

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
HIGHWAY DIVISION 1

PROPOSAL

DATE AND TIME OF BID OPENING: JANUARY 17, 2018 AT 2:00 PM

CONTRACT ID: DA00400

WBS ELEMENT NO.: 44973.3.1 & 44973.3.2

FEDERAL AID NO.: NCFB-0012(66)

STIP NO.: F-5702E

COUNTIES: DARE & HYDE

ROUTE NO.: NC12

TYPE OF WORK: CONSTRUCTION AND INSTALLATION OF TWO (2) FLOATING DOCKS, BOARDING STAIRS AND RAMPS, GANGWAYS, AND UTILITY CONNECTIONS TO SUPPORT A PASSENGER FERRY

NOTICE:

ALL BIDDERS SHALL COMPLY WITH ALL APPLICABLE LAWS REGULATING THE PRACTICE OF GENERAL CONTRACTING AS CONTAINED IN CHAPTER 87 OF THE GENERAL STATUTES OF NORTH CAROLINA WHICH REQUIRES THE BIDDER TO BE LICENSED BY THE N.C. LICENSING BOARD FOR CONTRACTORS WHEN BIDDING ON ANY NON-FEDERAL AID PROJECT WHERE THE BID IS \$30,000 OR MORE, EXCEPT FOR CERTAIN SPECIALTY WORK AS DETERMINED BY THE LICENSING BOARD. BIDDERS SHALL ALSO COMPLY WITH ALL OTHER APPLICABLE LAWS REGULATING THE PRACTICES OF ELECTRICAL, PLUMBING, HEATING AND AIR CONDITIONING AND REFRIGERATION CONTRACTING AS CONTAINED IN CHAPTER 87 OF THE GENERAL STATUTES OF NORTH CAROLINA. NOTWITHSTANDING THESE LIMITATIONS ON BIDDING, THE BIDDER WHO IS AWARDED ANY FEDERAL - AID FUNDED PROJECT SHALL COMPLY WITH CHAPTER 87 OF THE GENERAL STATUTES OF NORTH CAROLINA FOR LICENSING REQUIREMENTS WITHIN 60 CALENDAR DAYS OF BID OPENING.

THIS IS A DIVISION LET PROJECT

5% BID BOND OR BID DEPOSIT REQUIRED

NAME OF BIDDER

ADDRESS OF BIDDER

**PROPOSAL FOR THE CONSTRUCTION OF
CONTRACT NO. DA00400 IN DARE & HYDE COUNTIES, NORTH CAROLINA**

DATE: DECEMBER 8, 2017

**DEPARTMENT OF TRANSPORTATION,
RALEIGH, NORTH CAROLINA**

The Bidder has carefully examined the location of the proposed work to be known as Contract No. **DA00400**; has carefully examined the plans and specifications, which are acknowledged to be part of the proposal, the special provisions, the proposal, the form of contract, and the forms of contract payment bond and contract performance bond; and thoroughly understands the stipulations, requirements and provisions. The undersigned bidder agrees to bound upon his execution of the bid and subsequent award to him by the Department of Transportation in accordance with this proposal to provide the necessary contract payment bond and contract performance bond within fourteen days after the written notice of award is received by him. The undersigned Bidder further agrees to provide all necessary machinery, tools, labor, and other means of construction; and to do all the work and to furnish all materials, except as otherwise noted, necessary to perform and complete the said contract in accordance with *the 2018 Standard Specifications for Roads and Structures* by the dates(s) specified in the Project Special Provisions and in accordance with the requirements of the Engineer, and at the unit or lump sum prices, as the case may be, for the various items given on the sheets contained herein.

The Bidder shall provide and furnish all the materials, machinery, implements, appliances and tools, and perform the work and required labor to construct and complete State Highway Contract No. **DA00400** in **Dare and Hyde Counties** for the unit or lump sum prices, as the case may be, bid by the Bidder in his bid and according to the proposal, plans, and specifications prepared by said Department, which proposal, plans, and specifications show the details covering this project, and hereby become a part of this contract.

The published volume entitled *North Carolina Department of Transportation, Raleigh, Standard Specifications for Roads and Structures, January 2018* with all amendments and supplements thereto, is by reference incorporated into and made a part of this contract; that, except as herein modified, all the construction and work included in this contract is to be done in accordance with the specifications contained in said volume, and amendments and supplements thereto, under the direction of the Engineer.

If the proposal is accepted and the award is made, the contract is valid only when signed either by the Contract Officer or such other person as may be designated by the Secretary to sign for the Department of Transportation. The conditions and provisions herein cannot be changed except over the signature of the said Contract Officer or Division Engineer.

The quantities shown in the itemized proposal for the project are considered to be approximate only and are given as the basis for comparison of bids. The Department of Transportation may increase or decrease the quantity of any item or portion of the work as may be deemed necessary or expedient.

An increase or decrease in the quantity of an item will not be regarded as sufficient ground for an increase or decrease in the unit prices, nor in the time allowed for the completion of the work, except as provided for the contract.

Accompanying this bid is a bid bond secured by a corporate surety, or certified check payable to the order of the Department of Transportation, for five percent of the total bid price, which deposit is to be forfeited as liquidated damages in case this bid is accepted and the Bidder shall fail to provide the required payment and performance bonds with the Department of Transportation, under the condition of this proposal, within 14 calendar days after the written notice of award is received by him, as provided in the Standard Specifications; otherwise said deposit will be returned to the Bidder.

TABLE OF CONTENTS**COVER SHEET****PROPOSAL SHEET****TABLE OF CONTENTS 3****INSTRUCTIONS TO BIDDERS 4****PROJECT SPECIAL PROVISIONS 5****ROADWAY SPECIAL PROVISIONS 23****TECHNICAL SPECIFICATIONS 28****STANDARD SPECIAL PROVISIONS 57****BID FORM 78**

INSTRUCTIONS TO BIDDERS

**PLEASE READ ALL INSTRUCTIONS CAREFULLY
BEFORE PREPARING AND SUBMITTING YOUR BID.**

All bids shall be prepared and submitted in accordance with the following requirements. Failure to comply with any requirement may cause the bid to be considered irregular and may be grounds for rejection of the bid.

For preparing and submitting the bid electronically using the on-line system Bid Express®, refer to Article 102-8(B) of the *2018 Standard Specifications*.

Bidders that bid electronically on Raleigh Central-Let projects will need a separate Digital Signature form Bid Express® for Division Contracts.

ELECTRONIC ON-LINE BID THRU BID EXPRESS:

1. Download entire proposal from Connect NCDOT website. Download the EBS file from the Bid Express website.
2. Prepare and submit EBS file using Expedite software.
3. Expedite software necessary for electronic bid preparation may be downloaded from the Connect NCDOT website at: <https://connect.ncdot.gov/letting/Pages/EBS-Information.aspx>

PROJECT SPECIAL PROVISIONS

BOND REQUIREMENTS:

(06-01-16)

102-8, 102-10

SPD 01-420A

A Bid Bond is required in accordance with Article 102-10 of the 2018 Standard Specifications for Roads and Structures.

Contract Payment and Performance Bonds are required in accordance with Article 103-7 of the 2018 Standard Specifications for Roads and Structures.

CONTRACT TIME AND LIQUIDATED DAMAGES:

(7-1-95) (Rev. 12-18-07)

108

SP1 G10 A

The date of availability for this contract is **February 19, 2018**.

The completion date for this contract is **June 15, 2018**.

Except where otherwise provided by the contract, observation periods required by the contract will not be a part of the work to be completed by the completion date and/or intermediate contract times stated in the contract. The acceptable completion of the observation periods that extend beyond the final completion date shall be a part of the work covered by the performance and payment bonds.

The liquidated damages for this contract are **Five Hundred Dollars (\$ 500.00)** per calendar day.

INTERMEDIATE CONTRACT TIME NUMBER 1 AND LIQUIDATED DAMAGES:

(2-20-07)

108

SP1 G14 A

The Contractor shall not perform any work on this project during the following time restrictions:

DAY AND TIME RESTRICTIONS

MONDAY-THURSDAY FROM THIRTY (30) MINUTES BEFORE SUNSET TO THIRTY (30) MINUTES AFTER SUNRISE THE FOLLOWING DAY

AND

FRIDAY FROM THIRTY (30) MINUTES BEFORE SUNSET TO THIRTY (30) MINUTES AFTER SUNRISE THE FOLLOWING MONDAY. THE CONTRACTOR MAY PERFORM WORK ON WEEKENDS (FRIDAY THROUGH SUNDAY) WITH PRIOR AUTHORIZATION BY THE ENGINEER.

In addition, the Contractor shall not perform any work on this project and/or alter the traffic flow on or during holiday weekends, special events, or any other time when traffic is unusually heavy, including the following schedules:

HOLIDAY AND HOLIDAY WEEKEND LANE OR FERRY BERTH CLOSURE RESTRICTIONS

1. For **unexpected occurrence** that creates unusually high traffic volumes, as directed by the Engineer.
2. For **New Year's Day**, between the hours of 30 minutes before sunset. December 31st until 30 minutes after sunrise January 2nd. If New Year's Day is on Saturday or Sunday, then until 30 minutes after sunrise the following Tuesday.

3. For Easter, between the hours of 30 minutes before sunset Thursday and 30 minutes after sunrise Monday.
4. For **Memorial Day**, between the hours of 30 minutes before sunset Friday and 30 minutes after sunrise Tuesday.
5. For **Independence Day**, between the hours of 30 minutes before sunset the day before Independence Day and 30 minutes after sunrise the day after Independence Day.
If Independence Day is on a Saturday or Sunday, then between the hours of 30 minutes before sunset the Thursday before Independence Day and 30 minutes after sunrise the Tuesday after Independence Day.
6. For **Labor Day**, between the hours of 30 minutes before sunset Friday and 30 minutes after sunrise Tuesday.
7. For **Thanksgiving Day**, between the hours of 30 minutes before sunset Tuesday and 30 minutes after sunrise Monday.
8. For **Christmas**, between the hours of 30 minutes before sunset the Friday **before the week of Christmas Day** and 30 minutes after sunrise the following Monday **after the week of Christmas Day**.

Holidays and holiday weekends shall include New Year's, Easter, Memorial Day, Independence Day, Labor Day, Thanksgiving, and Christmas. The Contractor shall schedule his work so that lane closures will not be required during these periods, unless otherwise directed by the Engineer.

The time of availability for this intermediate contract work shall be the time the Contractor begins to install all traffic control devices for lane closures according to the time restrictions listed herein.

The completion time for this intermediate contract work shall be the time the Contractor is required to complete the removal of all traffic control devices for lane or ferry berth closures according to the time restrictions stated above and place traffic in the existing traffic pattern.

The liquidated damages are **Fifty Dollars (\$ 50.00)** per hour.

PROSECUTION OF WORK:

(7-1-95) (Rev. 8-21-12)

108

SP1 G15R

The Contractor will be required to prosecute the work in a continuous and uninterrupted manner from the time he begins the work until completion and final acceptance of the project. The Contractor will not be permitted to suspend his operations except for reasons beyond his control or except where the Engineer has authorized a suspension of the Contractor's operations in writing.

In the event that the Contractor's operations are suspended in violation of the above provisions, the sum of **\$ 100.00** will be charged the Contractor for each and every calendar day that such suspension takes place. The said amount is hereby agreed upon as liquidated damages due to extra engineering and maintenance costs and due to increased public hazard resulting from a suspension of the work. Liquidated damages chargeable due to suspension of the work will be additional to any liquidated damages that may become chargeable due to failure to complete the work on time.

POSTED WEIGHT LIMITS:

(7-1-95) (Rev.9-15-15)

105

SP1 G24R

The Contractor's attention is directed to Article 105-15 of the *2018 Standard Specifications* and to the fact that various Primary and Secondary Roads and bridges may be posted with weight limits less than the legal limit. Do not exceed the posted weight limits in transporting materials and/or equipment to the projects. Make a thorough examination of all projects and haul routes and be prepared to discuss them at the Preconstruction Conference.

NO MAJOR CONTRACT ITEMS:

(2-19-02) (Rev. 8-21-07)

104

SP1 G31

None of the items included in this contract will be major items.

NO SPECIALTY ITEMS:

(7-1-95)

108-6

SP1 G34

None of the items included in this contract will be specialty items (see Article 108-6 of the *2018 Standard Specifications*).

DISADVANTAGED BUSINESS ENTERPRISE (DIVISIONS):

(10-16-07)(Rev.1-16-18)

102-15(J)

SP1 G62

Description

The purpose of this Special Provision is to carry out the U.S. Department of Transportation's policy of ensuring nondiscrimination in the award and administration of contracts financed in whole or in part with Federal funds. This provision is guided by 49 CFR Part 26.

Definitions

Additional DBE Subcontractors - Any DBE submitted at the time of bid that will not be used to meet the DBE goal. No submittal of a Letter of Intent is required.

Committed DBE Subcontractor - Any DBE submitted at the time of bid that is being used to meet the DBE goal by submission of a Letter of Intent. Or any DBE used as a replacement for a previously committed DBE firm.

Contract Goal Requirement - The approved DBE participation at time of award, but not greater than the advertised contract goal.

DBE Goal - A portion of the total contract, expressed as a percentage, that is to be performed by committed DBE subcontractor(s).

Disadvantaged Business Enterprise (DBE) - A firm certified as a Disadvantaged Business Enterprise through the North Carolina Unified Certification Program.

Goal Confirmation Letter - Written documentation from the Department to the bidder confirming the Contractor's approved, committed DBE participation along with a listing of the committed DBE firms.

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

Regular Dealer - A firm that owns, operates, or maintains a store, warehouse, or other establishment in which the materials or supplies required for the performance of the contract are bought, kept in stock, and regularly sold to the public in the usual course of business. A regular dealer engages in, as its principal business and in its own name, the purchase and sale or lease of the products in question. A regular dealer in such bulk items as steel, cement, gravel, stone, and petroleum products need not keep such products in stock, if it owns and operates distribution equipment for the products. Brokers and packagers are not regarded as manufacturers or regular dealers within the meaning of this section.

North Carolina Unified Certification Program (NCUCP) - A program that provides comprehensive services and information to applicants for DBE certification, such that an applicant is required to apply only once for a DBE certification that will be honored by all recipients of USDOT funds in the state and not limited to the Department of Transportation only. The Certification Program is in accordance with 49 CFR Part 26.

United States Department of Transportation (USDOT) - Federal agency responsible for issuing regulations (49 CFR Part 26) and official guidance for the DBE program.

Forms and Websites Referenced in this Provision

DBE Payment Tracking System - On-line system in which the Contractor enters the payments made to DBE subcontractors who have performed work on the project.
<https://apps.dot.state.nc.us/Vendor/PaymentTracking/>

DBE-IS Subcontractor Payment Information - Form for reporting the payments made to all DBE firms working on the project. This form is for paper bid projects only.
<https://connect.ncdot.gov/business/Turnpike/Documents/Form%20DBE-IS%20Subcontractor%20Payment%20Information.pdf>

RF-1 DBE Replacement Request Form - Form for replacing a committed DBE.
<http://connect.ncdot.gov/projects/construction/Construction%20Forms/DBE%20MBE%20WBE%20Replacement%20Request%20Form.pdf>

SAF Subcontract Approval Form - Form required for approval to sublet the contract.
<http://connect.ncdot.gov/projects/construction/Construction%20Forms/Subcontract%20Approval%20Form%20Rev.%202012.zip>

JC-1 *Joint Check Notification Form* - Form and procedures for joint check notification. The form acts as a written joint check agreement among the parties providing full and prompt disclosure of the expected use of joint checks.

<http://connect.ncdot.gov/projects/construction/Construction%20Forms/Joint%20Check%20Notification%20Form.pdf>

Letter of Intent - Form signed by the Contractor and the DBE subcontractor, manufacturer or regular dealer that affirms that a portion of said contract is going to be performed by the signed DBE for the amount listed at the time of bid.

<http://connect.ncdot.gov/letting/LetCentral/Letter%20of%20Intent%20to%20Perform%20as%20a%20Subcontractor.pdf>

Listing of DBE Subcontractors Form - Form for entering DBE subcontractors on a project that will meet this DBE goal. This form is for paper bids only.

[http://connect.ncdot.gov/municipalities/Bid%20Proposals%20for%20LGA%20Content/08%20DBE%20Subcontractors%20\(Federal\).docx](http://connect.ncdot.gov/municipalities/Bid%20Proposals%20for%20LGA%20Content/08%20DBE%20Subcontractors%20(Federal).docx)

Subcontractor Quote Comparison Sheet - Spreadsheet for showing all subcontractor quotes in the work areas where DBEs quoted on the project. This sheet is submitted with good faith effort packages.

<http://connect.ncdot.gov/business/SmallBusiness/Documents/DBE%20Subcontractor%20Quote%20Comparison%20Example.xls>

DBE Goal

The following DBE goal for participation by Disadvantaged Business Enterprises is established for this contract:

Disadvantaged Business Enterprises **0** %

- (A) *If the DBE goal is more than zero*, the Contractor shall exercise all necessary and reasonable steps to ensure that DBEs participate in at least the percent of the contract as set forth above as the DBE goal.
- (B) *If the DBE goal is zero*, the Contractor shall make an effort to recruit and use DBEs during the performance of the contract. Any DBE participation obtained shall be reported to the Department.

