CONTRACT NO.

CITY OF CUYAHOGA FALLS 2310 SECOND STREET CUYAHOGA FALLS, OH 44221 Phone (330) 971-8000 Fax (330) 971-8168



TO BE COMPLETED BY THE CITY OF CUYAHOGA FALLS			
DATE OF BIDDING, 2020	CONTRACT PRICE \$		
DATE AWARDED BOARD OF CONTROL	, 2020 Date Executed	, 2020	

Department: Engineering	ORDINANCE To Award
SUM-W. S	TEELS CORNERS RD.
RESURF	FACING (PID 102904)
D	3E GOAL = 7%
ONLY THOSE CONTRAC DEPARTMENT OF TRAN	FORS WHO ARE PRE-QUALIFIED BY THE OHIO ISPORTATION AS OF 30 DAYS PRIOR TO THE
SCHEDULED BID OPENING	DATE WILL BE ELIGIBLE TO SUBMIT BIDS FOR IS PROJECT. A PRE-OUALIFICATION LETTER OF
CERTIFICATE FROM OD	DT SHALL BE INCLUDED AS PART OF THE BID DOCUMENTS.

	THE FOLLOWING INFORMATION MUST BE COMPLETED FOR BID CONSIDERATION	Attach
Company Name		
CONTACT PERSON_	PHONE NO. (FAX:	- Bond
Address	CITY STATE ZIP	

SUM-W. STEELS CORNERS RD. RESURFACING (PID 102904) NORTHAMPTON ROAD TO STATE ROAD

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* These pages to be completely filled in, signed, notarized where required, and returned in the Proposal Book in its entirety at time of bid opening.

τ *These pages to be inserted after bid awarded.*

INFORMATION AND INSTRUCTIONS SECTION 1

LEGAL NOTICE

Sealed proposals will be received in the office of the Director of Public Service, Municipal Building, Cuyahoga Falls, Ohio, until 12:00 noon, WEDNESDAY, SEPTEMBER 16, 2020, with bids being opened in Conference Room "A", Second Floor, Municipal Building, 2310 Second Street, Cuyahoga Falls, Ohio, for the resurfacing of W. Steels Corners Road, from Northampton Road to State Road. ONLY CONTRACTORS WHO ARE **PRE-QUALIFIED** BY THOSE THE OHIO DEPARTMENT OF TRANSPORTATION AS OF 30 DAYS PRIOR TO THE SCHEDULED BID OPENING DATE WILL BE ELIGIBLE TO SUBMIT BIDS FOR THE CONSTRUCTION OF THIS PROJECT. A PRE-QUALIFICATION LETTER OR CERTIFICATE FROM ODOT SHALL BE INCLUDED AS PART OF THE BID **DOCUMENTS.**

Plans and proposals may be obtained by contacting the Cuyahoga Falls Engineering Department at <u>330-971-8180</u> or <u>engineering@cityofcf.com</u>.

The pre-bid meeting will be a conference call on Tuesday, September 8, 2020, at 2:00 p.m. If you wish to participate in this meeting, call: 605-313-4802, access code 702729#.

Bidders must use the printed forms provided therefore, as none other will be accepted. Each proposal must contain the full name of the party or parties making the same, and all parties interested therein, and must be accompanied by a bond or certified check in the sum of five percent (5%) of the total amount of the bid, on a solvent bank, as a guarantee that if the bid is accepted, a contract will be entered into. The Director of Public Service reserves the right to reject any or all bids and to waive any informality in any proposal. Bids will be received only from parties that have obtained a recorded bid set of drawings and specifications as evidenced by returning the provided Acknowledgement of Receipt of Plans.

The successful bidder must post a Performance, Payment, Maintenance bond in the amount of one hundred percent (100%) of the total amount of the bid.

"DOMESTIC STEEL USE REQUIREMENTS AS SPECIFIED IN SECTION 153.011 OF THE REVISED CODE APPLY TO THIS PROJECT. COPIES OF SECTION 153.011 OF THE REVISED CODE CAN BE OBTAINED FROM ANY OF THE OFFICES OF THE DEPARTMENT OF ADMINISTRATIVE SERVICES."

We are an Equal Opportunity Employer.

BY ORDER OF THE ANTHONY L. ZUMBO, P.E., P.S., DIRECTOR OF PUBLIC SERVICE

FALLS NEWS-PRESS:	August 23, 2020
	August 30, 2020
	September 6, 2020

CITY OF

CUYAHOGA FALLS, OHIO

PRE-BID

CONSTRUCTION MEETING

WEST STEELS CORNERS ROAD RESURFACING NORTHAMPTON ROAD TO STATE ROAD

A Pre-Bid Meeting will be held to review bid documents and answer questions relative to the proposed project.

This meeting will be held BY TELEPHONE CONFERENCE CALL on Tuesday, September 8, 2020, at 2:00 p.m., by calling 605-313-4802, access code 702729#

Contact person for this project is:

Craig Marko, P.E., or Phil Horstman City Engineer's Office 971-8180

TONY DEMASI, P. E. CITY ENGINEER

1.1.1

INFORMATION AND INSTRUCTIONS TO BIDDERS

- 1. In accordance with the advertised legal notice, sealed bids will be received by the City of Cuyahoga Falls, Ohio at the office of the Director of Public Service in the Municipal Building for certain material, equipment and/or labor services. The bids will be opened and read aloud at the time and place specified in the legal notice.
- 2. Bidders are advised to thoroughly examine the contract documents before submitting their bids. There may be changes in the specifications from those heretofore used. It is hereby understood that the bidder has read and fully understands each and every clause embodied therein.
- 3. All material, equipment and/or labor services proposed shall be in accordance with the attached specifications. Any exceptions are to be specifically noted herein.
- 4. Each proposal must contain the full name of the party or parties making the same and all persons interested therein.
- 5. All proposals or bids shall be signed and submitted on the printed blanks provided for that purpose and bound herewith. Except during the filling in of the proposal forms, no pages are to be removed from this binding. The complete set of contract documents must be submitted with the proposals. For clarity, uniformity and ease of tabulating bids all bidders are requested to TYPE their bids on the proposal forms.
- 6. The price bid for each unit of material equipment and/or service must be stated separately in figures in the proper column.
- 7. Each bidder shall submit on the proposal form the name of the manufacturer, type and catalog number of the equipment or material he proposed to furnish. He shall also submit all other data, statements and samples called for by the specifications and the data sheet forming a part of the proposal form.
- 8. Manufacturers or distributors failing to provide MSDS's will be considered as failing to meet contractual requirement. This statement shall appear on purchase orders or offers to bid.
- 9. Each bid shall be accompanied by a bond executed by the bidder and a surety company, per Ohio Revised Code, which the surety company shall be licensed to do business in the State of Ohio, in an amount not less than five (5) percent of the aggregate amount of the bid or proposal; or the bidder may submit with the bid, in lieu of such bond, a certified check on a solvent bank, payable to the order of the Director of Public Service, City of Cuyahoga Falls, Ohio, in an amount equal to the amount required in such bond. Said bond or certified check is required as a guarantee that should the said bid or proposal be accepted by the Director of Public Service, the bidder will, within ten (10) days from the time he shall have been notified of the acceptance of the same, enter into contract with the City of Cuyahoga Falls for the material, equipment and/or service bid upon.

- 10. Should any proposal be rejected, such check or bond will be returned to the bidder and should any proposal be accepted, such check or bond will be returned after proper execution of the contract documents. If the bidder, to whom the contract shall have been awarded shall refuse or neglect, within ten (10) days after due notice that the contract has been awarded to him, to execute the same, then the deposits shall be forfeited to the City as liquidate damages for such neglect or refusal.
- 11. Each proposal shall be accompanied by a non-conclusion affidavit executed on the form provided thereof.
- 12. When requested by the City of use in evaluation the bids submitted, the bidder must furnish satisfactory evidence of its ability, competency, facility and financial resource to furnish the material, equipment and/or labor services so bid. If the bidder represents a manufacturer, then he must submit similar data relating to the manufacturer.
- 13. Each bid on equipment, material and/or labor services shall contain a statement of the time, after the award of the contract, required by the bidder to deliver the equipment, material and/or labor services included in the bid.
- 14. Each bid shall be sealed and addressed to the Director of Public Service, City of Cuyahoga Falls, Ohio, and shall bear on its face, the name of the bidder, a statement that it is a sealed bid to be opened on the day and hour above mentioned, and statement of the item numbers on which the bid is made.
- 15. All bids shall be filed with the Director of Public Service, in that office in the Municipal Building, in the City of Cuyahoga Falls, Ohio, on or before the day and hour mentioned above and stated in the legal notice of advertisement. No proposal presented after that time will be accepted.
- 16. Permission will not be given for the modification of any proposal after the same has been filed. No bidder may withdraw his bid, for a period of thirty (30) days after the date of opening of same.
- 17. If any person contemplating submitting a bid for the proposed material, equipment and/or labor services is in doubt as to the true meaning of any part of the specifications or other proposed contract documents, he may submit to the Director of Public Service, a written request for an interpretation thereof. The person submitting the request will be responsible for its prompt delivery. Any interpretation of the proposed documents or changes therein will be made only by addendum duly issued and a copy of such addendum will be mailed or delivered to each person receiving a set of such documents. The Director of Public Service will not be responsible for any other explanation or interpretations of the proposed documents.
- 18. No bid will be accepted from, or contract awarded to, any person, firm or corporation that is in arrears to the City of Cuyahoga Falls, upon any debt or contract, or who has failed to execute, in whole or in part, in a satisfactory manner, any contract with the City; or who if a defaulter as to surety or otherwise upon any obligation to the City of Cuyahoga Falls.

- 19. Attention of the bidder is called to the statutory requirements of the State of Ohio relative to licensing of corporations organized under the laws of any other state.
- 20. Instructions must be adhered to; failure to strictly observe them shall constitute a sufficient cause of rejection of a bid.
- 21. the City shall not be liable for the payment of any material furnished under the contract except upon written order from the Director of Public Service supplementing this agreement, and no shipment of same shall be made under the contract except after receipt of such written order.
- 22. The Director of Public Service may consider bid specification items as distinct bids for each of the items such as material, equipment and/or labor services. However, all parts of any bid specification item must be bid to qualify that item for consideration.
- 23. After the public reading, all bids will be tabulated and upon completion of a report by the appropriate purchasing department on the bids received, the Director of Public Service will proceed, without unnecessary delay, to award contracts for the various times to the lowest and best bidders on materials, equipment and/or labor services, conforming to the specifications.
- 24. The Director of Public Service expressly reserves the right to reject any or all bids and to waive informalities and to judge the character and sufficiencies of equipment, apparatus, materials, and/or labor services bid upon. Bidders who are in sympathy with the purpose outlined above and prepared to act in accordance therewith, are invited to submit bids in accordance with these specifications.
- 25. A Performance Bond will be required (if indicated by the legal notice) of each successful bidder to assure the faithful completion of the contract that has been awarded. <u>The successful bidder shall name both the City and ODOT as obligees on the bond.</u>
- 26. The Performance Bond form and/or the Contract form are not to be executed by the bidder until a contract has been awarded.
- 27. The required contract provisions for federal-aid construction contracts contained in ODOT's 2020 LPA Template are hereby incorporated by reference. The rules and regulations in the Template shall apply to all work to be done under this contract. If any provisions of these rules and regulations conflict with any other clauses of this contract, the ODOT 2020 LPA Template shall govern.

End of Instructions

City of Cuyahoga Falls

INSURANCE REQUIREMENTS - Amended 2/18/82

103.08 INSURANCE:

The Contractor shall not commence work under this contract until he has obtained all the insurance required under this paragraph and such insurance has been approved by the City nor shall the Contractor or any subcontractor to commence work on his subcontract until the insurance required of the subcontractor has been so obtained and approved.

1. COMPENSATION INSURANCE:

The Contractor shall procure, and shall maintain during the life of this contract, Workmen's Compensation Insurance as required by the State of Ohio for all of his employees to be engaged in work at the site of the project under this contract and, in case of any such work sublet, the Contractor shall require the subcontractor similarly to provide Workmen's Compensation Insurance for all of the latter's employees to be engaged in such work unless such employees are covered by the protection afforded by the Contractor's Workmen's Compensation Insurance. If any class of employees engaged in hazardous work on the project under this contract is not protected under the Workmen's Compensation Statute, the Contractor shall provide and shall cause each subcontractor to provide adequate employer's liability insurance for the protection of such of his employees as are not otherwise protected.

2. CONTRACTOR'S COMPREHENSIVE GENERAL LIABILITY INSURANCE AND AUTOMOBILE LIABILITY INSURANCE:

The Contractor shall procure and shall maintain, during the life of this contract, (1) Comprehensive General Liability Insurance including all Premises/Operations; Products/Completed Operations; and Broad Form Property Damage, and (2) Automobile Liability Insurance for all vehicles and equipment in the amount specified in subparagraph 2.

3. SUBCONTRACTOR'S COMPREHENSIVE GENERAL LIABILITY INSURANCE AND AUTOMOBILE LIABILITY INSURANCE:

The Contractor shall either (1) require of his subcontractors to procure and to maintain during the life OF HIS SUBCONTRACT, comprehensive, General Liability Insurance and Automobile Liability Insurance of the type and in the amount specified in Subparagraph 2 and 6 hereof or, (2) insure the activities of his policy, specified in Subparagraph 2 hereof.

4. SCOPE OF INSURANCE AND SPECIAL HAZARDS:

The insurance required under subparagraphs 2 and 3 hereof shall provide adequate protection for the Contractor and his Subcontractors, respectively, against claims which may arise from operations under this contract, whether such operations be by the insured or by anyone directly or indirectly employed by him and, also against any of the special hazards which may be encountered in the performance of this contract as enumerated in the SPECIAL PROVISIONS.

PAGE 2 – INSURANCE REQUIREMENTS – as amended.

1. BUILDER'S RISK INSURANCE (Fire and Extended coverage):

(Building Construction only) Until the project is completed and accepted by the City, the Contractor is required to maintain Builder's Risk Insurance (fire and extended coverage) on a 100 percent completed value basis on the insurable portion of the project for the benefit of the City, the Contractor, Subcontractors as their interests may appear. The Contractor shall not include any costs for Builder's Risk Insurance (fire and extended coverage) premiums during construction unless the Contractor is required to provide such insurance; however, this provision shall not release the Contractor from his obligation to complete, according to plans specifications, the project covered by the contract, and the Contractor and his Surety shall be obligated to full performance of the Contractor's undertaking.

2. PROOF OF CARRIAGE OF INSURANCE:

The Contractor shall furnish the City with certificates showing the type, amount, class of operations covered, effective dates and date of expiration of policies. Such certificates shall also contain substantially the following statement: "The insurance covered by this certificate will not be canceled or materially altered, except after ten (10) days' written notice has been received by the City."

The minimum amount of such insurance including underlying and umbrella excess shall be as follows:

BODILY INJURY AND PROPERTY DAMAGE LIABILITY COMBINED SINGLE LIMIT

Each Occurrence

\$ 2,000,000.00

INCOME TAX REQUIREMENTS

Employers doing business within Cuyahoga Falls are required to deduct at the time of payment of salaries, wages, commissions or other compensation the tax of two (2) percent of the gross amount earned in Cuyahoga Falls.

Every employer who is required to deduct the tax at the source is liable directly to the City of Cuyahoga Falls for payment of such tax whether actually collected from their employees or not.

Also, the net profit from income earned within Cuyahoga Falls is subject to the tax. Both withholding and tax on profits are due quarterly.

CONTACT THE INCOME TAX DIVISION FOR THE NECESSARY FORMS AND ANY ADDITIONAL INFORMATION.

City of Cuyahoga Falls

Office of the Mayor

Mayor Don Walters 2310 Second Street Cuyahoga Falls OH 44221



Phone: 330-971-8200 Fax: 330-971-5696 mayor@cityofcf.com

Dear Employer:

In today's society, we all seem to face the dangers and consequences of alcohol and drug abuse. Studies have found the workplace is not exempt from this scourge that is threatening our nation. It is found that two-thirds of those entering the workplace for the first time have used illegal drugs. Up to twenty-three percent of employees abuse alcohol/drugs on the job. The figures are staggering. Up to 100 billion dollars a year are lost in productivity.

The City of Cuyahoga Falls has passed Ordinance 12-1990, which requires employers who are awarded competitively-bid City contracts to maintain a drug-free workplace.

I have enclosed an outline of the requirements that need to be met. You will also find a sample policy statement, a certification to be completed and returned in your bid packet. It is our hope that through education and awareness, we can be an effective part of the solution.

Please know this office and I are available to assist in any way we can.

Sincerely,

Don Walters Mayor

Encl.

181.07 EMPLOYERS AWARDED CITY CONTRACTS TO MAINTAIN DRUG FREE WORKPLACE.

- 1. No contract awarded through the process of competitive bidding, other than contracts pursuant to Ohio R.C. 125.04, shall be awarded to any bidder who does not certify that the following requirements have been met:
 - a. A statement has been published and provided to employees notifying them that the manufacture, use, possession, or distribution of drugs in the work place is prohibited, as well as a specification of the disciplinary action that may be taken against employees who violate that prohibition.
 - b. Any employee convicted of violating a criminal drug statute occurring in the work place is required to notify the employer of said conviction within five days after such conviction.
 - c. Notice has been published specifying the sanctions for or requiring satisfactory participation in a drug abuse assistance or rehabilitation program by an employee convicted of violating a criminal drug statute occurring in the work place.
 - d. A program has been implemented for the distribution of information on drug abuse awareness and the availability of counseling and referral services.
- 2. The Board of Control may, for good cause shown, grant an extension of time for compliance of the above requirements.
- 3. The Drug control Coordinator be and hereby is directed to provide information and assistance necessary to facilitate compliance with the provisions of this section.

(Ord. 12-1990. Passed 1-22-90)

SEXUAL HARASSMENT POLICY

Employees of the City of Cuyahoga Falls have a right to work in an environment free of sexual harassment. The City will not tolerate any form of sexual harassment or any offensive conduct that has the effect of severely interfering with an employee's work performance or creating a pervasive intimidating, hostile, offensive work environment. Examples of sexual harassment include, but are not limited to, unwanted sexual advances; implicit or explicit demands for sexual favors in exchange for favorable treatment or continued employment; repeated sexual jokes, flirtations, advances or propositions; verbal abuse of a sexual nature; graphic, verbal commentary about an individual's body, sexual prowess or sexual deficiencies; leering; whistling; touching; pinching; assault; coerced sexual acts; suggestive insulting, obscene comments or gestures; and display in the work place of sexually suggestive objects or pictures.

It is the policy of the City of Cuyahoga Falls that any form of sexual harassment is unacceptable, either within the workplace or at City-sponsored events, whether on or off property owned by the City, and is subject to appropriate disciplinary action.

The City encourages individuals who believe they are being harassed to clearly and promptly notify the offender that his or her behavior is unwelcome. <u>This procedure is not a required first step for reporting sexual harassment.</u> If for any reason an individual does not wish to approach the offender directly or if such discussion does not successfully end the harassment, then the individual should notify their supervisor.

Additionally, any employee who observes harassment of any type is to report it to his or her supervisor.

All employees are expected to cooperate with an investigation of any type of harassment. Failure to do so may lead to discipline. False information provided in the course of any investigation may also lead to discipline.

The City will not retaliate against an individual who makes a report of sexual harassment, nor permit any employee to do so. Retaliation is a very serious violation of this policy and should be reported immediately. Any individual found to have retaliated against an individual for reporting sexual harassment, or against anyone participating in the investigation of a complaint, will be subject to appropriate disciplinary action.

FIREARMS POLICY

As a result of the General Assembly passing Am. Sub. House Bill 12 regarding "concealed carry" of firearms, the City of Cuyahoga Falls, Ohio, has adopted a policy. Each Bidder must review the policy and file the certification that is included in this bid packet. The policy can be accessed at the City's website, <u>www.cityofcf.com</u>, or a copy can be obtained from the office of the Director of Public Service located on the 2nd floor of City Hall, 2310 Second Street, Cuyahoga Falls, Ohio. Upon request, the policy can be faxed or mailed.

