still attached to the bond surface).

Provided to the engineer for evaluation and acceptance the inspection results on fiber orientation, delaminations, cure of resins and cured thickness.

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**00565.41 Surface Preparation** - Prepare surfaces for CFRP application according to the following:

**(a) Surface Cleaning** - Prepare concrete surfaces to be coated with CFRP according to the manufacturer's recommendations. Grinding, sandblasting, or a combination of both may be necessary. Comply with ACI 546R-14, "Concrete Repair Guide" and ICRI Guideline No. 03730, "Guideline for Surface Preparation for the Repair of Deteriorated Concrete Resulting from Reinforcing Steel Corrosion." The Engineer will resolve any conflict between the manufacturer's recommendations and the named guides. The concrete surface must be clean, structurally sound, dry and free of standing water. Remove dust, laitance, grease, curing compounds, impregnation, waxes, foreign particles, any disintegrated materials and any other bond-inhibiting matter.

Collect material removed during surface-preparation operations on plastic tarps or geotextile fabric, or by other approved methods. Dispose of this material in an approved manner and location.

**(b) Crack Repair** – Repair surface cracks larger than 0.015 inch by resin injection or other approved method. Comply with ACI Section 00503R, "Epoxy Crack Injection" for the crack repair procedure. A crack will be understood to transversely go all the way through the girder. Due to the variable nature of cracks, pumping and porting of the epoxy injection system may be needed on both vertical faces of the girders to fill the cracks.

**(c) Surface Repair** - Use a repair mortar recommended by the CFRP manufacturer and approved by the Engineer to repair uneven surfaces. After the surface is repaired, the residual unevenness is to be no more than the tolerances recommended by the CFRP manufacturer or 1/32 inch. Where fibers wrap around the corners of rectangular cross sections, the corners should be rounded to a minimum ½ inch radius to prevent stress concentration in the CFRP system and voids between the CFRP system and the concrete.

**(d) Priming Concrete Surface** - Apply primer to the concrete surface according to the CFRP manufacturer's recommendations.

**(e) Epoxy Resin Undercoating** - If required by the CFRP manufacturer, apply epoxy resin undercoating in conformance with the CFRP manufacturer's recommendations and the instructions of the resin manufacturer. The Engineer will resolve any conflict between the CFRP manufacturer's recommendations and the resin manufacturer's instructions.

Verify the adhesive strength of the concrete after surface preparation by using a random pull-off test according to ACI 503R. A minimum tensile strength of 200 psi with following concrete substrate failure is acceptable.

**00565.42 Curing CFRP Material** - Cure CFRP material using the manufacturer's suggested methods and temperatures. Cured composite is to have uniform thickness and density, complete bonding between layers, matte finish, and no porosity.

**00565.43 Application of Final Surface Finish** - Apply the final surface finish recommended by the manufacturer to areas strengthened by the CFRP composite material and other areas as shown on the plans. Match the existing concrete to finish texture. Finish color shall be a shade darker than existing concrete. Prior to applying the finish coat, prepare a 3 ft. x 3 ft. sample for the Engineer's approval on an inconspicuous area of the structure. Allow to dry. Obtain the Engineer's approval of the color before proceeding with final surface finish.

**00565.43 Anchors** - If anchors are used to enhance the bond between CFRP laminates and concrete, make them of CFRP material and hide them under the installed CFRP laminates. No exposed anchor bolts, anchor heads or plates are permitted.

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**00565.44 Acceptance Testing** - Two types of tests are required for acceptance of the CFRP strengthening work:

**(a) Tensile Test** - Perform tensile test according to ASTM D 3039. Prepare two samples at the work site daily. The sample size shall be 6 in. x 18 in. Samples must represent what is actually installed on the bridge as to fabric material, epoxy, number of layers, thickness and orientation of each layer, and curing method. Give prepared, labeled samples to an independent certified testing laboratory acceptable to the Engineer.

**(b) Bond Test** - Conduct bond tests to verify adhesion between CFRP laminate and the concrete surface. Prepare specimens at the work site, using the same CFRP materials, epoxy and number of CFRP plies used on each type of installation on the bridge. Test plates shall comply with the requirements of ACI 503R-93 and JIS TS A 0020:2004 or other approved method. Under the bond test, the bond between CFRP laminate and concrete shall be stronger than the shear strength of the concrete (the laminate should peel off with concrete still attached to the bond surface).

### **Measurement**

**00565.80 Lump Sum Basis** – No measurement of quantities will be made for Work performed under this Section.

The estimated quantity of CFRP Strengthening is 32 Square Feet.

Crack Repair, in place, completed and accepted, will be measured per Section 00538

### **Payment**

**00565.90 Payment** - Payment for Work performed under this Section will be made at the Contract Lump Sum amount for the item "CFRP Strengthening."

Payment will be payment in full for all Materials, Equipment, tools, labor, and Incidentals, including training and certification of personnel, necessary to complete the work as specified.

There will be no separate payment for any Work for which a pay item does not appear in the Bid Schedule. Any such Work will be considered Incidental to the items appearing in the Bid Schedule.

## **SECTION 00566 - CARBON FIBER REINFORCED POLYMER STRENGTHENING - NEAR SURFACE MOUNTED**

Section 00566, which is not a Standard Specification, is included in this Project by Special Provision:

### **Description**

**00566.00 Scope** - This work consists of furnishing and installing a complete, near surface mounted, carbon fiber reinforced polymer (CFRP) strengthening system meeting the loading and design requirements shown applied to existing concrete surfaces shown on the plans (Bent 8 and 9, Pier 3 concrete corbel). The system is comprised of CFRP reinforcement ("bars") embedded in saw-cut grooves with epoxy.

#### **00566.01 Abbreviations:**

CFRP - Carbon Fiber Reinforced Polymer

FRP - Fiber Reinforced Polymer

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NSM - Near Surface Mounted

**00566.02 Design Standards** - Design the NSM-CFRP system according to the requirements of this Section and the requirements of ACI 440.2R or AASHTO Guide Specifications for Design of Bonded FRP Systems for Repair.

**00566.03 Required Submittals:**

**(a) Materials Certifications** - At least 21 Calendar Days before starting Work, submit the manufacturer's material certifications for the CFRP strengthening system. Include the supplier's name and ranges of the properties listed below, including test methods used, for CFRP and epoxy resin.

Material	Properties to be Furnished
CFRP	Tensile Strength Elongation Tensile Modulus Rupture Strain Surface Finishes Cross-Sectional Area Width Thickness
High Strength Epoxy Resin	Tensile Strength Elongation Tensile Modulus Coefficient of Thermal Expansion Mix Ratio Pot Life Shelf Life UV Resistance

**(b) Test Results** - At least 21 Calendar Days before starting Work, conduct longitudinal tensile property testing on five samples of the CFRP bar according to Part 2 of ACI 440.3R, ASTM D7205, or ASTM D3039 and submit test results. Sample CFRP bars shall have the same physical properties as and be from the same manufacturer as the bars that will be installed in permanent Work.

**(c) Personnel Qualifications** - Submit personnel qualifications at the pre-construction conference.

**(1) CFRP Application Advisor Certification** - Submit the CFRP materials manufacturer's certification of the Contractor's designated CFRP Application Advisor.

**(2) CFRP Application Advisor Certification Experience** - Submit documentation showing that the Contractor's designated CFRP Application Advisor has experience as CFRP Application Supervisor, CFRP Application Advisor, or lead worker on three bridge or building projects using near surface mounted CFRP bars in the last 5 years. The CFRP material used on projects submitted for experience does not need to be from the same manufacturer as material proposed for this Project.

For each project submitted, include:

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- Project name
- Contract number
- Location
- Owner, including contact person's name and telephone number
- Installation work duration (month and year)
- Material used and material manufacturer

**(3) Applicators Certification** - Submit certification(s) from the CFRP material manufacturer, or from the Contractor's designated CFRP Application Advisor, affirming that all applicators who will install the CFRP system have been trained in the installation of CFRP.

**(d) Working Drawings and Calculations** - At least 21 Calendar Days before starting Work, submit stamped Working Drawings and design calculations from the manufacturer of the CFRP system according to 00150.35(b) except as modified by this subsection. Include the following in the Working Drawings:

- All information required for proper construction of the CFRP system
- Material properties of CFRP bars
- Spacing and length of CFRP bars
- Dimensions of saw-cut groove
- Furnished epoxy resin

Include the following in the design calculation:

- Design specifications
- Design criteria
- Material properties
- Calculations
- Installation guide

As-constructed plans of the existing structure(s) are available from the Engineer.

### Materials

**00566.10 Pre-Approved CFRP Manufacturers and Material List** - Furnish rectangular or circular CFRP bars from one of the following list of pre-approved manufacturers.

<b>Manufacturer</b>	<b>Material</b>
Owens Corning Infrastructure Solutions 210 N. 13th Street Seward, NE 68434 Contact: Doug Gremel Phone: (800) 869-0359 or (402) 643-2991 Fax: (402) 643-2149	Aslan™ 500 CFRP Tape Aslan™ 200 CFRP Rod
BASF Building Systems, LLC 5185 Linn Lane West Linn, OR 97068 Contact: Bruce Jackson Phone: (503) 722-4101 or (503) 887-4402 FAX: (503) 722-4131	MBrace® S&P Laminate

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Fyfe Co., LLC  
3940 Ruffin Road, Suite C  
San Diego, CA 92123  
Contact: Scott Arnold  
Phone: (858) 642-0694  
FAX: (858) 444-2982

Tyfo® NSM Composite  
Laminate Strip System

All bars shall have a textured, deformed, or roughly sanded surface and shall be marked at regular intervals along the length, spaced not more than 6 feet, showing the manufacturer's mark, size designation and production lot number.

**00566.11 Epoxy Resin** - Furnish high strength epoxy resin from the QPL and according to the CFRP manufacturer's recommendations. Furnish epoxy resin having a viscosity appropriate for the installation, as determined by the CFRP manufacturer.

**00566.12 Material Sampling** – Provide five samples per lot of CFRP bar materials for testing by the Agency. Samples shall be from the same lot(s) used in the permanent work. Provide the samples at least 21 Calendar Days before starting CFRP installation work. Prepare samples' length and end anchors in accordance with ASTM D7205 or ASTM D3039.

Allow the Engineer to select six additional samples per lot of CFRP bar materials delivered to the site for testing by the Agency. Samples will be a minimum of 8 feet in length.

### Labor

**00566.30 Personnel Qualifications** - Provide a certified and trained CFRP Application Advisor to provide technical assistance prior to and during CFRP Work. Ensure the CFRP Application Advisor remains available for consultation until the completion and acceptance of all CFRP Work.

Provide trained personnel to install the CFRP system.