Directory of Transportation Firms (Directory)

Real-time information is available about firms doing business with the Department and firms that are certified through NCUCP in the Directory of Transportation Firms. Only firms identified in the Directory as DBE certified shall be used to meet the DBE goal. The Directory can be found at the following link. [https:// www.ebs.nc.gov/VendorDirectory/default.html](https://www.ebs.nc.gov/VendorDirectory/default.html)

The listing of an individual firm in the directory shall not be construed as an endorsement of the firm's capability to perform certain work.

Listing of DBE Subcontractors

At the time of bid, bidders shall submit all DBE participation that they anticipate to use during the life of the contract. Only those identified to meet the DBE goal will be considered committed, even though the listing shall include both committed DBE subcontractors and additional DBE subcontractors. Additional DBE subcontractor participation submitted at the time of bid will be used toward the Department's overall race-neutral goal. Only those firms with current DBE certification at the time of bid opening will be acceptable for listing in the bidder's submittal of DBE participation. The Contractor shall indicate the following required information:

(A) Electronic Bids

Bidders shall submit a listing of DBE participation in the appropriate section of Expedite, the bidding software of Bid Express®.

- (1) Submit the names and addresses of DBE firms identified to participate in the contract. If the bidder uses the updated listing of DBE firms shown in Expedite, the bidder may use the dropdown menu to access the name and address of the DBE firm.
- (2) Submit the contract line numbers of work to be performed by each DBE firm. When no figures or firms are entered, the bidder will be considered to have no DBE participation.
- (3) The bidder shall be responsible for ensuring that the DBE is certified at the time of bid by checking the Directory of Transportation Firms. If the firm is not certified at the time of the bid-letting, that DBE's participation will not count towards achieving the DBE goal.

(B) Paper Bids

- (1) *If the DBE goal is more than zero,*
 - (a) Bidders, at the time the bid proposal is submitted, shall submit a listing of DBE participation, including the names and addresses on *Listing of DBE Subcontractors* contained elsewhere in the contract documents in order for the bid to be considered responsive. Bidders shall indicate the total dollar value of the DBE participation for the contract.
 - (b) If bidders have no DBE participation, they shall indicate this on the *Listing of DBE Subcontractors* by entering the word "None" or the number "0." This form shall be completed in its entirety. **Blank forms will not be deemed to represent zero participation.** Bids submitted that do not have DBE participation indicated on the appropriate form will not be read publicly

during the opening of bids. The Department will not consider these bids for award and the proposal will be rejected.

- (c) The bidder shall be responsible for ensuring that the DBE is certified at the time of bid by checking the Directory of Transportation Firms. If the firm is not certified at the time of the bid-letting, that DBE's participation will not count towards achieving the DBE goal.
- (2) *If the DBE goal is zero*, entries on the *Listing of DBE Subcontractors* are not required, however any DBE participation that is achieved during the project shall be reported in accordance with requirements contained elsewhere in the special provision.

DBE Prime Contractor

When a certified DBE firm bids on a contract that contains a DBE goal, the DBE firm is responsible for meeting the goal or making good faith efforts to meet the goal, just like any other bidder. In most cases, a DBE bidder on a contract will meet the DBE goal by virtue of the work it performs on the contract with its own forces. However, all the work that is performed by the DBE bidder and any other DBE subcontractors will count toward the DBE goal. The DBE bidder shall list itself along with any DBE subcontractors, if any, in order to receive credit toward the DBE goal.

For example, if the DBE goal is 45% and the DBE bidder will only perform 40% of the contract work, the prime will list itself at 40%, and the additional 5% shall be obtained through additional DBE participation with DBE subcontractors or documented through a good faith effort.

DBE prime contractors shall also follow Sections A or B listed under *Listing of DBE Subcontractor* just as a non-DBE bidder would.

Written Documentation – Letter of Intent

The bidder shall submit written documentation for each DBE that will be used to meet the DBE goal of the contract, indicating the bidder's commitment to use the DBE in the contract. This documentation shall be submitted on the Department's form titled *Letter of Intent*.

The documentation shall be received in the office of the Engineer no later than 2:00 p.m. of the fifth calendar day following opening of bids, unless the fifth day falls on Saturday, Sunday or an official state holiday. In that situation, it is due in the office of the Engineer no later than 10:00 a.m. on the next official state business day.

If the bidder fails to submit the Letter of Intent from each committed DBE to be used toward the DBE goal, or if the form is incomplete (i.e. both signatures are not present), the DBE participation will not count toward meeting the DBE goal. If the lack of this participation drops the commitment below the DBE goal, the Contractor shall submit evidence of good faith efforts, completed in its entirety, to the Engineer no later than 2:00 p.m. on the eighth calendar day following opening of bids, unless the eighth day falls on Saturday, Sunday or an official state holiday. In that situation, it is due in the office of the Engineer no later than 10:00 a.m. on the next official state business day.

Submission of Good Faith Effort

If the bidder fails to meet or exceed the DBE goal the apparent lowest responsive bidder shall submit to the Department documentation of adequate good faith efforts made to reach the DBE goal.

One complete set of this information shall be received in the office of the Engineer no later than 2:00 p.m. of the fifth calendar day following opening of bids, unless the fifth day falls on Saturday, Sunday or an official state holiday. In that situation, it is due in the office of the Engineer no later than 10:00 a.m. on the next official state business day.

Note: Where the information submitted includes repetitious solicitation letters, it will be acceptable to submit a representative letter along with a distribution list of the firms that were solicited. Documentation of DBE quotations shall be a part of the good faith effort submittal. This documentation may include written subcontractor quotations, telephone log notations of verbal quotations, or other types of quotation documentation.

Consideration of Good Faith Effort for Projects with DBE Goals More Than Zero

Adequate good faith efforts mean that the bidder took all necessary and reasonable steps to achieve the goal which, by their scope, intensity, and appropriateness, could reasonably be expected to obtain sufficient DBE participation. Adequate good faith efforts also mean that the bidder actively and aggressively sought DBE participation. Mere *pro forma* efforts are not considered good faith efforts.

The Department will consider the quality, quantity, and intensity of the different kinds of efforts a bidder has made. Listed below are examples of the types of actions a bidder will take in making a good faith effort to meet the goal and are not intended to be exclusive or exhaustive, nor is it intended to be a mandatory checklist.

- (A) Soliciting through all reasonable and available means (e.g. attendance at pre-bid meetings, advertising, written notices, use of verifiable electronic means through the use of the NCDOT Directory of Transportation Firms) the interest of all certified DBEs who have the capability to perform the work of the contract. The bidder must solicit this interest within at least 10 days prior to bid opening to allow the DBEs to respond to the solicitation. Solicitation shall provide the opportunity to DBEs within the Division and surrounding Divisions where the project is located. The bidder must determine with certainty if the DBEs are interested by taking appropriate steps to follow up initial solicitations.
- (B) Selecting portions of the work to be performed by DBEs in order to increase the likelihood that the DBE goals will be achieved.
 - (1) Where appropriate, break out contract work items into economically feasible units to facilitate DBE participation, even when the prime contractor might otherwise prefer to perform these work items with its own forces.

- (2) Negotiate with subcontractors to assume part of the responsibility to meet the contract DBE goal when the work to be sublet includes potential for DBE participation (2nd and 3rd tier subcontractors).
- (C) Providing interested DBEs with adequate information about the plans, specifications, and requirements of the contract in a timely manner to assist them in responding to a solicitation.
- (D)
 - (1) Negotiating in good faith with interested DBEs. It is the bidder's responsibility to make a portion of the work available to DBE subcontractors and suppliers and to select those portions of the work or material needs consistent with the available DBE subcontractors and suppliers, so as to facilitate DBE participation. Evidence of such negotiation includes the names, addresses, and telephone numbers of DBEs that were considered; a description of the information provided regarding the plans and specifications for the work selected for subcontracting; and evidence as to why additional agreements could not be reached for DBEs to perform the work.
 - (2) A bidder using good business judgment would consider a number of factors in negotiating with subcontractors, including DBE subcontractors, and would take a firm's price and capabilities as well as contract goals into consideration. However, the fact that there may be some additional costs involved in finding and using DBEs is not in itself sufficient reason for a bidder's failure to meet the contract DBE goal, as long as such costs are reasonable. Also, the ability or desire of a prime contractor to perform the work of a contract with its own organization does not relieve the bidder of the responsibility to make good faith efforts. Bidding contractors are not, however, required to accept higher quotes from DBEs if the price difference is excessive or unreasonable.
- (E) Not rejecting DBEs as being unqualified without sound reasons based on a thorough investigation of their capabilities. The bidder's standing within its industry, membership in specific groups, organizations, or associates and political or social affiliations (for example, union vs. non-union employee status) are not legitimate causes for the rejection or non-solicitation of bids in the bidder's efforts to meet the project goal.
- (F) Making efforts to assist interested DBEs in obtaining bonding, lines of credit, or insurance as required by the recipient or bidder.
- (G) Making efforts to assist interested DBEs in obtaining necessary equipment, supplies, materials, or related assistance or services.
- (H) Effectively using the services of available minority/women community organizations; minority/women contractors' groups; Federal, State, and local minority/women business assistance offices; and other organizations as allowed on a case-by-case basis to provide assistance in the recruitment and placement of DBEs. Contact within 7 days from the bid opening the Business Opportunity and Work Force Development Unit at DBE@ncdot.gov to give notification of the bidder's inability to get DBE quotes.

- (I) Any other evidence that the bidder submits which shows that the bidder has made reasonable good faith efforts to meet the DBE goal.

In addition, the Department may take into account the following:

- (1) Whether the bidder's documentation reflects a clear and realistic plan for achieving the DBE goal.
- (2) The bidders' past performance in meeting the DBE goals.
- (3) The performance of other bidders in meeting the DBE goal. For example, when the apparent successful bidder fails to meet the DBE goal, but others meet it, you may reasonably raise the question of whether, with additional reasonable efforts the apparent successful bidder could have met the goal. If the apparent successful bidder fails to meet the DBE goal, but meets or exceeds the average DBE participation obtained by other bidders, the Department may view this, in conjunction with other factors, as evidence of the apparent successful bidder having made a good faith effort.

If the Department does not award the contract to the apparent lowest responsive bidder, the Department reserves the right to award the contract to the next lowest responsive bidder that can satisfy to the Department that the DBE goal can be met or that an adequate good faith effort has been made to meet the DBE goal.

Non-Good Faith Appeal

The Engineer will notify the contractor verbally and in writing of non-good faith. A contractor may appeal a determination of non-good faith made by the Goal Compliance Committee. If a contractor wishes to appeal the determination made by the Committee, they shall provide written notification to the Engineer. The appeal shall be made within 2 business days of notification of the determination of non-good faith.

Counting DBE Participation Toward Meeting DBE Goal

- (A) Participation

The total dollar value of the participation by a committed DBE will be counted toward the contract goal requirement. The total dollar value of participation by a committed DBE will be based upon the value of work actually performed by the DBE and the actual payments to DBE firms by the Contractor.

- (B) Joint Checks

Prior notification of joint check use shall be required when counting DBE participation for services or purchases that involves the use of a joint check. Notification shall be through submission of Form JC-1 (*Joint Check Notification Form*) and the use of joint checks shall be in accordance with the Department's Joint Check Procedures.

(C) Subcontracts (Non-Trucking)

A DBE may enter into subcontracts. Work that a DBE subcontracts to another DBE firm may be counted toward the contract goal requirement. Work that a DBE subcontracts to a non-DBE firm does not count toward the contract goal requirement. If a DBE contractor or subcontractor subcontracts a significantly greater portion of the work of the contract than would be expected on the basis of standard industry practices, it shall be presumed that the DBE is not performing a commercially useful function. The DBE may present evidence to rebut this presumption to the Department. The Department's decision on the rebuttal of this presumption is subject to review by the Federal Highway Administration but is not administratively appealable to USDOT.

(D) Joint Venture

When a DBE performs as a participant in a joint venture, the Contractor may count toward its contract goal requirement a portion of the total value of participation with the DBE in the joint venture, that portion of the total dollar value being a distinct clearly defined portion of work that the DBE performs with its forces.

(E) Suppliers

A contractor may count toward its DBE requirement 60 percent of its expenditures for materials and supplies required to complete the contract and obtained from a DBE regular dealer and 100 percent of such expenditures from a DBE manufacturer.

(F) Manufacturers and Regular Dealers

A contractor may count toward its DBE requirement the following expenditures to DBE firms that are not manufacturers or regular dealers:

- (1) The fees or commissions charged by a DBE firm for providing a *bona fide* service, such as professional, technical, consultant, or managerial services, or for providing bonds or insurance specifically required for the performance of a DOT-assisted contract, provided the fees or commissions are determined to be reasonable and not excessive as compared with fees and commissions customarily allowed for similar services.
- (2) With respect to materials or supplies purchased from a DBE, which is neither a manufacturer nor a regular dealer, count the entire amount of fees or commissions charged for assistance in the procurement of the materials and supplies, or fees or transportation charges for the delivery of materials or supplies required on a job site (but not the cost of the materials and supplies themselves), provided the fees are determined to be reasonable and not excessive as compared with fees customarily allowed for similar services.

Commercially Useful Function**(A) DBE Utilization**

The Contractor may count toward its contract goal requirement only expenditures to DBEs that perform a commercially useful function in the work of a contract. 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 supervising the work involved. To perform a commercially useful function, the DBE shall 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, the Department will 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 any other relevant factors.

(B) DBE Utilization in Trucking

The following factors will be used to determine if a DBE trucking firm is performing a commercially useful function:

- (1) 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 shall not be a contrived arrangement for the purpose of meeting DBE goals.
- (2) The DBE shall itself own and operate at least one fully licensed, insured, and operational truck used on the contract.
- (3) 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.
- (4) The DBE may subcontract the work to another DBE firm, including an owner-operator who is certified as a DBE. The DBE who subcontracts work to another DBE receives credit for the total value of the transportation services the subcontracted DBE provides on the contract.
- (5) The DBE may also subcontract the work to a non-DBE firm, including from an owner-operator. The DBE who subcontracts the work to a non-DBE is entitled to credit for the total value of transportation services provided by the non-DBE subcontractor not to exceed the value of transportation services provided by DBE-owned trucks on the contract. Additional participation by non-DBE subcontractors receives credit only for the fee or commission it receives as a result of the subcontract arrangement. The value of services performed under subcontract agreements between the DBE and the Contractor will not count towards the DBE contract requirement.

- (6) A DBE may lease truck(s) from an established equipment leasing business open to the general public. The lease must indicate that the DBE has exclusive use of and control over the truck. This requirement 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. This type of lease may count toward the DBE's credit as long as the driver is under the DBE's payroll.
- (7) Subcontracted/leased trucks shall display clearly on the dashboard the name of the DBE that they are subcontracted/leased to and their own company name if it is not identified on the truck itself. Magnetic door signs are not permitted.

DBE Replacement

When a Contractor has relied on a commitment to a DBE firm (or an approved substitute DBE firm) to meet all or part of a contract goal requirement, the contractor shall not terminate the DBE for convenience. This includes, but is not limited to, instances in which the Contractor seeks to perform the work of the terminated subcontractor with another DBE subcontractor, a non-DBE subcontractor, or with the Contractor's own forces or those of an affiliate. A DBE may only be terminated after receiving the Engineer's written approval based upon a finding of good cause for the termination. The prime contractor must give the DBE firm five (5) calendar days to respond to the prime contractor's notice of termination and advise the prime contractor and the Department of the reasons, if any, why the firm objects to the proposed termination of its subcontract and why the Department should not approve the action.

All requests for replacement of a committed DBE firm shall be submitted to the Engineer for approval on Form RF-1 (*DBE Replacement Request*). If the Contractor fails to follow this procedure, the Contractor may be disqualified from further bidding for a period of up to 6 months.

The Contractor shall comply with the following for replacement of a committed DBE:

(A) Performance Related Replacement

When a committed DBE is terminated for good cause as stated above, an additional DBE that was submitted at the time of bid may be used to fulfill the DBE commitment. A good faith effort will only be required for removing a committed DBE if there were no additional DBEs submitted at the time of bid to cover the same amount of work as the DBE that was terminated.

If a replacement DBE is not found that can perform at least the same amount of work as the terminated DBE, the Contractor shall submit a good faith effort documenting the steps taken. Such documentation shall include, but not be limited to, the following:

- (1) Copies of written notification to DBEs that their interest is solicited in contracting the work defaulted by the previous DBE or in subcontracting other items of work in the contract.
 - (2) Efforts to negotiate with DBEs for specific subbids including, at a minimum:
 - (a) The names, addresses, and telephone numbers of DBEs who were contacted.
 - (b) A description of the information provided to DBEs regarding the plans and specifications for portions of the work to be performed.
 - (3) A list of reasons why DBE quotes were not accepted.
 - (4) Efforts made to assist the DBEs contacted, if needed, in obtaining bonding or insurance required by the Contractor.
- (B) Decertification Replacement
- (1) When a committed DBE is decertified by the Department after the SAF (*Subcontract Approval Form*) has been received by the Department, the Department will not require the Contractor to solicit replacement DBE participation equal to the remaining work to be performed by the decertified firm. The participation equal to the remaining work performed by the decertified firm will count toward the contract goal requirement.
 - (2) When a committed DBE is decertified prior to the Department receiving the SAF (*Subcontract Approval Form*) for the named DBE firm, the Contractor shall take all necessary and reasonable steps to replace the DBE subcontractor with another DBE subcontractor to perform at least the same amount of work to meet the DBE goal requirement. If a DBE firm is not found to do the same amount of work, a good faith effort must be submitted to NCDOT (see A herein for required documentation).