BIDS SUBJECT TO 60 DAY ACCEPTANCE

BECAUSE OF OUR DESIRE TO FAIRLY AND EQUABLY EVALUATE ALL COMPETITIVE BIDS, WE ARE SPECIFYING THAT ALL BIDS BE SUBJECT TO ACCEPTANCE BY THE CITY WITHIN <u>60 DAYS</u> FROM THE <u>DATE OF THE BID</u> <u>OPENING.</u>

EXCEPTION BY THE BIDDER TO THIS REQUIREMENT MAY RESULT IN HAVING THE SUBJECT BID REJECTED BY THE CITY AS NOT HAVING MET THE CITY'S SPECIFICATIONS.

CONTRACTOR PERMIT/REGISTRATION REQUIREMENTS

The Contractor shall review and comply with the provisions of any and all permits issued for this work, including compliance with contractor registration, insurance and/or bonding provisions. Although City of Cuyahoga Falls permit fees for this work, if applicable, will be waived, costs for City of Cuyahoga Falls contractor registration, if applicable, will not.



CONTRACT FORMS SECTION 3

(DIRECTOR OF PUBLIC SERVICE)

NOTE

The bidder hereby agrees that the Director of Public Service has the right to reject any or all bids and to waive informality in any bid and that the bidder shall not dispute the correctness of the quantities used in computing the lowest and best bid.

The bidder further agrees that the Director of Public Service may at his discretion award the contract on the basis of individual items taken separately in multiples or collectively for any or all items in this proposal and that he will not dispute the Director's judgment in his award upon this basis.

Signature of Officer, Partner or Owner

(Business address of bidder)

CERTIFIED CHECK OR BID BOND

Certified check or bid bond in the amount of:

State Amount

Name of Bank or Bonding Company

_____ deposited herewith.

BIDDER

on

All bids not in conformity with these provisions will be rejected.

* PLEASE PLACE BID BOND/CERTIFIED CHECK ON TOP OF THE BID PACKET WHEN SUBMITTING YOUR BID. ALSO, PLEASE HAVE NOTED THE ADDRESS OF WHERE THE BID BOND/CERTIFIED CHECK IS TO BE RETURNED. THANK YOU FOR YOUR COOPERATION.

CERTIFICATION OF OSHA COMPLIANCE

I, _______, hereby certify that _______ Company Official) (Company) will comply with all Federal, State and City of Cuyahoga Falls statutes, ordinances, rules and regulations regarding job site safety, including but not limited to the Occupational Safety and Health Act while engaged in this project. I understand that a failure of ________(Company) or its subcontractors to follow any safety regulation will result in the city, in its sole discretion issuing a stop work order on the project until the violation is cured. Failure to stop work when so ordered by the City may result in the immediate termination of the Agreement by the City. The City may, in its sole discretion, notify OSHA of any violation of safety regulations by the Company or its subcontractors. All fines and penalties that may result from any violation will be borne by the Company or its subcontractor.

Signature

Title

State of Ohio))ss County of _____)

Sworn to before me and subscribed in my presence this ______ of _____, 20_____.

Notary Public My Commission Expires:_____

[seal]

CERTIFICATION

I,		certify that	
(Comj	pany Official)		
		has posted ir	the workplace and distributed
(Com	pany)		
to all employees our	Drug-Free Workplace P	Policy Statement	, a copy of which is attached hereto.
I further certify that _		h	as made information on alcohol
	(Employer)		
and drug abuse awa availability of counse	areness available to all eling and referral service	l employees an employees and employees an	id will provide information on the vee requesting such information.
·	0		
		(Official	l Signature and Title)
State of Ohio)		
County of Summit)ss		
)		
Sworn to before me a	and subscribed in my pro	esence this	day of, 20
			Notary Public

[Seal]

In accordance with City of Cuyahoga Falls Ordinance No. 12-1990, passed January 22, 1990:

DRUG FREE WORKPLACE POLICY STATEMENT

hereby notifies all employees of our policy

(Employer) regarding drugs in the workplace.

Without exception, the unlawful manufacture, distribution, dispensing, possession or use of a controlled substance while in the workplace is strictly prohibited.

____ requires that as a condition of employment,

(Employer)

any employee convicted of a drug violation occurring in the workplace must notify his or her employer within five (5) days after conviction.

Any employee found in violation of this policy is subject to appropriate personnel action, up to and including termination of employment. Continued employment may be conditioned upon successful completion of an acceptable drug rehabilitation program.

Any employee seeking information on drug or alcohol abuse awareness and the availability of counseling and referral services should contact:

(Name)

(Phone)

CERTIFICATION

I,	hereby certify that
(Company Official)	
	has received, reviewed, and distributed the
(Company)	
City of Cuyahoga Falls' policy regarding Sexual H	larassment to all employees who will be
working or involved with this project. I further ce	ertify that
	(Company)
will indemnify the City of Cuyahoga Falls in any a	action brought against it alleging that an
employee of(Company)	_ engaged in any conduct prohibited by the
(company)	
City's Sexual Harassment Policy while working or	otherwise involved with this particular
Project.	
	Signature
	Signature
	Title
)ss	
County of)	
Sworn to before me and subscribed in my	presence this day of , 20.
	Notary Public
	My Commission Expires:

FIREARMS CERTIFICATION

I,	hereby certify that
(Company Official)	
	has reviewed and
(Company)	
distributed by the City of Cuyahoga Falls' policy	regarding Firearms to all employees and
subcontractors who will be working on or involv	red with this project. I further certify that
	will indemnify the City of
(Company) Cuyahoga Falls in any action brought against it a	alleging that an employee of
	Engaged in any conduct prohibited
By the City's Firearms Policy while working or	otherwise involved with this particular Project.
Signature	
Title	
State of))ss County of)	
J /	
Sworn to before me and subscribe, 200	ed in my presence this day of
	Notary Public My commission expires:

[Seal]

EQUAL EMPLOYMENT OPPORTUNITY

During the performance of this contract, the CONTRACTOR agrees as follows:

a. The CONTRACTOR will not discriminate against any employee or applicant for employment because of race, creed, color, sex, national origin or handicap status. The CONTRACTOR will take affirmative action to ensure that applicants are employed and that employees are treated during employment without regard to their race, creed, color, sex, national origin or handicap status. Such action shall include, but not be limited to the following: Employment, upgrading, demotion or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship.

The CONTRACTOR agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the provision of this nondiscrimination clause.

- b. The CONTRACTOR will, in all applications or advertisements for employees placed by or on behalf of the CONTRACTOR, state that all qualified applicants will receive consideration for employment without regard to race, creed, color, sex, national origin or handicap status.
- c. The CONTRACTOR will cause the foregoing provisions to be inserted in all subcontractors for any work covered by this Contract so that such provisions will be binding upon each subcontractor, provided that foregoing provisions shall not apply to contractors or subcontracts for standard commercial supplies or raw materials.

NON-COLLUSION AFFIDAVIT

THIS AFFIDAVIT MUST BE EXECUTED FOR THE BID TO BE CONSIDERED.

STATE OF)		
COUNTY OF)		
I,,,,	(Title)	
being duly sworn, do denose and say: that	(The)	
being dury sworn, do depose and say. that		

(Insert names of all persons, firms, or corporations interested in the bid)

its agents, officers, or employees have not directly or indirectly entered into any agreement, participated in any collusions, or otherwise taken any action in restraint of free competitive bidding in connection with this proposal; and also that no member of the Council, head of any department or bureau, or employee therein, or any officer of the City of Cuyahoga Falls is directly or indirectly interested therein.

Signature

Title

Sworn to and subscribed before me this _____ day of _____, 20____.

Notary Public in and for

COUNTY OF _____

STATE OF _____

My commission expires _____

[SEAL]

Have you double-checked your bid? Errors or omissions could result in your bid being declared informal.

PREVAILING WAGE CONTRACTOR RESPONSIBILITIES

This is a summary of prevailing wage contractors' responsibilities. For more detailed information, please refer to Chapter 4115 of the Ohio Revised Code.

General Information

Ohio's prevailing wage laws apply to all public improvements financed in whole or in part by public funds when the total overall project cost is fairly estimated to be more than the following:

"New" construction threshold for <i>Building</i> Construction:	\$250,000
"Reconstruction, enlargement, alteration, repair, remodeling, renovation	
or painting" threshold level for Building Construction:	\$75,000

As of January 1, 2020:

"New" construction that involves roads, streets, alleys, sewers, ditches	
and other works connected to road or bridge construction threshold level	
has been adjusted to:	\$93,292
"Reconstruction, enlargement, alteration, repair, remodeling, renovation	
or painting" that involves roads, streets, alleys, sewers, ditches and other	
works connected to road or bridge construction threshold level has been	\$27,950
adjusted to:	

- a. Thresholds are to be adjusted biennially by the Director of the Ohio Department of Commerce.
- b. Biennial adjustments to threshold levels are made according to the Building Cost for Skilled Labor Index published by McGraw-Hill's Engineering News-Record, but may not increase or decrease more than 3% for any year.

Penalties for Violation

If an intentional violation is determined to have occurred, the Contractor is prohibited from contracting directly or indirectly with any public authority for the construction of a public improvement. Intentional violation means "a willful, knowing, or deliberate disregard for any provision" of the prevailing wage law and includes but is not limited to the following actions:

- a. Intentional failure to submit payroll reports as required, or knowingly submitting false or erroneous reports.
- b. Intentional misclassification of employees for the purpose of reducing wages.
- c. Intentional misclassification of employees as independent contractors or as apprentices.
- d. Intentional failure to pay the prevailing wage.
- e. Intentional failure to comply with the allowable ratio of apprentices to skilled workers as required by the regulations established by Ohio Bureau of Employment Services Wage and Hour Division.
- f. Intentionally employing an officer of a contractor or subcontractor that is known to be prohibited from contracting, directly or indirectly, with a public authority.

Responsibilities

A. Pay the prevailing rate of wages as shown in the wage rate schedules issued by the Ohio Bureau of Employment Services, Wage and Hour Division, for the classification of work being performed.

- 1. Wage rate schedules include all modifications, corrections, escalations, or reductions to wage rates issued for the project.
- 2. Overtime must be paid at time and one-half the employee's base hourly rate. Fringe benefits are paid at straight time rate for all hours including overtime.
- 3. Prevailing wages must be paid in full without any deduction for food, lodging, transportation, use of tools, etc.; unless, the employee has voluntarily consented to these deductions in writing. The public authority and the Director of OBES Wage and Hour Division must approve these deductions as fair and reasonable. Consent and approval must be obtained before starting the project.
- B. Use of Apprentices and helpers cannot exceed the rations permitted in the wage rate schedules.
 - 1. Apprentices must be registered with the U.S. Department of Labor Bureau of Apprenticeship and Training.
 - 2. Contractors must provide the Prevailing Wage coordinator a copy of the Apprenticeship Agreement for each apprentice on the project.

C. Keep full and accurate payroll records available for inspection by any

authorized representative of the Ohio Bureau of Employment Services or the contracting public authority, including the Prevailing Wage Coordinator. Records should include but are not limited to:

- 1. Time cards, time sheets, daily work records, etc.
- 2. Payroll ledger/journals and cancelled checks/check register.
- 3. Fringe benefit records must include program name, address, account number, and cancelled checks.
- 4. Records made in connection with the public improvement must not be removed from the State for one year following the completion of the project.
- 5. Out-of-State Corporations must submit to the Ohio Secretary of State the full name and address of their Statutory Agent on Ohio.
- D. Prevailing Wage Rate Schedule must be posted on the job site where it is accessible to all employees.
- E. Prior to submitting the initial payroll report, supply the Prevailing Wage Coordinator with your project dates to schedule reporting of your payrolls.
- F. Supply the Prevailing Wage Coordinator a list of all subcontractors including the name, address, and telephone number for each.
 - 1. Contractors are responsible for their subcontractors' compliance with requirements of Chapter 4115 of the Ohio Revised Code.
- G. Before employees start work on the project, supply them with written notification of their job classification, prevailing wage rate, fringe benefit amounts, and the name of the Prevailing Wage Coordinator for the project. Copy of the completed signed notification should be submitted to Prevailing Wage Coordinator.
- H. Supply all subcontractors with the Prevailing Wage Rates and changes.
- I. Submit certified payrolls within two (2) weeks after the initial pay period. Payrolls must include the following information:
 - 1. Employee's names, addresses, and social security numbers.
 - a. Corporate officers/owners/partners and any salaried personnel who do physical work on the project are considered employees. All rate and reporting requirements are applicable to these individuals.
 - 2. Employee's work classification.
 - a. Be specific about the laborers and/or operators.
 - b. For all apprentices, show level/year and percent of journeyman's rate
 - 3. Hours worked on the project for each employee.
 - a. The number of hours worked in each day and the total number of hours worked each week.
 - 4. Hourly rate for each employee.
 - a. The minimum rate paid must be the wage rate for the appropriate classification. The Department's Wage Rate Schedule sets this rate.

b. When the amount contributed to the fringe benefit is documented but not the total hours worked, the hourly amount is calculated by dividing the total yearly contribution by 2080.

- 5. Where fringes are paid into a bona fide plan instead of cash, list each benefit and amount per hour paid to program for each employee.
 - a. When the amount contributed to the fringe benefit plan and the total number of hours worked by the employee on all projects for the year are documented, the hourly amount is calculated by dividing the total contribution of the employer by the total number of hours worked by the employee.
 - b. When the amount contributed to the fringe benefit is documented but not the total hours worked, the hourly amount is calculated by dividing the total yearly contribution by 2080.
- 6. Gross amount earned on all projects during the pay period.
- 7. Total deductions from employee's wages.
- 8. Net amount paid.
- J. The reports shall be certified by the contractor, subcontractor, or duly appointed agent stating that the payroll is correct and complete: and that the wage rates shown are not less then those required by the O.R.C. 4115.
- K. Send a Final Affidavit to the Prevailing Wage Coordinator upon the completion of the project.

COMPLETION TIME CERTIFICATION

The Contractor shall state the number of calendar days necessary for completion of this Contract after the date of Award of Contract.

Number of calendar days for		:	days.
,	(Name of Contract)		·

Signature of Bidder

Witness: By:_____

Address:_____

ODOT's LPA Template (ODOT Spec Book and LPA Spec Book) Required Contract Provisions.

1. ODOT'S 2019 CONSTRUCTION AND MATERIAL SPECIFICATIONS (C&MS) AND ITS SUPPLEMENTS

With the exception of Section 100 "General Provisions" included in the matrix below, ODOT's Construction and Material Specifications (CM&S) and its supplements are hereby incorporated by reference, in their entirety, as if rewritten herein. The incorporation of this document by reference does not interfere with the order of precedence set forth in Section 105.04 of the CMS Manual.

In accordance with the Locally Administrated Transportation Projects Manual of Procedures (LATPM), when bidding this project, the Contractor should replace the terms "the Department", "the Engineer", "the DCE" and "the DCA" with the term "the Local Public Agency (LPA)." Furthermore, nothing in this document is intended to alter the LPA's adherence to Ohio Revised Code, local ordinance or other applicable requirements which are properly established.

Excluded 2019 Specifications			
Section102.01	Section 103.01	Section 105.19	
Section 102.03	Section 103.02	Section 107.04	
Section 102.06	Section 103.04	Section 107.13	
Section 102.09	Section 103.05	Section 108.01	
Section 102.10	Section 103.06	Section 108.02(B)	
Section 102.11	Section 103.07	Section 108.02(E)	
Section 102.13	Section 104.02(A)	Section 108.02(G)	
Section 102.14	Section 105.05	Section 108.08	
Section 102.17			

2. STEEL AND IRON PRODUCTS MADE IN THE UNITED STATES

Furnish steel and iron products that are made in the United States according to the applicable provisions of Federal regulations stated in 23 CFR 635.410 and State of Ohio laws, and ORC 153.011 and 5525.21. "United States" means the United States of America and includes all territory, continental or insular, subject to the jurisdiction of the United States. Both the State and Federal requirements contained in (A.) and (B.) of this section apply to this contract.

A. Federal Requirements. All steel or iron products incorporated permanently into the Work must be made of steel or iron produced in the United States and all subsequent manufacturing must be performed in the United States. Manufacturing is any process that modifies the chemical content; physical shape or size; or final finish of a product. Manufacturing begins with the initial melting and mixing and continues through the bending and coating stages. If a domestic product is taken out of the United States for any process, it becomes a foreign source material.

B. State Requirements. All steel products used in the Work for load-bearing structural purposes must be made from steel produced in the United States. State requirements do not apply to iron.

C. Exceptions. ODOT may grant specific written permission to use foreign steel or iron products in bridge construction and foreign iron products in any type of construction. ODOT may grant such exceptions under either of the following conditions:

1. The cost of products to be used does not exceed 0.1 percent of the total Contract cost, or \$2,500, whichever is greater. The cost is the value of the product as delivered to the project.

2. The specified products are not produced in the United States in sufficient quantity or otherwise are not reasonably available to meet the requirements of the Contract Documents. ODOT may require the Contractor to obtain letters from three different suppliers documenting the unavailability of a product from a domestic source, if the shortage is not previously established.

D. Proof of Domestic Origin. Furnish documentation to the Engineer showing the domestic origin of all steel and iron products covered by this section, before they are incorporated into the Work. Products without a traceable domestic origin will be treated as a non-domestic product.

3. CERTIFICATION AGAINST DEBARMENT AND SUSPENSION

The bidder hereby certifies by signing this proposal that, except as noted below, under penalty of perjury and under other such penalties as the laws of this state and the United States of America provide, that the company or any person associated there with in the capacity of owner, partner, director, officer, principal investigator, project director, manager, auditor, or any position involving the administration of federal funds is **not** currently under suspension, debarment, voluntary exclusion or determination of ineligibility by any federal agency; that the company or any person associated therewith in the capacity of owner, partner, director, officer, principal investigator, project director, manager, auditor, or any position involving the administration of federal funds has **not** been suspended, debarred, voluntarily excluded or determined ineligible by any federal agency within the past three (3) years; that the company or any person associated therewith in the capacity of owner, partner, director, manager, auditor, or any position involving the administration of federal funds does **not** have a proposed debarment pending; that the company or any person associated there with in the capacity of owner, partner, director, officer, principal investigator has **not** been indicted, convicted, or had a civil judgment rendered against the company, or themselves by a court of competent jurisdiction in any matter involving fraud or official misconduct within the past three (3) years.

If there are exceptions to any of the above clauses, please include a statement with the bid package detailing these exceptions.

Exceptions will not necessarily result in denial of award but will be considered in determining bidder responsibility. For any exception noted, indicate below to whom it applies, initiating agency and dates of action. Providing false information may result in criminal prosecution or administrative sanctions. Execution of this proposal on the signature portion thereof shall constitute also signature of this certification as permitted by Title 28 United States Code, Section 1746.

4. **PREQUALIFICATION**

Only pre-qualified contractors are eligible to submit bids for this PROJECT. Pre-qualification status must be in force **at the time of bid, at the time of award, and through the life of the construction contract.** For work types that ODOT does not pre-qualify, the LPA must still select a qualified contractor. Subcontractors are not subject to the pre-qualification requirement. <u>The "prime" contractor must perform</u> no less than 30 percent of the total original contract price.

5. PN033 - 4/18/2008- AS PER PLAN DESIGNATION

(Not required by FHWA, but strongly suggested if As Per Plan is used by the LPA) For the last several years the "As Per Plan" designation has been added to some item descriptions in the proposal to assist the Contractors to easily identify standard items that have been altered by plan notes.

The "As Per Plan" designation has proven to be a very useful tool for the Contractors. However, its use was <u>never</u> intended to relieve the Contractors of their responsibility to read, bid and construct all items in accordance with all governing plan notes. Therefore, the absence of an "As Per Plan" designation on some item descriptions in the proposal for which there are clear and controlling plan notes does not relieve the Contractors of the responsibility to read, bid and construct those particular items in accordance with the governing plan notes.

2

Be advised that the item descriptions in the bidding proposal must be read or interpreted with the governing plan notes and the Construction and Material Specification Manual. A claim based upon an "order of precedence" basis will be denied. In the event that a conflict, either real or perceived, exists between the item description and the governing plan note, the Contractors are to request clarification through the pre-bid process.