### Construction

**00566.40 Existing Reinforcement Location and Concrete Cover** - Use rebar detectors or other approved devices, capable of locating existing reinforcement within 0.1 inch, to locate existing top mat reinforcement and determine the thickness of concrete cover. Before constructing grooves, provide the Engineer with a summary of top mat transverse and longitudinal reinforcement measurements.

**00566.41 Saw-Cutting Grooves** - Construct saw-cut grooves in the concrete at the spacing established by the design submitted according to 00566.03(d), and to the designed width and depth  $\pm 1/8$  inch. Make grooves deep enough to allow the CFRP bar to be installed at least  $1/8$  inch below the surface in all locations along the length of CFRP bars. Where practicable, do not cut into existing rebar during construction of saw-cut grooves. Visually inspect all existing rebar locations after saw-cutting grooves. When existing reinforcement is cut, inform the Engineer before installation of CFRP bars.

Groove spacing may be adjusted in the field as necessary to avoid existing reinforcement or other unforeseen conflicts; however, the average spacing of all grooves over any 2-foot long section may not be more than the spacing required by the submitted design.

**00566.42 Groove Preparation** - Prepare saw-cut grooves for CFRP bar installation as follows:

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**(a) Surface Cleaning** - Clean the groove according to the manufacturer's recommendations. If the manufacturer has not provided recommendations, thoroughly clean the groove with high-pressure water and a non-metallic brush. Before the groove dries out, blow it free of water and debris with compressed air. Ensure that all dust, sand, laitance, grease, curing compounds, and any other bond-inhibiting matter is removed from the groove. The concrete surface of grooves shall be clean and structurally sound prior to installing CFRP bars.

**(b) Moisture on Groove Surfaces** - Before installation of CFRP bars, dry grooved surfaces according to the epoxy resin manufacturer's recommendations. Dry groove surfaces using a drying method approved by the Engineer and according to the epoxy manufacturer's recommendations. Do not directly apply a flame to the groove surfaces.

**00566.43 Compressed Air** - When using high-pressure air for cleaning or blowing down, use adequate separators and traps to ensure that the air is free of water, oil, or any other material detrimental to the CFRP system. Compressed air cleanliness may be tested by the Engineer according to ASTM D4285.

**00566.44 CFRP Bar Installation** - Begin installation only after all groove preparation work is complete.

Install the CFRP bars according to the manufacturer's recommendations and to the embedment depths shown.

Do not install CFRP bars and epoxy resin when the concrete temperature is below 50 °F, unless otherwise advised by the resin manufacturer's recommendations.

Provide temporary containment, as required, to contain epoxy resin in the groove. Mask the concrete adjacent to the groove to prevent excess epoxy from adhering to the concrete outside the groove.

Center the CFRP bar in the groove using approved centering devices at one-third points along the CFRP. Centering devices shall not have less than 1/8 inch resin cover when installed. Place nylon or polyethylene spacer material between the CFRP bars and exposed, existing steel reinforcing.

Level epoxy resin flush with the surface of the adjacent concrete.

**00566.45 Surface Cleanup** - Remove excess epoxy resin outside the groove.

### Measurement

**00566.80 Measurement** - No measurement of quantities will be made for work performed under this Section.

The estimated length of required CFRP bars is 290 feet.

### Payment

**00566.90 Payment** - The accepted quantities of installed CFRP strengthening will be paid for at the Contract Lump Sum amount for the item "CFRP Strengthening - Near Surface Mounted".

Payment will be payment in full for furnishing and placing all Materials, and for furnishing all Equipment, labor, and Incidentals necessary to complete the work as specified.

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**SECTION 00571 - TIMBER PILE REPAIR**

Section 00571, which is not a Standard Specification, is included in this Project by Special Provision.

**Description**

**00571.00 Scope** – This work consists of constructing a timber pile repair at the location specified, in the position, to the elevations, and conforming to the design shown on the plans and in accordance with the requirements specified in these specifications. This work includes constructing a shotcrete fascia wall, clean and paint existing pile cap.

Prior to ordering materials, contractor will field verify pile dimensions after removal of abutment debris material.

**Materials**

**00571.10 General** – Use materials meeting the following requirements:

Paint and Painted Materials.....	00296
Structure Excavation and Backfill.....	00510
Welded Wire Reinforcement.....	00530
Class 4000 Concrete.....	00540
Shotcrete.....	00541
Structural Steel .....	00560
Temporary Bridge Jacking.....	00571

**Construction**

**00571.41 Shotcrete fill and fascia** - Shotcrete between existing timber piles, between existing metal guardrail and new shotcrete fascia.

**00571.41(a) Lag Bolts** - Bore holes for lag bolts in two parts:

1. Bore the lead hole for the shank the same diameter as the shank and the same depth as the length of the unthreaded shank.
2. Bore the lead hole for the threaded portion a diameter equal to approximately two-thirds of the shank diameter.

Use a washer of the size and type designated under all bolt heads.

**00571.42 Existing Pile Cap** - Clean exposed existing pile cap and paint.

**00571.43 Existing Timber Pile** - Cut and remove portions of existing timber piles per the following requirements and as shown or directed:

- During demolition of treated wood, ensure that no treated wood debris falls into the water. If treated wood debris does fall into the water, remove it immediately.
- Store removed treated wood debris in appropriate dry storage areas, at least 150 feet away from the regulated work area.
- Dispose of treated timber at an approved DEQ landfill and per section 00290.

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**00571.44 Structure Excavation** - Distribute structure excavation material for timber pile repair on-site adjacent to Work being done.

**Measurement**

**00571.80 General** – No separate measurement for construction of timber pile repair, shotcrete fill and fascia, and painting existing pile cap will be made.

The estimated quantities of material required to construct the timber pile repair are as follows:

<b>Item</b>	<b>Quantity</b>
a) Steel Shim.....	780 lbs
b) Structure Excavation.....	15 CY
c) Concrete Fill.....	1 CY
d) Welded Wire.....	45 lbs
e) Shotcrete Fill and Fascia.....	13 SY

**Payment**

**00571.90 Payment** – Payment for construction of timber pile repair will be made on the Contract lump sum basis for the pay item “Timber Pile Repair”.

Payment will be payment in full for furnishing all Materials, Equipment, labor, and Incidentals necessary to complete the work as specified.

**SECTION 00582 - BRIDGE BEARINGS**

Comply with Section 00582 of the Standard Specifications.

**SECTION 00585 - EXPANSION JOINTS**

Comply with Section 00585 of the Standard Specifications modified as follows:

**00585.01 Definitions** - Replace this subsection, except for the subsection number and title, with the following:

**Armored Corner** - Steel armoring to protect the vertical edges of a joint.

**Asphaltic Plug Joint Seal** - A sealed joint composed of Aggregate and flexible binder material placed over a steel bridging plate.

**Closed Joint** - A sealed or filled joint designed to prevent water and debris from passing through the joint.

**Edgebeam** - Steel armoring to protect the vertical edges of a joint opening including recesses to accept elastomeric seals.

**Filled Joint** - A joint using a preformed material placed prior to concrete pour.

**Open Joint** - A joint designed to allow water and debris to pass through the joint.

**Poured Joint Seal** - A seal made of materials that remain flexible which is poured into the gap of a joint and adheres to the sides of the gap.

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**Precompressed Foam Silicone Joint Seal** - A joint system consisting of a preformed, pre-compressed, silicone-coated, self-expanding foam joint system bonded to joint faces using epoxy adhesive.

**Preformed Compression Joint Seal** - A preformed elastomeric device that is precompressed in the gap of a joint.

**Sealed Joint** - A joint using a compressible or expandable seal including asphaltic plug joint seals, preformed compression joint seals, poured joint seals, strip seals, and precompressed foam silicone joint seals.

**Strip Seal** - A sealed joint with an extruded elastomeric seal retained by edgebeams that are anchored to the structural elements.

**00585.10 Materials** – In the table of materials, replace the “Asphaltic Plug Seals” line with the following line:

Steel Bridging Plate.....02440.19

In the table of materials, replace the “Compression and Strip Seals” line with the following lines:

Strip Seal.....02440.20  
Preformed Compression Joint Seal.....02440.22

In the table of materials, replace the “Hot Poured Joint Filler” line with the following line:

Hot Applied Joint Sealant.....02440.30

In the table of materials, replace the “Poured Seals” line with the following line:

Poured Joint Sealant.....02440.11

Delete “Traffic Loop Sealant” from the list of materials.

**00585.41 Filled Joints** - Replace the sentence that begins “If shown or specified, place traffic...” with the following:

Unless shown or specified, place hot applied joint sealant at the top of the joint.

**00585.42(c) Joint Preparation** - Replace this subsection, except for the subsection number and title, with the following:

Prepare the joint surfaces as directed in this Section and according to the joint material manufacturer's recommendations. Ensure that all joint surfaces to receive a seal are sound, dry, clean, and frost-free at the time of joint installation.

For joint replacement, remove joint material from existing joints and clean the existing joints full depth and full width as directed by the Engineer. If existing joint surfaces have spalled, cracked, or deteriorated concrete, repair as shown or as directed to provide a uniform and smooth surface along the joint.

**00585.44 Asphaltic Plug Seal** - Replace this subsection with the following subsection:

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**00585.44 Asphaltic Plug Joint Seal** - Install asphaltic plug joint seals according to the following:

- Provide a clean, intact, and plane surface on which to place the steel bridging plate.
- Ensure the gap below a 12 foot unlevelled straightedge does not vary from the testing edge by more than 1/8 inch when placed across the joint in any direction. Use either an elastomeric concrete or a structural patching product from the QPL as needed to repair the deck surface of new or existing concrete.
- Ensure steel bridging plates are clean, free from surface rust, oil, or other residues and contaminants when installed. Place centering pins through the holes in the steel bridging plates and down into the expansion gap to assure proper centering. Avoid placing the steel bridging plate ends under wheel rut area.
- Install asphaltic plug joint seals according to the manufacturer's recommendations.
- Place preformed compression joint seal or poured joint seal in curbs and sidewalks.

**00585.45 Poured Seal** - Replace the title of this subsection with “**Poured Joint Seal**”

**00585.46 Compression Seal** - Replace the title of this subsection with “**Preformed Compression Joint Seal**”

**00585.48 Hot-Dip Galvanizing** - Replace this subsection with the following subsection:

**00585.48 Precompressed Foam Silicone Joint Seal** - Install precompressed foam silicone joint seal according to the manufacturer’s recommendations and the following:

- Ensure that top of joint system is 3/4 inch minimum below deck surface.
- Do not install the joint system in a joint width greater than 3 inches.

Add the following

**00585.49 Hot-Dip Galvanizing** - Hot dip galvanize steel expansion joint surfaces, except stainless steel, according to AASHTO M 111 (ASTM A123).

The contact surfaces at all galvanized slip critical structural bolted connections shall meet Class C (slip coefficient 0.33) surface preparation requirements.