Changes in the Work

When the Engineer makes changes that result in the reduction or elimination of work to be performed by a committed DBE, the Contractor will not be required to seek additional participation. When the Engineer makes changes that result in additional work to be performed by a DBE based upon the Contractor's commitment, the DBE shall participate in additional work to the same extent as the DBE participated in the original contract work.

When the Engineer makes changes that result in extra work, which has more than a minimal impact on the contract amount, the Contractor shall seek additional participation by DBEs unless otherwise approved by the Engineer.

When the Engineer makes changes that result in an alteration of plans or details of construction, and a portion or all of the work had been expected to be performed by a committed DBE, the Contractor shall seek participation by DBEs unless otherwise approved by the Engineer.

When the Contractor requests changes in the work that result in the reduction or elimination of work that the Contractor committed to be performed by a DBE, the Contractor shall seek additional participation by DBEs equal to the reduced DBE participation caused by the changes.

Reports and Documentation

A SAF (*Subcontract Approval Form*) shall be submitted for all work which is to be performed by a DBE subcontractor. The Department reserves the right to require copies of actual subcontract agreements involving DBE subcontractors.

When using transportation services to meet the contract commitment, the Contractor shall submit a proposed trucking plan in addition to the SAF. The plan shall be submitted prior to beginning construction on the project. The plan shall include the names of all trucking firms proposed for use, their certification type(s), the number of trucks owned by the firm, as well as the individual truck identification numbers, and the line item(s) being performed.

Within 30 calendar days of entering into an agreement with a DBE for materials, supplies or services, not otherwise documented by the SAF as specified above, the Contractor shall furnish the Engineer a copy of the agreement. The documentation shall also indicate the percentage (60% or 100%) of expenditures claimed for DBE credit.

Reporting Disadvantaged Business Enterprise Participation

The Contractor shall provide the Engineer with an accounting of payments made to all DBE firms, including material suppliers and contractors at all levels (prime, subcontractor, or second tier subcontractor). This accounting shall be furnished to the Engineer for any given month by the end of the following month. Failure to submit this information accordingly may result in the following action:

- (A) Withholding of money due in the next partial pay estimate; or
- (B) Removal of an approved contractor from the prequalified bidders' list or the removal of other entities from the approved subcontractors list.

While each contractor (prime, subcontractor, 2nd tier subcontractor) is responsible for accurate accounting of payments to DBEs, it shall be the prime contractor's responsibility to report all monthly and final payment information in the correct reporting manner.

Failure on the part of the Contractor to submit the required information in the time frame specified may result in the disqualification of that contractor and any affiliate companies from further bidding until the required information is submitted.

Failure on the part of any subcontractor to submit the required information in the time frame specified may result in the disqualification of that contractor and any affiliate companies from being approved for work on future projects until the required information is submitted.

Contractors reporting transportation services provided by non-DBE lessees shall evaluate the value of services provided during the month of the reporting period only.

At any time, the Engineer can request written verification of subcontractor payments.

The Contractor shall report the accounting of payments through the Department's DBE Payment Tracking System.

Failure to Meet Contract Requirements

Failure to meet contract requirements in accordance with Subarticle 102-15(J) of the *2018 Standard Specifications* may be cause to disqualify the Contractor.

CERTIFICATION FOR FEDERAL-AID CONTRACTS:

(3-21-90)

SP1 G85

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.

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

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

CONTRACTOR'S LICENSE REQUIREMENTS:

(7-1-95)

102-14

SP1 G88

If the successful bidder does not hold the proper license to perform any plumbing, heating, air conditioning, or electrical work in this contract, he will be required to sublet such work to a contractor properly licensed in accordance with *Article 2 of Chapter 87 of the General Statutes* (licensing of heating, plumbing, and air conditioning contractors) and *Article 4 of Chapter 87 of the General Statutes* (licensing of electrical contractors).

U.S. DEPARTMENT OF TRANSPORTATION HOTLINE:

(11-22-94)

108-5

SP1 G100

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

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

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

CARGO PREFERENCE ACT:

(2-16-16)

Privately owned United States-flag commercial vessels transporting cargoes are subject to the Cargo Preference Act (CPA) of 1954 requirements and regulations found in 46 CFR 381.7. Contractors are directed to clause (b) of 46 CFR 381.7 as follows:

- (b) Contractor and Subcontractor Clauses. "Use of United States-flag vessels: The contractor agrees-

“(1) To utilize privately owned United States-flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to this contract, to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels.

(2) To furnish within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States a legible copy of a rated, 'on-board' commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (b) (1) of this section to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Division of National Cargo, Office of Market Development, Maritime Administration, Washington, DC 20590.

(3) To insert the substance of the provisions of this clause in all subcontracts issued pursuant to this contract."

SUBSURFACE INFORMATION:

(7-1-95)

450

SP1 G112 B

Subsurface information is available in the area where the floating docks will be located.

TWELVE MONTH GUARANTEE:

(7-15-03)

108

SP1 G145

- (A) The Contractor shall guarantee materials and workmanship against latent and patent defects arising from faulty materials, faulty workmanship or negligence for a period of twelve months following the date of final acceptance of the work for maintenance and shall replace such defective materials and workmanship without cost to the Department. The Contractor will not be responsible for damage due to faulty design, normal wear and tear, for negligence on the part of the Department, and/or for use in excess of the design.
- (B) Where items of equipment or material carry a manufacturer's guarantee for any period in excess of twelve months, then the manufacturer's guarantee shall apply for that particular piece of equipment or material. The Department's first remedy shall be through the manufacturer although the Contractor is responsible for invoking the warranted repair work with the manufacturer. The Contractor's responsibility shall be limited to the term of the manufacturer's guarantee. NCDOT would be afforded the same warranty as provided by the Manufacturer.

This guarantee provision shall be invoked only for major components of work in which the Contractor would be wholly responsible for under the terms of the contract. Examples would include pavement structures, bridge components, and sign structures. This provision will not be used as a mechanism to force the Contractor to return to the project to make repairs or perform additional work that the Department would normally compensate the Contractor for. In addition, routine maintenance activities (i.e. mowing grass, debris removal, ruts in earth shoulders,) are not parts of this guarantee.

Appropriate provisions of the payment and/or performance bonds shall cover this guarantee for the project.

To ensure uniform application statewide the Division Engineer will forward details regarding the circumstances surrounding any proposed guarantee repairs to the Chief Engineer for review and approval prior to the work being performed.

ROADWAY SPECIAL PROVISIONS

TEMPORARY TRAFFIC CONTROL (TTC):

(7-16-13) (Rev. 1-16-18)

RWZ-1

Maintain traffic in accordance with Divisions 10, 11 and 12 of the *2018 Standard Specifications* and the following provisions:

Install Work Zone Advance Warning Signs in accordance with the detail drawing provided in these plans prior to beginning any other work. Use a lane closure or slow moving operation to complete the work, as necessary, unless otherwise indicated. Refer to Standard Drawing No. 1101.02, 1101.11, 1110.01, 1110.02, 1130.01, 1135.01 and 1180.01 of the *2018 Roadway Standard Drawings*. Use a moving operation only if the minimum speed maintained at all times is 3 mph with no stops that narrow or close a lane of travel. If the moving operation is progressing slower than 3 mph at any time, install a lane closure. Maintain the existing traffic pattern at all times, except in the immediate work zone where lane closures are allowed as determined by the Engineer.

Refer to attached details and Standard Drawing No. 1101.02, 1101.03, 1101.04, 1101.05, 1101.11, 1110.01, 1110.02, 1115.01, 1130.01, 1135.01, 1145.01, 1150.01, 1165.01, and 1180.01 of the *2018 Roadway Standard Drawings* when closing a lane of travel in a stationary work zone such as pavement patching resurfacing, or pavement marking removal. Properly ballasted cones and skinny drums may be used instead of drums. However, drums are required for the upstream taper portion of lane closures in all applications. The stationary work zone shall be a maximum of 1 mile in length at any given time on 2 Lane, 2 Way facilities unless otherwise approved by the Engineer. A pilot vehicle operation may be used in conjunction with flaggers and the appropriate pilot vehicle warning signing as directed by the Engineer. During periods of construction inactivity, return the traffic pattern to the existing alignment and remove or cover any work zone signs. When covering work zone signs, use an opaque material that prevents reading of the sign at night by a driver using high beam headlights. Use material, which does not damage the sign sheeting. Replace any obliterated markings as required by other sections of the *2018 Standard Specifications* and the Engineer.

When personnel and/or equipment are working on the shoulder adjacent to and within 5 feet of an open travel lane, close the nearest open travel lane using Standard Drawing No. 1101.02 of the *2018 Roadway Standard Drawings*. When personnel and/or equipment are working within a lane of travel of an undivided facility, close the lane according to the traffic control plans, *2018 Roadway Standard Drawings* or as directed by the Engineer. Conduct the work so that all personnel and/or equipment remain within the closed travel lane. Do not work simultaneously, on both sides of an open travel way, within the same location, on a two-lane, two-way road. Perform work only when weather and visibility conditions allow safe operations as directed by the Engineer.

When utilizing a slow-moving operation for such items as pavement marking and marker placement, the operation shall consist of the vehicles and devices as shown on Roadway Standard Drawing No. 1101.02, sheet 11 or 12 of the *2018 Roadway Standard Drawings*. Traffic cones may be used when necessary to provide additional protection of wet pavement markings. Ballast all traffic cones so they will not be blown over by traffic.

PAVING OPERATIONS:**1) Paving Lift Requirements and Time Limitations:**

For paving lifts of 2.0 inches or less, bring all newly resurfaced lanes to the same station and elevation within 72 hours. If not brought up to the same station and elevation within 72 hours, the Contractor shall place portable “UNEVEN PAVEMENT” signs in advance of the uneven pavement and spaced every 1/2 mile along the section of uneven pavement. Once mitigated, all portable “UNEVEN PAVEMENT” signs shall be removed. No additional compensation will be made for these signs or any other type of portable warning signs as these are included in the “Temporary Traffic Control” contract pay item.

For paving lifts greater than 2 inches, bring all newly resurfaced lanes to the same station and elevation by the end of each work day unless the Contractor utilizes the notched wedge paving methods as described below.

Failure to comply with the following requirements will result in a suspension of all other operations until all lanes of traffic are brought to the same station and elevation:

1. During paving operations, any paving lift greater than 2 inches for asphalt surface course mixes shall be mitigated by having an approved wedge apparatus on the paver that shapes the edge 1 inch vertically and the remaining at a maximum slope steepness of 2:1. For intermediate and base course mixes, use an approved wedge device that shapes the edge with a maximum slope steepness of 2:1. The maximum paving lift allowed to use this method is 3 inches.
2. At the end of the work day, the Contractor shall place portable “UNEVEN PAVEMENT” signs in advance of the uneven pavement and spaced every 1/2 mile along the section of uneven pavement. Once mitigated, all portable “UNEVEN PAVEMENT” signs shall be removed. No additional compensation will be made for these signs or any other type of portable warning signs as these are included in the “Temporary Traffic Control” contract pay item.
3. In the next day’s paving operation and not to exceed 72 hours, the Contractor shall bring up the adjacent lane to the same station and elevation before any further paving takes place on the project.

2) Asphalt Surface Treatments (AST)

For AST Operations, there’s no drop-off condition to be signed. Stationary “LOOSE GRAVEL” and “UNMARKED PAVEMENT” signs shall replace “LOW/SOFT SHOULDER” signs. For placement and spacing of these signs, see the Signing Detail Sheet. All other advance warning signs are to be portable mounted. These signs are included as part of the temporary traffic control (Lump Sum) item.

3) Fine Milling/Microsurfacing (Depths less than 1")

For fine milling operations less than 1", paving is not required in the same work period. The paving of the fine milled area is to be conducted within the next work period and not to exceed 72 hours. No advance warning signs are necessary for these conditions unless the paving operations exceed 72 hours. If this occurs, install portable "UNMARKED PAVEMENT" signs. These signs are incidental to the other items of work included in the temporary traffic control (Lump Sum) item.

4) Shoulder Drop-Off Requirements

Whenever paving operations create an edge of pavement drop-off greater than 2 inches, within 72 hours, the Contractor shall backfill at a 6:1 slope from the edge and finished elevation of the pavement that has an edge of pavement drop-off as follows:

- (A) Drop-off that exceeds 2 inches on roadways with posted speed limits of 45 mph or greater.
- (B) Drop-off that exceeds 3 inches on roadways with posted speed limits less than 45 mph.

Backfill the edge of pavement drop-off with suitable compacted material, as approved by the Engineer. The material, equipment and labor associated with this operation will be at no expense to the Department. This work is not considered part of shoulder reconstruction.

PROJECT REQUIREMENTS:

Failure to comply with the following requirements will result in a suspension of all other operations:

1. Before working on ANY MAP, the Contractor shall submit a written construction sequence for traffic control and construction lighting for ALL MAPS to the Engineer at the first pre-construction meeting and the sequence must be approved before closing a lane of traffic. The Contractor and Engineer will coordinate with the Traffic Management Unit at 919-814-5000 or Traffic Services for additional traffic control guidance, as necessary.
2. Obtain written approval of the Engineer before working in more than one location or setting up additional lane closures. The maximum length of any one lane closure is 1 mile unless otherwise directed by the Engineer.
3. If Lane Closure Restrictions apply, see Special Provision, "Intermediate Contract Times and Liquidated Damages".
4. Contractor shall mill and pave lanes in an order such that water shall not accumulate.
5. Traffic Control for the milling and/or paving of ramps is to be done according to Standard Drawing Number 1101.02, Sheets 9 & 10 unless otherwise approved to be closed by the Engineer. If approved, Contractor will provide plans and devices for the detour at no additional cost to the department.

6. If milled areas are not paved back within 72 hours, the Contractor is to furnish and install portable signs to warn drivers of the conditions. These are to include, but not limited to “Rough Road” (W8-8), “Uneven Lanes” (W8-11), and “Grooved Pavement” (W8-15) w/ Motorcycle Plaque mounted below. These are to be dual indicated on Multi-Lane Roadways with speed limits 45 mph and greater where lateral clearance can be obtained within the median areas. These portable signs are incidental to the other items of work included in the temporary traffic control (Lump Sum) pay item.

WORK ZONE SIGNING:

Description

Install advance/general warning work zone signs according to the Detail Drawing provided in these plans prior to beginning of work. Install and maintain signing in accordance with the attached drawings and Divisions 11 and 12 of the *2018 Standard Specifications*.

(A) Installation

All stationary Advance/General warning work zone signs require notification to existing Utility owners per Article 105-8 of the *2018 Standard Specifications* and Special Provision SP1 G115 within 3 to 12 full working days prior to installation.

Install Advance/General warning work zone signs before beginning work on a particular map. If signs are installed more than 7 calendar days prior to the beginning of work on a particular map, cover the signs until the work begins. Install each work zone Advance/General warning sign separately and not on the same post or stand with any other sign except where an advisory speed plate or directional arrow is used.

All stationary signing is to be installed as shown on the detail drawing(s) unless otherwise directed by the Engineer. The signs as shown on the detail drawing(s) are all that are required for a contractor to begin a resurfacing contract. Any additional signs requested by the Engineer shall be installed within 7 business days of the start of contract work. All sign locations are to be verified by the Engineer prior to installation. Once the signs have been installed and accepted, any sign relocations requested by the Department will be compensated in accordance with Article 104-7. Any additional signs other than the ones shown in the drawing will be compensated in accordance with Article 104-7.

No stationary -Y- Line advance warning signage is required unless there's more than 1,000 feet of resurfacing along the -Y- line. Whenever work proceeds through an intersection, portable signs shall be used for traffic control. There will be no direct compensation for any portable signing.

If there is a period of construction inactivity longer than 14 calendar days, remove or cover advance/general warning work zone signs. Uncover advance/general warning work zone signs no more than 7 calendar days before work resumes. All other operations may be suspended upon failure to comply with the above requirements. Such suspended operations would not be resumed until the above requirements are fulfilled.

(B) Sign Removal

Once Maps on the Project are substantially complete, it's acceptable practice to remove the Stationary Work Zone Signs in lieu of waiting until all of the Maps are completed on the Project. A Map is substantially complete when the resurfacing operations are finished and the shoulders are brought up to the same elevation as the proposed pavement and when pavement markings (paint) are installed along the centerline and edge lines. The final pavement markings (ex. Thermoplastic/Polyurea) or pavement markers (Raised/Snowplowable) don't have to be installed for Maps to be considered substantially complete. Final pavement marking/markers are installed with portable signing according to Roadway Standard Drawing 1101.02, sheet 11 or 12. Any remaining punch list items requiring traffic control are compensated in the contract pay item for *Temporary Traffic Control*.