6. FEDERALLY REQUIRED EEO CERTIFICATION FORM

The bidder hereby certifies that he **has**, **has not**, participated in a previous contract or subcontract subject to the equal opportunity clause, as required by Executive Orders 10925, 11114, or 11246, and that he **has**, **has not**, filed with the Joint Reporting Committee, the Director of the Office of Federal Contract Compliance, a Federal Government Contract Compliance, a Federal Government contracting or administering agency, or the former President's Committee on Equal Employment Opportunity, all reports due under the applicable filing requirements. <u>The Bidder must circle the appropriate "has or has not"</u> <u>above.</u>

7. PN 017 - 10/15/2004 - FEDERALLY REQUIRED EEO CERTIFICATION CLAUSE

The Federally Required EEO Certification is required by the Equal Employment Opportunity Regulations of the Secretary of Labor (41 CFR 60-1.7 (b) (1)) and must be submitted by bidders and proposed subcontractors only in connection with contracts and subcontractors which are subject to the equal opportunity clause. Contracts and subcontracts which are exempt from the equal opportunity clause are set forth in 41 CFR 60-1.5. (Generally only contracts or subcontracts of \$10,000 or under are exempt.)

Currently, Standard Form 100 (EEO-1) is the only report required by the Executive Orders or their implementing regulations.

Proposed prime contractors and subcontractors who have participated in a previous contract or subcontract subject to the Executive Orders and have not filed the required reports should note that 41 CFR 60-1.7 (b) (1) prevents the award of contracts and subcontracts unless such contractor submits a report covering the delinquent period or such other period specified by the Federal Highway Administration or by the Director, Office of Federal Contract Compliance, U.S. Department of Labor.

8. PN 026 - 10/15/2004 - CERTIFICATION OF NONSEGREGATED FACILITIES

(a) Certification of Nonsegregated Facilities, as required by the May 9, 1967, Order of the Secretary of Labor (32 F.R. 7439, May 19, 1967) on Elimination of Segregated Facilities (for a Federal-aid highway construction contract exceeding \$10,000 which is not exempt from the provisions of the Equal Opportunity clause).

(b) Bidders are cautioned as follows: By signing this bid, the bidder has agreed to the provisions of the "Certification of Nonsegregated Facilities" in this proposal. This certification provides that the bidder does not maintain or provide for his employees' facilities which are segregated on a basis of race, creed, color, or national origin, whether such facilities are segregated by directive or on a de facto basis. The certification also provides that the bidder will not maintain such segregated facilities.

(c) Bidders receiving Federal-aid highway construction contract awards exceeding \$10,000 which are not exempt from the provisions of the Equal Opportunity clause, will be required to provide for the forwarding of the following notice to prospective subcontractors for construction contracts and material suppliers where the subcontracts or material supply agreements exceed \$10,000 and are not exempt from the provisions of the Equal Opportunity clause.

"Notice to Prospective Subcontractors and Material Suppliers of Requirement for Certification of Nonsegregated Facilities" -
- (a) A Certification of Nonsegregated Facilities as required by the May 9, 1967, Order of the Secretary of Labor (32 F.R. 7439, May 19, 1967) on Elimination of Segregated Facilities, which is included in the proposal, or attached hereto, must be submitted by each subcontractor and material supplier prior to the award of the subcontract or consummation of a material supply agreement if such subcontract or agreement exceeds \$10,000 and is not exempt from the provisions of the Equal Opportunity clause.
- (b) Subcontractors and material suppliers are cautioned as follows: By signing the subcontract or entering into a material supply agreement, the subcontractor or material supplier will be deemed to have signed and agreed to the provisions of the "Certification of Nonsegregated Facilities" in the subcontract or material supply agreement. This certification provides that the subcontractor or material supplier does not maintain or provide for his employees facilities which are segregated on the basis of race, creed, color, or national origin, whether such facilities are segregated by directive or on a de facto basis. The certification also provides that the subcontractor or material supplier will not maintain such segregated facilities.
- (c) Subcontractors or material suppliers receiving subcontract awards or material supply agreements exceeding \$10,000 which are not exempt from the provisions of the Equal Opportunity clause will be required to provide for the forwarding of this notice to prospective subcontractors for construction contracts and material suppliers where the subcontracts or material supply agreements exceed \$10,000 and are not exempt from the provisions of the Equal Opportunity clause.

9. PN 003 - 10/15/2004 - TITLE VI RELATED STATUTES NON-DISCRIMINATION STATEMENT

The LPA, under Title VI of the Civil Rights Act and related statutes, ensures that no person in the LPA, shall on the grounds of race, color, national origin, sex, disability or age be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity it administers.

10. CERTIFICATION OF COMPLIANCE WITH AFFIRMATIVE ACTION PROGRAMS

In accordance with Ohio Administrative Code §9.47, before any Contract is awarded, the LPA will require the Bidder to furnish a valid Certificate of Compliance with Affirmative Action Programs, issued by the State EEO Coordinator dated prior to the date fixed for the opening of bids.

11. PN 020 – 11/21/2011 - NOTICE OF REQUIREMENT OF AFFIRMATIVE ACTION TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY

The Bidder's attention is called to the affirmative action obligations required by the specifications set forth in 23 CFR Part 230, 41 CFR Part 60, Executive Order 11246, Section 503, and the affirmative action provisions of Vietnam Era Veterans' Readjustment Assistance Act (VEVRAA) of 1974.

Utilization goals applicable to the project, expressed in percentages, for minority and female participation for each construction craft can be found on ODOT's website at <u>http://www.dot.state.oh.us/Divisions/ContractAdmin/Contracts/Pages/default.aspx</u>. These goals are based on 2000 census data and represent the area, per craft, minority and female availability pool.

Minority and female utilization obligations by craft per county (applicable to project): <u>http://www.dot.state.oh.us/Divisions/ContractAdmin/Contracts/Construction/CountyAvailability-ByTrade.pdf</u> Statewide utilization obligations by craft (applicable to the Contractor's statewide workforce): <u>http://www.dot.state.oh.us/Divisions/ContractAdmin/Contracts/Construction/StatewideAverages-</u> <u>ByTrade.pdf</u>

Effective 11/21/2011 the New Hire Definition will be as follows:

An individual who has a break in service (not on an employer's payroll) for a period of 12 months or longer and the person affected is not a salaried employee but belongs to a union craft. Individuals compensated for training or incidental work which does not cause a break in unemployment compensation, i.e., paid by voucher check or petty cash, are considered new hires if the individual's break in service is 12 months or longer.

The time frame for a new hire shall be associated with the first project worked for that contractor regardless of whether it is public or private. When reporting new hires, the contractor shall identify that employee as a new hire on that specific project only. Subsequent work, barring a break in service of 12 months or more, would not qualify the employee as a new hire for that contractor.

The Contractor's compliance shall be based on the implementation of affirmative action obligations required by the specifications set forth in 23 CFR Part 230, and its good faith efforts to meet these obligations. 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 females on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the affirmative action obligations shall be a violation of the contract and regulations in 23 CFR Part 230. The good faith efforts put forth by the contractor will be measured against the total work hours performed. Under FHWA, ODOT is the authority tasked with ensuring that the contract adheres to the aforementioned regulations. In addition to complying with the Required Contract Provisions as outlined in the attached subcontract agreement the Contractor shall provide immediate written notification to the ODOT and the Prime Contractor when referral practices of the union or unions with which the Contractor has a collective bargaining agreement impede the company's efforts to meet its equal opportunity obligations.

The Office of Federal Contract Compliance Programs (OFCCP) administers and enforces equal employment opportunity laws that apply to Federal government contractors and subcontractors supplying goods and services, including construction, to the Federal Government under 41 CFR Part 60, Executive Order 11246, Section 503, and the affirmative action provisions of VEVRAA. The OFCCP monitors compliance with these laws primarily through compliance evaluations, during which a compliance officer examines the contractor's affirmative action efforts and employment practices. Under Executive Order 11246, the OFCCP may perform contract compliance reviews on contractors involved with federally funded ODOT projects.

Requirements for affirmative action obligations governing OFCCP contract compliance reviews are those listed in the Federal Register for the Economic Area. https://www.dol.gov/ofccp/TAguides/new contractors guide.htm page E-32

The Department of Administrative Services (DAS), Equal Opportunity Division, is responsible for ensuring state contractors implement and adhere to the State of Ohio's affirmative action program pursuant to Ohio Administrative Code (OAC) 123:2-3-02. Specifically, this unit's responsibilities include the issuance of certificates of compliance under ORC 9.47 and 153.08, conducting project site visits and compliance reviews (desk audits) to ensure contractors utilize minorities and women in the construction trades, as well as maintaining a working environment free of discrimination, harassment and intimidation. The DAS may perform contract compliance reviews on contractors involved with state funded ODOT projects. Requirements for affirmative action obligations governing DAS contract compliance reviews are those

listed in the O.A.C. for the Metropolitan Statistical Area in which a project is located. http://das.ohio.gov/Divisions/EqualOpportunity/ConstructionCompliance.aspx

All prime and subcontractors regardless on the number of employees or the state contract amount are required to submit monthly utilization reports (Input Form 29) to Ohio Department of Administrative Services covering the contractor's total workforce within the state of Ohio. The reports must be filed electronically by the 10th of each month, beginning with the contract award and continuing until the contractor or subcontractor completes performance of the state contract. http://das.ohio.gov/Divisions/EqualOpportunity/InputForm29.aspx

The Contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs, 200 N. High Street, Room 409, Columbus, Ohio 43215, within 10 working days of award of any construction subcontract in excess of \$10,000 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address and telephone number of the subcontractor, employer identification number of the subcontract, estimated starting and completion dates of the subcontract and the geographical area in which the subcontract is to be performed.

12. PN 029 - 10/15/2004 - ON-THE JOB TRAINING (OJT) PILOT PROGRAM

The requirements of this Training Special Provision supersede subparagraph 7b of the Special Provision entitled Special Employment Opportunity Responsibilities and implements 23 U.S.C. 140(a).

The following must be included as part of the Contractor's equal employment opportunity affirmative action training program:

The Contractor must provide on-the-job training aimed at developing full journey persons in the type or job classification in which they work.

The contractor is not required to have a specific number of trainees assigned to this project. The number of trainees will be distributed among the work classifications on the basis of the Contractor's needs and the availability of the journey persons in the various classifications. The Contractor will be credited for each trainee employed by him or her who is currently enrolled or becomes enrolled in an approved program.

Training and upgrading of minorities and women toward journey person status is a primary objective of this Training Special Provision. Accordingly, the Contractor must make every effort to enroll minority trainees and women (e.g., by conducting systematic and direct recruitment through public and private sources likely to yield minority and women trainees) to the extent that such persons are available within a reasonable area of recruitment. This training commitment is not intended, and will not be used, to discriminate against any applicant for training, regardless of whether the applicant is a member of a minority group or not.

No employee will be employed as a trainee in any classification in which he or she has successfully completed a training course leading to journey person status or in which he or she has been employed as a journey person. The Contractor must satisfy this requirement by including appropriate questions in the employee's application or by other suitable means. Regardless of the method used, the Contractor's records must document the findings in each case.

The minimum length and type of training for each classification will be established in the training program selected by the Contractor.

No payment by the LPA will be made to the Contractor for providing this training. However, if the Contractor fails to provide adequate training and cannot show good faith efforts on its part to provide

adequate training, it will be subject to a formal compliance review to determine the Contractor's efforts in meeting the EEO laws and regulations.

The Contractor must provide the following reports:

- 1. CR1 Report
 - A. To be completed on each trainee
 - B. To be filled out at the start of training and finish of training or at the end of the year, whichever comes first
 - C. To be submitted to the ODOT District in which the Contractor's home office is located.
- 2. Tracking will be on an annual basis. The Contractor must submit the subsequent CR1 to the ODOT District in which the Contractors home office is located.

The prime or subcontractor conducting the training must be involved in at least one Federal project per calendar year in order to get FHWA training credit. Participation in the OJT Program is not project or contract specific.

All Contractors are encouraged to participate in the OJT program. Such a program will be considered when examining the contractor's Good Faith Efforts toward meeting its contractual affirmative action obligations.

All Contractors shall submit their own Training Program or Apprenticeship Certificate, for approval, to the ODOT District in which the company's home office is located.

All OJT Trainees must have the appropriate certification. Apprenticeship Certificates can be obtained from the State of Ohio, Bureau of Apprenticeship and Training. The union apprenticeship agreement is not acceptable verification of an apprentice's enrollment in a union sponsored training program. A copy of the Apprenticeship Certificate along with a statement indicating the number of months/years the employee has been in the apprenticeship program must be submitted to the ODOT EEO Coordinator in the company's home district and to the prevailing wage coordinator in the district responsible for the project within 90 days of the apprentice beginning work on the project.

13. PN 059 - 10/15/2004 - 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 for 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 Determination 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 requester 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.

14. PN 061 –10/22/2012- WAGE SCALE ON ALL FEDERAL-AID PROJECTS

The wage rates for this project were determined by the Secretary of Labor in accordance with Federal-Aid requirements. LPA must formally incorporate into contract documents.

Contractors shall use only the classifications and wage rates set forth in the United States Department of Labor (USDOL) wage decision found at website noted below on payrolls submitted to the District Office. Additionally, please note that the wage modification in effect at the time of the project sale date, shall be used by all contractors.

This USDOL wage decision may be viewed, by accessing the United States Department of Labor (USDOL) website at:

http://www.wdol.gov/

This contract requires the payment of the total of the basic hourly rates plus the fringe benefits payments for each classification in accordance with the following regulations which by reference are made part of this contract:

1) The U.S. Department of Labor Regulations, Title 29, Subtitle A, Part 5, Sections 5.5, 5.31, and 5.32, most recent revision at contract execution.

2) Form FHWA-1273 (most recent revision at contract execution) Part IV. Payment of Predetermined Minimum Wage and Part V. Statements and Payrolls.

The failure to pay prevailing wages to all laborers and mechanics employed on this project, shall be considered a breach of contract. Such a failure may result in the termination of the contract and debarment.

The Contractor and all subcontractors shall pay all wages and fringe benefits by company check. All payroll records and canceled pay checks shall be maintained for at least three years after final acceptance as defined in section 109.12 of the Ohio Department of Transportation Construction and Materials Specifications. The Contractor's and all subcontractor's payroll records and canceled pay checks shall be made available for inspection by the Department and the U.S. Department of Labor, upon request, anytime

during the life of the contract, and for three years thereafter by the U.S. Department of Labor. Additionally, the Contractor and all subcontractors shall permit such representatives to interview any employees during working hours while the employee is on the job.

The wage and fringe rates determined for this project shall be posted by the Contractor in a prominent and accessible place on the project, field office, or equipment yard where they can be easily read by the workers.

The Contractor and all subcontractors shall submit to the District Construction Office, certified payrolls each week beginning three weeks after the start of work. These payrolls shall be on a Form WH-347 or equivalent and shall show the following:

- 1) Employee name, address, classification, and hours worked.
- 2) The basic hourly and overtime rate paid, total pay, and the manner in which fringe benefit payments have been irrevocably made.
- 3) The project number and pay week dates.
- 4) Original signature of a company officer on the certification statement.

Additionally, a copy of the "Apprentice Certification" obtained from the Ohio State Apprenticeship Council, must accompany all certified payrolls submitted for all apprentices working on this project.

Please be aware that it is ultimately the responsibility of the Contractor to ensure that all laws relating to prevailing wages in the USDOL Regulations, Title 29, parts 1 and 5, are strictly adhered to by all subcontractors on the project.

If the Contractor or any subcontractor fails to comply with any of the provisions contained in this proposal note, the Department may terminate the contract, debar the Contractor or Subcontractor and/or withhold or suspend pay estimates after written notice and a reasonable opportunity to comply has been provided.

The applicable wage and fringe rates for this project are to be incorporated in their entirety as an attachment to the executed contract.

15. LIMITATION ON USE OF CONTRACT FUNDS FOR LOBBYING

- 1. The prospective bidder certifies, by signing and submitting this bid 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. 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 civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

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

16. PN 045 - 10/15/2004 - NON -COLLUSION AFFIDAVIT

In accordance with Title 23 United States Code, Section 112 and Ohio Revised Code, Chapter 1331 et. seq: and Sections 2921.11 and 2921.13, the bidder hereby states, under penalty of perjury and under other such penalties as the law provides, that he or his agents or employees have not entered either directly or indirectly into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding in connection with this proposal. Execution of this proposal on the signature portion thereof shall constitute also signature of this Non-Collusion Affidavit as permitted by title 28 United States Code, Section 1746.

REPORTING BID RIGGING

To report bid rigging activities call:

1-800-424-9071

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

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

17. PN 014 - 10/15/2004 - DRUG-FREE WORKPLACE

The prime contractor agrees to comply with all applicable state and federal laws regarding drug-free workplace. The prime contractor shall make a good faith effort to ensure that all its employees, while working on this project, will not purchase, transfer, use or possess illegal drugs or alcohol or abuse prescription drugs in any way.

The prime contractor shall also require that this contractual obligation be placed in all subcontractor and materialman contracts that it enters into and further requires that all subcontractors and materialmen place the same contractual obligations in each of their lower tier contracts.

18. PN 034 - 05/25/2011 - DRUG FREE SAFETY PROGRAM

During the life of this project, the Contractor and all its Subcontractors, that provide labor on the Project site, must be enrolled in and remain in good standing in the Ohio Bureau of Worker's Compensation ("OBWC") Drug-Free Safety Program ("DFSP") or a comparable program approved by the OBWC.

In addition to being enrolled in and in good standing in an OBWC-approved DFSP or a comparable Drug Free Workplace Program ("DFWP") approved by the OBWC, the LPA requires each Contractor and Subcontractor that provides labor, to subject its employees who perform labor on the project site to random drug testing of 5 percent of its employees. The random drug testing percentage must also include the onsite supervisors of the Contractors and Subcontractors. Upon request, the Contractor and Subcontractor shall provide evidence of required testing to the LPA. Each Subcontractor shall require all lower-tier Subcontractors that provides labor on the project site with whom the Subcontractor is in contract for the Work to be enrolled in and be in good standing in the OBWC DFSP or an OBWC-approved DFWP prior to a lower-tier Subcontractor providing labor at the Site.

The LPA will declare a bid non-responsive and ineligible for award if the Contractor is not enrolled and in good standing in the Ohio Bureau of Workers' Compensation's DFSP Discount Program or a similar program approved by the Bureau of Workers' Compensation within 8 days of the bid opening. Furthermore, the LPA will deny all requests to sublet when the subcontractor does not comply with the provisions of this proposal note.

Failure of the Contractor to require a Subcontractor to be enrolled in and be in good standing in the OBWC DFSP or an OBWC-approved DFWP prior to the time that the Subcontractor provides labor at the Site, shall result in the Contractor being found in breach of the Contract and that breach shall be used in the responsibility analysis of that Contractor or the Subcontractor who was not enrolled in a program for future contracts with the State for five years after the date of the breach.

19. OHIO WORKERS'COMPENSATION COVERAGE

The Contractor must secure and maintain valid Ohio workers' compensation coverage until the project has been finally accepted by the Ohio Department of Transportation. A certificate of coverage evidencing valid workers' compensation coverage must be submitted to the LPA before the contract will be executed by the LPA.

The Contractor must immediately notify the LPA, in writing, if it or any subcontractor fails or refuses to renew their workers' compensation coverage. Furthermore, the Contractor must notify the LPA, in writing, if its or any of its subcontractor's workers' compensation policies are canceled, terminated or lapse.

The failure to maintain valid workers' compensation coverage shall be considered a breach of contract which may result in the Contractor or subcontractor being removed from the project, withholding of pay estimates and/or termination of the contract.

20. PN 038 - 10/15/2004 - UNRESOLVED FINDING FOR RECOVERY

The Contractor affirmatively represents to the LPA that it is not subject to a finding for recovery under Ohio Revised Code §9.24, or that it has taken the appropriate remedial steps required under §9.24 or otherwise qualifies under that section. The Contractor agrees that if this representation is deemed to be false, the contract shall be void ab initio as between the parties to this contract, and any funds paid by the state hereunder shall be immediately repaid to the LPA, or an action for recovery may be immediately commenced by the LPA and/or for recovery of said funds.