**00585.80 Measurement** - Replace this subsection, except for the subsection number and title, with the following:

No measurement of quantities will be made for expansion joints.

The estimated quantities of expansion joints are:

Structure	Joint Type	Quantity (Foot)
Bridge No. 02058	Poured Joint Seal	199

**00585.90 Payment** - Replace pay items (a), (b), (c), and (d) with the following pay items:

- (a) Poured Joint Seal..... Lump Sum

Replace the bullet that begins “preformed expansion joint filler...” with the following:

- Preformed expansion joint filler, poured joint filler, or sawcutting.

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**SECTION 00587 - BRIDGE RAILS**

Comply with Section 00587 of the Standard Specifications modified as follows:

**00587.10 Materials** - Add the following to the end of the list:

Coating Materials for Concrete.....02210.30

**00587.42(e) Latex Paint Cure for PCC** - Replace this subsection with the following subsection:

**00587.42(e) Latex Emulsion Paint Cure for PCC** - As an option to curing cast-in-place or slipformed bridge rails, the following procedure may be used:

- Allow free moisture to flash off, but only until the concrete surface does not glisten, and never for more than 1 hour.
- Apply latex emulsion paint from the QPL as follows:
  - Apply the first coat at an application rate of 150 square feet per gallon.
  - Allow the first coat to air-dry for 1 hour.
  - Apply the second coat at an application rate of 150 square feet per gallon, with the application direction transverse to the direction of the first coat.

**00587.80 Measurement** - Add the following to the end of this subsection:

The estimated quantity of bridge rail is:

<b>Structure</b>	<b>Rail Type</b>	<b>Quantity (Foot)</b>
Bridge No. 02058	Ornamental Concrete Bridge Rail	524

**00587.90 Payment** - Add the following to the end of this subsection:

Payment for reconnecting to the existing transition rail and the existing timber pedestrian rail will be incidental to the payment for the Ornamental Concrete Bridge Rail.

**SECTION 00594 - PREPARING AND COATING METAL STRUCTURES**

Comply with Section 00594 of the Standard Specifications modified as follows:

**00594.00 Scope** - Replace this subsection, except for the subsection number and title, with the following:

This Work consists of preparing per 00594.42(b), and coating existing steel on Bridge No. 02058.

The primary work is below deck of the 70 ft steel approach span (3), and above and below deck of the 200 ft steel through truss span (4). Work also includes pile caps at Bents 7, 8, 9 and 10.

Lead-based coatings will be affected by the preparation and coating Work.

Coatings that contain chromates will be affected by the preparation and coating work.

**00594.05 Waste Handling and Disposal** - Add the following paragraph to the end of this subsection:

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When lead is contained in the waste, dispose of waste material according to 00290.20, Section 00296, and the applicable requirements of SSPC-Guide 7.

**00594.10 Materials** - Add the following to the end of this subsection:

For rehab on Bridge No. 02058, furnish a rehab coating, 3 coat system with organic zinc and micaceous iron oxide from the QPL. Provide top-coat color that conforms to #24272 of Federal Standard 595C.

**00594.40(b) Existing Steel Structures** - Add the following paragraphs and bullets to the end of this subsection:

Prepare and coat the following surfaces:

- Span 3 steel girders
- Span 4 steel through-truss and steel lattice railing
- Pile caps at Bent 7, 8, 9 and 10
- Sidewalk overhang brackets
- Existing painted utility supports and bracing

Do not coat the following:

- Concrete beams and piers 1, 2 and 3

**00594.75 Coating System Warranty and Supplemental Warranty Performance Bond** - Add the following to this subsection:

Provide a coating system warranty for Structure No. 02058 and a supplemental warranty performance bond in the sum of \$ 1,500,000 to the Project Manager.

**00594.90(a) New Metal Structures** - Replace this subsection, except for the subsection number and title, with the following:

No separate payment will be made for preparing and coating new metal Work. Payment for this Work, including correction of damages, will be included in payment made for appropriate items under which this Work is required.

**00594.90(b) Existing Metal Structures** – Add the following items to the pay item list:

Pay Item	Unit of Measurement
(e) Sand Blast and Paint Steel Beams.....	Lump Sum
(f) Sand Blast and Paint Steel Truss and Steel Lattice Rail.....	Lump Sum
(g) Sand Blast and Paint Steel Caps.....	Lump Sum

Partial payments for items (e), (f) and (g) will be made as follows:

- When the coating materials are on the project site.....20%
- When the surface has been prepped.....40%
- When the surface has been coated.....40%

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**SECTION 02001 - CONCRETE**

Comply with Section 02001 of the Standard Specifications modified as follows:

**02001.01 General** - Replace the sentence that begins "Provide quality control...", with the following sentence:

Provide quality control according to Section 00165 and this Section.

**02001.02 Abbreviations and Definitions** - Replace this subsection, except for the subsection number and title, with the following:

- ASTV** - Actual Strength Test Value - average of test cylinder compressive strengths
- $f'_c$  - Minimum Specified Compressive Strength at 28 days
- $f'_{cr}$  - Average Compressive Strength Over-design. The average strength required to assure that, with normal variations, the concrete will meet  $f'_c$
- GGBFS** - Ground Granulated Blast Furnace Slag
- HPC** - High Performance Concrete
- HRWRA** - High-Range Water-Reducing Admixture (super-plasticizer)
- PPCM** - Precast prestressed concrete member
- SCM** - Supplementary Cementitious Materials
- SSD** - Saturated Surface-Dry
- w/cm Ratio** - Water-Cementitious Material Ratio
- WRA** - Water Reducing Admixture

**Cementitious Materials** - Portland cement and supplementary cementitious materials.

**High Performance Concrete** - Concrete designed for enhanced durability and performance characteristics. High performance concrete is identified by the letters "HPC" in front of the concrete class designation (for example, HPC4500 - 1 1/2).

**Moderate Exposure** - Elevations below 1,000 feet.

**Pozzolans** - Fly ash, silica fume, and metakaolin.

**Severe Exposure** - Elevations 1,000 feet and above.

**Supplementary Cementitious Materials** - Fly ash, silica fume, metakaolin, and ground granulated blast furnace slag.

**02001.10 Materials** - Replace this subsection, except for the subsection number and title, with the following:

Furnish Materials meeting the requirements of the following:

Aggregates .....	02690
Cement.....	02010
Chemical Admixtures .....	02040
Concrete Modifiers .....	02035

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Supplementary Cementitious Materials.....02030  
 Synthetic Fiber Reinforcing .....02045  
 Water.....02020

**02001.20 Concrete Properties, Tolerances, and Limits** - Replace the paragraph that begins “Provide concrete that is a workable...” with the following paragraph:

Provide concrete that is workable, placeable, uniform in composition and consistency, and having the following properties:

**02001.20(a) Strength** - Replace this subsection, except for the subsection number and title, with the following:

Provide concrete meeting the required Classes shown in the Contract Documents. The class of concrete designates the minimum required compressive strength,  $f'_c$  at 28 days.

**Table 02001-1**

<b>Concrete Strength and Water/Cementitious Material (w/cm) Ratio</b>		
<b>Type of Concrete</b>	<b>Strength (PSI)</b>	<b>Maximum w/cm Ratio</b>
Structural	3300	0.50
	3300 (Seal)	0.45
	4000	0.48
	HPC4500	0.40
	5000 and Above	0.40 <sup>1</sup>
	HPC5000 and above	0.40
Drilled Shaft	4000	0.48
Paving	4000	0.44
<sup>1</sup> PPCM's with cast-in-place decks and no entrained air may have w/cm as follows: 5000 psi - 0.48; 5500 psi - 0.44; 6000 psi and up - 0.42		

**(1) Required Over Design Strength ( $f'_{cr}$ )** - Using the ASTV from either field results or trial batch cylinder's, provide calculations demonstrating compliance with one of the following:

- $f'_{cr} = f'_c \times 1.20$  for up to but not including Class 6000;  $f'_{cr} = f'_c \times 1.15$  for Class 6000 and higher
- $f'_{cr} = f'_c + 1.34 \times S^1$  for up to but not including Class 6000;  $f'_{cr} = f'_c + 1.28 \times S^1$  for Class 6000 and higher

<sup>1</sup> For current designs, S is the standard deviation of 28-Day cylinder strengths from the available data set. For new mix designs, the second option above may be used if there are at least 15 sets of 28-Day cylinders from a similar class ( $\pm 1,000$  psi) mix design produced at the same plant.

**(2) Flexural Beams** - Flexural beams for paving concrete mix designs shall achieve 600 psi at 28 Days.

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**02001.20(c) Slump** - Replace this subsection, except for the subsection number and title, with the following:

Provide concrete at the appropriate slump shown in Table 02001-3. Take corrective action to maintain a consistent slump at the point of discharge from the delivery vehicle.

**Table 02001-3**

<b>Concrete Slump</b>	
<b>Condition</b>	<b>Slump</b>
Concrete without WRA	4" max.
Concrete with WRA	5" max.
Concrete with HRWRA	5 1/2" ± 2 1/2"
Precast Prestressed Concrete with HRWRA	10" max.
Seal Concrete	8" ± 2"
Drilled Shaft Concrete	8 1/2" ± 1 1/2" <sup>1</sup>
<sup>1</sup> Maintain a minimum slump of 4 inches throughout drilled shaft placement, including temporary casing extraction.	

Add the following subsection:

**02001.20(e) Durability** - For HPC and SFC designs, except designs for precast bridge rail elements, the following additional requirements apply:

<b>Test</b>	<b>Test Method</b>	<b>Acceptance Value</b>
Length Change	ASTM C157	-0.045%
Permeability	AASHTO T 277	1,000 Coulombs (max.) at 90 days <sup>1</sup>

<sup>1</sup> Only required for alternate HPC designs. See 02001.30(b)(2).

**02001.30 Concrete Mix Design** - Replace this subsection with the following subsection:

**02001.30 Concrete Constituents:**

**(a) Portland Cement** - Use AASHTO M 85 or ASTM C150, Type I or II cement for structural or paving concrete. Use AASHTO M 85 or ASTM C150, Type III cement for precast prestressed concrete. Provide all cement from the QPL.

**(b) Supplementary Cementitious Materials** - SCM may be used separately or in combinations up to the specified maximum percentage by mass according to the following:

**(1) General Limits** - SCM may be used separately or in combination as shown:

<b>Separate SCM</b>	<b>Maximum</b>
Fly Ash + Other Pozzolans	25%
GGBFS	50%
Silica Fume	5%

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Combined SCM	Maximum
Fly Ash + Other Pozzolans + GGBFS + Silica Fume	50%*
Fly Ash + Other Pozzolans + Silica Fume	30%*

\* Fly ash + other pozzolans shall constitute no more than 25% and silica fume shall constitute no more than 5% of the total weight of cementitious materials.