Stationary Work Zone Sign removal is a condition of final project acceptance.**(C) Lane Closure Work Zone Signs**

Install any required lane closure signing needed during the life of the project in accordance with the Standard Drawing No. 1101.02, 1101.11 and 1110.02 of the *2018 Roadway Standard Drawings*. Any required portable signs for lane closures are compensated in the contract pay item for *Temporary Traffic Control*.

MEASUREMENT AND PAYMENT:

Temporary traffic control work, including, but not limited to installation and removal of portable signs, cones, drums, skinny drums, flaggers, AFAD's, changeable message boards, truck mounted attenuators, flashing arrow boards, and pilot vehicles will be considered incidental to the various pay items in the contract. This work includes work zone advance or general warning signs.

TECHNICAL SPECIFICATIONS

CONSTRUCTION

DESCRIPTION

The work covered by this provision includes, but is not limited to, all elements of work covered by Sections 101-109, 450, 800, 801, 1084, 1091, 1105, 1110, 1409, 1500, and 1505 of the *2018 Standard Specifications*, except for the requirements pertaining to measurement and payment in the same.

CONSTRUCTION METHODS

Perform the work in accordance with the applicable Sections of the *2018 Standard Specifications and Project Technical Specifications*.

MEASUREMENT AND PAYMENT

All work under the provisions referenced above is incidental to the work described on the plans, Project Technical Specifications and listed on the Itemized Bid Form. Measurement and payment will be made in accordance with the Project Technical Specifications and as shown on the Itemized Bid Form.

CONSTRUCTION SURVEYING:

The Contractor shall provide all construction layout, surveying, stakeout, supplemental surveying and engineering necessary for the proper control of construction operations in accordance with the most current version of the NCDOT's Manual for Construction Layout. Construction surveying shall be in accordance with NCDOT Standard Specifications for Roads and Structures, Section 801. Any existing property boundary markers that are disturbed shall be reset as shown on the plans or as directed by the Engineer.

PILE AND DOLPHIN DEMOLITION:

PART 1 - GENERAL

1.1 SUMMARY

Contract shall pull and remove existing piles and dolphins as noted on plans in their entirety. Contractor shall confirm to all applicable safety codes all applicable safety codes pertaining to the work and secure all permits that may be required and pall all fees in connection therewith. Unless otherwise indicated in the contract, all materials recovered during demolition become property of the contractor to remove from the project.

PART 2- MEASUREMENT AND PAYMENT

- 4.1 Description: Demolish existing piles and dolphins as required by the Contract Documents. This price is full compensation for furnishing, preparing, hauling and placing all materials, and for all equipment, labor, tools and incidentals as necessary to complete the work.
- A. Pay Item: Demolition and disposal of existing piles and dolphins
 - B. Pay Unit: Lump Sum

PIPE PILES:**PART 1 - GENERAL****1.2 SUMMARY**

This section specifies the requirements for furnishing all tools, labor, materials, equipment, and competent supervision, as may be required to install the steel pipe piles and perform all other work as may be necessary and customary to complete. The dimensions, materials, and location of the pipe piles shall be as indicated on the Contract Drawings and as specified herein.

1.3 RELATED SECTIONS

- A. 99 97 13 Coating of Steel Waterfront Structures

1.4 REFERENCES

Not Applicable

1.5 JOB SITE CONDITIONS

- A. Protect existing structures, including adjacent bulkhead features as well as any overhead or burried utility lines, to the statisfaction of the Owner/Engineer.

1.6 QUALIFICATIONS

- A. The work shall be performed by a General Contractor or Foundation Contractor who has had a minimum of five (5) years' experience installing similar pipe pile foundation systems.
- B. The Contractor shall submit a summary of projects of similar nature which the Contractor performing this work has completed within the past five (5) years.

1.7 SUBSURFACE CONDITIONS

- A. Soil borings taken in the vicinity of the proposed work are included on the Contract Drawings. These borings are provided for information only and the Contractor must make his own interpretation of this data.
- B. Bidders may conduct additional subsurface explorations at their sole expense subject to the prior approval of the Owner/Engineer.

1.8 SUBMITTALS

- A. The contractor shall submit to the Engineer for approval prior to the commencement of work, the following:
 - 1. Pipe Pile numbered location plan.
 - 2. Driving sequence plan.
 - 3. Description of the method for installing the pipe pile and equipment which will be used.
- B. Shop Drawings: Indicate pipe pile sizes, lengths, locations, material grade, and coatings.

C. The Contractor shall submit the following during the progress of the work:

1. An “as-driven” pile location survey shall be submitted to the Owner/Engineer. The survey shall be made by a surveyor licensed in the State of North Carolina. The plan shall show the deviations of the piles from their theoretical locations, referenced from two perpendicular axes. The deviations shall be recorded in inches. The Engineer will review the “as-driven” location survey and give the Contractor permission to continue work, or, provide instructions as to what corrective measures must be taken if the location of the pile exceeds the permissible tolerance.
2. Mill Certificates for the Steel Pipe Pile. The mill certificates shall accompany the delivery of the pipe. The Heat Numbers on the mill certificates shall correspond to the Heat Numbers stenciled on the pipe.

PART 2 – PRODUCTS

2.1 STEEL PIPE PILES

All pipe piles shall have a minimum yield strength of 36 KSI. Pipe piles shall be new, unused, and have dimensions conforming to the Contract Drawings. The Contractor shall suitably reinforce the pipe pile, or use a pile of greater wall thickness or yield strength, at his own expense, if the Contractor deems it necessary, and employ such methods of installation, so as to prevent deforming, ovaling, curling, or dog-legging of the pipe pile, or damage to the leading edge or any other portion of the pipe pile.

2.2 SPLICES

Splices are not permitted. Steel pipe piles shall be continuous.

2.3 LENGTH

The pipe pile shall be driven to the tip elevation and extend upward to the cut-off elevation shown on the Contract Drawings.

PART 3 – EXECUTION**3.1 PILE INSTALLATION**

- A. The Contractor may use impact, vibratory, or any combination of these methods, as the Contractor deems necessary, to produce the finished pile as shown on the contract drawings. Drilling, jetting, and blasting are prohibited, and no means shall be employed which disturb existing construction.
- B. Materials shall be protected during shipping and handling from becoming contaminated with grease, oil, dirt, or other unsuitable matter.
- C. Materials and coating shall be protected from corrosion and damage during handling and shipping. Any damaged materials or coatings will be repaired at the Contractor's expense to the satisfaction of the Owner/Engineer. If the damaged materials or coatings cannot be satisfactorily repaired, they shall be removed and replaced at the Contractor's expense.
- D. Upon completion and acceptance of the as driven location and condition of the pipe piles, the pipe piles shall be filled with clean sand to within 5'-0" of the cut off elevation. The top 5'-0" shall be filled with unreinforced cast-in-place concrete.

3.2 TOLERANCES

- A. Drive piles with a variation of not more than 2 percent from vertical for plumb piles.
- B. The center of the installed pile at the cut-off elevation shall not exceed three (3) in. from the plan location.
- C. When the above tolerances are exceeded, the Engineer will notify the Contractor, in writing, as to how to proceed. This will include providing drawings showing corrective measures, if required. The contractor shall perform corrective measures as directed.
- D. All steel pipe piles shall be cut off at the elevations shown on the Contract Drawings. The cut-off portion of the casing shall become the property of the Contractor, and shall be disposed of off-site.

3.3 OBSTRUCTIONS

- A. Dense soils, cobbles, boulders, weathered bedrock, sound bedrock, and natural soils of any other character shall not be defined as obstructions for purposes of payment. The Contractor shall employ such techniques as the Contractor deems necessary to advance the casing as shown on the Contract Drawings, at his expense. At the completion of the installation of the pipe piles, the pipe piles shall be undamaged, free of defects, and in compliance with other requirements of this section.
- B. Should man-made obstructions, such as timbers or other debris, be encountered on or in the soft silts, clays, and loose soils, which prevent the Contractor from advancing the pipe pile, or damage the pipe pile, or cause the pipe pile to drift from its required location, then the Contractor shall notify the inspector of the incident at the time of the occurrence. In addition, the Contractor shall, as soon thereafter as practicable, notify the Owner/Engineer, in writing, of the event, including all information available for evaluation of remedial measures.

- C. Except for piles which have encountered man-made obstructions, as described above, the Contractor shall be responsible for all costs, except engineering re-design costs, associated with the replacement or remediation of all piles which do not comply with the requirements of this section. These shall include all costs necessary to repair or replace damaged piles.

3.4 INSPECTIONS/FIELD RECORDS

- A. The Contractor shall cooperate with the Engineer and furnish services in a timely manner, as the Engineer may require.
- B. The Contractor will maintain a record of each pile installation. A copy of these records shall be provided to the Engineer within three (3) working days after the completion of the installation. The record shall include the following:
1. Pile identification number
 2. Date the activity occurred
 3. Type and size of pile
 4. Type, number, and location of splices, cutting shoes, or other attachments
 5. Length of pipe pile before driving
 6. Length of cut-off
 7. Elevation of the top of the pipe pile, and the theoretical elevation of the tip, immediately after installation, recorded to the nearest 0.1 in.
 8. Elevation of the bottom of the interior excavation.
 9. Method of installation; type of hammer, vibrator, or drill.
 10. For impact hammer, blows per foot of driven length; for vibratory hammer, the time for each foot of penetration, and the time per inch of penetration when driving time exceeds 12 minutes per foot of penetration.
 11. The time and date driving is started, interrupted, resumed, and stopped
 12. A description of any unusual circumstances encountered during any of these activities.

PART 4 – MEASUREMENT AND PAYMENT

4.1 Description:

Install Piles as required by the Contract Documents. This price is full compensation for furnishing, preparing, hauling and placing all materials, and for all equipment, labor, tools and incidentals as necessary to complete the work.

- A. Pay Item: 30" Diameter Pipe Pile 75' in Length-Includes Freight
- B. Pay Unit: Linear foot
- C. Pay Item: King Pile 24" Diameter Steel Pipe Piles
- D. Pay Unit: Linear Foot

COATING OF STEEL WATERFRONT STRUCTURES:**PART 1 - GENERAL****1.1 REFERENCES**

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

ASTM INTERNATIONAL (ASTM)

ASTM D7091 (2013) Standard Practice for Nondestructive Measurement of Dry Film Thickness of Nonmagnetic Coatings Applied to Ferrous Metals and Nonmagnetic, Nondestructive Coatings Applied to Non-Ferrous Metals

ASTM E376 (2011) Measuring Coating Thickness by Magnetic-Field or Eddy-Current (Electromagnetic) Test Methods

SOCIETY FOR PROTECTIVE COATINGS (SSPC)

SSPC PS 13.01 (1982; E 2004) Epoxy Polyamide Painting System

SSPC Paint 22 (1982; E 2004) Paint Specification No. 22
Epoxy-Polyamide Paints (Primer, Intermediate, and Topcoat)

SSPC SP 1 (1982; E 2004) Solvent Cleaning

SSPC SP 10/NACE No. 2 (2007) Near-White Blast Cleaning

1.2 SUBMITTALS

Certificates: Epoxy-polyamide

1.3 ENVIRONMENTAL CONDITIONS

Start work only when ambient and curing temperatures are within limits of coating manufacturer's recommendations and at least 5 degrees F above dew point temperature.

1.4 SAFETY AND HEALTH PRECAUTIONS

Materials listed in this section contain coal tar pitch volatiles, which are toxic. Follow safety procedures as recommended by manufacturer. Work in a well ventilated area. Provide, and require workers to use, impervious clothing, gloves, face shields (8 inch minimum), and other appropriate protective clothing necessary to prevent eye and skin contact with coating materials. Keep coatings away from heat, sparks and flame.

PART 2 PRODUCTS**2.1 COATING SYSTEMS****2.1.1 Coating**

Provide catalyst component for coating specific for resin component. Use thinners which are compatible with the coating.

2.1.1.1 Epoxy-Polyamide

- a. System: SSPC PS 13.01
- b. Paints: SSPC Paint 22, Primer, Intermediate and Top Coats

PART 3 EXECUTION**3.1 CLEANING AND PREPARATION OF SURFACES****3.1.1 Solvent Cleaning**

SSPC SP 1. Remove visible oil, grease, and drawing and cutting compounds by solvent cleaning.

3.1.2 Blast Cleaning

SSPC SP 10/NACE No. 2. After solvent cleaning, complete surface preparation by near-white blast cleaning. Remove residual dust from blasted surface by blowing with dry, oil-free air, vacuuming, or sweeping. Provide surface profile of at least 1 1/2 -mil thickness.

3.2 PROPORTIONING AND MIXING OF COATING SYSTEM**3.2.1 Proportioning of Epoxy-Polyamide System**

Epoxy-polyamide coatings consist of a two-component system that includes a pigmented polyamide resin, Component A and an epoxy resin, Component B. Mix both components in a ratio of 1 to 1 by volume. Do not thin coatings when doing so will result in total volatile organic compounds exceeding limits enacted by local air pollution control district. When thinning is allowed and is necessary, such as during cold temperature application or to improve application characteristics, add up to one pint of ethylene glycol monoethyl (EGM) ether for each gallon of the coating.

3.2.2 Mixing of Epoxy-Polyamide System

Mix components of coating by power stirring until a smooth, uniform consistency results. Stir coating periodically during its induction period. Follow Table 1 for induction time and pot life of mixed batches.

JOB SITE AMBIENT TEMPERATURE AND INDUCTION TIME FOR EPOXY-POLYAMIDE SYSTEM	
Ambient Temperature Degrees F	Induction Time (in hours)
40 to 50	2 at 70 degrees F
50 to 60	2
60 to 70	1 to 1-1/2
70 and above	1/2 to 1

3.3 COATING APPLICATION

3.3.1 General

Apply primer coating to dry surfaces not more than 4 hours after near-white blast cleaning. Apply coats of each system so that finished surfaces are free from runs, sags, brush marks and variations in color.

3.3.1.1 Application Method for Epoxy-Polyamide System

Allow previous coat to dry to tack-free condition but not more than 72 hours before applying next coat. If more than 72 hours elapses between coats, clean surface, apply a 2 mil wet film thickness of previous coat, allow to cure to a tacky film, and apply a full thickness of next coat.

3.3.2 Repair of Defects

Repair detected coating holidays, thin areas, and exposed areas damaged prior to or during installation by surface treatment and application of additional coating or by manufacturer's recommendations. Allow a period of at least 72 hours to pass following final coat before placing in immersion service.

3.3.3 Three-Coat Epoxy-Polyamide System

Apply each coat at a dry film thickness of between 3 mils and 4 mils.

3.3.4 Dry Film Thickness

Provide total system minimum dry film thickness of 9 mils. Measure using a magnetic gage.

3.4 SURFACES TO BE COATED

3.4.1 Steel Waterfront Construction

Unless otherwise stated, coat steel pipe piles as indicated on the drawings.

3.5 FIELD TESTS

3.5.1 Holiday Testing

Prior to installation, test for holidays in total coating system. Use a low-voltage holiday detector of less than 90 volts in accordance with manufacturer's instructions. After repair of holidays by surface treatment and application of additional coating or by manufacturer's recommendation, retest with a low-voltage holiday detector.

3.5.2 Dry Film Thickness

After repair of holidays, measure dry film thickness using a magnetic dry film thickness gage in accordance with ASTM D7091 and ASTM E376. Re-measure after an additional coat is applied, and add it to meet minimum thickness requirements.

PART 4 – MEASUREMENT AND PAYMENT

4.1 Description: Apply Epoxy Polyamide Coating of Pipe Piles as required by the Contract Documents. This price is full compensation for furnishing, preparing, hauling and placing all materials, and for all equipment, labor, tools and incidentals as necessary to complete the work.