21. PN 039 - 10/15/2004 - ASSIGNMENT OF ANTITRUST CLAIMS IN STATE CONTRACT LANGUAGE

The Contractor should recognize that in actual economic practice, overcharges resulting from antitrust violations are usually borne by ODOT and/or the LPA. As consideration for the Award of the Contract and intent to be legally bound, the Contractor acting herein by and through the person signing this contract on behalf of the Contractor as a duly authorized agent, hereby assigns, sells, conveys, and transfers to ODOT and/or the LPA any and all right, title and interest to any and all claims and causes of action the Contractor now has or hereafter requires under state or federal antitrust laws provided that the claims or causes of action related to the goods or services that are the subject to the contract. In addition, the Contractor warrants and represents that it will require any and all of its subcontractors and first tier suppliers to assign any and all federal and state antitrust claims and causes of action to ODOT and/or the LPA. The provisions of this article shall become effective at the time the LPA executes this contract without further acknowledgment by any of the parties.

All contracting entities shall assign their rights and responsibilities to ODOT and/or the LPA for all antitrust claims and causes of action regarding subcontractors.

22. PN 024 – 04/21/2006 – US ARMY CORPS OF ENGINEERS AND OHIO ENVIRONMENTAL PROTECTION AGENCY PERMITS

The above referenced permits are incorporated and made a part of this contract as special provisions incorporated herein. Therefore, in the event that the Contractor or its agents refuse or fail to adhere to the requirements of the US Army Corps of Engineers 404 Permit, and/or the Ohio Environmental Protection Agency's 401 Water Quality Certification and an assessment or fine, is made or levied against the Ohio Department of Transportation, the Contractor shall reimburse the Department within thirty (30) calendar days of the notice of assessment or fine or the Department may withhold the amount of the fine from the Contractor's next pay estimate. All money collected or withheld from the Contractor shall be delivered to the permitting agencies issuing the assessment or fine.

These fines are not to be construed as a penalty but are liquidated damages to recover costs assessed against the Department due to the Contractor's refusal or failure to comply with the permits.

23. PN 007 – 07/19/2019 - DBE TRUCKING

The Code of Federal Regulations Title 49, Section 26.55(d)(4)(5)(6) governs trucking operations.

The DBE trucking firm must be able to quote and negotiate its own prices. The DBE trucking firm must also provide a quote for each project that the firm is to be utilized toward the project DBE goal.

The DBE will be responsible for the management and supervision of their trucking operation on each contract. A DBE is not performing a CUF if the contract exists for the purpose of creating the appearance of DBE participation.

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

The DBE receives credit for the total value of the transportation services the DBE provides on the contract using trucks the DBE owns, insures, and operates using drivers it employs (not 1099/independent contractors).

The Disadvantaged Business Enterprise (DBE) may lease trucks on a long-term basis (a year or more), and receive full DBE credit as long as <u>employees</u> of the DBE operate the truck.

A lease must indicate that the DBE has exclusive use of and control over the truck, including responsibility of maintenance and insurance. This does not preclude the leased truck from working for others during the term of the lease with the DBEs consent, as long as the lease gives the DBE absolute priority for use of the leased truck. Leased trucks must display the DBEs name and identification number as well.

The DBE must carry a copy of the lease agreement in the leased truck when working onsite.

Credit for expenditures with DBEs for materials or supplies toward the DBE goal is described as follows:

1. A DBE firm may be a regular dealer in bulk items such as petroleum products, steel, cement, gravel, stone, or asphalt without owning, operating, or maintaining a place of business if the firm both owns and operates distribution equipment for the products. Any supplementing of a regular dealer's own distribution equipment shall be by a long-term lease agreement and not on an *ad hoc* or contract-by-contract basis.

- 2. When the materials or supplies are obtained from a DBE MSV (Materials and Supplies Vendor) manufacturer the prime contractor may receive credit for 100 percent of the cost of the materials or supplies toward the DBE goal. For purposes of this section, a manufacturer is a firm that operates or maintains a factory or establishment that produces, on the premises, the materials, supplies, articles, or equipment required under the contract and of the general character described by the specifications.
- 3. When the materials or supplies are purchased from a DBE MSV regular dealer or supplier the prime contractor may receive credit for up to 60 percent of the cost of the materials or supplies toward the DBE goal. For purposes of this section, a regular dealer or supplier is a firm that owns, operates, or maintains a store, warehouse, or other establishment in which the materials, supplies, articles or equipment of the general character described by the specifications and required under the contract are bought, kept in stock, and regularly sold or leased to the public in the usual course of business.

In the past, 60% of the cost of materials and supplies purchased from a DBE MSV (100% from a DBE MSV manufacturer) would usually be counted toward DBE goals. <u>Effective September 1, 2018</u>: o Prime contractors must obtain information about the method of procurement for each item to be procured from a DBE MSV. The DBE Affirmation Form has been modified to accommodate this information.

o To be eligible to receive **100% credit** toward DBE goals for a materials and supplies subcontract:

- The DBE MSV must be certified with the correct (manufacturer) NAICS code for
- the item
- The DBE MSV must be certified with the correct descriptor for the item
- The role the DBE MSV will play on the specific procurement in question must be
- consistent with the manufacture of the item, as indicated by the information provided by the DBE MSV

o To be eligible to receive **60% credit** toward DBE goals for a materials and supplies subcontract:

- The DBE MSV must be certified with the correct (wholesale or retail) NAICS code for the item
- The DBE MSV must be certified with the correct descriptor for the item
- The role the DBE MSV will play on the specific procurement in question must be consistent with the **regular sale or lease** of the item, as indicated by the information provided by the DBE MSV
- The item must not be drop-shipped

o The above scenario applies to both bulk items (petroleum products, steel, cement, gravel, stone, asphalt, and others that ODOT may consider to be bulk items) and non-bulk items. For bulk items, there is an additional scenario whereby a contract with a DBE MSV could receive 60% credit. To be eligible to receive 60% credit toward DBE goals for a bulk item materials and supplies subcontract:

- The DBE MSV must be certified with the correct (wholesale or retail and trucking) NAICS codes for the item
- The DBE MSV must be certified with the correct descriptor for the item
- The role the DBE MSV will play on the specific procurement in question must be consistent with the **regular sale or lease** of the item, as indicated by the information provided by the DBE MSV
- The DBE MSV must deliver the bulk item from a non-DBE vendor to the prime

contractor using distribution equipment that it both owns (or for which it has a long-term (1 year or more) lease) and operates with its regular (not ad hoc) employees.

o If not eligible for 100% or 60% credit, an item may still be eligible for credit toward DBE goals, but only for the **fee or commission the DBE MSV receives for its services,** and only if the following additional criteria are met:

- The DBE MSV must be certified with NAICS code 425120 Wholesale Trade Agents and Brokers
- The DBE MSV must convincingly explain how the prime contractor benefits by transacting business with it rather than directly with the non-DBE vendor from which the DBE MSV is re-selling.
- > The usual good faith efforts process applies.
- All credit toward DBE goals is conditional. Actual credit will be determined based upon invoices, receipts, and/or transportation documents/bills of lading, which must be submitted to ODOT as they are received throughout the course of the project.

DBE MSV DIRECTORY - <u>http://www.dot.state.oh.us/Divisions/ODI/SDBE/Pages/DBE-Directory.aspx</u> (select MSV only)

DBE AFFIRMATION FORM - The new DBE Affirmation Form is now available at http://www.dot.state.oh.us/Divisions/ODI/SDBE/Pages/Resources.aspx.

24. PN 013 – 03/15/2019 - DISADVANTAGED BUSINESS ENTERPRISE (DBE) UTILIZATION PLAN AND GOOD FAITH EFFORTS

Please see optional Appendix A - " Checklist for Bidders – Federally Funded Projects with a DBE Goal", to ensure compliance with the requirements outlined in PN 013.

DBE UTILIZATION PLAN

All Bidders shall submit a DBE Utilization Plan at the time of bid setting forth specific information demonstrating how the Bidder will achieve the DBE goal. By submitting a DBE Utilization Plan, the Bidder is affirming that they will be using the DBE firms identified in the Utilization Plan to meet the DBE contract goal. The DBE Utilization Plan shall be submitted with Formstack at time of bid submission. Any bids received without electronic submission of the DBE Utilization Plan at or before bid time, will be deemed unresponsive. **Bidders shall submit their DBE Utilization Plans via:** https://odot.formstack.com/forms/dbe_copy. This file contains the current list of certified DBEs and is updated regularly. The DBE Utilization Plan must be filled out completely and submitted prior to bid opening.

The DBE Utilization Plan shall include the following information:

- 1) The names and addresses of the certified DBE firm(s) that will be used to meet the DBE goal;
- 2) A description of the work that each DBE will perform. To count toward meeting a goal, each DBE firm must be certified in a NAICS code applicable to the kind of work the firm would perform on the contract;
- 3) Whether the DBE firm(s) being used to meet the goal will be utilized as a subcontractor, regular dealer, manufacturer, consultant or other capacity; and
- 4) The dollar amount of the participation of each DBE firm used to meet the DBE goal.

PROJECTS AWARDED ON ALTERNATES

In the event the project is awarded on alternates which increases or decreases the total dollar amount of the bid, a revision to the DBE Utilization Plan and DBE Affirmation Form(s) shall be submitted and approved by the Office of Small & Disadvantaged Business Enterprise within five (5) calendar days after the notification of the alternates.

DBE AFFIRMATION

The Apparent Low Bidder shall ensure the DBE firms being utilized to meet the DBE goal affirm their participation in the bid within five (5) calendar days after the bid opening to ODOT. The contract dollar amount(s) and/or DBE firm(s) included in the Apparent Low Bidder's DBE Utilization Plan must match the contract dollar amount(s) and/or DBE firm(s) included on the DBE Affirmation Form(s). If the contract dollar amount(s) and/or DBE firm(s) do not match, the Apparent Low Bidder shall utilize the Request to Terminate/Substitute DBE Form located at

http://Transportation.ohio.gov/Divisions/ODI/SDBE/Pages/Resources.aspx and submit for review and approval by the Office of Small & Disadvantaged Business Enterprise within five (5) calendar days of the bid opening.

The Apparent Low Bidder shall utilize the DBE Affirmation Form located at

<u>http://Transportation.ohio.gov/Divisions/ODI/SDBE/Pages/Resources.aspx</u>. The DBE Affirmation Form will be utilized as written confirmation from each listed DBE firm that it is participating in the contract in the type and amount of work provided in the Bidder's DBE Utilization Plan. The Apparent Low Bidder shall submit a separate DBE Affirmation Form for each DBE it is utilizing for the DBE goal and their Good Faith Efforts package if they were not able to attain the DBE Goal via DBE participation.

All other Bidders shall submit a DBE Affirmation Form(s) if notified that the information is required in order for ODOT to complete its assessment. Bidders shall have five (5) calendar days from the date of notification to submit all required DBE Affirmation Forms to ODOT. Notification will be by email.

In the event a DBE firm fails to confirm the information contained in the DBE Affirmation Form within five (5) calendar days of bid opening, the Apparent Low Bidder shall submit a Request to Terminate/Substitute DBE Form, as set forth herein. The Request to Terminate/Substitute DBE Form shall be submitted within five (5) calendar days after bid opening in order for the Apparent Low Bidder to still be considered for contract award. The Apparent Low Bidder shall include as its reason for termination the DBE firm's failure to provide a timely affirmation and should include all efforts the Apparent Low Bidder made to obtain the affirmation from the DBE firm and shall attach proof of these efforts, if available. If the Apparent Low Bidder intends to replace the DBE Firm, it shall include the replacement firm's information on the form. In the event the Apparent Low Bidder is unable to affirm a DBE firm included in its original DBE Utilization Plan at bid submission and it results in a goal shortfall, Good Faith Efforts (GFE's) must be submitted by the fifth calendar day after bid opening. All GFE documentation submitted for consideration should demonstrate the efforts the Bidder made prior to the time of bid submission to secure sufficient DBE participation on the project to meet the DBE goal although the Bidder was unable to do so. A DBE firm's failure to timely confirm information contained in the DBE Affirmation Form will be considered as good cause to terminate the DBE firm and will also be considered a part of the Apparent Low Bidder's Good Faith Efforts in meeting the goal.

DBE BIDDERS

In the event that the Bidder is also a certified DBE firm, the Bidder is required to complete a DBE Utilization Plan as set forth above. In this instance, however, the certified DBE Bidder would not need to submit a DBE Affirmation Form for the work it is planning to self-perform in order to meet the goal. ODOT will consider the submission of the bid as the certified DBE Bidder's written confirmation that it is participating in the contract. However, a DBE Affirmation Form must be submitted for all other DBE firms that are being utilized toward the DBE goal.

JOINT VENTURES

In the event that the Bidder is a Joint Venture, the Joint Venture will only be considered a Certified DBE firm if the Joint Venture itself has been certified. The Joint Venture may, however, utilize a Certified DBE firm that is also a partner in the Joint Venture as part of its DBE Utilization Plan. The Certified DBE Firm/Joint Venture Partner, however, does not need to submit a DBE Affirmation Form for any work that the Certified DBE Firm/Joint Venture Partner is going to perform to meet the goal. ODOT will consider submission of the Joint Venture's bid as the Certified DBE Firm/Joint Venture Partner's confirmation that it is participating in the contract.

GOOD FAITH EFFORTS (GFE's)

In the event that the DBE contract goal established by ODOT is not met, the Apparent Low Bidder shall demonstrate that it made adequate good faith efforts to meet the goal, even though it did not succeed in obtaining enough DBE participation to do so.

If the Apparent Low Bidder does not meet the goal at bid time, the Apparent Low Bidder shall submit its Good Faith Efforts (GFE's) documentation within five (5) calendar days of the bid opening. Submission of DBE affirmation(s) with additional participation sufficient to the meet the DBE contract goal does not cure the Apparent Low Bidder's failure to meet the goal at bid time or eliminate the Apparent Low Bidder's responsibility of submitting GFE's within five (5) calendar days of the bid opening.

The Apparent Low Bidder shall demonstrate its GFE's by submitting the following information within five (5) calendar days after the bid opening:

- (1) All written quotes received from certified DBE firms;
- (2) All written (including email) communications between the Apparent Low Bidder and DBE firms;
- (3) All written solicitations to DBE firms, even if unsuccessful;
- (4) Copies of each non-DBE quote when a non-DBE was selected over a DBE for work on the contract;
- (5) Phone logs of communications with DBE firms.

The Apparent Low Bidder shall utilize the Pre-Bid GFE Template to document their GFE's. This template and supporting documentation shall be sent along with any DBE Affirmation Forms within five (5) calendar days of bid opening. ODOT has provided Good Faith Efforts Guidance located at http://Transportation.ohio.gov/Divisions/ODI/SDBE/Pages/Resources.aspx.

All other Bidders shall submit documentation of GFE's if notified that the information is required in order for ODOT to complete its bid assessment. Bidders shall have five (5) calendar days from the date of notification to submit all required GFE documentation. Notification will be by phone or email.

ODOT shall utilize the guidance set forth in 49 CFR §26.53 Appendix A in determining whether the Bidder has made adequate good faith efforts to meet the goal.

ADMINISTRATIVE RECONSIDERATION

ODOT will review the GFE documentation and issue a written determination on whether adequate GFE's have been demonstrated prior to contract award. If ODOT determines that the Apparent Low Bidder has failed to demonstrate adequate GFE's to meet the goal, the Apparent Low Bidder will have an opportunity for administrative reconsideration prior to the contract being awarded.

As part of this reconsideration, the Apparent Low Bidder may provide written documentation or argument concerning the issue of whether it met the goal or made adequate good faith efforts to do so. Such written documentation or argument must be provided to ODOT, attention to the Office of Chief Legal Counsel, 1980

West Broad Street, MS 1500, Columbus, Ohio 43223 (with copy to the Office of Contract Sales, MS 4110), within two (2) business days of ODOT's written determination that GFE's were not adequately demonstrated. The Apparent Low Bidder may also include in their written documentation a request for an in-person meeting to discuss the issue of whether it met the goal or made adequate good faith efforts to do so. ODOT's Office of Chief Legal Counsel will respond to the Apparent Low Bidder within five (5) business days of receiving written documentation or holding the in-person meeting.

ODOT will send the Apparent Low Bidder a written decision on reconsideration explaining the basis for finding that the Apparent Low Bidder did or did not meet the goal or make adequate good faith efforts to do so. The result of the reconsideration process is not administratively appealable to the United States Department of Transportation.

TERMINATION OR REPLACEMENT OF A DBE

By submitting a DBE Utilization Plan, the Bidder is committing to use the DBE firms identified in the plan. The Apparent Low Bidder/Awarded Contractor shall utilize the specific DBEs listed in the DBE Utilization Plan to perform the work and supply the materials for which each is listed unless the Apparent Low Bidder/Awarded Contractor obtains written consent as provided in this paragraph. In order to request termination or substitution of a DBE firm, the Apparent Low Bidder/Awarded Contractor shall utilize the Request to Terminate/Substitute DBE Form located at http://Transportation.ohio.gov/Divisions/ODI/SDBE/Pages/Resources.aspx

This termination/replacement procedure applies only to DBE firms or the amount of work being utilized to meet the goal.

Without ODOT's written consent to terminate/replace a DBE firm being utilized to meet the goal, the Awarded Contractor shall not be entitled to any payment for DBE listed work or material unless it is performed or supplied by the listed DBE.

GOOD CAUSE

ODOT may provide written consent to terminate a DBE only if it agrees, for reasons stated in a concurrence document, that the Apparent Low Bidder/Awarded Contractor has good cause to terminate the DBE firm.

For purposes of this paragraph, good cause to terminate a DBE includes the following circumstances:

- 1) The listed DBE firm fails or refuses to provide the required DBE Affirmation Form or to execute a written contract;
- 2) The listed DBE firm fails or refuses to perform the work of its subcontract in a manner consistent with normal industry standards. Provided, however, that good cause does not exist if the failure or refusal of the DBE firm to perform its work on the subcontract results from the bad faith or discriminatory action of the awarded contractor;
- 3) The listed DBE firm fails or refuses to meet the awarded contractor's reasonable, nondiscriminatory bond requirements.
- 4) The listed DBE firm becomes bankrupt, insolvent, or exhibits credit unworthiness;
- 5) The listed DBE firm is ineligible to work on public works projects because of suspension and debarment proceedings pursuant 2 CFR Parts 180, 215 and 1200 or applicable state law;
- 6) ODOT has determined that the listed DBE firm is not a responsible contractor;
- 7) The listed DBE firm voluntarily withdraws from the project and provides to you written notice of its withdrawal;
- 8) The listed DBE is ineligible to receive DBE credit for the type of work required;
- 9) A DBE owner dies or becomes disabled with the result that the listed DBE contractor is unable to complete its work on the contract; and
- 10) Other documented good cause that ODOT determines compels the termination of the DBE firm. Provided, that good cause does not exist if the awarded contractor seeks to terminate a DBE it relied upon to obtain

the contract so that the awarded contractor can self-perform the work for which the DBE contractor was engaged or so that the awarded contractor can substitute another DBE or non-DBE contractor after contract award.

REPLACEMENT

When a DBE firm is terminated or fails to complete its work on the contract for any reason the Awarded Contractor must make GFEs to find another DBE firm to replace the original DBE. These GFEs shall be directed at finding another DBE to perform at least the same amount of work under the contract as the DBE that was terminated, to the extent needed to meet the contract goal. The GFEs shall be documented by the Awarded Contractor. If ODOT requests documentation under this provision, the Awarded Contractor shall submit the documentation within seven (7) calendar days, which may be extended for an additional seven (7) calendar days if necessary at the request of the contractor, and ODOT shall provide a written determination to the contractor stating whether or not GFEs have been demonstrated.

In addition to post-award terminations, the provisions of this section apply to pre-award deletions and substitutions of DBE firms put forward by Bidders in the DBE Utilization Plan.

ADDITION

In the event additional DBE participation is required for the project, the Awarded Contractor shall utilize the DBE Affirmation Form located at

http://Transportation.ohio.gov/Divisions/ODI/SDBE/Pages/Resources.aspx. The DBE Affirmation Form will be utilized as written confirmation from each DBE firm that it is participating in the contract in the kind and amount of work on the project.