When silica fume is added to truck mixed concrete, mix the batch a minimum of 100 revolutions at the mixing speed specified by the manufacturer before leaving the batch plant.

**(2) HPC Cementitious Composition** - Provide HPC with one of the following:

- Cementitious material with 66 percent portland cement, 30 percent fly ash, and 4 percent silica fume.
- Cement with SCM proportioned according to 02001.30(b)(1) and with trial batches performed to demonstrate that the proposed alternate mix design provides a maximum of 1,000 coulombs at 90 days when tested according to AASTHO T 277.

**(c) Blended Hydraulic Cement** - Blended hydraulic cement may be used subject to the limits of 02001.30(b) and 02010.20.

**(d) Chemical Admixtures** - Use chemical admixtures according to the manufacturer's recommendations. Use WRA in all seal concrete and in Class 5000 concrete or greater. Use HRWRA in all HPC.

Use a supersat extender from the QPL in all concrete for bridge decks. Use an appropriate amount to extend the initial set time of the concrete by 90 minutes.

**(e) Aggregate** - If the nominal maximum size of the coarse Aggregate is not included as a part of the class of concrete, or shown on the Plans, any size from 1 1/2-inch to 3/8-inch nominal maximum size Aggregate may be used according to ACI guidelines except:

- Use 1 1/2 inch nominal maximum size Aggregates in bridge deck concrete.
- Use 1 1/2 inch nominal maximum size Aggregates in paving concrete unless otherwise indicated.
- Use 3/8 inch nominal maximum size Aggregates in drilled shafts unless otherwise indicated.

**(f) Synthetic Fiber Reinforcing for Concrete** - Use synthetic fiber reinforcing from the QPL and according to Section 02045 in all bridge deck and silica fume overlay concrete. Use synthetic fiber reinforcing according to the manufacturer's recommendations at the rate designated on the QPL. Fiber packaging is not allowed in the mixed concrete.

Proportion all HPC for a minimum coarse Aggregate absolute solid volume according to Table 02001-4:

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**Table 02001-4**

<b>Absolute Solid Volume</b>	
<b>Maximum Nominal Aggregate Size</b>	<b>Cu. Yd. (Aggregate) / Cu. Yd. (Concrete)</b>
3/8"	0.36
1/2"	0.38
3/4"	0.40
1"	0.42
1 1/2"	0.44

Two or more Aggregate products or sources meeting Specifications may be blended to improve concrete properties. Blending non-specification Aggregate Materials, except for gradation, with specification Materials is not allowed.

**02001.31 Concrete Constituents** - Replace this subsection with the following subsection:

**02001.31 Concrete Mix Design** - Submit new or current mix designs, prepared by a CCT, for each required class of structural or paving concrete to the Engineer for review. Allow 21 Calendar Days for the review. Design mixes by the volumetric method in ACI 211.1 to achieve the properties of 02001.20. Do not proceed with concrete placement until the Engineer has determined that the mix design complies with the Specifications. Review of concrete mix designs does not relieve the Contractor of the responsibility to provide concrete meeting the Specification requirements.

**02001.32(a) Trial Batch** - Replace this subsection, except for the subsection number and title, with the following:

Make at least one trial batch for each concrete mix design. Notify the Engineer at least 48 hours before making each trial batch. The Engineer may witness preparation and testing. Prepare and test trial batches using the same materials, at the same proportions, and having the same plastic properties of concrete that will be used in the Project. Simulate haul time and mixing conditions to ensure proper workability at the jobsite. Furnish all materials, Equipment and Work required for designing the mixes, testing Materials, and making trial batches to verify the final design for final use at no additional cost to the Agency.

**02001.32(b) Plastic Concrete** - Replace this subsection, except for the subsection number and title, with the following:

For each trial batch, test the temperature, slump, density, and air content and compute the w/cm ratio and yield according to the following test methods:

<b>Test</b>	<b>Test Method</b>
Sampling Fresh Concrete	WAQTC TM 2
Slump	AASHTO T 119 <sup>1</sup>
Density	AASHTO T 121
Yield	AASHTO T 121
Air Content	AASHTO T 152
Concrete Temperature	AASHTO T 309
Molding Concrete Specimens	AASHTO T 23 or R 39 <sup>2</sup>
Water-Cement Ratio	<sup>3</sup>

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<sup>1</sup> For drilled shaft concrete test the slump retention characteristics by subsequent tests at half-hour intervals for the duration of the estimated drilled shaft placement, including temporary casing extraction. Report in table or graphical format.

<sup>2</sup> Cast cylinders in single-use plastic molds

<sup>3</sup> Use ODOT's Field Operating Procedure for AASHTO T 121 in the MFTP

**02001.32(c) Strength Tests** - Replace this subsection with the following subsection:

**02001.32(c) Hardened Concrete** - When applicable, test properties according to the following test methods:

Test	Test Method
Compressive Strength	AASHTO T 22
Flexural Strength	AASHTO T 97
Length Change	ASTM C157
Permeability	AASHTO T 277

**(1) Compressive Strength Tests** - For each trial batch, cast and cure at least three test cylinders according to AASHTO T 23 or AASHTO R 39, in 6 inch by 12 inch or 4 inch by 8 inch single use plastic molds. Test at 28 days according to AASHTO T 22.

**(2) Flexural Strength Tests** - For each paving concrete trial batch, cast and cure at least three flexural beams according to AASHTO T 23 or AASHTO R 39. Test flexural beams at 28 days according to AASHTO T 97.

**(3) Length Change Tests** - For all HPC and SFC mix designs, except for precast bridge rail elements, make at least three specimens from the trial batch for length change testing. Sample prisms shall have a square, 4 inch by 4 inch cross section. Wet cure the samples until they have reached an age of 28 days, including the period in the molds. Store and measure samples according to ASTM C157, Section 11.1.2. Report length change results at 28 days.

**(4) Permeability Tests** - For alternate HPC mix designs, make at least three specimens from the trial batch for permeability testing. Prepare, cure, dry and test according to AASHTO T 277. Report permeability in coulombs at 90 days.

**02001.32(d) Length Change Tests** - Delete this subsection.

**02001.32(e) Permeability Tests** - Delete this subsection.

**02001.33 Required Over Design Strength ( $f'_{cr}$ ) for New Mix Designs** - Delete this subsection.

**02001.34(a) Length Change Tests** - Delete this subsection.

**02001.34(b) Permeability Tests** – Delete this subsection.

**02001.35 Required Submittals for Mix Designs** - Replace this subsection, except for the subsection number and title with the following subsection:

Submit the following information for each concrete mix design:

**(a) Supplier's Information** - Provide the supplier's unique mix design identification number and batch plant location.

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### (b) Mix Design Constituent Proportions:

- Weight per cubic yard (pounds per cubic yard) of cement, SCM, fine Aggregates and coarse Aggregates (SSD), mix water, concrete modifiers, and chemical admixtures
- Absolute volumes of cement, SCM, fine Aggregates and coarse Aggregates (SSD), mix water, air content, concrete modifiers, and chemical admixtures
- Dosage rates for chemical admixtures (ounces per cubic yard)
- w/cm ratio including all chemical admixtures

### (c) Aggregates - Identify the Aggregate source by the ODOT source number. Report current values of the following:

- Bulk specific gravities (SSD)
- Fine Aggregate absorptions
- Coarse Aggregate absorptions
- Dry-rodded density of coarse Aggregates
- Average stockpile gradations
- Fineness modulus of sand used in the mix design calculations

### (d) Cement - For each cement used, provide the following:

- Manufacturer
- Brand name
- Type
- Source or location plant
- QPL product number

### (e) SCM - For each SCM used, provide the following:

- Manufacturer
- Brand name
- Source
- Class
- QPL product number

### (f) Concrete Modifiers - For each concrete modifier used, provide the following:

- Manufacturer
- Brand name
- QPL product number

### (g) Admixtures - For each admixture used, identify the following:

- Manufacturer
- Brand name
- Design dosage rate
- QPL product number

### (h) Synthetic Fiber Reinforcing - For each synthetic fiber reinforcing used, provide:

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- Manufacturer
- Brand name
- Design dosage rate
- QPL product number

**(i) Water** - Identify the source of water to be used and provide a certificate of compliance certifying that the water meets the requirements of 02020.10.

**(j) Plastic Concrete Tests** - Report the temperature, slump, density, air content, yield, and w/cm ratio of the trial batch or the average of these values for the cylinder sets presented for evaluation of a current mix design.

For drilled shaft concrete, report the following additional information:

- The total time estimate from initial batching through drilled shaft placement, including haul time, placing concrete, and temporary casing extraction.
- Initial slump test results and subsequent results at 15-minute intervals, verifying a minimum slump of 4 inches is maintained for the total time estimated for drilled shaft placement, including temporary casing extraction. Report data in a table or graph format.

**(k) Compressive Strength Test Results** - Report the individual test results and the ASTV of cylinders from the trial batch for new mix designs. For current designs, provide the individual tests and the average of the cylinder sets presented for evaluation.

**(l) Strength Analysis** - Provide an analysis, showing all calculations, demonstrating that the mix design meets the requirements of 02001.20(a).

**(m) HPC and SFC Test Results** - For all HPC and SFC designs, report the length change according to 02001.32(c)(3).

For alternate HPC designs, report the permeability according to 02001.32(c)(4). An SFC permeability report is not required.

HPC test results are not required for precast bridge rail elements.

**(n) Quality Control Personnel** - Provide the name and certification number of the CCT who prepared the mix design, the QCT who performed the plastic concrete tests and cast the test cylinders, the CSTT who tested the cylinders, and the ODOT certification number of the laboratory where the cylinders were tested.

**02001.36 Adjusting Concrete Proportions** - Replace this subsection, except for the subsection number and title, with the following:

After a mix design has been reviewed and accepted, submit any proposed adjustments to concrete proportions for review. Significant changes to the mix design, as determined by the Engineer, may require verification of performance by trial batch according to 02001.32. Significant changes include, but are not limited to the following:

- Decreases in cementitious material content.
- Changes in cement source.
- Increases in SCM quantity replacing cement.
- Changes in SCM source.

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- Substitution of aggregates from a different source.
- Admixture product changes.
- Large admixture dosage adjustments.
- Excluding seasonal adjustments for air entraining agents and Type A or D water reducers ( $\pm$  25 oz/cubic yard).

**02001.37 Trial Batch Costs** – Delete this subsection.

**02001.50(a) Certified Aggregate Technician (CAgT)** - Add the following bullet to the bullet list of duties:

- Notify the CCT whenever a fine aggregate fineness modulus varies by more than  $\pm$  0.20 from the mix design it is to be used in.