- A. Pay Item: Epoxy Polyamide Coating of 30" Pipe Piles
- B. Pay Unit: Linear Foot
- C. Pay Item: Epoxy Polyamide Coating of 24" Pipe Piles
- D. Pay Unit: Linear Foot

TIMBER MARINE PILES:**PART 1 - GENERAL****1.1 REFERENCES**

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

AMERICAN WOOD PROTECTION ASSOCIATION (AWPA)

AWPA M2	(2016) Standard for the Inspection of Preservative Treated Wood Products for Industrial Use
AWPA M4	(2015) Standard for the Care of Preservative-Treated Wood Products
AWPA M6	(2013) Brands Used on Preservative Treated Materials
AWPA P1/P13	(2016) Standard for Creosote Preservative
AWPA P2	(2016) Standard for Creosote Solutions
AWPA P34	(2014) Standard for Copper Naphthenate, Waterbone (CuN-W)
AWPA P5	(2015) Standard for Waterborne Preservatives
AWPA T1	(2017) Use Category System: Processing and Treatment Standard
AWPA U1	(2017) Use Category System: User Specification for Treated Wood

ASTM INTERNATIONAL (ASTM)

ASTM A1011/A1011M	(2017) Standard Specification for Steel Sheet and Strip, Hot-Rolled, Carbon, Structural, High-Strength Low-Alloy, High-Strength Low-Alloy with Improved Formability, and Ultra-High Strength
ASTM A1023/A1023M	(2015) Standard Specification for Stranded Carbon Steel Wire Ropes for General Purposes
ASTM A123/A123M	(2015) Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products
ASTM A153/A153M	(2016) Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware
ASTM A307	(2014; E 2017) Standard Specification for Carbon Steel Bolts, Studs, and Threaded Rod 60 000 PSI Tensile Strength
ASTM D1143/D1143M	(2007; R 2013) Piles Under Static Axial Compressive Load
ASTM D25	(2012) Round Timber Piles
ASTM D5643/D5643M	(2012) Standard Specification for Coal Tar Roof Cement, Asbestos Free

U.S. GENERAL SERVICES ADMINISTRATION (GSA)

FS RR-W-410 (Rev H) Wire Rope and Strand

1.2 SUBMITTALS

Submit the following to the owner/engineer for approval prior to commencement of work:

Product Data

Piles

Pile Driving Equipment

Submit complete descriptions of pile driving equipment, including hammers, leads, driving helmets, cushion blocks, driving blocks, collars, extractors, and other appurtenances for approval prior to commencement of work.

Test Reports

Preservative Treatment - Timber Marine Piles

Submit an inspection report attesting that offered products comply with applicable AWPAs standards.

Certificates

SDS and CIS

Closeout Submittals

Pile Driving Records

Submit pile driving records within 15 calendar days after completion of driving.

As-Driven Pile Survey

1.3 DELIVERY, STORAGE, AND HANDLING

Handle and store piles in accordance with AWPAs M4. Follow precautions identified in SDS or CIS provided by the supplier of treated wood products. Special care must be taken in supporting piles to prevent the induction of excessive bending stresses in the piles. Piles must be carefully handled without dropping, breaking of outer fibers, and penetrating the surface with tools. Peaveys, cant hooks, pikes, and other pointed tools must not be used in handling treated piles.

1.4 QUALITY ASSURANCE

1.4.1 Preservative Treatment - Timber Marine Piles

The Contractor must be responsible for the quality of treated wood products. The Contractor must provide the Owner/Engineer with the inspection report certifying that the offered products comply with applicable AWPAs standards. Identify treatment on each piece by the quality mark of an agency accredited by the Board of Review of the American Lumber Standard Committee. Inspect all preservative-treated wood visually to ensure there are no excessive residual materials or preservative deposits. Material must be clean and dry or it will be rejected because of environmental concerns.

1.4.2 SDS and CIS

Provide Safety Data Sheets (SDS) and Consumer Information Sheets (CIS) associated with timber pile preservative treatment. Contractor must comply with all safety precautions indicated on the SDS and CIS.

PART 2 - PRODUCTS

2.1 MATERIALS

2.1.1 Piles

Provide Douglas fir or Southern pine, clean-peeled, treated piles in accordance with AWPA U1 Commodity Specification G and conforming to ASTM D25 and other requirements as specified. Piles must be in one piece for the lengths shown. Splices will not be permitted. Each treated pile must be branded by the producer, in accordance with AWPA M6. Pile circumferences must be as follows:

- a. Dolphin Piles: Minimum butt circumference measured at 3 feet from the butt end must be 37 inches (12 inch butt diameter).

2.1.2 Preservative Treatment

Treat piles based on Use Category and species in accordance with AWPA U1 and AWPA T1 to the retention and penetration for marine piling. Piles preservative treatment must be waterborne preservative for marine piles in accordance with AWPA P5 (ACZA - Ammoniacal Copper Zinc Arsenate, CCA - Chromated Copper Arsenate).

2.1.6 Hardware

Provide bolts with washers under nut and head. Bolts and nuts must conform to ASTM A307. Provide cast-iron ogee, malleable iron washers where indicated. Provide timber connectors and other metal fastenings of type and size indicated. Hot-dip galvanize all hardware in accordance with ASTM A123/A123M or ASTM A153/A153M, as applicable.

2.1.7 Wire Rope and Fitting

Wire ropes must be in accordance with FS RR-W-410 Type III, Class 3. All wire ropes must be zinc coated in accordance with ASTM A1023/A1023M. Provide staples of 0.375 inch diameter zinc-coated steel at least 5 inches long. Provide clips or clamps of zinc-coated steel.

2.2 TESTS, INSPECTIONS, AND VERIFICATIONS

2.2.1 Inspection of Piles

The Contractor shall inspect each pile. Piles will be inspected at the work site. Piles damaged after inspection may be subsequently rejected if damage is deemed sufficient for rejection. All rejected piles must be removed as directed.

PART 3 - EXECUTION

3.1 INSTALLATION

3.1.1 Pile Driving Equipment

Pile driving equipment must meet the following requirements.

3.1.1.1 Pile Driving Hammers

Pile driving hammers must be steam, air or diesel, single-action, double-acting, differential-acting, or vibratory type. The size or capacity of hammers must be as recommended by the manufacturer for the pile weights and solid formation to be penetrated. The pile hammer must be of sufficient weight and energy to install the specified pile without damage into the soils as indicated. Diesel powered hammers must be operated at the rate recommended by the manufacturer throughout the entire driving period. Sufficient pressure must be maintained at the hammer so that:

- a. For double-acting hammers, the number of blows per minute during and at the completion of driving of a pile is equal approximately to that at which the hammer is rated;
- b. For single-acting hammers, there is a full upward stroke of the ram; and,
- c. For differential-type hammers, there is a slight rise of the hammer base during each upward stroke.

3.1.1.2 Leads

Leads are required and must be fixed at the top and adjustable at the bottom. Swinging leads will be permitted.

3.1.1.3 Driving Cap or Helmet and Cushion Block

Driving cap or helmet must be an approved design and must be capable of protecting pile heads, minimizing energy absorption, and transmitting hammer energy uniformly and consistently to piles. Place driving helmet or cap and cushion block combination between top of pile and the ram. Driving cap must fit snugly on the top of piles and must employ a cushion block to prevent impact damage to piles. The cushion block may be a solid or laminated softwood block with the grain parallel to the pile axis and enclosed in a close-fitting steel housing. The thickness of the block must be suitable for the length of pile to be driven and the character of subsurface material to be encountered. If block is damaged, split, highly compressed, charred or burned, or has become spongy or deteriorated, replace with new block. Under no circumstances will the use of small wood blocks, wood chips, rope, or other material permitting excessive loss of hammer energy be permitted.

3.1.1.4 Pile Collars

Collars or bands for protecting pile butts against splitting, brooming, and other damage while being driven must be of an approved design.

3.1.2 Pile Installation

Inspect piles when delivered and when in the leads immediately before driving. Cut piles at cutoff grade with pneumatic tools by sawing or other approved method.

3.1.2.3 Driving Piles

Piles must not be driven within 100 feet of concrete which is less than 7 days old unless otherwise authorized. A complete and accurate record of the driving of piles must be compiled by the Contractor for submission to the Owner/Engineer. When driving long piles of high slenderness ratio, special precautions must be taken to ensure against overstressing and leading away from a plumb or true position. During driving, pile driving hammers must be operated at all times at the rate and conditions recommended by the hammer manufacturer. Each pile must be driven continuously and without interruption to the indicated tip

elevation. Deviation from this procedure will be permitted only in case the driving is stopped by causes which reasonably could not have been anticipated. Piles must be driven to the full penetration required where practicable to do so without damage to the piles. If found impracticable to drive any pile to the depth required, such pile must be cut off and abandoned or pulled as directed. Piles which have uplifted after driving must be redriven to grade after conclusion of driving in that general area. After driving is completed, all piles must be "headed" or cut off normal at the cutoff elevation. Pile heads at cutoff must be sound. Headed treated piles, including those to be capped with concrete, must be treated with copper naphthenate per AWWA M4. Piles driven in locations where they are constantly subject to water spray must be given this treatment immediately after they are cut off and before the cutoff surface has been wetted. Cutoffs must become the property of the Contractor and must be removed at his expense.

3.1.2.4 Tolerances in Driving Piles

Piles must be accurately placed in the correct location and alignments both laterally and longitudinally and to the vertical or batter lines as shown. At cutoff elevation, butts must be within 4 inches laterally of the location indicated. Manipulation to move piles into position will be permitted only within the aforementioned tolerance to return the pile to the design location. However, piles must not be manipulated more than 1.5 percent of the exposed length above the mudline surface. Dolphin Piles may be manipulated a maximum of 0.50 inch per foot of pile length in a direction parallel to the pier face and 0.25 inch per foot of pile length in a direction perpendicular to the pier face. A variation of not more than 0.25 inch per foot of pile length from the vertical for plumb piles or more than 0.50 inch per foot of pile length from the required angle for batter piles will be permitted. The correct relative position of group piles must be maintained by the use of templates or by other approved means. Inspect piles for heave. Piles must be driven to the depths shown. Redrive heaved piles to the required tip elevation. Remove and replace with new piles those damaged, misplaced, driven below the design cutoff, or driven out of alignment, or provide additional piles, driven as directed at no additional cost.

3.1.2.5 Pile Driving Records

Keep a complete and accurate driving record of each pile driven. Indicate pile location, deviations from design location, diameter, original length, mudline elevation, tip elevation, cutoff elevation, penetration in blows per meter foot for the last 10 feet for dolphin piles, hammer data including rate of operation, make, and size, and unusual pile behavior or circumstances experienced during driving such as re-driving, heaving, weaving, obstructions, and unanticipated interruptions. Make pile driving records available at the job site, a minimum of 24 hours after each day of pile driving. Include in the construction records the wood species, preservative type, retention, and producer of installed treated timber.

3.1.2.6 Survey Data

After the driving of each pile group is complete provide an As-Driven Pile Survey showing actual location and top elevation of each pile. A survey must be presented in such form that it gives deviation from plan location in two perpendicular directions and elevations of each pile to nearest half inch.

3.1.4 Fastening

Where bolts are used to fasten timber to timber, timber to concrete, or timber to steel, bolt members together when they are installed and retighten immediately prior to final acceptance of contract.

3.1.5 Wrapping Pile Clusters and Dolphins

Draw piles tightly together with wire rope. Fasten each turn of the wire rope with a staple to each pile with which it is in contact. Fasten ends of wire rope with two clips or clamps. Number of turns must be as indicated. Through bolts must be in place and drawn up before wrapping is finally secured.

3.2 PROTECTION

3.2.1 Protection of Piles

Square the heads and tips of piles to the driving axis. Laterally support piles during driving, but do not unduly restrain piles from rotation in the leads. Where pile orientation is essential, take precautionary measures to maintain the orientation during driving. Driven batter piles of sufficient unsupported lengths to cause a measurable deflection must have free ends secured until piles are fixed in the structure to prevent excessive bending stresses. Handle, protect, and field treat piles in accordance with AWPA M4.

3.2.1.1 Damaged Piles

Driving of piles must not subject them to damage. Piles which are damaged, split, broomed, or broken by reason of internal defects or by improper driving below cutoff elevation so as to impair them for the purpose intended must be removed and replaced. Minor damaged areas of treated piles must be field treated in accordance with AWPA M4.

3.2.1.2 On Site Application of Wood Preservatives

All on site application of wood preservatives must be performed by the person identified in accordance with paragraph PESTICIDE APPLICATOR COMPANY SELF-CERTIFICATION. Field application of wood preservatives must be made in accordance with the pesticide label. All cuts, holes and injuries such as holes from removal of spikes or nails which may penetrate the treated zone must be field treated in accordance with AWPA M4.

3.3 FIELD QUALITY CONTROL

3.3.1 Inspections

When inspections result in product rejection, the Contractor must promptly segregate and remove rejected material from the premises.

PART 4 – MEASUREMENT AND PAYMENT

4.1 Description: Install Timber Marine Piles as required by the Contract Documents. This price is full compensation for furnishing, preparing, hauling and placing all materials, and for all equipment, labor, tools and incidentals as necessary to complete the work.

- A. Pay Item: 3 Pile Dolphin (60' Marine Treated Piles, Barge Driven)
- B. Pay Unit: Linear Foot
- C. Pay Item: King Pile Dolphin Timber Piles
- D. Pay Unit: Linear Foot

ALUMINUM GANGWAY:**PART 1 - GENERAL**

1.1. Scope of work: The work covered under these specifications includes all material, labor, and services necessary to design, construct, and install two gangways and all associated appurtenances required for accessing the floating docks. This specification shall be regarded as the minimum standards for design and construction.

Provide two prefabricated Aluminum Gangways according to the following specifications: 50'-0" in length X 8'-0" in width and 44'-0" in length X 8'-0" in width. Elevations noted in this section are in feet, relative to the project datum indicated on the drawings, North American Vertical Datum, 1988 Adjustment, NAVD88.

1.2. References: The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only.

INTERNATIONAL BUILDING CODE (IBC)

IBC (2012) International Building Code

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM B 209 – Standard Specification for Aluminum and Aluminum-Alloy Sheet Plate

ASTM B 221 – Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles & Tubes

ASTM B 308 (2010): Standard Specification for Aluminum-Alloy 6061-T6 Standard Structural Profiles

ASTM B 686 (2011): Standard Specification for Aluminum Alloy castings, High-Strength

ASTM D 6712 (2009): Standard Specification for Ultra-High-Molecular-Weight Polyethylene (UHMW-PE) Solid Plastic Shapes

AMERICAN SOCIETY OF CIVIL ENGINEERS (ASCE)

ASCE 7 (2010) Minimum Design Loads for Buildings and Other Structures

AMERICAN WELDING SOCIETY (AWS)

AWS D1.2 Structural Welding Code – Aluminum

ALUMINUM DESIGN MANUAL, ALUMINUM ASSOCIATION

Specifications for Aluminum Structures” for bridge-type structures

UNITED STATES ACCESS BOARD

Americans with Disabilities Act and Architectural Barriers Act Accessibility Guidelines”, July 23, 2004

ADA Accessibility Guidelines for Recreation Facilities”, September 3, 2002

1.3. SUBMITTALS

1.3.1. Manufacturer's Qualifications: Manufacturer shall be a company specialized in providing pre-fabricated customized aluminum gangways for at least five (5) years. Submit written evidence to show experience qualifications and adequacy for performance of contract requirements.

1.3.2. Shop Drawings: Provide drawings showing the dimensional layout of the gangways. All drawings shall be sealed by a qualified professional engineer licensed to practice in the State of North Carolina. Drawings shall bear the name and address of the designing company or individual. Provide plans, sections, and details at a level demonstrating compliance with the contract requirements.

1.3.3. Design Data: Provide design data including calculations and product information.

1.3.3.1. Calculations: Submit calculations showing compliance with the design criteria specified herein. All calculations shall be indexed. The calculation cover sheet or index shall be sealed by a qualified professional engineer licensed to practice in the State of North Carolina.

1.3.3.2. Product Information: Provide material properties of all materials used. Include catalog data for all products incorporated into the work.

1.3.4. Certificates: Cut sheets or certificates of compliance.

1.3.4.1. Material Conformance

1.3.4.2. Welders AWS Certification – Qualified within the past two (2) years in accordance with AWS.

1.4. QUALITY ASSURANCE:

1.4.1. The gangways shall be a custom engineered solution provided by a manufacturer specializing in gangways. The manufacturer shall demonstrate a minimum of five (5) years of experience in providing similar gangways. All manufacturing and installation shall be supervised by personnel with previous satisfactory experience in the manufacturing and installation of similar gangways. The supplier shall have a quality control system in place for the manufacture and installation of the gangway.

1.4.2. Records: Submit experience data verifying the supplier's experience in the manufacture and installation of similar units; the location, date of installation, an owner (including the name, address, and phone number of a person who can be contacted for verification purposes) for a previous installation of the system proposed for this project, and names of supervisors who will be assigned to the project, a list of at least two similar projects they have supervised and the owner of those projects (including the name, address, and phone number of a person who can be contacted for verification purposes).

1.4.3. Quality Control Plan: Submit a quality control plan to be used during the manufacture and installation of the gangways.

1.4.4. Operations and Maintenance Manual: Furnish and deliver to the owner three copies of complete data prepared by the manufacturer, covering details of operating and maintenance procedures. The manual shall include instructions, recommended frequencies of maintenance procedures, winterization procedures (if applicable), parts and materials by brand name, part number and specification. All maintenance data shall be on 8.5"x11" sheets of paper bound together in a book with protective cover. The title on the external protective cover shall be identified as: "Gangway Maintenance Procedures."

1.4.5. Drawing Information: Submit drawings indicating complete information for the fabrication, handling, and erection of the gangways. Drawings shall not be reproductions of the contract drawings. Design drawings of the gangways (including connections, brackets, and guards) shall be prepared and sealed by a qualified professional engineer licensed to practice in the State of North Carolina. Submit drawings for approval prior to fabrication. The drawings shall indicate, at a minimum, the following information:

Gangway overall plan and elevation

Connections

Material properties of all materials used

Dimensions and surface finishes

Erection and handling requirements

Lifting locations on the gangway truss

All loads used in design (such as live, dead, wind, handling, and erection)

1.4.6. Gangway: The gangways shall be aluminum framed with side trusses and guards. The gangways shall be designed for the following load combinations as a minimum. Load cases shall be combined based upon their probability of simultaneous occurrence and in accordance with applicable codes and standards. Final calculations shall verify that the gangways are capable of withstanding, at a minimum, the loading given herein. Mere conformance to the minimum sizes, strength, and design parameters given herein will not automatically ensure approval.