WRITTEN NOTICE TO DBE

Before transmitting to ODOT its request to terminate and/or substitute a DBE firm, the Apparent Low Bidder/Awarded Contractor must give notice in writing to the DBE firm, with a copy to ODOT, of its intent to request to terminate and/or substitute, and the reason(s) for the request.

The Apparent Low Bidder/Awarded Contractor must give the DBE five (5) calendar days to respond to the notice, advising ODOT and the Apparent Low Bidder/Awarded Contractor of the reasons, if any, why it objects to the proposed termination of its subcontract and why ODOT should not approve the Apparent Low Bidder/Awarded Contractor's action. If required in a particular case as a matter of public necessity (e.g., safety), ODOT may provide a response period shorter than five (5) days.

GOAL ATTAINMENT POST AWARD

The Awarded Contractor shall make available upon request a copy of all DBE subcontracts. The Awarded Contractor shall ensure that all subcontracts or agreements with DBEs require that the subcontract and all lower tier subcontractors be performed in accordance with this Proposal Note.

Approval of a DBE Utilization Plan does not ensure approval of C-92 Requests to Sublet nor does approval of a DBE Utilization Plan indicate that the DBE goal has been met. ODOT will monitor goal attainment throughout the life of the project. It is the responsibility of the Awarded Contractor to advise ODOT of any changes to the DBE Utilization plan throughout the life of the project. The DBE goal of a project is stated as a percentage of the contract. In the event the contract amount increases or decreases, the actual dollar amount of the DBE goal for the project may increase or decrease accordingly.

SANCTIONS AND ADMINISTRATIVE REMEDIES

PRE-BID

Failure by the Apparent Low Bidder to do any of the following shall result in the bid being rejected in accordance with ORC §5525.08:

- 1) Failure to submit a complete DBE Utilization Plan at the time of bid;
- 2) Failure to submit DBE Affirmation Form(s) and/or failure to submit Request to Terminate/Substitute DBE Form(s) as required by this Proposal Note; and Failure to meet the goal and/or failure to demonstrate GFEs to meet the goal as required by this Proposal Note.

POST-BID

Failure by the Awarded Contractor to carry out the requirements of this Proposal Note, including the submission of adequate good faith efforts to meet the goal for a project, is a material breach of the contract and may result in the issuance of sanctions as follows:

1st Tier:	Letter of Reprimand
2nd Tier:	Damages equivalent to the DBE shortfall
3rd Tier:	If a pattern of paying damages persists or the Contractor has falsified, misrepresented or withheld information, ODOT can pursue other remedies available by law including suspension, revocation, and/or debarment.

Factors to be considered in issuing sanctions may include, but are not limited to the following:

- the magnitude and the type of offense
- the degree of the Contractor's culpability
- any steps taken to rectify
- the Contractor's record of performance on other projects including, but not limited to:
 - o annual DBE participation
 - o annual DBE participation on projects without goals
 - the number of complaints ODOT has received regarding the Contractor
 - the number of times the Contractor has been previously sanctioned by ODOT

25. PN - 031 - 10/15/2004 - AFFIDAVIT OF SUBCONTRACTOR PAYMENT (Required if DBE goal on the project)

The Code of Federal Regulations 49, 26.37(b), requires the LPA to monitor and verify that work committed to Disadvantaged Business Enterprise (DBE) firms at contract award is actually performed by the DBE's. Additionally, the LPA is required to report the DBE participation on each project, including all work, materials or service sublets. Therefore, it is the LPA's responsibility to discern whether payments are made to DBE firms. An affidavit is to be completed and signed by the contractor within 15 days of the completion of the project. The affidavit seeks to verify actual payments made to DBE firms on the project. Each DBE firm must verify the actual payment amount.

The blank spaces in the affidavit must be filled in correctly, where indicated. The affidavit must be signed by the prime contractor and subcontractor, or by the subcontractor and DBE sub-contractor, if applicable. By signing the affidavit, the noted firm agrees that the payment amount recorded is true and accurate as of the payment time period.

Completed and signed affidavit shall be mailed to the Ohio Department of Transportation, Office of Contracts, DBE Services section, 1980 West Broad Street, Columbus, Ohio 43223. A color scan of the affidavit may be sent in advance to Central Office, to keep project moving forward. However, the originals will still need to be mailed to Central Office.

26. WAIVER OF CM&S 614.03

ODOT's 2016 Construction and Material Specifications section 614.03, third paragraph, does not apply to any project which is not physically located on the National Highway System (NHS), and/or does not impact NHS traffic in any way.

27. ODOT AS OBLIGEE ON BOND

The contractor shall furnish a performance and payment bond in an amount at least equal to 100 percent of the estimate as security for the faithful performance of its contract. In addition to the project Owner, ODOT shall be named as an obligee.

28. NON-DISCRIMINATION PROVISIONS

1) **Compliance with Regulations:** The CONTRACTOR will comply with the regulations relative to nondiscrimination in Federally-assisted programs of the United States Department of Transportation (hereinafter "U.S. DOT") Title 49, Code of Federal Regulations, Part 21, as they may be amended from time to time, (hereinafter referred to as the "Regulations"), which are herein incorporated by reference and made a part of this contract.

In addition, the CONTRACTOR will comply with the provisions of the Americans with Disabilities Act, Section 504 of the Rehabilitation Act, FHWA Guidance, and any other Federal, State, and/or local laws, rules and/or regulations (hereinafter referred to as "ADA/504").

(2) **Nondiscrimination:** The CONTRACTOR, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, national origin, sex, age, or disability, in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The CONTRACTOR will not participate either directly or indirectly in the discrimination prohibited by section 21.5 of the Regulations, including employment practices when the contract covers a program set forth in Appendix B of the Regulations, as well as the ADA/504 regulations.

(3) Solicitations for Contractors or Subcontractors, including Procurement of Materials and Equipment: In all solicitations either by competitive bidding or negotiation made by the CONTRACTOR for work to be performed under a contract or subcontract, including procurements of materials or leases of equipment, each potential subcontractor, or supplier will be notified by the CONTRACTOR of the CONTRACTOR's obligations under this contract and the Regulations relative to nondiscrimination on the grounds of race, color, national origin, sex, age, or disability.

(4) **Information and Reports:** The CONTRACTOR will provide all information and reports required by the Regulations or directives issued pursuant thereto, and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the STATE or the Federal Highway Administration (hereinafter "FHWA") to be pertinent to ascertain compliance with such Regulations, orders and instructions. Where any information required of the CONTRACTOR is in the exclusive possession of another who fails or refuses to furnish this information, the CONTRACTOR will

so certify to the STATE or FHWA, as appropriate, and will set forth what efforts it has made to obtain the information.

(5) **Sanctions for Noncompliance:** In the event of the CONTRACTOR's noncompliance with the nondiscrimination provisions of this contract, the LPA will impose such contract sanctions as it or STATE / FHWA may determine to be appropriate, including, but not limited to:

- (a) Withholding of payments to the CONTRACTOR under the contract until the CONTRACTOR complies, and/or
- (b) Cancellation, termination or suspension of the contract, in whole or in part.

(6) **Incorporation of Provisions:** The CONTRACTOR will include the provisions of paragraphs (1) through (5) above in every contract or subcontract, including procurements of materials and leases of equipment, unless exempt by the Regulations, or directives issued pursuant thereto. The CONTRACTOR will take such action with respect to any subcontractor procurement as the LPA or STATE / FHWA may direct as a means of enforcing such provisions including sanctions for noncompliance; provided, however, that, in the event the CONTRACTOR becomes involved in, or is threatened with, litigation with a subcontractor, or supplier as a result of such direction, the CONTRACTOR may request the LPA / STATE to enter into such litigation to protect the interests of the LPA and the STATE, and, in addition, the LPA / STATE may request the United States to enter into such litigation to protect the interests of the United States.

29. PN 095 – 03/30/2020 Potential Impacts and Delays Due to COVID-19

In an effort to anticipate the potential impacts to the Project caused by the COVID-19 threat and in following direction from the Governor and other authorities, the Contractor is on notice of the need to comply with all federal, state and local orders generated to prevent the spread of contagious or infectious diseases, including the Stay at Home Order from the Ohio Director of Health dated March 22, 2020, and subsequent orders, located through the following website:

https://coronavirus.ohio.gov/wps/portal/gov/covid-19/home/public-health-orders/directors-order-to-stay-athome

Contractor is on notice that the Project is considered essential and that the contractor and his employees, subcontractors and suppliers are considered essential businesses and performing essential functions as defined under the Stay at Home Order.

Notwithstanding any other provisions of the contract documents, in the event of project delay or impacts to performance due to a voluntary or mandatory COVID-19 virus Directives, Orders, quarantine or closure directed by government authorities, either party may, by providing notice to the other party as required under CMS 108.02(F), extend the Completion Date for a period of up to thirty (30) days. Extensions under this paragraph shall be considered an excusable, non-compensable delay in accordance with CMS 108.06(B). If any portion of the Work is still not able to be performed upon the expiration of the extension, either party may provide notice to the other party requesting a termination for convenience under 108.09. The termination for convenience remains at the sole discretion of the LPA's Person in Responsible Charge in conjunction with the Office of Local Programs.

The Contractor and LPA will exercise best efforts to utilize remote services to perform Work that otherwise cannot be performed in person due to a voluntary or mandatory COVID19 virus quarantine, closure, or impact as directed by Stay at Home Order.

Impacts to the Project generated by the Stay at Home Order shall not be considered an "issue" under 108.02 (F) for Projects sold after the date of this Note. Contractors are on notice that their bids should include any impacts they foresee or should have reasonably foreseen due to the Stay at Home Order or existing or reasonably foreseeable orders by any other federal, state or local official.

If any emergency order or declaration of any government official is lifted at any time, the LPA will provide written notice to the Contractor that this Note shall be considered void thirty (30) days after receipt of the written notice. If the Stay at Home Order from the Ohio Director of Health dated March 22, 2020 is lifted at any time, this Note shall be considered null and void thirty (30) days after the lifting of those orders.

30. PN 015 – 04/17/2020 - CONTRACT PROVISIONS FOR FEDERAL-AID CONSTRUCTION CONTRACTS

The required contract provisions for federal-aid construction contracts (contained in Form FHWA 1273 revised May 2012 and located here) are hereby incorporated by reference as if rewritten herein. Form FHWA-1273 shall be physically incorporated in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreement for supplies or services related to a construction contract). The prime contractor shall be responsible for ensuring that the FHWA-1273 is physically incorporated into all lower-tier subcontracts.

SANCTIONS AND ADMINISTRATIVE REMEDIES

Failure by the prime contractor to include the provisions of FHWA-1273 in their contract or in their lowertier subcontracts may result in the issuance of sanctions as follows:

1st Tier: Letter of Reprimand

2nd Tier: Damages equivalent to the daily liquidated damages amount found in section 108.07 for each incident of non-compliance

3rd Tier: If a pattern of paying damages persists or the Contractor has falsified, misrepresented or withheld information, the LPA can pursue other remedies available by law including suspension, revocation, and/or debarment.

Factors to be considered in issuing sanctions may include, but are not limited to the following:

- the magnitude and the type of offense;
- the degree of the Contractor's culpability;
- any steps taken to rectify;
- the Contractor's record of performance on other projects; and
- the number of times the Contractor has been previously sanctioned by the LPA.

31. REQUIRED CONTRACT PROVISIONS FOR FEDERAL-AID CONSTRUCTION CONTRACTS (Electronic Form FHWA 1273 – May 1, 2012)

- 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 Government wide 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.

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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, preapprenticeship, 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:

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

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

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

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

6. Training and Promotion:

a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs, i.e., apprenticeship, and on-the-job training programs for the geographical area of contract performance. In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).

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

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

7. Unions: If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. Actions by the contractor, either directly or through a contractor's association acting as agent, will include the procedures set forth below:

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

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

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

d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, national origin, age or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

8. Reasonable Accommodation for Applicants / Employees with Disabilities: The contractor must be familiar with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established there under. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.

9. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment: The contractor shall not discriminate on the grounds of race, color, religion, sex, national origin, age or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.

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

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

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

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

b. The contractor or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT-assisted contracts. Failure

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by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the contracting agency deems appropriate.

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

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

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

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

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

b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project, indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on Form FHWA-1391. The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period perceding 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

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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 wade 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

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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

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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 selfperformance 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

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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

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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 ineligibility 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:

 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.

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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 5/29/2020 Revision exceed \$100 000 and that all such

subcontracts, which exceed \$100,000 and that all such recipients shall certify and disclose accordingly.

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

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

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

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

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

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

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

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

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

5. The provisions of 23 CFR 633.207(e) allow the contracting agency to provide a contractual preference for

5/29/2020 Revision

the use of mineral resource materials native to the Appalachian region.

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

Appendix A

Checklist for Bidders- Federally Funded Projects with a DBE Goal

Quotes have been obtained by DBE firms for participation on the project

NAICS codes have been verified on the Ohio Unified DBE Directory that the DBE firms to be utilized can be applied toward the project goal for the specific work wanted: <u>http://www.dot.state.oh.us/Divisions/ODI/SDBE/Pages/DBE-Directory.aspx</u>

DBE Utilization Plan has been completed & submitted electronically prior to bid opening via: <u>https://odot.formstack.com/forms/dbe_copy</u> (This applies to all Bidders including DBE Firms)

The Utilization Plan submitted as described above, meets or exceeds the DBE Goal established for the project

If the DBE Goal has not been met that Good Faith Efforts have been submitted prior to bid to opening to: Dot.contractslettingmgr@dot.ohio.gov

The affirmation form that is required 5 calendar days after bid opening has been downloaded ready to send out to all DBE firms listed on the Utilization Plan: http://Transportation.ohio.gov/Divisions/ODI/SDBE/Pages/Resources.aspx.

Ohio law (ORC section 9.24) prohibits any state agency or political subdivision from awarding a contract for goods, services, or construction to any person against whom a finding for recovery has been issued by the Auditor of State, if that finding is unresolved. While there are additional criteria, the statute limits this prohibition to contracts which are paid in whole or in part with state funds and which exceed \$25,000.

The Auditor of State has established a database pursuant to ORC 9.24 in order to list all persons who have unresolved findings for recovery, dating back to January 1, 2001. Before entering into a public contract described above, a state agency or political subdivision is required to verify that the person does not appear in this database.

Each bidder shall log on to <u>http://www.auditor.state.oh.us/</u> and <u>provide a copy of a</u> <u>certified search of unresolved findings with your bid</u>. This requirement shall apply to all contracts awarded by the City of Cuyahoga Falls.

CERTIFICATION

I,(Company Official)	hereby certify that		
(Company Official)	does not have an unresolved finding of		
recovery issued by the Auditor of the State of Ohio	as required by Ohio law (ORC section 9.24).		
I further certify that(Company Official)	has provided a certified search of		
unresolved findings with this bid showing no unresolved findings in his/her name.			
	Signature		
	Title		
State of Ohio))ss County of)			
Sworn to before me and subscribed in my p	resence this day of, 20		
	Notary Public		
	My Commission Expires:		

[Seal]

CERTIFICATION OF COMPLIANCE WITH O.R.C. 3517.13

The following certificates are required pursuant to Ohio's Campaign Finance Reform law.

One of the following two certificates shall be completed by any individual, partnership, unincorporated business, association, professional association, estate, trust, corporation, or business trust that has been awarded a contract by the City of Cuyahoga Falls.

It shall be the Contractor's responsibility to determine which of the two certificates applies and if compliance with R.C. 3517.13 has been achieved.

The City of Cuyahoga Falls has entered into a contract for goods and/or services with . The undersigned authorized representative of

______ certifies on behalf of ______ that all of the following persons, if applicable, are in compliance with division (I) (1) of Ohio Revised Code Section 3517.13 with respect to all public officials who had the authority to award that contract and all public officials who may authorize or receive goods or services under that contract:

- A. the individual;
- B. each partner or owner of the partnership or other unincorporated business;
- C. each shareholder of the association;
- D. each administrator of the estate;
- E. each executor of the estate;
- F. each trustee of the trust;
- G. each spouse of any person identified in (A)-(F) above;
- H. each child seven year of age to seventeen years of age of any person identified in (A)-(G) above;
- I. any combination of persons identified in (A) (H) above.

The undersigned certifies such compliance on and since the date that the contract was executed by all parties necessary for a valid contract with the City. This certification shall be a part of the above-referenced contact between the City and

ON BEHALF OF COMPANY:

DATE SIGNED:

Note: This form is to be used by an individual, partnership, or other unincorporated business, association, including without limitation, a professional association organized under Chapter 1785 of the Revised Code, estate or trust. If you are unsure if this form applies to you or if you are in compliance with R.C. 3517.13 you may want to contact an attorney.

Knowingly making a false statement on this certification is considered a felony of the fifth degree and any such falsification will act as a rescission of this contract.

3.16.1τ
CERTIFICATION OF COMPLIANCE WITH O.R.C. 3517.13

The City of Cuyahoga Falls has entered into a contract for goods and/or services with _______("Company"), an Ohio corporation. The undersigned authorized representative of Company certifies on behalf of the Company that all of the following persons, if applicable, are in compliance with division (J) (1) of Ohio Revised Code Section 3517.13 with respect to all public officials who had the authority to award that contract and all public officials who may authorize or receive goods or services under that contract:

- A. each owner of more than twenty percent of the corporation or business trust;
- B. each spouse of each owner of more than twenty percent of the corporation or business trust;
- C. each child of seven years of age to seventeen years of age of each owner of more than twenty percent of the corporation or business trust;
- D. any combination of persons identified in (A) (C) of this indented list.

The undersigned certifies such compliance on and since the date that the contract was executed by all parties necessary for a valid contract with the City. This certification shall be a part of the above-referenced contact between the City and Company.

ON BEHALF OF COMPANY:

DATE SIGNED:

Note: This form is to be used by a corporation or business trust, except a professional association organized under Chapter 1785 of the Revised Code. If you are unsure if this form applies to you or if you are in compliance with R.C. 3517.13 you may want to contact an attorney.

Knowingly making a false statement on this certification is considered a felony of the fifth degree and any such falsification will act as a rescission of this contract.



PROPOSAL

DATE:

TO THE DIRECTOR OF PUBLIC SERVICE CITY OF CUYAHOGA FALLS, OHIO

The undersigned proposes to:

SUM-W. STEELS CORNERS RD. RESURFACING (PID 102904) - NORTHAMPTON ROAD TO STATE ROAD

all in accordance with the plans and specifications for the City of Cuyahoga Falls, Ohio.

The quantity in the column headed "ESTIMATED QUANTITY" is that which will be used in determining the total amount of the proposal for the purpose of determining the lowest bidder; but it is understood and agreed that this quantity is APPROXIMATE ONLY and that the Contractor to whom the Contract is awarded shall not be entitled to any claim for the loss of profits, or for other damages should the quantity prove to be greater or less than is herein given in said "ESTIMATED QUANTITY" column.

In the event that the amounts entered into the columns labeled "UNIT COST LABOR" and "UNIT COST MATERIAL" are inconsistent with the amounts entered in the column labeled "TOTAL UNIT COST", the bidder agrees that the amounts entered in the "UNIT COST LABOR" and "UNIT COST MATERIAL" shall control.