**02001.50(b) Quality Control Technician (QCT)** - Replace this subsection, except for the subsection number and title, with the following:

- Duties:
  - Attend pre-placement meetings for bridge deck pours and paving.
  - Be at the concrete placement site when concrete placement is in progress.
  - Have a copy of the mix design on site and available during concrete placement.
  - Obtain and check each batch ticket upon arrival of the concrete at the jobsite for the correct mix design.
  - Sample the concrete and test for ambient air temperature, plastic concrete temperature, slump, air content, density, w/cm ratio and yield at the frequencies required by and according to the tests listed in the MFTP, after concrete mixture proportions are adjusted in the field, and at such times as requested by the Engineer.
  - Notify the Contractor and the Engineer immediately when the concrete is not in compliance with the Specifications.
  - Be in direct contact with the CCT by telephone, radio or other means to convey information.
  - Notify the CCT of loads rejected and the reason for rejection.
  - Notify the CCT immediately whenever the w/cm ratio varies from the mix design target by more than  $\pm$  0.03.
  - Notify the CCT immediately whenever the air content varies from the mix design target by more than  $\pm$  1.5 percent.
  - Notify the CCT immediately whenever the slump varies from the allowable limits of Table 02001-3.
  - Notify the CCT immediately whenever the density of the plastic concrete varies from the mix design target by more than  $\pm$  3.0 pounds per cubic foot.

**02001.50(c) Concrete Control Technician (CCT)** - Replace this subsection, except for the subsection number and title, with the following:

- Duties:
  - Prepare new concrete mix designs.
  - Adjust current mix designs.
  - Notify the Engineer 48 hours prior to trial batching.
  - Control the quality of concrete during production.

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- Submit proposed adjustments of the mix design, in writing, to the Engineer for approval by the middle of the following work shift.
- Ensure approved adjustments are implemented prior to proceeding with production.
- Test the fine and coarse aggregates for total moisture content according to AASHTO T 255 before batching is started and when there is a significant change in the slump of the concrete. Moisture testing may be by an alternate method if approved by the Engineer. Provide moisture content test results to the Engineer upon request.
- Visually inspect the coarse aggregate for changes in moisture content throughout the day. Perform necessary testing for total moisture, and make mixture adjustments if necessary.
- Monitor concrete properties and compressive strength tests throughout the duration of the Project.
- Make adjustments to loads that fail to meet the air content or slump criteria of these Specifications prior to the 90-minute time limit. Adjustments shall comply with the provisions of ASTM C94.
- Make adjustments to maintain a satisfactory over-design  $f'_{cr}$ .
- Perform an analysis and verify the accuracy of coarse and fine aggregate moistures whenever the w/cm ratio varies from the mix design target by more than  $\pm 0.03$ .
- Perform an analysis and make necessary adjustments whenever the unit weight of the plastic concrete varies from the mix design by more than  $\pm 3.0$  pounds per cubic foot.
- Perform an analysis whenever the fineness modulus of the fine aggregate varies by more than  $\pm 0.20$  from the established mix design. If necessary to maintain proper workability, ability to pump or ability to finish, make an adjustment to the coarse/fine aggregate ratio and submit to the Engineer by the middle of the following work shift.

### SECTION 02015 - PORTLAND CEMENT CONCRETE REPAIR MATERIAL

Comply with Section 02015 of the Standard Specifications.

### SECTION 02040 - CHEMICAL ADMIXTURES

Comply with Section 02040 of the Standard Specifications modified as follows:

**02040.10 Materials** - Replace this subsection, except for the subsection number and title, with the following:

Furnish admixtures from the QPL.

### SECTION 02050 - CURING MATERIALS

Comply with Section 02050 of the Standard Specifications modified as follows:

**02050.10 Liquid Compounds** - Delete the paragraph that begins “Furnish liquid membrane-forming curing...” with the following paragraph:

Furnish liquid membrane-forming curing compounds from the QPL and meeting the requirements of ASTM C309.

Delete the paragraph that begins “Before using liquid compounds, submit...”.

## **North Santiam River (Mill City) Bridge Structure Rehabilitation and Painting**

**02050.20 Polyethylene Films** - Delete the paragraph that begins “Furnish clear or white...” with the following paragraph:

Furnish clear or white polyethylene films for curing concrete meeting the requirements of ASTM C171.

### **SECTION 02060 - CONCRETE AND CRACK SEALERS**

Comply with Section 02060 of the Standard Specifications.

### **SECTION 02080 - GROUT**

Comply with Section 02080 of the Standard Specifications modified as follows:

**02080.00 Scope** - Replace this subsection, except for the subsection number and title, with the following:

This Section includes the requirements for grout.

**02080.30 Keyway Grout** – Replace the sentence that begins “Furnish keyway grout from the QPL...” with the following sentence:

Furnish keyway grout from the QPL.

**02080.60 Structural Grout** - Replace the sentence that begins “Furnish structural grout from the QPL...” with the following sentence:

Furnish structural grout from the QPL.

Add the following subsection:

**02080.70 UHPC Grout** - Furnish Ultra-High Performance Concrete (UHPC) grout used in the keyways of precast prestressed concrete members or other applications when shown. Furnish UHPC grout from the QPL.

### **SECTION 02440 - JOINT MATERIALS**

Comply with Section 02440 of the Standard Specifications modified as follows:

**02440.19 Steel Bridging Plate** - Replace this subsection, except for the subsection number and title, with the following:

Furnish ASTM A36 steel bridging plate with a minimum thickness of 1/4 inch and a width of 8 inches, cut in lengths of 4 to 8 feet. Drill spike holes at 12 inch centers along the centerline of the plate.

**02440.20 Preformed Joint Seal** - Replace this subsection, except for the subsection number, with the following:

**02440.20 Strip Seal** - Furnish strip seals from the QPL and conforming to ASTM D5973.

Add the following subsection:

**02440.22 Preformed Compression Joint Seal** - Furnish preformed compression joint seals from the QPL and conforming to the requirements of AASHTO M 297.

## North Santiam River (Mill City) Bridge Structure Rehabilitation and Painting

Add the following subsection:

**02440.23 Precompressed Foam Silicone Joint Seal** - Furnish precompressed foam silicone joint seals from the QPL.

**02440.30 Hot Poured Joint Filler** - Replace this subsection with the following subsection:

**02440.30 Hot Applied Joint Sealant** - Furnish hot applied joint sealant from the QPL.

**02440.40 Gaskets for Concrete Pipe and Precast Manhole Section Joints** - Replace this subsection, except for the subsection number and title, with the following:

(a) **Preformed Flexible Joint Sealant** - Furnish Materials for tongue and groove or key lock manhole joints conforming to the requirements of ASTM C990.

(b) **Rubber Gaskets** - Furnish Materials for O-ring manhole and concrete pipe joints conforming to ASTM C443.

**02440.70(b) Rubber** - Replace this subsection, except for the subsection number and title, with the following:

Provide rubber water stops to the dimension shown and conforming to the requirements of ASTM C923, ASTM C1478, or ASTM F2510 as appropriate for the specific structure and pipe types.

### SECTION 02510 - REINFORCEMENT

Comply with Section 02510 of the Standard Specifications modified as follows:

**02510.10 Deformed Bar Reinforcement** - Replace this subsection, except for the subsection number and title, with the following:

Furnish deformed bar reinforcement from the QPL and conforming to the requirements of ASTM A 706, AASHTO M31 (ASTM A615), or AASHTO M334 (ASTM A1035 CS). Unless otherwise specified or shown, all reinforcing bars shall be Grade 60.

**02510.20 Mechanical Splices** - Replace this subsection, except for the subsection number and title, with the following:

Furnish mechanical splices from the QPL. Where bars of different sizes or strengths are connected, the governing strength shall be the strength of the smaller or weaker bar.

- Type 1 Mechanical Splices - Furnish Type 1 Mechanical Splices that develop at least 125 percent of the specified minimum yield strength of the reinforcing bars. Type 1 Mechanical Splices are not allowed for column bars.
- Type 2 Mechanical Splices - Furnish Type 2 Mechanical Splices that develop at least 125 percent of the specified minimum yield strength of the reinforcing bars and 100 percent of the specified tensile strength of the reinforcing bars.
- Total slip displacement - Measure displacement after loading in tension to 30.0 ksi and relaxing to 3.0 ksi. The displacement for bars up to No. 14 shall not exceed 0.01 inches. The displacement for No. 18 bar shall not exceed 0.03 inches.

**02510.25 Headed Bar Reinforcement** - Replace this subsection, except for the subsection number and title, with the following:

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Furnish Class HA headed steel bar from the QPL for concrete reinforcement. The headed steel bar shall develop the specified minimum tensile strength of the reinforcing bars, according to ASTM A970. Ferrous-filler coupling sleeves and welded headed steel bars are not allowed for concrete reinforcement.

### SECTION 02530 - STRUCTURAL STEEL

Comply with Section 02530 of the Standard Specifications modified as follows:

**02530.70 Galvanizing** - Replace the paragraph that begins "Steel that will be finished by hot-dip galvanizing..." with the following paragraph:

Steel that will be finished by hot-dip galvanizing for use as sign bridges, illumination poles, traffic signal poles, sign supports, bridge rail and items designated on the Plans as "Galvanize - Control Silicon" shall have controlled silicon content. The silicon content shall be in either of the ranges 0 - 0.06 percent or 0.13 - 0.25 percent. Before galvanizing, submit mill test certificates verifying silicon content to the Engineer and the galvanizer.

### SECTION 02560 - FASTENERS

Comply with Section 02560 of the Standard Specifications modified as follows:

Add the following subsection:

**02560.05 Geometry** - Bolt or rod length used shall be such that the end of the bolt or rod extends beyond or is at least flush with the outer face of the nut when properly installed.