1.4.6.1. Uniform Live Load: All structural components shall be designed to support the dead weight of the structure, plus a live load of 100 pounds per square foot of surface.

1.4.6.2. Concentrated Live Load: All structural components shall be designed to support a 400 pound load on a 6" X 6" area located anywhere on the surface of the structure without permanently deforming the tested area.

1.4.6.3. Wind Load: Wind load shall be based on a three second gust design wind speed of 140 miles per hour from any direction on all projected surfaces. Compute wind loads in accordance with ASCE 7-10.

1.4.6.4. Deflection: The maximum midspan deflection of the gangway shall be less than its simple span length divided by 240 ($L/240$).

1.4.6.5. Design Stresses: All allowable design stresses in structural aluminum shall be in accordance with the "Specifications of Aluminum Structures" for bridge-type structures by the Aluminum Association.

1.5. Warranty: The gangways, including all structural components of the system, shall be designed for a twenty-five year life expectancy. The system shall carry an unconditional warranty with respect to installation, materials, and workmanship for five (5) years after acceptance of the project. Warranty need not cover misuse or abuse.

PART 2 - PRODUCTS

2.1. Aluminum

2.1.1. Structural Shapes: ASTM B 308 marine grade series 6061-T6

2.1.2. Miscellaneous shapes (rods, bars, wire, etc.): ASTM B 221 marine grade 6063-T6

2.1.3. Castings: ASTM B 686

PART 3 - EXECUTION

3.1. General Requirements:

3.1.1. Handicap Accessible Tide: Gangways shall be designed for handicap accessibility with water elevations ranging -0.41' (NAVD88) to +1.47' (NAVD88).

3.1.2. Operational Tide: Gangways shall be designed for safe use and access with water levels ranging from -1.41' (NAVD88) to +2.59' (NAVD88).

3.1.3. Storm Tide: For tides below -1.68' (NAVD88) and above +3.59' (NAVD88) the manufacturer may assume the owner will remove the gangway.

3.1.4. Gangway shall provide a minimum clear distance between guards of 7.5 feet. Handrail may project up to 4.5 inches into the specified clear width between guards.

3.1.5. Decking Surface: All walking surfaces (decking and transition plates) shall have an aggressive non-skid surface perpendicular to the slope of the gangway.

3.1.6. Guards: Guards shall be provided on gangways and shall be compliant with IBC 2012 Section 1013 "Guards." Guards shall be a minimum of 42 inches high, measured from the walking surface. Side trusses of gangways may serve as guards. Guards shall not have openings which allow the passage of a 4 inch sphere from the walking surface to 36 inches above the walking surface. Guards shall not have openings which allow the passage of a 4.375 inch sphere from 36 inches above the walking surface to 42 inches above the walking surface. Pickets or mesh may be provided to comply with the opening size limitations. Design guards for the structural requirements of IBC 2012 Section 1607.8.

3.1.7. Handrails: Handrails shall be provided on the gangways and shall be compliant with IBC 2012 Section 1012 "Handrails." Top of handrails shall be located 34 inches above the walking surface. Provide handrail extensions 12 inches beyond hinges of the gangways. Provide returns to the guard or walking surface in accordance with 2012 IBC Section 1012.6. Handrails shall be "Type I" in accordance with 2012 IBC Section 1012.3.1. Provide 1.5 inches clear space between handrail and guard or other surfaces. Design guards for the structural requirements of IBC 2012 Section 1607.8

3.1.8. Kick plate: A continuous kick plate shall be provided of 1/4"x3" aluminum flat bar along the edge of the walking surface on the inside of the railing.

3.1.9. Utilities: Utilities (electrical) shall be attached to the underside of the gangway by means of an aluminum utility hanger track framing system.

3.1.10. Transition Plate: The gangway will be securely fastened to the floating dock and allowed to roll on a shore side concrete platform. A hinged aluminum transition plate shall be provided at the lower end of the gangway to make a smooth transition between the gangway deck and the shore side concrete platform. This transition plate shall slide on the concrete. The transition plate shall be the full width of the gangway deck and shall not exceed 1:12 slope. The transition plate shall not be less than 1/4 inch thick and shall be provided with stiffeners as required to limit midspan deflection to L/240.

3.1.11. UHMW-PE rollers, bearings, accessories: ASTM D 6712 pigmented black with UV inhibitors added.

3.1.12. Hinges: The gangway will be securely fastened to the floating dock and allowed to roll on a shore side concrete platform. Hinges shall be provided at transition plates and at connections of the gangway to the floating dock. Hinges shall be designed by the gangway manufacturer to adapt to the floating dock mounting surface. Hinges shall be continuous across the width of the gangway and shall not create a trip hazard nor impede use by wheelchairs. The hinged end at the floating dock shall be a type that allows the gangway to be detached from the floating dock and removed for secure storage during inclement or maintenance/service.

3.1.13. Lifting locations: The gangway trusses will have lifting locations clearly marked in a permanent manner. Marking these locations will allow the owner to lift and remove the gangway as needed for maintenance or to secure in advance of approaching storms. The gangway may be removed and reinstalled multiple times a year.

3.1.14. Galvanic Corrosion Prevention: Galvanic corrosion prevention measures shall be provided. Provide non-conductive material between dissimilar metals (the metal dock and the aluminum gangway) to electrically insulate the two metals from each other and prevent any galvanic corrosion.

3.2. Fabrication and Workmanship

3.2.1. Workmanship: The quality of workmanship shall be equal to the best general practice in modern structural fabrication shops. Finish work shall be firm, well anchored, in true alignment, properly squared, with smooth clean uniform appearance, without holes, cracks, discoloration, distortion, stains, or marks. Products shall be fabricated so that connections between products, materials and alignment, are consistent with the drawings. Fabrication shall occur in the shop when possible.

3.2.2. Experience: The fabricator must be able to furnish adequate evidence of a minimum of five (5) years of ongoing successful experience in fabricating bridge-type aluminum structures, and that all workmen employed in aluminum fabrication are properly experienced and skilled in the work they are called upon to perform.

3.2.3. Finish: Before finishes are applied, exposed aluminum sheets, plates, and extrusions shall be free of roll marks, scratches, rolled-in scratches, kinks, stains, pits, orange peel, die marks, structural streaks, and any other defects which will affect uniform appearance of finished surfaces. The gangway structure shall be given an AAM44 (coarse matte) sandblasted finish after fabrication. The handrails shall have a rubbed or light brushed finish.

3.2.4. Welding: All aluminum welding, welding procedures, testing and inspection shall be done in accordance with AWS D1.2. Parts to be welded shall be free of dirt, grease, and other contaminants and shall fit up properly for sound welding. Surfaces may not be cut with oxygen. Sawing, sheering, or machining may be used. All welding shall be with an inert gas shielded arc process. Machine settings shall be developed by making test welds of the same material alloy and geometry as real members and testing the sample welds destructively.

3.3. Delivery, Storage, Installation: The contractor shall be responsible for safely delivering, storing, and installing the gangways. Store gangways to prevent vandalism or damage from work of other trades and installing the gangway. Extreme care shall be taken to avoid handling damage during installation.

PART 4 – MEASUREMENT AND PAYMENT**4.1 Description:**

Install Gangways as required by the Contract Documents. This price is full compensation for furnishing, preparing, hauling and placing all materials, and for all equipment, labor, tools and incidentals as necessary to complete the work.

- A. Pay Item: Aluminum Gangway (Hatteras)
Aluminum Gangway (Ocracoke)
- B. Pay Unit: Each
- C. Pay Item: Gangway Bearing Pad (Including excavation, form, rebar and concrete)
- D. Pay Unit: Cubic Yard

FLOATING DOCK:**PART 1 - GENERAL REQUIREMENTS**

Contractor shall design and build two docks for fast ferry mooring, docking and boarding. The docks are expected to measure nominally 96.5 x 24 feet. Ultimately, the dimensions will be left to the Contractor to determine, subject to approval by NCDOT.

All structure and equipment will be designed to the current ABS Steel Barge Rules, unless otherwise specified by this Specification or accepted by NCDOT Representative. Structure should be designed and sized to carry storm surge, hurricane, and severe weather loads appropriate for this area of operation. Structural material is not directly specified by this Specification, though the nominal design presented in Appendix A assumes welded steel. If the Contractor intends to use materials other than steel for the hull they shall propose the design standards that they intend to use which must be approved by NCDOT.

Each dock will be divided into three compartments, arranged longitudinally and separated by transverse watertight bulkheads. Watertight bulkheads will be located at approximately 25% and 75% of the overall dock length. Alternate arrangements are subject to review and approval by Owner.

PART 2 - EQUIPMENT/SYSTEM DEFINITION**2.1 Mooring Requirements**

Contractor shall design and build a mooring system for each dock suitable for the intended dock location and duty.

Docks will be designed with a means to moor two ferry vessels simultaneously, one on either side of the dock. Every mooring line on the NCDOT fast ferry will have a corresponding piece of mooring equipment suitable for the line on each side of the dock. Mooring equipment will be positioned such that it does not interfere with vessel access for either crew or passengers while the vessel is moored to the dock. Mooring arrangements shall be approved by NCDOT prior to installation on the dock. See plans for example mooring arrangement.

Docks will be designed with fendering on both sides. Fendering will be designed to prevent a hard impact into the dock by a high-speed aluminum ferry of up to 120 LT displacement, from any realistic angle of approach, and from any possible difference in relative freeboard. Fendering will be engineered, arch fenders, or Owner-approved equal, extending from 24 inches above the top of the dock deck down the dock side to a distance of at least 44 inches. Fendering will include knee braces to prevent the vessel hull from impacting any structure or equipment on the dock. Knee braces will extend at least 36 inches above the deck of the dock to 30 inches below. NCDOT shall approve the fendering arrangement prior to construction. The knee braces are intended to prevent the vessel from hanging up on the top or bottom of the fendering in heavy weather conditions.

Docks will remain in place by anchoring to permanent pilings. See plan sheet S-101 and S-102 for pile arrangement. The demountable steel hoops shall be provided by the dock contractor and their design shall be approved by NCDOT. Depending upon pile design, rollers or replaceable wear surfaces will be required. The dock will be designed to swing in and out of position relative to pilings. When locked to pilings, the dock will remain free to rise and fall with the tide. Mooring collars will be designed to allow for 6 inches of motion of the dock in any direction relative to the pilings. Contractor shall install mooring collars upon delivery of the dock, connecting to the pilings.

All mooring equipment will be designed to accommodate any relative freeboard between the dock and ferry vessel. Ferry vessel freeboard will be assumed to range between 80 inches and 85 inches at the aft boarding ramp, and between 82 inches and 98 inches at the forward boarding ramp.

Docks will be stationed in the Outer Banks region of North Carolina, USA. All mooring equipment, including piling anchors, will be sized to carry storm surge, hurricane, and severe weather loads appropriate for this area of operation. Contractor shall develop mooring load calculations demonstrating the adequacy of the mooring equipment and submit these calculations to NCDOT for approval prior to construction. Each dock will be equipped with permanent hardware suitable for attachment of towing gear during dock repositioning.

Hydrostatic and Stability Requirements

Docks will have a design freeboard of 79 inches all around when floating in salt water. Docks will have a maximum draft of 4 feet-0 inches. Dock weight and material is not directly specified, however, final design will approximately conform to the NCDOT expected overall dimensions and will meet the draft and freeboard requirements outlined above. Depending on construction material, ballast may be required. Ballast used on docks will be a solid, non-toxic, non-corrosive material such as concrete blocks. Ballast will be removable, and will be stored in boxes in the hold of the docks allowing for inspection of the hull. Fresh or salt water ballast will not be used on the docks. Contractor shall ballast each dock to within one inch of freeboard requirement once dock is moored in place with gangway installed (gangway installation is not in Contractor scope).

Contractor shall perform a stability analysis on the docks to demonstrate that they are safe and stable under normal operating conditions. Docks will be sufficiently stable to be transported from Contractor facility to permanent location in North Carolina, and to not suffer any damage during any realistic sea state scenario once in position.

Dock stability characteristics will be provided to NCDOT as a project deliverable. Dock GM will conform to 46 CFR §171.050. Specifically, dock GM will be at least as follows:

$$GM = [(W/\Delta)(\frac{2}{3})(b)]/(\tan(T))$$

Where—

Δ = displacement of the vessel in long (metric) tons.

W = total weight in long (metric) tons of persons other than required crew, including personal effects of those persons expected to be carried on the vessel.

T = 14 degrees or the angle of heel at which the deck edge is first submerged, whichever is less; and

b = distance in feet (meters) from the centerline of the vessel to the geometric center of the passenger deck on one side of the centerline.

2.2 Utility and Electrical Requirements

The Hatteras dock only will include an electrical distribution system which draws supply from shore. The Ocracoke dock will not have any electrical system or conduit. The Contractor shall refer to the electrical plans and specifications for the construction requirements for the Hatteras dock and shoreside electrical system. The dock's distribution system will be supplied by a new panel and interlock box at the shore end of the dock adjacent to the gangway. The distribution panel on the dock will supply the vessel shore power connections and dock convenience receptacles. The panel, and any associated distribution equipment, will be located in a weathertight enclosure on the deck of the dock. The distribution panel will include at least six unused spaces for circuit breakers.

The Hatteras dock will be designed to accommodate a shore power connection from a ferry on each side of the dock. Shore power will be 208/120V, 3 ϕ , 60A at the point of connection to the ferry vessels. Shore power will be supplied from the Wharf panel. Power will then be routed through conduit to a shore power receptacle box located as shown in Appendix A. These junction boxes shall be equipped with receptacles, configured to connect to the shore end of the ferry's shore power cable. Locations shall be approved by the Owner. Conduit must not interfere with passenger walkways or crew access to any space, and may be run below the deck of the dock. In addition to the conduits described above, two additional, unused conduits shall be installed in parallel to the used conduit for future cable installation by NCDOT.

The Hatteras dock will be equipped with three GFCI protected 120V, 20A duplex receptacles. Two receptacles will be located at approximately 25% and 75% along the dock length, so that all areas may be reached with a 25-foot extension cord. The final receptacle will be located inside the weatherproof enclosure which houses the distribution panel. Outlets will be protected from water intrusion and rated for use in an outdoor, marine salt water environment.

Fill/discharge stations for fluids will be located on shore, and will not be handled in any way by the Contractor-designed and built dock. Contractor shall, however, ensure that no structure, structural appendage, or equipment on the dock interferes with vessel access to the fluid fill/discharge station. See plan sheet S-101 for location of fluid fill/discharge station relative to the docks.

Prior to delivery, NCDOT shall witness testing of the electrical installation to a procedure developed and submitted by the Contractor. Final hookup to the shoreside electrical system will be completed by others.

2.3 Lighting Requirements

No permanent lighting shall be installed on the docks.

2.4 Passenger Access Requirements

Dock access from shore will be provided by an aluminum gangway.

The gangway will be approximately 8 feet wide and will be hinged from the side of the dock closest to shore. Details of the gangway hinge connection are to be provided by NCDOT along with relevant details of the gangway (weight, etc.). The Contractor shall furnish details of the design to the Owners for approval before construction commences.

Dock shall be equipped with two portable ferry boarding ramps to provide ADA access at the two aft ferry boarding doors. The current scope includes one portable ramp per dock, or two total. Note that this design will need to fit the bulwark gates of the NCDOT ferries. Ferries have a design freeboard range of 80 to 84 inches at this location. All boarding ramps will be provided by Contractor. Contractor will coordinate with Owner to determine dimensions of boarding ramps, and will provide pad eyes or equivalent tie down appliances to secure the ramps in place, as required. Dock shall be arranged so that boarding ramps can be wheeled in and out of place, and may be rolled off the dock without use of a crane.

The forward two ferry boarding doors will ultimately be accessed by a fixed stair and hinged boarding ramp, installed by the Contractor, one on each side of the dock. The current scope includes one stair and hinged boarding ramp per dock, or two total. Stair and ramp platforms will be nominally 48 inches wide and shall be coordinated with the design of the ferry's bulwarks. It will be designed to accommodate the full range of potential freeboard differences between dock and ferry. Contractor stair and ramp platform design shall be approved by NCDOT prior to installation. The hinged section of the ramp shall be counterbalanced so that it can be deployed or raised by a single crew member from the deck of the ferry.

Docks will be ADA compliant. No lips, curbs or other structure which would impede a wheelchair are allowed to cross passenger walkways. Note that the forward boarding stair and ramp platform need not be ADA compliant.