The bidder agrees further that if this proposal be accepted he will contract with the City to perform the work as outlined in the specifications in accordance with a work schedule that is agreeable to the Director of Public Service all for the following prices:

COMPANY

BY:______

TITLE

ADDRESS

Zip Code

Phone

REF. NO.	ITEM NO.	DESCRIPTION	EST. QTY.	UNIT	MATERIAL UNIT PRICE	LABOR	UNIT PRICE	TOTAL BID PRICE
		ROADWAY						
1	202	WALK REMOVED	64	SF				
2	202	GUARDRAIL REMOVED	2010	FT				
3	203	EXCAVATION, AS PER PLAN	30	СҮ				
4	209	RESHAPING UNDER GUARDRAIL	2	STA				
5	209	PREPARING SUBGRADE FOR SHOULDER PAVING, AS PER PLAN	1.03	MILE				
6	606	GUARDRAIL, TYPE MGS, AS PER PLAN	908	FT				
7	606	ANCHOR ASSEMBLY, TYPE E	22	EACH				
8	608	CURB RAMP	64	SF				
9	608	DETECTABLE WARNING	8	SF				
10	609	CURB, MISC.: CURB, TYPE 6 REPAIR	150	FT				
11	623	MONUMENT BOX ADJUSTED TO GRADE	9	EACH				
		DRAINAGE						
12	611	CATCH BASIN ADJUSTED TO GRADE	10	EACH				
13	611	MANHOLE ADJUSTED TO GRADE	4	EACH				
14	SPECIAL	MISCELLANEOUS METAL	1000	LB				
15	638	VALVE BOX ADJUSTED TO GRADE	2	EACH				
		PAVEMENT						
16	251	PARTIAL DEPTH PAVEMENT REPAIR (441)	3103	SY				
17	253	PAVEMENT REPAIR	1552	SY				
18	254	PAVEMENT PLANING, ASPHALT CONCRETE	32268	SY				

Bid Form (Unit Price Proposal)

REF. NO.	ITEM NO.	DESCRIPTION		UNIT	MATERIAL UNIT PRICE	LABOR	UNIT PRICE	TOTAL BID PRICE
19	304	AGGREGATE BASE, AS PER PLAN	30	CY				
20	407	NON-TRACKING TACK COAT	4766	GAL				
21	441	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (446), PG70-22M	1093	СҮ				
22	441	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (446)	1509	СҮ				
23	441	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), (DRIVEWAYS)	38	СҮ				
24	617	COMPACTED AGGREGATE, AS PER PLAN	100	СҮ				
		TRAFFIC CONTROL						
25	646	EDGE LINE, 6"	2.05	MILE				
26	646	LANE LINE, 6"	1.38	MILE				
27	646	CENTER LINE	1.4	MILE				
28	646	CHANNELIZING LINE, 12"	192	FT				
29	646	STOP LINE	11	FT				
30	646	LANE ARROW	1	EACH				
		MAINTENANCE OF TRAFFIC						
31	614	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	64	HOUR				
32	614	WORK ZONE MARKING SIGN	12	EACH				
33	614	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC	50	СҮ				
34	614	WORK ZONE CENTER LINE, CLASS III, 642 PAINT	4.2	MILE				
35	614	WORK ZONE EDGE LINE, CLASS III, 6", 642 PAINT	2.05	MILE				
36	614	WORK ZONE STOP LINE, CLASS III, 642 PAINT	36	FT				
		INCIDENTALS						

Bid Form (Unit Price Proposal)

REF. NO.	ITEM NO.	DESCRIPTION	EST. QTY.	UNIT	MATERIAL UNIT PRICE	LABOR	UNIT PRICE	TOTAL BID PRICE
37	614	MAINTAINING TRAFFIC	1	LS				
38	624	MOBILIZATION	1	LS				

UNOFFICIAL TOTAL BASE BID

Bid Form (Unit Price Proposal)

\$

RESOURCES AND EXPERIENCE OF BIDDER

THE BIDDER, in order to secure consideration of this proposal, shall complete the following:

A. State below work performed similar to that to be done under this proposed contract:

B. State below the larger items of owned equipment proposed for use under this proposed contract:

C. Submit evidence of financial ability to handle the work under this proposed contract. A statement such as "Adequate" will not be accepted by the Board of Control.

NOTE: NO PROPOSAL WILL BE CONSIDERED UNLESS THE ABOVE IS COMPLETED.

QUALIFICATION INFORMATION

The information contained herein is for the guidance of the Board of Control in awarding the Contract and will be regarded as confidential.

The undersigned bidder proposes to use the following entirely owned equipment on this project:

The undersigned bidder proposes to use the following rented equipment on this project:

The undersigned bidder agrees to maintain all owned or rented equipment used on this project in a workable and safe condition and further agrees that the director of public service (or a designee) shall have the right to inspect said equipment at any reasonable time.

THE UNDERSIGNED BIDDER HAS CONTRACTED WITH THE FOLLOWING GOVERNMENTAL AGENCIES FOR WORK OF A SIMILAR NATURE:

	LOCATION & TYPE	AGENCY	DATE (S)	\$ VALUE
1				
2				
3				
4				
5				

COMPANY

SIGNATURE

PRINT NAME AND TITLE

NOTICE OF SUBCONTRACTORS

Name of Bidder:

If you intend to have any portion of this contract performed by a subcontractor, list the subcontractor(s) below:

If you are the successful bidder, you will be fully responsible to the City of Cuyahoga Falls for the acts and omissions of all subcontractors, supplies and other persons performing or furnishing any portion of this contract. In addition, you must ensure that any warranties provided by or through any subcontractor, supplier, or other person are to the benefit of and enforceable by the City of Cuyahoga Falls, Ohio.

Acknowledged by:

Authorized Agent of Bidder

ATTENTION ALL BIDDERS

ATTENTION OF THE BIDDER is directed to general information relating to the PROPOSAL contained herein, all of which work shall be performed in accordance with the **Current Specifications for the City of Cuyahoga Falls** and any **Special Specifications** contained herein applicable to these improvements.

CURRENT CONSTRUCTION SPECIFICATIONS: (1976 Edition)

Bidders who do not have a copy of these specifications may obtain same from the office of the City Engineer at a cost of twenty dollars (\$20.00) per copy.

SPECIAL PROVISIONS:

This section of the Proposal contains any Addenda's, Supplemental Specifications and Special Specifications applicable to these improvement and should be carefully reviewed by the Bidder. (This section follows the Proposal of bid items).

QUALIFICATION INFORMATION:

This page follows the Proposal of Items of Work and shall be filled in by the bidder to be used by the Board of Control as a guide in awarding this contract. This information will NOT be read at the bid opening.

AWARD OF CONTRACT BY THE BOARD OF CONTROL:

The BOARD OF CONTROL proposes to award the contract for this Proposal based upon the summation of the individual total bid prices, however, the BOARD OF CONTROL reserves the right to REJECT ANY AND ALL BIDS.

LAWN RESTORATION

- 1) Perform lawn restoration and seeding work only after other work affecting ground surfaces have been completed. All existing lawn areas disturbed by the installation of this project shall be re-seeded to establish new lawn in these areas.
- 2) The Contractor shall be responsible for removal of all site debris, fine grading of the disturbed areas with four-inches (4") of new, clean, screened topsoil, and seeding new lawn areas with Fairlawn Brand Seed (Oliger) or equal at a rate of 5 lbs. per 1000 square feet.
- 3) To ensure quick establishment of lawn areas the Contractor will apply Mil-Chem organic fertilizer (12-16-10) or approved equal at a rate of 40 lbs. per 5000 square feet and then install shredded wheat straw held in place with tackifier or green netting.
- Seed shall be Fairlawn Brand as distributed by Oliger Seed or approved equal. Seed shall be clean and fresh, packed in sealed bags showing net weight, composition of mix, date of germination tests and supplier's name. Germination test shall be done within a nine (9) month period prior to sale of the seed.
- 5) Fertilizer shall be a granular, non-burning product composed of not less than 50% organic, slow acting, guaranteed analysis professional fertilizer. Included shall be starter fertilizer containing 13% nitrogen, 25% phosphoric acid and 12% potash by weight or approved similar composition.
- 6) Clean topsoil shall not contain glass, rocks, twigs, leaves or other unsuitable material. All topsoil shall be screened.

ATTENTION

GENERAL CONTRACTORS

PUBLIC IMPROVEMENT CONTRACTS ARE AWARDED BY THE BOARD OF CONTROL TO A GENERAL CONTRACTOR WHO IS <u>ENTIRELY RESPONSIBLE</u> TO THE CITY OF CUYAHOGA FALLS FOR THE WORK UNDER THE TERMS OF THE PROPOSAL CONTAINED HEREIN.

SUB-CONTRACTORS WORK DIRECTLY FOR THE GENERAL CONTRACTOR, WITH WHOM ALL PROBLEMS SHALL BE DISCUSSED, AND <u>NO CONTACT</u> SHALL BE MADE WITH THE DIVISION OF ENGINEERING EXCEPT THROUGH OR IN THE PRESENCE OF THE GENERAL CONTRACTOR.

PAYMENTS FOR THE WORK ARE MADE DIRECTLY TO THE GENERAL CONTRACTOR.

SPECIFICATION ADDENDUM

SECTIONS 109.08 & 109.09

109.08 Final Estimate

Before the final estimate is allowed, the Owner shall require the Contractor to submit an affidavit from each and every subcontractor showing that all claims and obligations arising in connection with the performance of his portion of the contract have been satisfactorily settled. The improvement shall be inspected by the Engineer, and if he finds the Work is completed according to the contract, shall, within 60 days after the completion of this contract, prepare a statement of the total cost of the Work done hereunder, and the Owner shall pay the entire sum so found to be due hereunder after deduction therefrom all previous payments under the provisions of this contract and ALSO DEDUCTING THE GUARANTEE AND RETAINAGE CHARGE AS SET FORTH IN SECTION 109.09 following.

109.09 Guarantee and Retainage

The Contractor shall guarantee all Materials and Equipment furnished and work performed for a period of one (1) year from the date of completion. The Contractor warrants and guarantees that the completed system is free from all defects due to faulty materials or workmanship and the Contractor shall promptly make such corrections as may be necessary by reason of such defects including the repairs of any damage to other parts of the system resulting from such defects. The Owner will give notice of observed defects with reasonable promptness. In event that the Contractor should fail to make such repairs, adjustments, or other work that may be made necessary by such defects, the Owner may do so and charge the Contractor the cost thereby incurred. The Performance Bond shall remain in full force and effect through the guarantee period.

Further the City will retain three percent (3%) of the entire cost of the work done by the Contractor for the above guarantee period of one year beginning on the date of the Engineer's final estimate payment sheet.

If the Contractor shall have complied with all the requirements of the contract in keeping said improvement in good and proper repair, at the end of his guarantee period upon order of the director the Contractor shall receive this retainer; but, if the Contractor shall fail to make all necessary repairs as indicated by said Engineer at any time during the above period, then the Engineer shall have power to expend all or such part of the amounts so retained as the said Engineer may see fit, and apply the same to making the necessary repairs.

Should the amount retained not be sufficient to make the required repairs, the contractor shall at once make good the deficiency. At the expiration of the guarantee period as above specified, whatever remains to the credit of the Contractor, provided all repairs shall have been made satisfactory to the said Engineer, shall be paid to the Contractor as full settlement of any balance due on said contract as herein provided whereupon and not until then, shall the Contractor be released from the obligation assumed in this contract and his bond discharged. The final acceptance of the work shall be the date when the guarantee is released.

SPECIFICATION ADDENDUM

SECTION 109.06

109.06 Partial Payments

(a) At least ten (10) days before each progress payment falls due (but not more often than once a month), the Contractor will submit to the Engineer a partial payment estimate filled out and signed by the Contractor covering the Work performed during the period covered by the partial payment estimate and supported by such data as the Engineer may reasonably require. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the site, the partial payment estimate shall also be accompanied by supporting data, as follows: 1) waiver of lien, 2) proper invoice for material, 3) assurance of City's title to material, 4) proof of payment to vendor for material, 5) proof of applicable insurance on material is in effect. Payment for material stored on site shall be limited to major items of construction with a value exceeding one percent (1%) of contract value. The Engineer will, within ten (10) days after receipt of each partial payment estimate, either indicate in writing his approval of payment and present the partial payment estimate to the Owner, or return the partial payment estimate to the Contractor indicated in writing his reasons for refusing to approve payment. In the latter case, the Contractor may make the necessary corrections and resubmit the partial payment estimate. The Owner will, within thirty (30) days of presentation to him of an approved partial payment estimate, pay the Contractor a progress payment on the basis of the approved partial payment estimate. The Contractor will be paid the bid and stipulated unit and lump sum prices as set forth in his Proposal, for the amount of work approved for payment by the Engineer. The sum total for these items shall constitute full payment for the job complete, tested, and ready for use.

(b) The Owner shall retain ten percent (10%) of the amount of each partial payment until the work is complete. With the final payment the Owner shall pay the Contractor seventy percent (70%) of the retainage held.

Ord. 56-1990 4/9/90

GENERAL CONTRACTORS

IMPROVEMENT CONTRACTS FOR CURBING, PAVING, RESURFACING

THE CONTRACTOR TO WHOM THIS CONTRACT HAS BEEN AWARDED SHALL COMPLY WITH THE REQUIREMENTS OUTLINED HEREIN:

- 1. <u>PLANS AND STANDARD DRAWINGS:</u> Prints shall be on the job and available at all times.
- 2. <u>CONCRETE WORK INVOLVING FORM WORK:</u> No concrete work shall be placed until form work has been approved and accepted by the City Project Inspector.

Concrete work constructed in violation of this directive shall be subject to removal and replacement at the expense of the Contractor.

- 3. <u>UNDERGROUND ELECTRIC AND COMMUNICATION WIRES, CONDUIT AND</u> <u>APPURTENANCES:</u> The Contractor shall be responsible for any damages.
- 4. LOCATION OF DOWN SPOUT DRAINS:

The Contractor shall be responsible for the location of all down spout drains. If a drain is inadvertently overlooked and it is necessary to drill a hole in the curb after it has been placed, the drilling shall be performed by the City's contractor at the expense of the Contractor.

5. <u>LOCATING OF WATER SERVICE BOXES, WATER SHUT-OFF VALVE BOXES,</u> <u>AND SANITARY AND STORM SEWER MANHOLES:</u>

The initial locating of these boxes and manholes will be performed by the City Water Utilities Department forces upon a one (1) week notice.

It will then be the responsibility of the Contractor to preserve the location stakes or log the points by another method. If it is necessary for the City Water Utilities Department forces to relocate these items, costs will be billed at the prevailing hourly rate at which the work is performed.

6. <u>ADJUSTING WATER SERVICE BOXES TO GRADE:</u>

The top of these curb boxes shall be either flush with or a maximum of 1/4" below the surface of the berm, drive approach, or sidewalk. These boxes will be replaced prior to adjusting as determined by the City Engineer. The Contractor will ensure that each box is in good condition and that the stem is operational.

All damaged or buried service boxes must be corrected within two (2) weeks following written notification by the City. All costs incurred by the City to correct damaged or buried service boxes will be billed at the prevailing hourly rate at which the work is performed.

7. <u>ADJUSTING WATER SHUT-OFF BOXES TO GRADE:</u>

The top of these water boxes shall be either flush with or a maximum of 1/4" below the final surface of pavement, berm, drive approach, or sidewalk. Measurement in excess of these limits shall be grounds for non-acceptance of this item.

The boxes shall be adjusted prior to addition of the final asphalt surface course. Riser rings are acceptable for water boxes, provided the top section is in good condition. The boxes will be replaced prior to adjusting as determined by the City Engineer.

All boxes found damaged, covered, or buried must be corrected within two (2) weeks following written notification by the City. All costs incurred by the City to expose or correct damaged boxes will be billed at the prevailing hourly rate at which the work is performed, minus the bid amount for items not performed.

8. <u>ADJUSTING SANITARY AND STORM SEWER FRAMES AND LIDS TO GRADE:</u> The top of the sanitary and storm sewer frames and lids shall be either flush with or a maximum of 1/4" below the final surface of pavement, berm, drive approach, or sidewalk. Measurement in excess of these limits shall be grounds for non-acceptance of these items.

The frames and lids shall be adjusted prior to addition of the final asphalt surface course. The frames shall be replaced prior to adjusting as determined by the City Engineer. Riser rings are not acceptable for adjusting sanitary and storm sewer lids to grade.

Care must be exercised to prevent debris from falling into the base of the manhole during removal, loosening installation or adjusting of these frames and lids. All debris must be removed immediately to prevent restriction of flow. All damage or work incurred by the City or residents due to a plugged sewer caused by debris from this work will be at the expense of the Contractor.

The Water Utilities Department will provide all frames and lids needed to replace defective items. NOTE: All two-inch (2") frames and lids are to be replaced with Cuyahoga Falls Standard one-inch (1") frames and lids. All frames and lids needed will be picked up by the Contractor following coordination with the Water Utilities Superintendent. All items replaced are the property of the City and will be picked up by City forces.

All manhole frames and lids found damaged or buried must be corrected within two (2) weeks following written notification by the City. All costs incurred by the City to expose or adjust manhole frames and lids will be billed at the prevailing hourly rate at which the work is performed, minus the bid amount for items not performed.

SPECIAL PROVISIONS

ADDENDAS AND SUPPLEMENTAL SPECIFICATIONS TO THE CURRENT CONSTRUCTION SPECIFICATIONS FOR THE CITY OF CUYAHOGA FALLS.

THIS SECTION ALSO INCLUDES ANY SPECIAL SPECIFICATIONS AND STANDARD CONSTRUCTION DRAWINGS APPLICABLE TO THIS PROPOSAL

SECTION 5

NOTICE TO CONTRACTOR:

"DOMESTIC STEEL USE REQUIREMENTS AS SPECIFIED IN SECTION 153.011 OF THE REVISED CODE APPLY TO THIS PROJECT. COPIES OF SECTION 153.011 OF THE REVISED CODE CAN BE OBTAINED FROM ANY OF THE OFFICES OF THE DEPARTMENT OF ADMINISTRATIVE SERVICES."

CLAIMS RESOLUTION AND TERMINATION

SECTION 5.2



City of Cuyahoga Falls

Division of Engineering 2310 Second Street Cuyahoga Falls, Ohio 44221-2583 PHONE: 330-971-8180 FAX: 330-971-8182 **Mayor Don Walters**

CRAIG MARKO, P.E. Assistant City Engineer

CLAIMS RESOLUTION AND TERMINATION – CUYAHOGA FALLS

- 1. If a dispute arises during a project, the inspector informs the Engineer in Charge.
- 2. The Engineer will determine the validity of the claim within 3 days and discuss it with the inspector.
- 3. The inspector will then inform the Contractor of the resolution.
- 4. If this is not satisfactory to the Contractor, the Contractor may, within 3 days of being notified of the resolution, request a meeting be set up between the involved parties, in order to discuss and resolve the claim.
- 5. If this still does not satisfy the Contractor, the Law Director will be contacted and be informed of the claim. He will determine the validity of the claim from a legal point of view.
- 6. All involved parties will meet to discuss the determined resolution.
- 7. If this still does not satisfy the Contractor, then the claim will be taken to court.
- 8. The City may terminate the contract at any time for convenience of the City. The City will compensate the contractor according to ODOT Items 108.09, 109.04 and 109.05 for termination of the contract for the convenience of the City. This subsection is subject to the provisions of ORC 5525.14.

7/30/2020

TONY V. DEMASI, P.E City Engineer

CHANGE ORDERS

SECTION 5.3



City of Cuyahoga Falls

Division of Engineering 2310 Second Street Cuyahoga Falls, Ohio 44221-2583 PHONE: 330-971-8180 FAX: 330-971-8182

Mayor Don Walters

CRAIG MARKO, P.E. Assistant City Engineer

CHANGE ORDERS - CUYAHOGA FALLS

- 1. If additional work is required, on a project, the contractor informs the inspector, who in turn discusses the situation with the Engineer in charge.
- 2. The Engineer determines whether the change order is justified, or determines if there is a less expensive alternative.
- 3. If there is not a viable alternative, the Engineer will determine how the change order will affect the contract budget. He may determine that less important items can be non-performed to make up the additional funds required.
- 4. If the change order is less than 10% of the contract monies, the Engineer's and the Board of Control's approval are required.
- 5. However, if the change order is greater than 10% of the contract monies, the Engineer and the Board of Control must take the request to City Council for their approval.
- 6. Normally, all of the approvals are required before the additional work can be performed. However, in an emergency situation, where a delay would have a major impact on the schedule, or cost the City additional monies due to the slowing of the contractor's progress, the Engineer may allow the additional work to be completed before all approvals are obtained.
- 7. For LPA-ODOT projects, the City will notify ODOT District 4 of all change orders, and ODOT must approve significant change orders. For purposes of LPA-ODOT projects, significant change orders are defined as:
 - a. \$25,000 for projects less than \$500,000
 - b. Lesser of 5% of bid price, or \$100,000, for projects greater than \$500,000
 - c. Change order results in change to project limits
 - d. Change order results in change to environmental impacts

7/30/2020

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TONY V. DEMASI, P.E City Engineer

PROJECT ADMINISTRATION PROCESSES

SECTION 5.4



City of Cuyahoga Falls

Division of Engineering 2310 Second Street Cuyahoga Falls, Ohio 44221-2583 PHONE: 330-971-8180 FAX: 330-971-8182

Mayor Don Walters

CRAIG MARKO, P.E. Assistant City Engineer

TONY V. DEMASI, P.E City Engineer

Project Administration Processes

The City generally follows the process outlined in sections 102, 103 and 104 in the ODOT CMS for the project award policies, procedures and processes. The difference between the City's procedures and those outlined in the ODOT CMS are shown below:

- 1. Prior to the execution of a 'Notice of Award' the City Engineer will check the SAMS website to verify that the contractor is not current barred from being awarded construction contracts utilizing Federal funding.
- 2. Prior to the execution of a 'Notice of Award' the City Engineer will check the Ohio Auditor of State website to ensure the contractor doesn't have unresolved findings that would prevent the award of a construction contract.
- 3. Prior to the execution of a 'Notice of Award' the contractor is required to submit evidence to the satisfaction of the City Engineer that at least 30 percent of the work will be performed by the prime contractor's own forces.
- 4. The City will periodically review that the prime contractor will perform 30% of the original contract work over the life of the contract.
- 5. The City will not issue a NTP to the contractor until receiving notice from District that the award package was processed and the federal funds were encumbered.