**02560.10(b) Nuts**— Replace this subsection, except for the subsection number and title, with following:

Nuts for carbon steel bolts shall conform to the requirements of the following, or equivalent:

#### Plain (Noncoated) Bolts:

- 1/4" - 1 1/2" - ASTM A563, Grade A, hex
- Over 1 1/2" - 4" - ASTM A563, Grade A, heavy hex

#### Galvanized Bolts:

- All - ASTM A563, Grade A, C, D, or DH, heavy hex

**02560.20(a) Bolts** – Replace this subsection, except for the subsection number and title, with following:

High-strength bolts used in noncoated weathering steel connections shall be Type 3. High-strength bolts shall conform to the requirements of the following:

#### Heavy Hex Head:

- ASTM F3125, Grade A325

#### Twist-Off:

- ASTM F3125, Grade F1852

## North Santiam River (Mill City) Bridge Structure Rehabilitation and Painting

**02560.20(b) Nuts** – Replace this subsection, except for the subsection number and title, with following:

Nuts for high-strength bolts shall conform to the requirements of the following, or equivalent:

**Type 1 Plain (Noncoated) Bolts:**

- All - Heavy hex ASTM A563, Grade C, D, or DH

**Type 1 Galvanized Bolts:**

- All - Heavy hex ASTM A563, Grade DH

**Type 3 Bolts:**

- All - Heavy hex ASTM A563, Grade C3 or DH3

**02560.20(f) Lock-Pin and Collar Fasteners** - Delete this subsection.

**02560.30(c) Nuts** – Replace this subsection, except for the subsection number and title, with following:

Nuts for tie rods, anchor bolts, and anchor rods shall conform to the requirements of the following, or equivalent:

**Plain Steel Tie Rods, Anchor Bolts, and Anchor Rods:**

- All - Heavy hex ASTM A563, Grade A

**Galvanized Steel Tie Rods, Anchor Bolts, and Anchor Rods:**

- All - Heavy hex ASTM A563, Grade A, C, D, or DH

**Plain Or Galvanized High-Strength Tie Rods, Anchor Bolts, or Anchor Rods:**

- All - Heavy hex ASTM A563, Grade DH

**02560.40 Galvanizing and Coating** - Replace this subsection with the following subsection:

**02560.40 Galvanizing and Coating:**

**(a) High Strength Fasteners** - When specified, hot-dip galvanize Grade A325 fasteners or mechanically deposit zinc to Grade F1852 fasteners according to ASTM F3125.

**(b) Tie Rods, Anchor Bolts, Anchor Rods and Carbon Fasteners** - Hot-dip galvanize, tie rods, anchor bolts, anchor rods, nuts, washers and carbon fasteners according to ASTM F2329 as appropriate to the product.

Overlap nuts for galvanized fasteners, galvanized tie rods, galvanized anchor bolts, and galvanized anchor rods according to ASTM A563.

Measure the zinc thickness on the wrench flats or top of bolt head of galvanized bolts and on the wrench flats of galvanized nuts.

**(c) Direct Tension Indicators** – When specified, apply mechanically deposited zinc according to ASTM F959.

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**(d) Repair of Hot-Dip Galvanizing** - Repair damaged hot-dip galvanizing according to ASTM A780. Minimum zinc content for Method A2 is 94 percent on the dry film.

**02560.60(b) Other Test Requirements** - In the paragraph that begins "Wedge test all bolts according..." replace the words "AASHTO M 164 (ASTM A325)" with the words "ASTM F3125, Grade A325 or Grade F1852".

**02560.70 Lubricating Fasteners** - Replace this subsection, except for the subsection number and title, with following:

Furnish all galvanized and coated fasteners with a factory applied commercial water-soluble wax that contains a visible dye of a color that contrasts with the color of galvanizing or coating. Black fasteners shall be "oily" to the touch when installed.

Field lubricate galvanized bolts in tapped holes, galvanized anchor rods, and galvanized tie rods with a lubricant from the QPL. Apply lubricant to threads and to bearing surfaces that will turn during installation.

Protect fasteners from dirt and moisture at the Project site.

Retest heavy hex head fasteners that do not pass the field rotational capacity test. Clean and relubricate heavy hex head fasteners with a lubricant from the QPL prior to retesting.

Relubrication of Twist-Off fasteners is not permitted.

### **SECTION 02690 - PCC AGGREGATES**

Replace Section 02690 of the Standard Specifications with the following Section 02690:

### **SECTION 02690 - PCC AGGREGATES**

#### **Description**

**02690.00 Scope** - This Section includes the requirements for coarse and fine aggregates for portland cement concrete.

#### **02690.01 Definitions:**

**Coating** - Foreign or deleterious substances found adhering to the aggregate particles.

**Detrimental Materials** - Materials that adversely affect concrete, including but not limited to clay, shale, mica, silt, bark, alkali, sticks, organic matter, soft and flaky particles.

**Nominal Maximum Size Of Aggregate** - One sieve larger than the first sieve that retains more than 10 percent of the material using an agency specified set of sieves based on cumulative percent retained. Where large gaps in specification sieves exist, intermediate sieves may be inserted to determine nominal maximum size.

#### **Materials**

**02690.10 Materials** - PCC Aggregates shall consist of natural or crushed rock that is hard, strong, durable and free from adherent coatings or other detrimental materials.

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Produce, handle and store the aggregates in a way that will maintain passing material properties and avoid introducing deleterious materials or segregation prior to its use in portland cement concrete.

**02690.11 Alternate Grading** - The Contractor may request approval to produce coarse and fine aggregates in sizes other than those stated in 02690.20 and 02690.30. The request shall be in writing, and shall state the proposed target value and specified tolerances for each of the individual sieve sizes of the materials the Contractor proposes to produce.

**02690.12 Acceptance of Aggregate** - Acceptance of aggregate will be according to Section 00165 and based on the Contractor's quality control testing, if verified, according to Section 00165.

**(a) Aggregate Gradation** - A stockpile contains specification aggregate gradation when the quality level for each sieve size calculated according to 00165.40 is equal to or greater than the quality level indicated in Table 00165-2 for a PF of 1.00. Each required sample represents a subplot. When the quality level indicated in Table 00165-2 yields a PF of less than 1.00 for any constituent, the material is non-specification.

**(b) Non-specification Aggregate Gradation** - Stockpiled aggregates that contain non-specification aggregate gradation will be rejected by the Engineer unless non specification material is removed from the stockpile. Do not add additional material to the stockpile until enough non-specification material is removed so that the quality level for each constituent is equal to or greater than the quality level in Table 00165-2 for a 1.00 PF.

Reprocessing of non-conforming material and the testing required for acceptance will be at no additional cost to the Agency. Acceptance of reprocessed material will be based on passing test results or accepted visually by the Engineer.

**02690.20 Coarse Aggregate:**

**(a) Harmful Substances** - Harmful substances shall not exceed the following limits:

Test	Test Method		Percent (by Weight)
	ODOT	AASHTO	
Lightweight Pieces	–	T 113	1.0
Material passing No. 200 sieve	–	T 11	1.0
Wood Particles	TM 225	–	0.05

**(b) Soundness** - Coarse aggregates for concrete shall be tested for soundness using sodium sulfate salt, according to AASHTO T 104. The weighted percentage loss shall not exceed 12 percent by weight.

**(c) Durability** - Coarse aggregates shall meet the following durability requirements:

Test	Test Method		Requirements
	ODOT	AASHTO	
Abrasion	–	T 96	30.0% Max.
Oregon Air Aggregate Degradation:			
Passing No. 20 sieve	TM 208	–	30.0% Max.
Sediment Height	TM 208	–	3.0" Max.

**(d) PCC Paving Aggregate** - In addition to requirements above, comply with the following:

**North Santiam River (Mill City) Bridge  
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**(1) Fracture** - Provide aggregate with at least two fractured faces on at least 50 percent of the particles retained on the 3/8 inch, 1/2 inch, 3/4 inch, 1 inch, and 1 1/2 inch sieves, as determined by AASHTO T 335.

**(2) Elongated Pieces** - Provide aggregate with elongated pieces not exceeding 10 percent by weight of the material retained on the No. 4 sieve when tested according to ODOT TM 229 with the proportional caliper device set at a ratio of 5:1.

**(e) Grading and Separation by Sizes for Prestressed Concrete** - Sampling shall be according to AASHTO T 2 and sieve analysis shall be determined according to AASHTO T 27 and AASHTO T 11. PCC coarse aggregate shall conform to grading and separated sizes as follows:

**(1)** Where indicated in Table 02690-1, the coarse aggregate shall be separated into two sizes and each separated size shall be measured into the batch in the quantity determined by the mix design.

For each of the indicated maximum sizes of coarse aggregates, the separated sizes shall be as indicated in Table 02690-2:

**Table 02690-1**

Maximum Nominal Size of Aggregates	Separated Sizes
1"	1" - No. 4
3/4"	3/4" - No. 4
3/4"	3/4" - 1/2" and 1/2" - No. 4
3/4"	3/4" - 3/8" and 3/8" - No. 4

**(2)** The grading of each of the specified separated sizes of coarse aggregate shall conform to the following:

**Table 02690-2**

**Separated Sizes**

Sieve Size	1" - No. 4	3/4"- No. 4	3/4"- 1/2"	3/4"- 3/8"	1/2"- No. 4	3/8"- No. 4
	Percent Passing (by Weight)					
1 1/2"	100	—	—	—	—	—
1"	90 - 100	100	100	100	—	—
3/4"	50 - 80	90 - 100	85 - 100	85 - 100	100	100
1/2"	—	—	0 - 15	—	85 - 100	—
3/8"	15 - 40	20 - 50	—	0 - 15	35 - 65	85 - 100
No. 4	0 - 10	0 - 10	—	—	0 - 15	0 - 15
No. 200	*	*	*	*	*	*

\* See 02690.20(a). Do not evaluate material passing the No. 200 sieve according to 00165.40.

**(f) Grading and Separation by Sizes for Other Concrete** - Sampling shall be according to AASHTO T 2. Sieve analysis shall be according to AASHTO T 27 and AASHTO T 11. Provide aggregates meeting the gradation requirements of Tables 02690-3 and 02690-4 for structural concrete. Provide a CAgT to perform sampling and testing when required.

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**Table 02690-3**

**Gradation of Coarse Aggregates**

Sieve Size	Combined*	Separated	Separated	Separated
	Sizes 1 1/2" - No. 4	Sizes 1 1/2" - 3/4"	Sizes 1" - No. 4	Sizes 3/4" - 1/2"
	<b>Percent Passing (by Weight)</b>			
2"	100	100	—	—
1 1/2"	90 - 100	90 - 100	100	—
1"	70 - 89	20 - 55	90 - 100	100
3/4"	35 - 70	0 - 15	—	85 - 100
1/2"	—	—	25 - 60	0 - 15
3/8"	10 - 30	0 - 5	—	—
No. 4	0 - 5	—	0 - 10	—
No. 8	—	—	0 - 5	—
No. 200	**	**	**	**

\* For 1 1/2 inch coarse aggregate use two or more separated sizes which when combined shall meet the gradation limits for 1 1/2" - No. 4

\*\* See 02690.20(a). Do not evaluate material passing the No.200 sieve according to 00165.40.

**Table 02690-4**

**Gradation of Coarse Aggregates**

Sieve Size	Separated	Separated or Combined	Separated	Separated
	Sizes 3/4" - 3/8"	Sizes 3/4" - No. 4	Sizes 1/2" - No. 4	Sizes 3/8" - No. 8
	<b>Percent Passing (by Weight)</b>			
1"	100	100	—	—
3/4"	90 - 100	90 - 100	100	—
1/2"	20 - 55	—	90 - 100	100
3/8"	0 - 15	20 - 55	40 - 70	85 - 100
No. 4	0 - 5	0 - 10	0 - 15	10 - 30
No. 8	—	0 - 5	0 - 5	0 - 10
No. 16	—	—	—	0 - 5
No. 200	*	*	*	*

\* See 02690.20(a). Do not evaluate material passing the No.200 sieve according to 00165.40.