All passenger walkways and passenger accessible areas will be protected by railings suitable to prevent passengers from falling off the dock or otherwise injuring themselves. Bottom rail will be no more 4 inches above deck, top rail will be 42 inches above deck, and a mesh or wire grating will be fitted between the top and bottom rails. Gates will be installed in the railing as needed to allow crew access to the entire dock, and to allow access to ladders as described in Section 2.8. The gates shall be fitted with hasps so that they can be locked closed when not in use. Railing will typically be installed 3 feet inboard of the dock edge, with openings for ferry boarding ramps. Railing will fully enclose the passenger accessible area. Railings on the dock are to be either aluminum or galvanized steel. Dissimilar metals are to be galvanically isolated.

2.5 Deck Coating and Paint Requirements

All internal and external structure will be painted with a marine grade coating suitable for the material of construction unless the dock hull is not subject to corrosion. Contractor shall provide NCDOT with complete paint specification including surface preparation for approval prior to commencing painting.

Dock deck will be designed to minimize slipping risk. Deck will be coated in non-skid approved by Owner. Safety markings shall be added as necessary.

All paints, primers and deck coatings will be suitable for use in a marine, salt water environment.

2.6 Cathodic Protection

The dock shall be designed with a cathodic protection system designed for a service life of five years using the U.S. navy design criteria. All anodes shall be of bolt on type such that they can be changed out by divers with the vessel afloat. All anodes shall be of the same size. Anodes shall be aluminum (zinc anodes shall not be permitted). The Contractor shall furnish the cathodic protection plan and calculations to the Owner for approval before construction commences. For materials of construction other than steel, an appropriate cathodic protection system is to be installed subject to NCDOT approval.

2.7 Inspection and Maintenance Requirements

Contractor shall install inspection and maintenance manholes to facilitate access to all internal compartments on the dock, including each of the three watertight compartments. Manholes will be installed on the dock deck when possible. Manholes will be fitted with gaskets, and will be watertight when closed. Manholes are to be located outside of passenger accessible areas and set in raised coamings painted to contrast with the deck of the dock.

All equipment described by this Purchase Technical Specification will be new and of a currently manufactured type. No used, refurbished, remanufactured, rebuilt, or obsolete components will be used without the written approval of the Owner.

All compartments, internal and external, will be accessible. Inaccessible voids will not be permitted.

2.8 Outfit Requirements

In addition to equipment specified elsewhere, the following pieces of outfitting equipment will be installed on each dock by the Contractor:

- (3) Lifebuoys, one on either side of the dock near the ferry loading ramp, plus one additional lifebuoy near the shore access ramp. These shall be 30-inch diameter with throw lines.
- (1) 10-lb dry chemical fire extinguisher, which will be located near the electrical distribution enclosure. This shall be mounted in a robust plastic box to protect it from the weather.

- (3) Ladders, one on each side of the dock, and one on the end of the dock furthest from shore. Ladders will all extend from the base of the dock (below the water line), to the top of the dock. Ladders will be located and arranged so that they will not impact the ferry at any potential angle of approach or difference in relative freeboard, and do not interfere with fendering on the dock.
- (4) Deck boxes secured to the deck of the dock, nominally 15 to 20 cubic feet each, for rope and cable storage.

PART 3 - SPARE PARTS AND SPECIAL TOOLS

Scope of supply will include all special tools required to perform routine maintenance on all systems and equipment.

Scope of supply will include spare parts as recommended by the manufacturer for a two-year period of operation.

PART 4 - DOCUMENTATION

The following documentation will be included in the scope of supply:

- General Arrangement Drawing
- ADA Access Plan
- Structural Arrangement Drawing(s)
- Equipment Installation Drawing(s)
- System Diagrams
- Cathodic Protection Plan
- Equipment Certification(s)
- Testing Plan (for commissioning, etc.)
- Weight estimate and freeboard calculations for the dock.

General arrangement, structural arrangement, equipment, system and control drawings should be submitted to NCDOT prior to construction for review and approval.

PART 5 - EXECUTION

5.1 Delivery of Equipment

Delivery of completed docks will be included in the scope of supply. Docks will be delivered to Hatteras and Ocracoke ferry terminals (one dock to each location). Ferry terminals are located as follows:

- Ocracoke Silver Lake Ferry Terminal, Ocracoke, NC 27960
- Hatteras Ferry Terminal, NC-12, Hatteras, NC 27943

5.2 Installation/Oversight of Installation

Dock on-site installation oversight will be included in the scope of supply. Vendor shall provide an on-site manufacturer's representative during the installation and connection process.

5.3 Commissioning and Testing

The Contractor shall conduct comprehensive testing on all dock systems prior to delivery to NCDOT, and after delivery shall demonstrate all dock systems are fully operational.

PART 6 - WARRANTY

The Contractor shall guarantee the equipment, including work of his subcontractors, against defects resulting from faulty material or poor workmanship that may become apparent within twelve (12) months from the date of equipment acceptance by the Owner. The Contractor shall correct such defects at no cost to the Owner in accordance with the terms of the contract. The Contractor must perform any resulting guaranty work at the location of the vessel's homeport. All costs for guaranty service will be borne solely by the Contractor.

PART 7 - MEASUREMENT AND PAYMENT

Floating Docks will be measured and paid for per each Dock that has been incorporated into the completed and accepted work.

The work performed and materials furnished in accordance with this pay item and measured as provided under "Measurement and Payment" will be paid for at the unit price bid for "Floating Dock." This price is full compensation for furnishing, preparing, hauling and placing all materials, and for all equipment, labor, tools and incidentals.

Payment will be made under:

Pay Item	Pay Unit
Floating Dock (Hatteras)	Each
Floating Dock (Ocracoke)	Each

FUELING SYSTEM:

PART 1 - GENERAL

The fuel delivery system shall consist of several components as required to connect to an existing fuel supply and to safely measure and deliver marine-grade diesel to the various ferry boats, serving the Hatteras Island Passenger Terminal. The components shall consist of:

1. 316 stainless steel piping components in 1-1/2" and 2" diameters, threaded for screw connections. Threaded pipe shall be Schedule 40 (standard wall thickness for indicated diameters). Threaded fittings (tees and elbows) shall be, at least, Class 2000. Flanged pipe connections may also be used, if and where needed. Flange ratings of, at least ANSI 150#, may be used and flanges may be raised face, using gaskets, compatible with diesel fuels. Valves shall have flanged or threaded connections.

2. Non-corroding, double-wall, fluoropolymer (plastic) pipe, rated for diesel fuel service may, be used for transporting the marine diesel from the existing pipe transition sump to the new pipe transition sump. The double-wall pipe is connected to the stainless steel pipe in a new pipe transition sump, adjacent to the hose reel/hose assembly at the new ferry berth.
3. A leakage probe shall be placed in the pipe transition sump. The probe shall be connected to the existing diesel supply pump and shall act by stopping the pump if leakage from the pipe transition connection in the transition sump.
4. Electrical equipment shall be explosion proof.
5. New hose reel and Associated Equipment (see below) shall be placed on a concrete base, which is designed with a containment curb, approximately 8 inches high, designed to contain any spills or leakage of diesel.
6. Hose reel shall be stainless steel and motorized (explosion proof motor) and shall be of a size, sufficient for reeling 100 feet of 1-¼ inch ID rubber hose. The hose reel shall be compatible with a marine environment (316 stainless steel is preferred). The hose reel shall be operated by an externally-located (outside of the doghouse), momentary contact switch, designed to both, unreel and retract the refueling hose.
7. Rubber refueling hose shall be rated for marine diesel service, US Coast Guard approved (USCG Type A, Class 1), UL listed, with a 250 psig maximum pressure rating. The hose shall have a length of 100 feet, with a 1-¼ inch ID, and shall be equipped with end connections that are compatible with the connections provided on the hose reel and a 2 inch dry-break, quick connection. The dry-break, quick connection shall be compatible with marine diesel fuel and shall resist a marine environment.
8. Associated Equipment shall include a 1-½ inch positive displacement meter (custody transfer accuracy), including an air eliminator, 40-mesh protective inlet screen, and, if required, a solenoid-operated preset control valve for batch fuel send-outs. (If included with the meter, solenoid shall be explosion proof. Note that this valve may impose a system back pressure of 30 to 40 psig and may not be compatible with the existing pump.). The meter shall be equipped with a mechanical or electronic register (may be equipped with an optional ticket printer).
9. Other Associated Equipment shall include a 1-½ inch Class 800, 316 stainless steel ball valve, compatible with diesel and operated with a quarter-turn motorized actuator. The valve will be designed to be closed from a locally-mounted switch when the system is not operational.

PART 2 - MEASUREMENT AND PAYMENT

Refueling System will be measured and paid for as lump sum item for all work completed and accepted by the Engineer.

The work performed and materials furnished in accordance with this pay item and measured as provided under "Measurement and Payment" will be paid for at the unit price bid for "Refueling Equipment, pump, hose and hose reel." This price is full compensation for furnishing, preparing, hauling and placing all materials, and for all equipment, labor, tools and incidentals.

Payment will be made under:

Pay Item	Pay Unit
Refueling Equipment, Pump, Hose and Hose Reel	Lump Sum

FERRY SEWERAGE OFF LOAD:**PART 1 - GENERAL**

Description: Furnish, install and place into satisfactory operation Sewerage Off Load Hose & Hose Reel complete with all materials and equipment as shown in the contract documents.

MEASUREMENT AND PAYMENT

Ferry Sewerage Off Load Hose & Hose Reel will be measured and paid for as lump sum item for all work completed and accepted by the Engineer.

The work performed and materials furnished in accordance with this pay item and measured as provided under "Measurement and Payment" will be paid for at the unit price bid for "Sewer Hose and Hose Reel." This price is full compensation for furnishing, preparing, hauling and placing all materials, and for all equipment, labor, tools and incidentals.

Payment will be made under:

Pay Item

Sewer Hose and Hose Reel

Pay Unit

Lump Sum

FERRY WATER:**PART 1 - GENERAL**

Description: Furnish, install and place into satisfactory operation Ferry Water Hose Reel complete with all materials and equipment as shown in the contract documents.

MEASUREMENT AND PAYMENT

Ferry Water Hose Reel will be measured and paid for as lump sum item for all work completed and accepted by the Engineer.

The work performed and materials furnished in accordance with this pay item and measured as provided under "Measurement and Payment" will be paid for at the unit price bid for "Water Hose Connection, Hose, and Hose Reel." This price is full compensation for furnishing, preparing, hauling and placing all materials, and for all equipment, labor, tools and incidentals.

Payment will be made under:

Pay Item

Water Hose Connection, Hose, and Hose Reel

Pay Unit

Lump Sum

ELECTRICAL:**PART 1 - GENERAL**

Description: Furnish, install, connect and place into satisfactory operation all electrical items complete with all materials and equipment as shown in the contract documents.

MEASUREMENT AND PAYMENT

Electrical will be measured and paid for as lump sum item for all work completed and accepted by the Engineer.

The work performed and materials furnished in accordance with this pay item and measured as provided under "Measurement and Payment" will be paid for at the unit price bid for "Electrical." This price is full compensation for furnishing, preparing, hauling and placing all materials, and for all equipment, labor, tools and incidentals.

Payment will be made under:

Pay Item

Electrical

Pay Unit

Lump Sum

STANDARD SPECIAL PROVISION**AVAILABILITY OF FUNDS – TERMINATION OF CONTRACTS:**

(5-20-08)

Z-2

General Statute 143C-6-11. (h) Highway Appropriation is hereby incorporated verbatim in this contract as follows:

(h) Amounts Encumbered. – Transportation project appropriations may be encumbered in the amount of allotments made to the Department of Transportation by the Director for the estimated payments for transportation project contract work to be performed in the appropriation fiscal year. The allotments shall be multiyear allotments and shall be based on estimated revenues and shall be subject to the maximum contract authority contained in *General Statute 143C-6-11(c)*. Payment for transportation project work performed pursuant to contract in any fiscal year other than the current fiscal year is subject to appropriations by the General Assembly. Transportation project contracts shall contain a schedule of estimated completion progress, and any acceleration of this progress shall be subject to the approval of the Department of Transportation provided funds are available. The State reserves the right to terminate or suspend any transportation project contract, and any transportation project contract shall be so terminated or suspended if funds will not be available for payment of the work to be performed during that fiscal year pursuant to the contract. In the event of termination of any contract, the contractor shall be given a written notice of termination at least 60 days before completion of scheduled work for which funds are available. In the event of termination, the contractor shall be paid for the work already performed in accordance with the contract specifications.

Payment will be made on any contract terminated pursuant to the special provision in accordance with Subarticle 108-13(E) of the *2018 Standard Specifications*.

BIDS OVER LIMIT:

(08-01-16)

SPD 01-400

In accordance with GS 136-28.1(b), if the total bid amount of the contract exceeds \$5.0 million, the bid will not be considered for award.

DIVISION LET CONTRACT PREQUALIFICATION:

(07-01-14)(12-1-16)

SPD 01-410

Any firm that wishes to bid as a prime contractor shall be prequalified as a Bidder or PO Prime Contractor prior to submitting a bid. Information regarding prequalification can be found at: <https://connect.ncdot.gov/business/Prequal/Pages/default.aspx>.

Prior to performing the work, the prime contractor and/or subcontractor(s) shall be prequalified in the work code(s) which are identified as work items in the prime contractor's construction progress schedule that they will complete themselves. Any contractor identified as working outside their expertise may be considered in default of contract.

SAFETY VESTS:

All Contractors' personnel, all subcontractors and their personnel, and any material suppliers and their personnel must wear an OSHA approved reflective vest or outer garment at all times while on the project.

CONTRACTOR CLAIM SUBMITTAL FORM:

(2-12-14)

104-3

SPD 01-440

If the Contractor elects to file a written claim or requests an extension of contract time, it shall be submitted on the *Contractor Claim Submittal Form (CCSF)* available through the Construction Unit or at <https://connect.ncdot.gov/projects/construction/Pages/Construction-Resources.aspx> as Form CCSF under Construction Forms.

Any claims for additional compensation and/or extensions of the completion date shall be submitted to the Division Engineer in writing, with detailed justification, prior to submitting the final invoice payment. Once an invoice is received and accepted that is marked as “Final”, the Contractor shall be barred from recovery.

DRIVEWAYS AND PRIVATE PROPERTY:

The Contractor shall maintain access to driveways for all residents and property owners throughout the life of the project. The Contractor shall not perform work for private citizens or agencies in conjunction with this project or within the project limits of this contract.

COOPERATION WITH STATE FORCES:

The Contractor must cooperate with State forces working within the limits of this project as directed by the Engineer.

ERRATA:

(1-16-18)

Z-4

Revise the *2018 Standard Specifications* as follows:

Division 7

Page 7-27, line 4, Article 725-1 MEASUREMENT AND PAYMENT, replace article number “725-1” with “724-4”.

Page 7-28, line 10, Article 725-1 MEASUREMENT AND PAYMENT, replace article number “725-1” with “725-3”.

PLANT AND PEST QUARANTINES:**(Imported Fire Ant, Gypsy Moth, Witchweed, Emerald Ash Borer, And Other Noxious Weeds)**

(3-18-03) (Rev. 12-20-16)

Z-04a

Within Quarantined Area

This project may be within a county regulated for plant and/or pests. If the project or any part of the Contractor's operations is located within a quarantined area, thoroughly clean all equipment prior to moving out of the quarantined area. Comply with federal/state regulations by obtaining a certificate or limited permit for any regulated article moving from the quarantined area.

Originating in a Quarantined County

Obtain a certificate or limited permit issued by the N.C. Department of Agriculture/United States Department of Agriculture. Have the certificate or limited permit accompany the article when it arrives at the project site.

Contact

Contact the N.C. Department of Agriculture/United States Department of Agriculture at 1-800-206-9333, 919-707-3730, or <http://www.ncagr.gov/plantindustry/> to determine those specific project sites located in the quarantined area or for any regulated article used on this project originating in a quarantined county.

Regulated Articles Include

1. Soil, sand, gravel, compost, peat, humus, muck, and decomposed manure, separately or with other articles. This includes movement of articles listed above that may be associated with cut/waste, ditch pulling, and shoulder cutting.
2. Plants with roots including grass sod.
3. Plant crowns and roots.
4. Bulbs, corms, rhizomes, and tubers of ornamental plants.
5. Hay, straw, fodder, and plant litter of any kind.
6. Clearing and grubbing debris.
7. Used agricultural cultivating and harvesting equipment.
8. Used earth-moving equipment.
9. Any other products, articles, or means of conveyance, of any character, if determined by an inspector to present a hazard of spreading imported fire ant, gypsy moth, witchweed, emerald ash borer, or other noxious weeds.

HIGH QUALITY WATERS:

Description

The Austin Creek has been identified as high quality waters. This designation requires special procedures to be used for clearing and grubbing, temporary stream crossings, and grading operations within the High Quality Water Zone and as designated by the Engineer. The High Quality Water Zones are identified on the plans as Environmentally Sensitive Areas. This also requires special procedures to be used for seeding and mulching and staged seeding.

The High Quality Water Zone/Environmentally Sensitive Area shall be defined as a 50-foot buffer zone on both sides of the stream measured from top of streambank.