7/30/2020

SUPPLEMENTAL SPECIFICATIONS

SECTION 5.5

STATE OF OHIO DEPARTMENT OF TRANSPORTATION SUPPLEMENTAL SPECIFICATION 800 REVISIONS TO THE 2019 CONSTRUCTION & MATERIAL SPECIFICATIONS

DATED 04-17-2020

<mark>101.02</mark>

On page 7, **Add** the following abbreviation below ASCE: ASLA American Society of Landscape Architects

101.02

On page 10, **Replace** "REA Rural Electrification Administration" with the following: REA Rural Electrification Act

101.02

On page 13, Delete the following: QCQC Quality Control Qualifications Committee

101.03

On page 13, **Replace** the definition of Engineer with the following:

Engineer. Duly authorized agent of the Department acting within the scope of its authority for purposes of engineering and administration of the Contract. In managing the administration of the contract, the Engineer may confer with representatives of Industry including, but not limited to, the designer of record, landscape architects, environmental specialists, etc.

<mark>101.03</mark>

On page 14, Add the following definition below Prebid Question:

Professional Landscape Architect. A landscape architect registered with the Ohio Landscape Architects Board to practice landscape architecture in the State of Ohio.

102.16

On page 22, **Delete** the following:

102.16 Certificate of Compliance with Affirmative Action Programs. Before any Contract is awarded, the Department will require the Bidder to furnish a valid Certificate of Compliance with Affirmative Action Programs, issued by the State EEO Coordinator dated prior to the date fixed for the opening of bids.

107.07

On page 40, Add the following paragraph after the first paragraph:

Any illegal drugs, drug paraphernalia, mobile drug labs or dumps, weapons or firearms found on the Project Right of Way shall be considered a potential crime scene and shall not be handled or moved. Immediately notify law enforcement and the Project Engineer.

107.13

On page 46, **Replace** the last sentence in the last paragraph with the following: The decision of the DCE will be made within 14 days and will be administratively final.

107.15

On page 47, **Replace** the second paragraph with the following:

In the event that the Engineer determines that damage to completed permanent items of Work results from traffic using a substantially completed section of Roadway, the Department may compensate the Contractor for repair of the damage as authorized by Change Order. Additionally, if traffic permanently damages beyond use and of the following temporary maintenance of traffic items, the Department may compensate the Contractor for replacement of the item as authorized by Change Order:

- 1. Arrow board.
- 2. Work zone signal, pole, or controller.
- 3. Lighting unit or pole.
- 4. Changeable message sign.
- 5. Work Zone Impact Attenuator
- 6. Truck Mounted Impact Attenuator
- 7. Digital Speed Limit Sign Assembly

107.15

On page 47, **Replace** the **A.** through **D.** with the following:

To receive compensation for the damage to permanent items of Work or temporary maintenance of traffic items named above, the Contractor must first meet the following requirements.

A. Notify the Engineer of each occurrence of damage in writing within 10 Calendar Days.

B. Contact the local law enforcement agency to determine if the accident was investigated and a report filed. If an accident report was filed, obtain the report and notify the motorist, and copy their insurance company, via certified mail informing both that the motorist is responsible for the cost of damage repairs. If the motorist does not respond within 30 days, make a second attempt to contact the motorist and copy the insurance company via certified mail.

C. If no response is received from the motorist or insurance company within 30 days of the motorist receipt of the second notice, send a letter to the Engineer within eighteen months of the event and include documentation of good faith effort to seek recovery from responsible parties.

D. The Department will make an adjustment according to 108.06 and 109.05 to compensate the Contractor for the added costs and delays, if any, resulting from the repair or replacement of damaged Work.

If there is no accident report on file and no means of identifying the responsible motorist, the Contractor may likewise be compensated to repair the damaged Work.

107.21

On page 50, Replace the paragraph with the following:

107.21 Prompt Payment. In accordance with ORC 4113.61, make payment to each subcontractor and supplier within 10 Calendar Days after receipt of payment from the Department for Work performed or materials delivered or incorporated into the Project, provided that the pay estimate prepared by the Engineer includes Work performed or materials delivered or incorporated into the public improvement by the subcontractor or supplier. Contractors are prohibited from holding retainage from subcontractors that can provide a bond. For unbonded subcontractors and suppliers, promptly release any retainage held, as set forth in any subcontractor or supplier agreement, 30 days

after the work is satisfactory completed. For the purposes of this section, satisfactory completed will be interpreted as when the subcontractor has completed all physical work and submitted any necessary documentation required by the specifications and the Department. No subcontract provision shall permit the Contractor to delay subcontractor's retainage payments until the Project's final payment.

108.06.C

On page 64, Add the following paragraph after the first paragraph under the table:

Lane closures within the project, 60 days or less as indicated in the contract documents, which are impacted by weather will be extended for the actual work days lost each month. Lane closures within the project, 61 days or longer as indicated in the contract documents, which are impacted by weather will be extended when the actual work days lost exceeds the number of anticipated work days lost each month as determined by Table 108.06-1.

108.06.D.4

On page 64, **Replace** item D.4. with the following:

4. Delays due to acts of the government or a political subdivision other than the Department.

108.07

On page 65, Add the following paragraph after Item E and before TABLE 18.07-1:

The Contractor may submit a request for waiver of liquidated damages to the Department within 30 days of the assessment of liquidated damages.

108.07

On page 65, **Replace** Table 108.07-1 with the following:

		Amount of Liquidated		
		Damages to be		
		Deducted for Each		
Original Contract	Amount	Calendar Day of		
(Total Amount of	the Bid)	Overrun in Time		
From More Than	To and Including			
\$0.00	\$500,000	<mark>\$450</mark>		
\$500,000	\$2,000,000	<mark>\$650</mark>		
\$2,000,000	\$10,000,000	<mark>\$1,000</mark>		
\$10,000,000	\$50,000,000	<mark>\$1,700</mark>		
Over \$50,000,000		<mark>\$3,100</mark>		

109.05.C.8.b

On page 81, **Replace** the second paragraph with the following:

b. Trucking that is subject to the prevailing wage law will be compensated according to 109.05.C.1, 109.05.C.2, 109.05.C.4, 109.05.C.6, and 109.05.C.10.

109.05.C.10

On page 82, **Replace** the last paragraph with the following:

In the event the Contractor declines to sign the Daily Force Account Record, the Department's records shall govern. Any resulting dispute must be pursued in accordance with 108.02.G.

203.04

On page 103, **Replace** the second sentence of the fifth paragraph with the following: The area is considered to contain hazardous waste or material and must be handled according to Department procedures and appropriate environmental agency regulatory requirements.

301.02

On Page 161, Add the following paragraph after the last paragraph in the section:

Do not start mix production without a preliminary JMF approval and 48 hour notification to District Testing. Final approval of a JMF will be based upon field verification. The JMF can be rejected for failure to verify in the plant or at the project.

302.03

On Page 164, Add the following paragraph after the first sentence in the section:

Do not start mix production without a preliminary JMF approval and 48 hour notification to District Testing. Final approval of a JMF will be based upon field verification. According to 441.12 the JMF can be rejected for failure to verify in the plant or at the project.

401.04

On Page 174 **Replace** the 4th full paragraph with the following:

Determine RAS properties and usage as follows. Use no more than 3.0 percent RAS by dry weight of mix. When using RAP and RAS in combination use no more than 25 percent RAP. For design assume 12.0 percent available RAS binder. Determine gradation and specific gravity according to AASHTO PP 78-17, Section 5 or subsequent AASHTO applicable standard. Provide the required certification forms in the JMF submittal documenting that the RAS meets AASHTO MP 23-15 (2016), section 4 and that RAS from roofing tearoffs conforms to the EPA's NESHAP, 40 CFR 61 Subpart M, and other applicable agency requirements for asbestos.

401.04

On Page 175 **Replace** Table 401.04-1 with the following:

TABLE 401.04-1 METHOD 1 – STANDARD RAP/RAS LIMITS

Asphalt Mix Application	Percent RAP by Dry Weight of Mix, Max.	RAS Usage [1]	Total Virgin Asphalt Binder Content, Min.	Comments
442 Polymer Surface Course	10%	None	5.2	Polymerized binder is virgin. (For non-polymer virgin binder allow 20% max RAP)
441 Surface Course	20%	None	5.0	Polymer or non-polymer virgin.
441, 442 Intermediate Course	35%	Manufacturing waste and tear-offs	3.0	Any mix type used as an intermediate course.
301 Base Course	50%	Manufacturing waste and tear-offs	2.7	OMM will establish the asphalt binder content.
302 Base Course	40% (30%)	Manufacturing waste and tear-offs	2.0	A lower RAP limit of 30 percent will be required if poor production mixing or coating is evident.

[1]No more than 3.0% RAS by dry weight of mix

Table 401.04

On Page 176 **Replace** Table 401.04-2 with the following:

Asphalt Mix Application	Percent RAP by Dry Weight of Mix, Max.	RAS Usage [1]	Total Virgin Asphalt Binder Content, Min.	Comments
442 Polymer Surface Course	15%	None	5.0	Polymerized binder is virgin. (For non-polymer virgin binder allow 25% max RAP)
441 Surface Course	25%	None	5.0	Polymer or non-polymer virgin.
441, 442 Intermediate Course	40%	Manufacturing waste and tear-offs	3.0	Any mix type used as an intermediate course.
301 Base Course	55%	Manufacturing waste and tear-offs	2.5	OMM will establish the asphalt binder content.
302 Base Course	45% (35%)	Manufacturing waste and tear-offs	1.8	A lower limit of 35 percent will be required if poor coating is evident. The virgin requirement of 302.02 does not apply.

TABLE 401.04-2 METHOD 2-EXTENDED RAP/RAS LIMITS

[1]No more than 3.0% RAS by dry weight of mix

401.04.C

On Page 176, **Replace** the first sentence in the second paragraph with the following: Ensure RAS is processed to have 100 percent passing the 1/2 inch (12.5 mm) sieve and at least 90 percent passing the No. 4 (4.75 mm) sieve.

401.08

On Page 178, Add the following paragraph after the first paragraph:

At a minimum, take a split sample of asphalt binder whenever the Department requests a sample. Address in the QCP the QC of mix plant asphalt binder samples and subsequent corrective action of binder test failures of any sample (QC or Department). Failure to perform QC of asphalt binder samples is at the Contractor's risk. Any Department binder sample failures will result in penalties per Supplement 1102. These include remove and replace, pay deductions, or other penalties for the asphalt mix represented by the Department's sample.

402.02

On Page 188, **Replace** the entire section with the following:

402.02 Calibration. Ensure the plant is calibrated according to Supplement 1101 when producing any asphalt concrete for the Department. Calibrate the asphalt binder meter according to Supplement 1101.07 Method A or B. When calibrating the asphalt binder meter according to Method B, daily aggregate and RAP weighbridge validations are required to be performed according to Supplement 1101.06. Document which plants follow Supplement 1101.01 Method B in the Quality Control Program (403.03). If issues persist for Method B calibrations or documentation, the Department will require the plant to follow Method A. When performing a complete calibration for ODOT projects notify District Testing 24 hours in advance of the calibration.

403.02

On Page 190, **Replace** the second paragraph with the following:

Restoration of VA procedures will be by the Department's Quality Control Review Group (QC Review Group) based on District recommendation and review of the Contractor problems, resolutions and QCP. The QC Review Group consists of asphalt the Materials Engineer, Office of Materials Management; the Administrator, Office of Materials Management; and the Pavement Engineer, Office of Construction Management.

403.03

On Page 190, Add the following sentence to the end of the first paragraph:

Include a revision date on the cover sheet and revision sheet listing the date(s), what section(s) and page(s) a revision was made, and a short description of what was revised, added, or removed.

403.03

On Page 190, **Replace** the third sentence in the second paragraph with the following:

Digital copies of the QCP and letter in pdf format are allowed in each Contractor plant laboratory and plant operation control room with the following requirements: The file icon must be appropriately labeled and be on the computer desktop of a computer in each area. Ensure the QCP contains page numbering and a Table of Contents inside the front cover locating all sections by page number. Remove out-of-date QCPs from the computer desktop.

403.03

On Page 191, **Delete** the second full paragraph.

The QCP is a reflection of a Contractor's sincerity and ability in producing a quality product. Development of this program beyond the minimum requirements specified below is encouraged and is taken into consideration by the QCQC when reviewing Contractor plant operation for qualification for VA.

403.03

On Page 191, **Replace** the third full paragraph with the following:

As a minimum include in the program:

403.03.B

On Page 191, **REPLACE** subsection B with the following:

B. Means for annual training in ethical conduct according to company expectations of all company employees and consultants who are responsible for the mix design, production, testing, and placement of asphalt mix and their supervisors. Document how and when training is given, what the expectations are, how expectations are communicated and list all personnel trained. Describe the QC Manager's and supervisor's responsibilities and methods in ensuring ethical conduct is maintained throughout the year.

403.03.F

On Page 192, **Replace** the first paragraph with the following:

F. Methods to maintain all worksheets, including all handwritten records, and other test and sample records from all plant(s) and, or project(s) for a minimum of 8 years. Define the test record process. Define company records retention requirements. Provide copies of all test reports and forms used in the quality control process.

403.03.L

On Page 192, Add the following sentence after the last sentence in the paragraph:

Means of handling asphalt binder samples taken at the mix plant including any testing, labeling, and storing of samples.

403.03.N

On Page 192 Replace the paragraph with the following:

N. Define the roles and responsibilities of the Field Quality Control Supervisors. Provide a detailed description of how the FQCS will handle all mat issues including segregation, tenderness, mat tears, debris, holes, etc. List approved Field Quality Control Supervisors.

403.06.F

On Page 198, Replace the last paragraph with the following:

For all other mixes, if repeated problems with poor comparison of tests are not the District's fault; or poor comparison of Contractor tests to the JMF; or with plant operation, input materials, or any of the other requirements of Department specifications occur in a single project or successive projects, the District will request an opinion from the QC Review Group before notifying the Contractor of removal from Department VA. The District will immediately notify the Contractor of the removal with a follow up letter from District Testing. Once notified, acceptance of asphalt mixtures is by Unconditional Acceptance. Restoration of the VA procedures may occur on a future project with a District recommendation to the QC Review Group based on consistent improved plant operation and mix control, a review of the Contractor problems and resolutions, and a review of the QCP by the QC Review Group.

421.02

On Page 211, **Add** the following sentence directly after Table 421.02-2: Do not use aggregates designated with "SR" or "SRH."

421.02

On Page 212, **Replace** the first sentence of the first full paragraph with the following: For mineral filler, use Supplement 1028 Certified portland cement conforming to ASTM C 150, Type I.

421.03

On Page 212, **Revise** the third sentence in the second paragraph to the following: Prepare the mix design by designing the mixture using the minimum, design, and maximum residual binder contents for gradations A or B and present all test data for all tests specified in Table 421.03-1.

421.03

On Page 213, **Replace** Table 421.03-1 with the following:

ISSA Test No.	Description	Specification
	Wet Cohesion	
TB-139	30 minutes min. (set time)	12 kg-cm min.
	60 minutes min. (traffic)	20 kg-cm min or near spin
TB-114	Wet Stripping	90 percent min.
	Wet Track Abrasion Loss	
TB-100	1-hour soak	450 g/m² max.
	6 day soak	650 g/m² max.
TB 144	Saturated Abrasion	2 g loss max.
ID-144	Compatibility	
TD 112	Mix Time @ 25 °C	Controllable to 120 seconds
IB-115	Mix Time @ 40 °C	Controllable to 45 seconds
TB-147	Lateral Displacement (For Leveling	5%, max.
	and Rut Fill courses only)	
TB-109	Excess Asphalt by LWT Sand	538 g/m² max.
	Adhesion	

421.03.A

On Page 213, **Replace** the first sentence after Table 421.03-1 with the following:

Check the ISSA TB-139 (set time) and ISSA TB-113 (mix time) tests at the highest and lowest temperatures expected during construction.

421.03.B.8

On Page 213, **Replace** B.8. with the following:

8. Quantitative effects of moisture content on the unit weight of the aggregate per AASHTO T 19 from 0.0 to 10.0% moisture content.

421.04.C

On Page 214, **Replace** paragraph C. with the following:

C. Provisions to meet the Department mix specifications including warning bands and action plans for aggregate, Binder, and tack coat materials to ensure they meet Department testing.

421.09

On Page 217 Replace the third and fourth paragraphs of the section with the following:

Remove all existing pavement markings so that less than 5% of the line remains visible. Repair damage to the pavement that results in the removal of more than 1/8 inch of pavement thickness. When a grinder drum is mounted to a skid steer loader, the drum must be able to accommodate a minimum of 150 teeth.

Seal visible joints and cracks longer than 2 feet (600 mm) in length and any joint or crack greater than 1/4 inch (6 mm) in width no matter the length using Item 423 Type II only. Apply crack sealant material at a width of 2 to 4 inches (50 to 100 mm) and at a thickness of not less than 1/16 inch (2 mm) and not greater than 3/16 inch (5 mm).

421.12

On Page 219, **Replace** the next-to-last sentence in the first paragraph with the following: Present a revised corrective action plan and obtain the Engineer's approval before resuming work.

Page 9 of 71

421.12.A

On Page 220, **Replace** the entire section with the following:

A. Binder. Obtain and label a Binder sample from supply tanker and diluted tack coat sample from the distributor truck at the direction of the Engineer and give the samples to the Engineer the same day. Provide and sample the Binder and diluted tack coat in one-quart (1 L) plastic containers with plastic screw tops. Label and retain one sample per each additional day for the Department. Take more samples when requested by the Engineer.

Visually inspect Binder in supply tanker(s) to ensure uniform material with no separation or contamination. Verify temperature of binder and tack coat. Monitor and verify proportioning of asphalt emulsion and water into distributor and proper mixing before use or sampling. Perform a minimum of one Binder and tack coat cook-off each production day to determine the residue content of the Binder and tack coat and verify compliance. If residue content is in warning band or out of compliance provide the Engineer with corrective actions prior to using.

Ensure mixing equipment is set at design asphalt emulsion percentage during production. Do not exceed a tolerance of $\pm 0.3\%$ residual content from the design residual content or the minimum and maximum content in the microsurface mix due to fluctuation in residual content in the Binder. If tolerance is exceeded, stop production. Correct the issue by correcting the Binder residual content by methods allowed by Supplement 1032 certified supplier or adjust the asphalt emulsion percent, if approved by the Engineer. Recalibrate the mixing equipment to the new adjusted asphalt emulsion percent to meet the design residual content of the microsurfacing mix for positive displacement mixing equipment.

421.12 B.

On Page 220, **Replace** the second sentence in the third paragraph with the following: Obtain three (3) aggregate samples from the stockpile and perform gradation testing on each sample according to AASHTO R 90, AASHTO R 76, Supplement 1004 (AASHTO T 11 where required), and moisture content per AASHTO T 255.