**02690.30 Fine Aggregates:**

**(a) Different Sources** - Do not mix fine aggregates from different sources of supply, or store in the same pile. Do not use alternately in the same class of mix, without prior approval.

**(b) Harmful Substances** - The amount of harmful substances shall not exceed the following limits:

**North Santiam River (Mill City) Bridge  
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<b>Test</b>	<b>Test Method (AASHTO)</b>	<b>Percent (by Weight)</b>
Lightweight Pieces	T 113	2.0%
Material passing No. 200 sieve	T 11	3.0%

**(c) Soundness** - Fine aggregate shall be tested for soundness using sodium sulfate salt, according to AASHTO T 104. The weighted percentage loss shall not exceed 10 percent by weight.

**(d) Organic Impurities** - All fine aggregate shall meet the requirements of AASHTO M 6 for organic impurities.

**(e) Sand Equivalent** - Fine aggregate shall be tested according to AASHTO T 176 and shall have a sand equivalent of not less than 75.

**(f) Sand for Mortar** - Sand for mortar shall conform to the requirements of this Section.

**(g) Grading** - Sampling shall be according to AASHTO T 2. Sieve analysis shall be determined according to AASHTO T 27 and AASHTO T 11. Provide aggregates meeting the gradation requirements of Table 02690-5 for structural concrete. Provide a CAgT to perform sampling and testing when required.

**Table 02690-5**

**Gradation of Fine Aggregate\***

<b>Sieve Size</b>	<b>Percent Passing (by Weight)</b>
3/8"	100
No. 4	90 - 100
No. 8	70 - 100
No. 16	50 - 85
No. 30	25 - 60
No. 50	5 - 30
No. 100	0 - 10
No. 200	**

\* Determine the fineness modulus according to AASHTO T 27 and AASHTO T 11. Maintain the fine aggregate fineness modulus within plus or minus 0.20 from the fineness modulus used in the Contractor's mix design. Fine aggregates in which the fineness modulus varies by more than 0.20 from the mix design target shall not be incorporated until an assessment is done to determine whether an adjustment in the aggregate proportions is necessary. Proportion changes must be performed by a CCT according to the provisions of ACI 211. Submit analysis of FM and mix design adjustments to the Engineer for approval.

\*\* See 02690.30(b). Do not evaluate material passing No. 200 sieve according to 0165.40.

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**North Santiam River (Mill City) Bridge  
Structure Rehabilitation and Painting**

**APPENDIX A - PROJECT PLANS**

**Under Separate Cover**

The Plans, which are applicable to the Work to be performed under this Contract, bear title and date as follows:

Structure Rehabilitation and Painting  
North Santiam River (Mill City) Bridge  
First Avenue  
ODOT Bridge No. 02058  
Federal Aid Number T17HC019  
Linn County  
April 2020

**North Santiam River (Mill City) Bridge  
Structure Rehabilitation and Painting**

**APPENDIX B - BID SECTION**

**ATTENTION:**

DO NOT INCLUDE THE PLANS AND SPECIFICATIONS WHEN SUBMITTING YOUR BID PROPOSAL. SUBMIT ONLY THE ITEMS INCLUDED IN THE BID SECTION AND ANY ADDENDUM THAT MAY HAVE BEEN ISSUED FOR THIS PROJECT.

**INCLUDED IN THIS SECTION:**

- BID SCHEDULE
- PROPOSAL
- BID PROPOSAL BOND
- FIRST TIER SUBCONTRACTOR DISCLOSURE FORM
- DBE COMMITMENT CERTIFICATION AND UTILIZATION FORM 734-2721

**North Santiam River (Mill City) Bridge  
Structure Rehabilitation and Painting**

**BID SCHEDULE**

North Santiam River (Mill City) Bridge  
Structure Rehabilitation and Painting

**Bid Opening: April 21, 2020 at 9:35 a.m., P.D.T.**

ITEM	UNIT	QUANT.	UNIT PRICE	TOTAL
1. Mobilization	LS	1	\$	\$
2. Temporary Protection & Direction of Traffic	LS	1	\$	\$
3. Temporary Work Access and Containment	LS	1	\$	\$
4. Bridge Jacking at Pier 3	LS	1	\$	\$
5. Bridge Jacking at Bent 7	LS	1	\$	\$
6. Pollution Control Plan	LS	1	\$	\$
7. Health and Safety Plan	LS	1	\$	\$
8. Lead Compliance Plan	LS	1	\$	\$
9. Remove Asbestos Material - Fabric and Wrap	LS	1	\$	\$
10. Bridge Removal Work	LS	1	\$	\$
11. Salvaging Historical Railing	LS	1	\$	\$
12. Reinforcement, Grade 60	LS	1	\$	\$
13. Coated Reinforcement, Grade 60	LS	1	\$	\$
14. Inject and Seal Cracks	FOOT	10	\$	\$
15. General Structural Concrete, Class 4000	LS	1	\$	\$
16. Locate Damaged Concrete	LS	1	\$	\$
17. Repair Damaged Concrete	SQYD	4	\$	\$
18. Structural Steel	LS	1	\$	\$
19. CFRP Strengthening	LS	1	\$	\$
20. CFRP Strengthening - Near Surface Mounted	LS	1	\$	\$
21. Timber Pile Repair	LS	1	\$	\$
22. Bearing Devices, Pier 3	EACH	2	\$	\$
23. Poured Joint Seal	LS	1	\$	\$
24. Ornamental Concrete Bridge Rail	LS	1	\$	\$
25. Sand Blast and Paint Steel Beams	LS	1	\$	\$
26. Sand Blast and Paint Steel Truss and Steel Lattice Rail	LS	1	\$	\$
27. Sand Blast and Paint Steel Caps	LS	1	\$	\$
28. Pack Rust Removal	FOOT	240	\$	\$

**North Santiam River (Mill City) Bridge  
Structure Rehabilitation and Painting**

<b>PROJECT TOTAL</b>	\$
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\_\_\_\_\_  
Authorized Signature

\_\_\_\_\_  
Print

\_\_\_\_\_  
Company Name

\_\_\_\_\_  
Address

\_\_\_\_\_  
City                      State      Zip Code

\_\_\_\_\_  
Fax Number

\_\_\_\_\_  
Phone                      Date

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Email

\_\_\_\_\_  
Oregon Construction Contractors Board Number

**North Santiam River (Mill City) Bridge  
Structure Rehabilitation and Painting**

**PROPOSAL**

TO: COUNTY BOARD OF COMMISSIONERS, LINN COUNTY, OREGON

**The undersigned, as bidder, declares that:**

This bid is for the work described on the "Description of Work" sheet bound in this bid.

This bid has been prepared from documents obtained from Linn County Road Department website at: <http://www.co.linn.or.us/Roads/ContractConst.asp> - Project Title

The only persons or parties interested in this bid as principals are those named in this bid.

The bidder submits this bid in accordance with and subject to the terms and conditions stated in Sections 00120 and 00130 of the specifications.

The bidder has obtained and become acquainted with the applicable standard specifications, special provisions, plans, and other required provisions applicable to the particular work for which the bid is submitted.

The bidder has personally inspected the location and the site of the work and has become acquainted with all conditions, local and otherwise, affecting it.

The bidder has obtained and become acquainted with the forms of contract and bond which are to be signed by the successful bidder.

The bidder is satisfied as to the quantities and conditions and understands that in signing this bid the bidder waives all right to claim any misunderstanding regarding these quantities and conditions.

The bid guaranty submitted with this bid, if a bid bond, is by this reference made a part of this bid.

**The bidder also proposes and agrees that:**

If this bid is accepted, the bidder will execute the contract form furnished by the Agency, will provide all necessary machinery, equipment, tools, apparatus, labor and other means of construction, and will do all work and furnish all the materials specified in or called for by the contract in the manner and time prescribed in the contract and according to the requirements of the Engineer as given in the contract.

The bidder will accept, as full payment for the work performed and the materials, labor, equipment, machinery, tools, apparatus and other means of construction furnished, the amount earned under the contract as computed in the manner described in the specifications from the quantities of the various classes of work performed and the respective unit prices bid as these prices are given in the "Bid Schedule" bound in this bid.

Any contract awarded to the bidder shall include the provisions required by ORS 279C.830 or 40 U.S.C. 276a.

**The bidder also certifies to the following:**

A. Noncollusion:

## **North Santiam River (Mill City) Bridge Structure Rehabilitation and Painting**

The price(s) and amount of this bid have been arrived at independently and without consultation, communication, or agreement with any other contractor, bidder, or potential bidder except as disclosed on a separately attached statement.

Neither the price(s) nor the amount of this bid, and neither the approximate price(s) nor approximate amount of this bid has been disclosed to any other firm or person who is a bidder or potential bidder, and they will not be disclosed before the opening of bids.

No attempt has been made or will be made to induce any firm or person to refrain from bidding on this contract, to submit a bid higher than this bid, or to submit any intentionally high or noncompetitive bid or other form of complementary bid.

This bid is made in good faith and not pursuant to any agreement or discussion with, or inducement from, any firm or person to submit a complementary or other noncompetitive bid.

The bidder, its affiliates, subsidiaries, officers, directors, and employees are not currently under investigation by any governmental agency and have not in the last four years been convicted of or found liable for any act, prohibited by State or Federal law in any jurisdiction, involving conspiracy or collusion with respect to bidding on any public contract except as described on a separately attached statement.

The bidder understands and acknowledges that the above representations are material and important and will be relied on by the Agency, in awarding the contract(s) for which this bid is submitted. The bidder understands that any misstatement in this certification is and shall be treated as fraudulent concealment from the Agency, of the true facts relating to the submission of bids for this contract.

### **B. Noninvolvement in Any Debarment and Suspension:**

The bidder, its owners, directors, and officers:

Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency.

Have not within a three-year period preceding this bid been convicted of or had a civil judgment 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.

Are not presently indicted for or otherwise criminally or civilly charged by a government entity (Federal, State, or local) with commission of any of the offenses enumerated in the preceding paragraph of this certification.

Have not within a three-year period preceding this bid had one or more public transactions (Federal, State, or local) terminated for cause or default.

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

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List exceptions. (For each exception noted, indicate to whom the exception applies, initiating agency, and dates of action. If additional space is required, attach another page with the following heading: Certification Exceptions continued, Bid Insert.)

Exceptions will not necessarily result in denial of award, but will be considered in determining bidder responsibility. Providing false information may result in criminal prosecution or administrative sanctions.

### **C. Lobbying Activities:**

To the best of my knowledge and belief, that:

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 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.

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" to the Agency.

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 that he or she shall require that the language of this certification be inserted in all lower tier subcontracts, which exceed \$100,000 and that all such subrecipients shall certify and disclose accordingly.