Construction Methods

- (A) Clearing and Grubbing

In areas identified as High Quality Water Zones/Environmentally Sensitive Areas, the Contractor may perform clearing operations, but not grubbing operations until immediately prior to beginning grading operations as described in Article 200-1 of the Standard Specifications. Only clearing operations (not grubbing) shall be allowed in this buffer zone until immediately prior to beginning grading operations. Erosion control devices shall be installed immediately following the clearing operation.

(B) Grading

Once grading operations begin in identified High Quality Water Zones/Environmentally Sensitive Areas, work shall progress in a continuous manner until complete. All construction within these areas shall progress in a continuous manner such that each phase is complete and areas are permanently stabilized prior to beginning of next phase. Failure on the part of the Contractor to complete any phase of construction in a continuous manner in High Quality Water Zones/Environmentally Sensitive Areas will be just cause for the Engineer to direct the suspension of work in accordance with Article 108-7 of the Standard Specifications.

(C) Temporary Stream Crossings

Any crossing of streams within the limits of this project shall be accomplished in accordance with the requirements of Subarticle 107-13(B) of the Standard Specifications.

(D) Seeding and Mulching

Seeding and mulching shall be performed in accordance with Section 1660 of the Standard Specifications and vegetative cover sufficient to restrain erosion shall be installed immediately following grade establishment.

Seeding and mulching shall be performed on the areas disturbed by construction immediately following final grade establishment. No appreciable time shall lapse into the contract time without stabilization of slopes, ditches and other areas within the High Quality Water Zones/Environmentally Sensitive Areas.

(E) Stage Seeding

The work covered by this section shall consist of the establishment of a vegetative cover on cut and fill slopes as grading progresses. Seeding and mulching shall be done in stages on cut and fill slopes that are greater than 20 feet in height measured along the slope, or greater than 2 acres in area. Each stage shall not exceed the limits stated above.

Additional payments will not be made for the requirements of this section, as the cost for this work shall be included in the contract unit prices for the work involved.

All areas seeded and mulched shall be tacked with asphalt. Crimping of straw in lieu of asphalt tack shall not be allowed on this project.

MINORITY AND FEMALE EMPLOYMENT REQUIREMENTS:

Z-7

NOTICE OF REQUIREMENTS FOR AFFIRMATIVE ACTION TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY (*EXECUTIVE NUMBER 11246*)

1. 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, see as shown on the attached sheet entitled "Employment Goals for Minority and Female participation".

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 effort 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 or 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.

2. As used in this Notice and in the contract resulting from this solicitation, the "covered area" is the county or counties shown on the cover sheet of the proposal form and contract.

**EMPLOYMENT GOALS FOR MINORITY
AND FEMALE PARTICIPATION**

Economic Areas

Area 023 29.7%

Bertie County
Camden County
Chowan County
Gates County
Hertford County
Pasquotank County
Perquimans County

Area 024 31.7%

Beaufort County
Carteret County
Craven County
Dare County
Edgecombe County
Green County
Halifax County
Hyde County
Jones County
Lenoir County
Martin County
Nash County
Northampton County
Pamlico County
Pitt County
Tyrrell County
Washington County
Wayne County
Wilson County

Area 025 23.5%

Columbus County
Duplin County
Onslow County
Pender County

Area 026 33.5%

Bladen County
Hoke County
Richmond County
Robeson County
Sampson County
Scotland County

Area 027 24.7%

Chatham County
Franklin County
Granville County
Harnett County
Johnston County
Lee County
Person County
Vance County
Warren County

Area 028 15.5%

Alleghany County
Ashe County
Caswell County
Davie County
Montgomery County
Moore County
Rockingham County
Surry County
Watauga County
Wilkes County

Area 029 15.7%

Alexander County
Anson County
Burke County
Cabarrus County
Caldwell County
Catawba County
Cleveland County
Iredell County
Lincoln County
Polk County
Rowan County
Rutherford County
Stanly County

Area 0480 8.5%

Buncombe County
Madison County

Area 030 6.3%

Avery County
Cherokee County
Clay County
Graham County
Haywood County
Henderson County
Jackson County
McDowell County
Macon County
Mitchell County
Swain County
Transylvania County
Yancey County

SMSA AreasArea 5720 26.6%

Currituck County

Area 9200 20.7%

Brunswick County

New Hanover County

Area 2560 24.2%

Cumberland County

Area 6640 22.8%

Durham County

Orange County

Wake County

Area 1300 16.2%

Alamance County

Area 3120 16.4%

Davidson County

Forsyth County

Guilford County

Randolph County

Stokes County

Yadkin County

Area 1520 18.3%

Gaston County

Mecklenburg County

Union County

Goals for FemaleParticipation in Each Trade

(Statewide) 6.9%

REQUIRED CONTRACT PROVISIONS FEDERAL - AID CONSTRUCTION CONTRACTS:

FHWA - 1273 Electronic Version - May 1, 2012

Z-8

- I. General
- II. Nondiscrimination
- III. Nonsegregated Facilities
- IV. Davis-Bacon and Related Act Provisions
- V. Contract Work Hours and Safety Standards Act Provisions
- VI. Subletting or Assigning the Contract
- VII. Safety: Accident Prevention
- VIII. False Statements Concerning Highway Projects
- IX. Implementation of Clean Air Act and Federal Water Pollution Control Act
- X. Compliance with Governmentwide Suspension and Debarment Requirements
- XI. Certification Regarding Use of Contract Funds for Lobbying

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:**
- 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.
 - 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).
 - The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.
 - 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:
- 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.
 - 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.
 - 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.
 - 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.
- The contractor shall notify all potential subcontractors and suppliers and lessors of their EEO obligations under this contract.
 - The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.
10. **Assurance Required by 49 CFR 26.13(b):**
- The requirements of 49 CFR Part 26 and the State DOT's U.S. DOT-approved DBE program are incorporated by reference.
 - 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.
- The records kept by the contractor shall document the following:
 - The number and work hours of minority and non-minority group members and women employed in each work classification on the project;
 - The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and
 - The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women;
 - 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 contacting 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.

ON-THE-JOB TRAINING

(10-16-07) (Rev. 4-21-15)

Z-10

Description

The North Carolina Department of Transportation will administer a custom version of the Federal On-the-Job Training (OJT) Program, commonly referred to as the Alternate OJT Program. All contractors (existing and newcomers) will be automatically placed in the Alternate Program. Standard OJT requirements typically associated with individual projects will no longer be applied at the project level. Instead, these requirements will be applicable on an annual basis for each contractor administered by the OJT Program Manager.

On the Job Training shall meet the requirements of 23 CFR 230.107 (b), 23 USC – Section 140, this provision and the On-the-Job Training Program Manual.

The Alternate OJT Program will allow a contractor to train employees on Federal, State and privately funded projects located in North Carolina. However, priority shall be given to training employees on NCDOT Federal-Aid funded projects.

Minorities and Women

Developing, training and upgrading of minorities and women toward journeyman level status is a primary objective of this special training provision. Accordingly, the Contractor shall make every effort to enroll minority and women as trainees to the extent that such persons are available within a reasonable area of recruitment. This training commitment is not intended, and shall not be used, to discriminate against any applicant for training, whether a member of a minority group or not.

Assigning Training Goals

The Department, through the OJT Program Manager, will assign training goals for a calendar year based on the contractors' past three years' activity and the contractors' anticipated upcoming year's activity with the Department. At the beginning of each year, all contractors eligible will be contacted by the Department to determine the number of trainees that will be assigned for the upcoming calendar year. At that time the Contractor shall enter into an agreement with the Department to provide a self-imposed on-the-job training program for the calendar year. This agreement will include a specific number of annual training goals agreed to by both parties. The number of training assignments may range from 1 to 15 per contractor per calendar year. The Contractor shall sign an agreement to fulfill their annual goal for the year.\

Training Classifications

The Contractor shall provide on-the-job training aimed at developing full journeyman level workers in the construction craft/operator positions. Preference shall be given to providing training in the following skilled work classifications:

Equipment Operators	Office Engineers
Truck Drivers	Estimators
Carpenters	Iron / Reinforcing Steel Workers
Concrete Finishers	Mechanics
Pipe Layers	Welders

The Department has established common training classifications and their respective training requirements that may be used by the contractors. However, the classifications established are not all-inclusive. Where the training is oriented toward construction applications, training will be allowed in lower-level management positions such as office engineers and estimators. Contractors shall submit new classifications for specific job functions that their employees are performing. The Department will review and recommend for acceptance to FHWA the new classifications proposed by contractors, if applicable. New classifications shall meet the following requirements:

Proposed training classifications are reasonable and realistic based on the job skill classification needs, and

The number of training hours specified in the training classification is consistent with common practices and provides enough time for the trainee to obtain journeyman level status.

The Contractor may allow trainees to be trained by a subcontractor provided that the Contractor retains primary responsibility for meeting the training and this provision is made applicable to the subcontract. However, only the Contractor will receive credit towards the annual goal for the trainee.

Where feasible, 25 percent of apprentices or trainees in each occupation shall be in their first year of apprenticeship or training. The number of trainees shall be distributed among the work classifications on the basis of the contractor's needs and the availability of journeymen in the various classifications within a reasonable area of recruitment.

No employee shall be employed as a trainee in any classification in which they have successfully completed a training course leading to journeyman level status or in which they have been employed as a journeyman.

Records and Reports

The Contractor shall maintain enrollment, monthly and completion reports documenting company compliance under these contract documents. These documents and any other information as requested shall be submitted to the OJT Program Manager.

Upon completion and graduation of the program, the Contractor shall provide each trainee with a certification Certificate showing the type and length of training satisfactorily completed.

Trainee Interviews

All trainees enrolled in the program will receive an initial and Trainee/Post graduate interview conducted by the OJT program staff.

Trainee Wages

Contractors shall compensate trainees on a graduating pay scale based upon a percentage of the prevailing minimum journeyman wages (Davis-Bacon Act). Minimum pay shall be as follows:

60 percent	of the journeyman wage for the first half of the training period
75 percent	of the journeyman wage for the third quarter of the training period
90 percent	of the journeyman wage for the last quarter of the training period

In no instance shall a trainee be paid less than the local minimum wage. The Contractor shall adhere to the minimum hourly wage rate that will satisfy both the NC Department of Labor (NCDOL) and the Department.

Achieving or Failing to Meet Training Goals

The Contractor will be credited for each trainee employed by him on the contract work who is currently enrolled or becomes enrolled in an approved program and who receives training for at least 50 percent of the specific program requirement. Trainees will be allowed to be transferred between projects if required by the Contractor's scheduled workload to meet training goals.

If a contractor fails to attain their training assignments for the calendar year, they may be taken off the NCDOT's Bidders List.

Measurement and Payment

No compensation will be made for providing required training in accordance with these contract documents.

MINIMUM WAGES**GENERAL DECISION NC170104 01/06/2017 NC104:**

Date: January 6, 2017

General Decision Number: NC170104 01/06/2017 NC104

Superseded General Decision Numbers: NC20160104

State: North Carolina

Construction Type: HIGHWAY

COUNTIES:

Beaufort	Granville	Pasquotank
Bertie	Halifax	Perquimans
Bladen	Harnett	Robeson
Camden	Hertford	Sampson
Carteret	Hyde	Scotland
Chowan	Jones	Tyrrell
Columbus	Lenoir	Vance
Craven	Martin	Warren
Dare	Northampton	Washington
Duplin	Pamlico	Wilson
Gates		

HIGHWAY CONSTRUCTION PROJECTS (excluding tunnels, building structures in rest area projects & railroad construction; bascule, suspension & spandrel arch bridges designed for commercial navigation, bridges involving marine construction; and other major bridges).

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.20 for calendar year 2017 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.20 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract for calendar year 2017. The EO minimum wage rate will be adjusted annually. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Number
0

Publication Date
01/06/2017

SUNC2014-006 11/17/2014

	Rates	Fringes
BLASTER	21.85	
CARPENTER	13.72	
CEMENT MASON/CONCRETE FINISHER	14.26	
ELECTRICIAN		
Electrician	18.69	2.66
Telecommunications Technician	14.72	1.67
IRONWORKER	16.32	
LABORER		
Asphalt Raker and Spreader	12.42	
Asphalt Screed/Jackman	13.48	
Carpenter Tender	10.85	
Cement Mason/Concrete Finisher Tender	11.35	
Common or General	10.12	
Guardrail/Fence Installer	13.39	
Pipelayer	13.31	
Traffic Signal/Lighting Installer	16.88	
PAINTER		
Bridge	19.62	
POWER EQUIPMENT OPERATORS		

	Rates	Fringes
Asphalt Broom Tractor	13.28	
Bulldozer Fine	18.46	
Bulldozer Rough	14.09	
Concrete Grinder/Groover	24.66	
Crane Boom Trucks	17.25	
Crane Other	21.48	
Crane Rough/All-Terrain	19.00	
Drill Operator Rock	15.43	1.61
Drill Operator Structure	19.12	
Excavator Fine	17.61	
Excavator Rough	12.99	
Grader/Blade Fine	16.73	
Grader/Blade Rough	15.28	
Loader 2 Cubic Yards or Less	10.28	
Loader Greater Than 2 Cubic Yards	13.58	
Material Transfer Vehicle (Shuttle Buggy)	17.39	
Mechanic	18.63	
Milling Machine	14.38	
Off-Road Hauler/Water Tanker	9.30	
Oiler/Greaser	13.45	
Pavement Marking Equipment	11.87	
Paver Asphalt	15.53	
Roller Asphalt Breakdown	12.13	
Roller Asphalt Finish	13.65	
Roller Other	10.48	
Scraper Finish	13.98	
Scraper Rough	10.17	
Slip Form Machine	19.29	
Tack Truck/Distributor Operator	14.56	
TRUCK DRIVER		
GVWR of 26,000 Lbs or Less	10.35	
GVWR of 26,000 Lbs or Greater	12.04	

Welders – Receive rate prescribed for craft performing operation to which welding is incidental.

Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

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

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than "SU" or "UAVG" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the "SU" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

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

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

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

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

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

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

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

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

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

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

4.) All decisions by the Administrative Review Board are final.

END OF GENERAL DECISION

County : Dare, Hyde

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
ROADWAY ITEMS						
0001	8000000000-N	800	MOBILIZATION (STRUCTURES)	Lump Sum	L.S.	
0002	8860000000-N	SP	GENERIC STRUCTURE ITEM (DEMOLITION AND DISPOSAL OF EX ISTING PILES AND DOLPHINS)	Lump Sum	L.S.	
0003	8860000000-N	SP	GENERIC STRUCTURE ITEM (ELECTRICAL)	Lump Sum	L.S.	
0004	8860000000-N	SP	GENERIC STRUCTURE ITEM (REFUELING EQUIPMENT, PUMP, HO SE & HOSE REEL)	Lump Sum	L.S.	
0005	8860000000-N	SP	GENERIC STRUCTURE ITEM (SEWER HOSE & HOSE REEL)	Lump Sum	L.S.	
0006	8860000000-N	SP	GENERIC STRUCTURE ITEM (WATER HOSE CONNECTION, HOSE, & HOSE REEL)	Lump Sum	L.S.	
0007	8867000000-E	SP	GENERIC STRUCTURE ITEM (3 PILE DOLPHIN (60' MARINE TR EATED PILES, BARGE DRIVEN)	1,440 LF		
0008	8867000000-E	SP	GENERIC STRUCTURE ITEM (30" DIAMETER PIPE PILE 75' IN LENGTH-INCLUDES FREIGHT)	450 LF		
0009	8867000000-E	SP	GENERIC STRUCTURE ITEM (EPOXY POLYAMIDE COATING OF 24 " PIPE PILES)	60 LF		
0010	8867000000-E	SP	GENERIC STRUCTURE ITEM (EPOXY POLYAMIDE COATING OF 30 " PIPE PILES)	180 LF		
0011	8867000000-E	SP	GENERIC STRUCTURE ITEM (KING PILE 24" DIAMETER STEEL PIPE PILES)	150 LF		
0012	8867000000-E	SP	GENERIC STRUCTURE ITEM (KING PILE DOLPHIN TIMBER PILE S)	4,320 LF		

County : Dare, Hyde

Line #	Item Number	Sec #	Description	Quantity	Unit Cost	Amount
0013	8881000000-E	SP	GENERIC STRUCTURE ITEM (GANGWAY BEARING PAD (INCLUDING EXCAVATION, FORM, REBAR AND CONCRETE))	9 CY		
0014	8897000000-N	SP	GENERIC STRUCTURE ITEM (ALUMINUM GANGWAY, HATTERAS)	1 EA		
0015	8897000000-N	SP	GENERIC STRUCTURE ITEM (ALUMINUM GANGWAY, OCRACOKE)	1 EA		
0016	8897000000-N	SP	GENERIC STRUCTURE ITEM (FLOATING DOCK, HATTERAS)	1 EA		
0017	8897000000-N	SP	GENERIC STRUCTURE ITEM (FLOATING DOCK, OCRACOKE)	1 EA		

0938/Dec08/Q6619.0/D149971000000/E17

Total Amount Of Bid For Entire Project :

Execution of Contract

Contract No: DA00400

Counties: Dare & Hyde

ACCEPTED BY THE DEPARTMENT

Contract Officer

Date

Signature Sheet (Bid) - ACCEPTANCE SHEET