### **D. Compliance with Oregon Tax Laws:**

By signature on this bid, the undersigned hereby certifies under penalty of perjury that the undersigned is authorized to act on behalf of bidder, that the undersigned has authority and knowledge regarding bidder's payment of taxes, and that bidder is, to the best of the undersigned's knowledge, not in violation of any Oregon Tax Laws. For purposes of this

certification, "Oregon Tax Laws" means a state tax imposed by ORS 320.005 to 320.150 (Amusement Device Taxes), ORS 403.200 to 403.250 (Tax For Emergency Communications),

## **North Santiam River (Mill City) Bridge Structure Rehabilitation and Painting**

and ORS Chapters 118 (Inheritance Tax), 314 (Income Tax), 316 (Personal Income Tax), 317 (Corporation Excise Tax), 318 (Corporation Income Tax), 321 (Timber And Forestland Tax), 323 (Cigarettes And Tobacco Products Tax), and the elderly rental assistance program under ORS 310.657, and any local taxes administered by the Department of Revenue under ORS 305.620.

### **E. Employee Drug Testing Program:**

Pursuant to ORS 279C.505(2), that the bidder has an employee drug testing program in place, and will maintain such program for the entire period of this contract. Failure to maintain such program shall constitute a material breach of contract.

### **F. Nondiscrimination:**

Pursuant to ORS 279A.110, that the bidder has not discriminated and will not discriminate against a disadvantaged business enterprise, a minority-owned business, a woman-owned business, a business that a service-disabled veteran owns, or an emerging small business in obtaining any required subcontracts. The bidder understands that it may be disqualified from bidding on this public improvement project if the Agency finds that the bidder has violated subsection (1) of ORS 279A.110.

Pursuant to ORS 279A.110, that the bidder has not discriminated and will not discriminate against policy and practice against sexual harassment, sexual assault and discrimination against employees who are members of a protected class as required by ORS 279A.112 (House Bill 3060, 2017)

### **G. Use of Registered Subcontractors:**

That all subcontractors performing work on this public improvement contract will be registered with the Construction Contractors Board or licensed by the State Landscape Contractors Board in accordance with ORS Chapter 701 before the subcontractors commence work under this contract.

### **H. Incorporation of All Addenda:**

The bidder has incorporated into this bid all addenda issued for this Project.

The bidder understands and acknowledges that the Agency will provide all addenda only by publishing them on the Agency's website. Addenda may be downloaded from the Agency's website.

The bidder shall be responsible for diligently checking the Agency's website for addenda. Bidders should check the website at least weekly until the week of Bid Closing and daily during the week of Bid Closing.

By submitting this bid, the bidder assumes all risks associated with its failure to access all addenda and waives all claims, suits, and actions against the State, the Transportation Commission, the Department of Transportation and their members, officers, agents, and employees that may arise out of the bidder's failure to access all addenda, in spite of any contingencies such as website failure, down-time, service interruptions, and corrupted, inaccurate, or incomplete addenda or information.

**North Santiam River (Mill City) Bridge  
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The party by whom this proposal is submitted, and by whom the contract will be entered into in case the award is made to bidder is:

\_\_\_\_\_ [“An Individual,” “A Partnership,” “A Corporation,” “An Association”]

doing business under the name of \_\_\_\_\_

at \_\_\_\_\_  
[Street] [City] [State] [Zip Code]

which address is the address to which all communications concerning this bid and the contract should be sent.

The name of the surety by which the Performance Bond and Payment Bond covering the contract, if awarded, will be furnished and the name and address of the surety's local agent are as follows:

Name of Surety \_\_\_\_\_

Name of Agent \_\_\_\_\_

Accompanying this proposal is \_\_\_\_\_  
[“Proposal Bond,” “Cashier' s Check,” “Certified Check”]

in the amount of \_\_\_\_\_ percent of the bid.

The bidder further proposes to accept as full payment for the work proposed herein the amount computed under the provision of the contract documents and based on the unit price amounts, under Bid Schedule bound herein, it being expressly understood that the unit prices are independent of the exact quantities involved. The bidder agrees that the unit prices represent a true measure of the labor and materials required to perform the work, including all allowances for overhead and profit for each type and unit of work called for in these contract documents.

If this proposal shall be accepted and the undersigned shall fail or neglect to contract as aforesaid, and to give bonds in the amount specified, with surety satisfactory to the Linn County Board of Commissioners, within ten (10) days [not including Sunday], from the date of receiving from the Board of Commissioners the contract and prepared and ready for execution, the Board of Commissioners may, at its option, determine that the bidder has abandoned the contract, and thereupon forfeiture of the guaranty accompanying the bid shall operate and the same shall be the property of the Linn County Board of Commissioners.

\_\_\_\_\_  
Bidder

Dated \_\_\_\_\_, 20\_\_

By: \_\_\_\_\_

By: \_\_\_\_\_

**North Santiam River (Mill City) Bridge  
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**BID PROPOSAL BOND**

KNOW ALL MEN BY THESE PRESENTS, THAT WE, \_\_\_\_\_,

as principal, and the \_\_\_\_\_, duly organized under the laws of the State of Oregon, as surety, are held and firmly bound unto the County Board of Commissioners as an obligee, in the full and penal sum of ten percent (10%) of the total amount of the proposal of said principal for the work hereinafter described, for the payment of which well and truly to be made, we bind ourselves, our heirs, executors, administrators, and assigns, and successors and assigns, firmly by these presents.

The condition of this bond is such that, whereas the principal herein is herewith submitting its proposal for the following work, to wit:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Said proposal, be reference hereto, being hereby made a part hereof;

NOW, THEREFORE, if the said proposal submitted by the said principal be accepted, and the contract for said work be awarded to said principal, and if the said principal shall enter into and execute the said contract and shall furnish bond as required by the Linn County Board of Commissioners within the time fixed by said Board, then this obligation shall be void; otherwise to remain in full force and effect.

Signed and sealed this \_\_\_\_\_, day of \_\_\_\_\_, 20\_\_\_\_\_

\_\_\_\_\_  
Principal

\_\_\_\_\_  
Company

Countersigned at \_\_\_\_\_, this \_\_\_\_\_, day of \_\_\_\_\_, 20\_\_\_\_\_

\_\_\_\_\_  
Surety

By: \_\_\_\_\_

\_\_\_\_\_  
Agent Address

\_\_\_\_\_  
Agent Phone

\_\_\_\_\_  
Agent Fax

**North Santiam River (Mill City) Bridge  
Structure and Painting**

**FIRST-TIER SUBCONTRACTOR DISCLOSURE FORM**

**Project Name** North Santiam River (Mill City) Bridge

**Highway** First Avenue

**County** Linn

**Bid Opening Date** April 21, 2020

**Name of Bidding Contractor** \_\_\_\_\_

**Email Address** \_\_\_\_\_

*CHECK THIS BOX IF YOU WILL NOT BE USING ANY FIRST-TIER SUBCONTRACTORS OR IF YOU ARE NOT SUBJECT TO THE DISCLOSURE REQUIREMENTS (SEE INSTRUCTIONS).*

**FIRST-TIER SUBCONTRACTORS**

Firm Name	Dollar Amount
Category of Work	

Firm Name	Dollar Amount
Category of Work	

Firm Name	Dollar Amount
Category of Work	

Firm Name	Dollar Amount
Category of Work	

Firm Name	Dollar Amount
Category of Work	

Firm Name	Dollar Amount
Category of Work	

Firm Name	Dollar Amount
Category of Work	

(Attach additional sheets as necessary)

Project Name \_\_\_\_\_ Bid Opening Date \_\_\_\_\_

**DBE COMMITMENT CERTIFICATION AND UTILIZATION FORM**

**This DBE Certification and Utilization Form applies solely to meeting the assigned DBE contract goal for DBE participation.** If the assigned DBE contract goal is greater than zero, each Bidder, including DBE prime Bidders, shall complete and submit this form with their Bid. SHOULD THE BIDDER FAIL TO COMPLETELY FILL OUT, SIGN, AND SUBMIT THIS FORM WITH THE BID WHEN THE ASSIGNED DBE CONTRACT GOAL IS GREATER THAN ZERO, THE BIDDER WILL BE CONSIDERED NON-RESPONSIVE. This certification shall be deemed a part of the resulting contract.

The Bidder acknowledges and certifies that this form accurately represents receipt of and consent from the listed DBE firm as to the use of the referenced itemized quote below for the performance of this project. Bidder certifies that it had direct contact with the named DBE firms regarding participation of this project. Bidder certifies, if awarded this project, that it shall award subcontracts to or enter into agreements with the named DBE's.

If the Bidder is submitting evidence of good faith efforts to secure participation, Bidder certifies that the good faith efforts documentation is true, accurate and correctly reports the actions taken by the Bidder.

\_\_\_\_\_  
Bidder's Authorized Representative (PRINT)

\_\_\_\_\_  
Bidder's Authorized Representative (SIGN)

\_\_\_\_\_  
Date

\_\_\_\_\_  
Name of Contractor (Company Name)

**PART I**

These columns to be completed by Bidder				These columns to be completed by Agency	
Name of DBE Firm	Type of Work *	Function ** (examples: Sub., Supp., DBE Man., Serv., Brok.)	Subcontract Amount (or expenditure amount or fee/commission amount)	Goal Participation % ***	DBE Amount ****

\* From " Certification Office of Business Inclusion and Diversity " \*\* From "Function" column below. \*\*\* From "Goal Participation %" column below.  
\*\*\*\* (Subcontract Amount x Goal Participation %)

Function	Goal Participation %	This section to be completed by Agency	
Subcontractor	100% (of subcontract amount)	<b>ASSIGNED DBE CONTRACT GOAL</b> %	
Supplier (Regular Dealer)	60% (of supply expenditure amount)	<b>TOTAL DBE AMOUNT</b>	\$
DBE Manufacturer	100% (of material expenditure amount)	<b>TOTAL BID AMOUNT</b>	\$
Service Provider	100% (of fee or commission)	<b>DBE COMMITMENT</b>	%
Broker	100% (of brokerage fee only)	(TOTAL DBE AMOUNT ÷ TOTAL BID AMOUNT) (calculated to two decimal places (0.01))	

Additional sheets may be used by copying this form.  
**Bidder must sign each additional sheet to certify its content and completion of form.**

## **PART II**

If Bidder's participation commitment to eligible DBEs is less than the assigned DBE contract goal, Bidder shall submit documentation of "good faith efforts" as evidence of actions to secure DBE participation.

Bidder's documentation of "good faith efforts" shall meet the requirements provided in the Disadvantaged Business Enterprise (DBE) Commitment Requirements, item no. 4(c) DBE Commitment Certification Form Part II - Good Faith Efforts, which outlines the activities considered for good faith efforts.