422.02 C.

On Page 225 **Replace** the first sentence in the third paragraph of the section with the following: If a staging location will be used for the chip seal aggregate first move the initially tested aggregates from the aggregate source stockpile to the staging location and construct a project-specific staging stockpile.

422.06

On Page 228 **Replace** the second paragraph of the section with the following:

Remove all existing pavement markings so that less than 5% of the line remains visible. Repair damage to the pavement that results in the removal of more than 1/8 inch of pavement thickness. When a grinder drum is mounted to a skid steer loader, the drum must be able to accommodate a minimum of 150 teeth.

422.10 C.

On Page 231 **Replace** the first sentence of the section with the following:

C. Coarse Aggregate. At a minimum test one sample taken from the aggregate spreader box or project-specific stockpile at production start and sample and test one sample from the aggregate spreader box or project-specific stockpile randomly during the day.

422.10 C.

On Page 231 **Replace** the fifth sentence of the section with the following: Sample and test aggregate according to AASHTO R 90, AASHTO R 76, and Supplement 1004 (AASHTO T 11 where required).

422.13

On Page 233 **Replace** the first paragraph of the section with the following:

422.13 Method of Measurement. The Department will measure Single Chip Seal or Double Chip Seal by the number of square yards (square meters) of aggregate, and the gallons (liters) of polymer emulsified binder, completed and accepted in place. The Department will determine the width by measuring the actual width of the chip seal. The Department will determine the length along the centerline of each roadway or ramp. The Department will determine the gallons (liters) of polymer emulsified binder applied according to Item 109.

422.14

On Page 234 **Replace** the Basis of Payment table with the following:

Item	Unit	Description
422	Square Yard (Square Meter)	Aggregate, Single Chip Seal, Type
422	Gallons (Liters)	Emulsion, Single Chip Seal, Type
422	Square Yard (Square Meter)	Aggregate, Double Chip Seal, Type
422	Gallons (Liters)	Emulsion, Double Chip Seal, Type

423.02

423.03

On page 235, **Delete** the following from the first sentence of the first full paragraph: For Type II, III, and IV crack sealants, heat the sealant in a kettle or melter constructed as a double boiler, with the space between the inner and outer shells filled with oil or other heat-transfer fluid.

423.03

On page 235, **Replace** the first sentence of the third full paragraph with: For Type II and III crack sealants, use a mechanical applicator wand head capable of placing the crack sealant according to the tolerances of 423.07 while filling the cracks.

423.06

On page 236, **Delete** the following: **Mixing Type II and III.**

423.06

On page 236, **Add** the following sentence after the second sentence: Type II crack sealant may also be prepackaged per 702.17.B.
On page 236, **Delete** the last sentence of the section: Do not heat Type III crack sealant to greater than 295 °F (146 °C).

423.07

On page 236, **Replace** the first sentence of the fourth paragraph:

For Type II and III crack sealants, place the sealant such that it fills the cracks with a band of sealant within 2 to 4 inches (50 to 100 mm) wide.

423.10

On page 237, **Delete** the following: 423 Pound (Kilogram) Crack Sealing, Type III or Square Yard (Square Meter) 423 Pound (Kilogram) Crack Sealing, Type II or III or Square Yard (Square Meter)

424.03

On Page 238, **Add** the following sentence to the end of the second paragraph: Do not use RAS.

441.09

On Page 244, Replace the last sentence of the first paragraph with the following:

Perform each quality control test a minimum of one time for each 700 tons (635 metric tons), or for any portion of 700 tons, of asphalt concrete produced, for every production day. A production day includes the period of time from when mix production begins to the time the last load of asphalt leaves the asphalt plant, either from the mix drum or from any storage silo. Any planned break in plant production to accommodate a new work shift triggers a new production day.

441.09

On Page 245, **Replace** the first full paragraph with the following:

Should additional testing as required above not be performed District Testing, after consultation with OMM, will require the testing frequency be increased to all tests every two hours of production for the remainder of the project. If this occurs, District Testing will request an opinion from the QC Review Group for action(s) against the technician and/or Contractor including but not limited to warning, removal and/or a change of the facility to Unconditional Acceptance.

443.01

On Page 253, **Replace** the second paragraph with the following:

The requirements of 442; and 446 or 447 apply except as follows. Do not use the warm mix asphalt method (402.04) for this item.

443.03

On Page 253, Replace Note [5] after Table 443.03-2 with the following:

[5] VCA = Volume of Coarse Aggregate (Calculated for mix and dry rodded conditions according to AASHTO R 46)

443.03.E

On Page 254, **Replace** the section with the following:

E. Reclaimed Asphalt Concrete Pavement and Shingles. Do not use reclaimed asphalt concrete pavement except as described in D above. Do not use reclaimed asphalt shingles.

443.08

On Page 256, **Replace** the entire section with the following:

443.08 Acceptance. After accepting the test strips, the Department will accept SMA according to 446.04; or 447.04, 447.05, and 447.06.

443.09

On Page 256, **Replace** the section with the following:

443.09 Basis of Payment. The Department will pay for accepted quantities of Stone Matrix Asphalt Concrete, complete in place, including test strip, at the contract price as modified by 446.04; or 447.05 and 447.06, as follows:

Item	Unit	Description
443	Cubic Yard	Stone matrix asphalt concrete, 12.5mm, PG70-22M, ()
	(Cubic	: Meter)
443	Cubic Yard	Stone matrix asphalt concrete, 12.5mm, PG76-22M, ()
	(Cubic	e Meter)

447.05

On Page 263, **Replace** TABLE 447.05-1 with the following:

	Pay Factor
Mean of Cores ^[1]	Surface Course
98.0% or greater	[2]
97.0 to 97.9%	0.94
96.0 to 96.9%	1.00
94.0 to 95.9%	1.04
93.0 to 93.9%	1.00
92.0 to 92.9%	0.98
91.0 to 91.9%	0.90
90.0 to 90.9%	0.80
89.0 to 89.9%	[3]
Less than 89.0%	[2]
[1]Mean of cores as percent of average MS	G for the production day.
[2]Remove and replace.	

TABLE 447.05-1 MAT DENSITY LOTS

[3] The District will determine whether the material may remain in place. If the District determines the course should be removed and replaced, the Contractor will remove and replace this course. The pay factor for such material allowed to remain in place is 0.70.

451.09

On Page 271, **Replace** the first eight paragraphs with the following:

451.09 Joints. Unless otherwise directed, construct all transverse contraction and construction joints normal to the centerline of the pavement lane and of the type, dimensions, and at locations specified. Construct contraction joints by saw cutting. Saw contraction joints across the full pavement width for a continuous joint and match previously placed lanes.

Construct longitudinal joints between simultaneously placed lanes by sawing.

Accurately mark the pavement with the correct locations of all joints to be saw cut. Ensure the method of marking remains clearly visible after the paver passes and until the joint saw cut is completed. Reapply curing compound according to 451.11 at saw cut joints.

Use either a standard water-cooled, diamond-bladed concrete saw or an early-entry, dry cut, lightweight concrete saw. Provide saws with adequate guides, blade guards, and a method of controlling the depth of cut. After wet sawing, clean the joint using a jet of water. After dry sawing clean the joint using air under pressure. Maintain a standby saw in working condition and an adequate supply of blades.

When using standard concrete saws, and for pavement less than or equal to 10 inches (255 mm), saw joints to a minimum depth of one-fourth the specified pavement thickness. For pavements greater than 10 inches (255 mm) thick, saw joints to a minimum depth of one-third the specified pavement thickness. Saw joints $1/4 \pm 1/16$ inch (6 ± 1.6 mm) wide measured at the time of sawing.

When using early-entry saws use saw blades and skid plates as recommended by the saw manufacturer for the coarse aggregate type being used in the concrete. Saw joints 1/8 inch (3 mm) wide and 2 1/4 to 2 1/2 inches (56 to 63 mm) deep.

Repair all cracking or spalling according to 451.17.

451.09.A.

On Page 272, **Replace** the entire section with the following:

A. Longitudinal Joint. Place deformed epoxy coated steel tiebars, epoxy coated hook bolt with epoxy coated coupling, or epoxy coated hook bolt alternate (wiggle bolt) with epoxy coated

coupling, in longitudinal joints during consolidation of the concrete. Install them at mid-depth in the slab using approved mechanical equipment. As an alternate procedure, rigidly secure them on chairs or other approved supports to prevent displacement. Provide tie bars, hook bolts, or wiggle bolts of the size and spaced as shown on the standard construction drawings. If used, securely fasten hook bolts or wiggle bolts with couplings to the form at the longitudinal construction joint as shown on the standard construction drawings.

451.09.B.

On Page 273, **Delete** the first sentence of the section:

Unless otherwise directed, construct all transverse joints normal to the centerline of the pavement lane and of the type, dimensions, and at locations specified.

451.09.B.1.

On Page 273, **Replace** the third paragraph of the section with the following:

Immediately before paving check that the assemblies are held firmly in place and check that the dowels are parallel to the grade and parallel to centerline of pavement.

451.09.C.

On page 280, **Replace** the first sentence of the first paragraph with the following:

Where a pressure relief joint is not provided adjacent to a bridge structure, construct expansion joints at the first two regularly spaced transverse contraction joint locations adjacent to the bridge approach slab on each side of the bridge.

451.09.C.

On Page 280, **Replace** the first sentence of the third paragraph with the following:

Use round, straight, smooth, steel dowels, and within 2 hours prior to placing concrete, coat the dowels with a thin uniform coat of new light form oil as a bond-breaking material to provide free movement.

451.09.C.

On Page 280, **Replace** the fourth paragraph with the following:

Punch or drill proper size dowel holes into the preformed expansion joint filler to ensure a tight fit around each dowel.

451.09.D.

On Page 280, **Delete** the entire section.

D. Contraction Joints. For pavement less than or equal to 10 inches (225 mm) thick, saw contraction joints with a standard (water cooled diamond bladed) concrete saw to a minimum depth of one fourth of the specified pavement thickness. For pavement greater than 10 inches (255 mm) thick, saw contraction joints to a minimum depth of one third the specified pavement thickness. When cutting joints using a standard (water cooled diamond blade) saw ensure the joint is $1/4 \pm 1/16$ -inch (6 ± 1.6 mm) wide when measured at the time of sawing.

When using the option of early entry (dry cut, light weight) saws, only use saw blades and skid plates as recommended by the saw manufacturer for the coarse aggregate type being used in the concrete. Perform the early entry contraction joint sawing after initial set and before final set. Saw the contraction joint 2-1/4 to 2-1/2-inches (56 to 63 mm) deep. Ensure any early entry saw joints are approximately 1/8 inch (3 mm) wide at the time of sawing.

If the pavement is constructed in two or more separately placed lanes, install the joints continuous for the full width of the pavement. Saw the pavement with sawing equipment approved by the Engineer as soon as the saw can be operated without damaging the concrete. Provide saws with adequate guides, blade guards, and a method of controlling the depth of cut. After wet sawing, clean the joint using a jet of water. After dry sawing clean the joint using air under pressure. During sawing of contraction joints, maintain a standby saw in working condition with an adequate supply of blades.

451.09.E.

On Page 281, Replace the E. Construction Joints with D. Construction Joints.

<mark>455.04.F.</mark>

On Page 295, **Delete** item 6.

6. Define who will perform the HIPERPAV analysis required in 451.09 and the proposed timeframe the Engineer will have to review the report.

<mark>455.05.A.3.</mark>

On Page 298 **Replace** the first full paragraph with the following:

After the initial curing at the project site and within 72 hours, deliver three (3) QA cylinders to District Testing and three (3) QA cylinders to the AASHTO accredited laboratory for standard curing and testing. Failure to comply with these requirements will be grounds for removal of the AASHTO accredited laboratory from the project at the discretion of the District Testing Engineer and OMM. The AASHTO accredited laboratory will test the QA sample and the QC sample and report the test results on the form accepted by the QCP. Distinguish the QA from the QC results for the sublot.

499.02

On Page 300, Replace the materials listing for "Fly ash" with "Fly ash or natural pozzolan".

499.03

On Page 301, in Table 499.03-1, **Replace** notes [5] and [7] with the following:

[5] The maximum fly ash, natural pozzolan, or slag cement content may be increased up to 50%.[7] Cement or a combination of cement and up to 15% fly ash or natural pozzolan; or up to 30% slag cement.

499.03

On Page 302, in Table 499.03-2, **Add** the following row after "Fly Ash": Natural pozzolan 25

<mark>499.03.A.</mark>

On Page 302, **Add** the following sentence after the second sentence in the first full paragraph: Water-reducing admixtures conforming to the requirements of 705.12 may also be used or adjusted to meet slump requirements.

<mark>499.04.F.</mark>

On Page 303, **Replace** the last sentence of the paragraph with the following: Adjust the absolute volume of the aggregates if the cementitious content is increased.

<mark>499.04.H.</mark>

On Page 304, **Replace** the entire paragraph with the following:

H. If slump loss occurs before or during placement of the concrete, the concrete slump may be field adjusted to restore plasticity with a Type F or G chemical admixture conforming to 705.12, additional water, or both, only if the maximum water-cementitious ratio of the accepted JMF is not exceeded. Mix for a minimum of 30 revolutions at mixing speed after addition of admixture, water, or both. Inform the Inspector, record all adjustments, and confirm compliance with 499.03A. The Engineer will recheck the slump and air content to ensure conformance to the specification. If after any adjustment the components of the load are segregated, the Department will reject the load.

<mark>499.05</mark>

On Page 305 Add the following subsection **D.** as follows:

D. Volumetric Truck Mixers. Volumetric Truck Mixers. Provide mixers conforming to ASTM C685, Sections 7, 8, 9, 10, 11, 13, and 14. Mixers must have rating plates indicating that the performance of the mixer is in accordance with the Volumetric Mixer Manufacturer Bureau or equivalent. Mix concrete in accordance with the manufacturer's recommended procedures. The volumetric mixer must be capable of carrying sufficient unmixed dry bulk cement, supplementary cementitious materials, coarse and fine aggregate, admixtures and water, in separate compartments and accurately proportion the approved JMF. Each volumetric mixer shall be equipped with an onboard ticketing system that will electronically produce a record of all material used and their respective weights and the total volume of concrete placed. Place no more than 30 cubic yards (23 m³) per unit per day. Limit the use of volumetric truck mixers to QC Misc., QC MS, QC FS, and Item 613.

Provide a process control plan, product quality control plan, and manufacturer's recommended procedures to the OMM Cement and Concrete Engineer. Calibrate the proportioning devices before the start of a project and at intervals recommended by the manufacturer. Perform calibrations in the presence of the Engineer. Calibrate the cement and aggregate proportioning devices by weighing (determining the mass of) each component. Calibrate the admixture and water proportioning device(s) by weight (mass) or volume. Batch each material to ensure weights are within the tolerances listed in Table 499.06-2, based on the amount specified in the accepted JMF. Furnish batch tickets in accordance with Item 499.07. Verify yield daily based on the cement meter count (number of revolutions per 94 pounds (42.5 kg) of cement), for each volumetric truck mixer.

<mark>499.06</mark>

On Page 306 Add the following table after Table 499.06-1:

Table 499.06-2 VOLUMETRIC TRUCK BATCHING TOLERANCES

Material	Batching Tolerance (%)
Cement	0.0 to +4.0
Pozzolan	0.0 to +4.0
Carbonate Micro-fines	0.0 to +4.0
Aggregates	± 2.0
Water	± 1.0
Chemical Admixtures	± 3.0

<mark>499.07-1</mark>

On Page 307 Add the following row after "Batch plant location":

Producer/Supplier Code

499.07

On Page 307, in Table 499.07-1, **Add** the following row after "Fly ash": Natural pozzolan lb (kg)

499.07

On Page 308, in Table 499.07-2, **Add** the following row after "Fly ash": Natural pozzolan

<mark>499.08</mark>

On Page 308 **Delete** the 4th and 5th paragraphs of the section.

When concrete is delivered in transit mixers and before discharging any of a batch, the Engineer may allow adding water within the specified water cement ratio limits. Perform sufficient mixing, a minimum of 30 revolutions at mixing speed, to adjust the slump and to regenerate the specified air content throughout the batch.

When approved by the Engineer, the Contractor may use approved admixtures (705.12, Type F or G) for retempering the load to adjust the slump after the start of discharge. Mix for a minimum of 30 revolutions at mixing speed after addition of the admixture.

501.04.B

On Page 311, **Add** the following sentence to the end of the first paragraph; Shop Drawings are not required for elastomeric bearings.

506.03

On Page 327, After the last sentence Add the following graphic:



<mark>508.02</mark>

On Page 335, Add the following sentence to the end of the last paragraph: Galvanize all deck hangers not encased in concrete per 711.02.

508.05

On Page 336, Replace the last paragraph with the following:

Include the cost for load testing required as per 508.02 in the item for which the falsework support is used.

509

On Page 336, **Replace** with the following:

ITEM 509 CONCRETE REINFORCEMENT

- 509.01 Description
- 509.02 Materials
- 509.03 Care of Material
- 509.04 Method of Placing
- 509.05 Bending
- 509.06 Approval of Placing
- 509.07 Splicing
- 509.08 Supports
- 509.09 Epoxy Coated Reinforcing Steel
- 509.10 GFRP Reinforcement
- 509.11 Method of Measurement
- 509.12 Basis of Payment

509.01 Description. This work consists of furnishing and placing supports, mechanical connectors, tie wires, and uncoated (black), epoxy coated and GFRP concrete reinforcement of the quality, type, size, and quantity designated, including steel dowels.

509.02 Materials. Furnish materials conforming to:

709.01, 709.03, 709.05
709.09, 709.10, 709.12

Do not substitute one type of reinforcement (uncoated, epoxy coated, or GFRP) for another.

For metal bar supports used at or near the surface of the concrete, furnish either galvanized steel, stainless steel, epoxy coated steel or plastic coated steel.

Provide sufficient additional reinforcing steel to replace reinforcing steel removed by the Department for sampling. Replace random samples in the structures with additional steel, spliced according to 509.07.

When providing reinforcing steel for spiral cages, galvanized steel conforming to ASTM A767, Class 1, may be provided only for the spiral reinforcing steel in lieu of epoxy coated reinforcing steel. The galvanized coated reinforcing steel will meet all other requirements of 509. Where a sample splice is needed use the lap length requirements for epoxy coated. The Galvanized coating will be applied after the reinforcing has been fabricated. If the galvanized surface becomes damaged during handling in the field,

repairs will conform to ASTM A780. Use bar supports and tie wires which are plastic coated or epoxy coated. Only suppliers certified under S1068 may provide this reinforcing.

509.03 Care of Material. Upon delivery to the project and before use, stack concrete reinforcement off the ground and keep it free from dirt, oil, grease, or avoidable rust. Before placing in the concrete, ensure the reinforcement is clean and free of loose rust.

When handling deformed reinforcement, use equipment that avoids damaging or abrading the bar. Lift bundles of reinforcement at multiple pickup points. Do not drop or drag reinforcement. If stored outdoors for more than 2 months, cover the reinforcing bars with opaque plastic or other types of cover that protect the bars from ultraviolet rays. Prevent exposure of reinforcing bars to temperatures above 120°F during storage.

509.04 Method of Placing. Place concrete reinforcement in the positions shown on the plans, and firmly secure the reinforcement during the placing and setting of concrete. Tie bars in the superstructure at all intersections, except tie bars at alternate intersections where bar spacing is less than 1 foot (0.3 m) in any direction. The Contractor may place up to 25 percent of the upper longitudinal bars in a bridge deck slab beneath the upper transverse bars to support the top mat. Do not drive or force concrete reinforcement into concrete after its initially set.

Welding on reinforcing is prohibited, except as permitted by 709.10 and 709.12. The Engineer will allow the Contractor to fabricate reinforcing bar cages for prestressed beams if fabrication is done in a manner satisfactory to the Director.

Install concrete reinforcement with the following clearances from the concrete surface:

A. $2 \frac{1}{2}$ inches [-0 inch, +0.5 inch] (65 mm [-0 mm, +13 mm]) to the top of sidewalks.

B. 3 inches $[\pm 0 \text{ inch}]$ (75 mm $[\pm 0 \text{ mm}]$) at the faces of footings placed against rock or earth.

C. 1 1/2 inches [-0 inch, +0.25 inch] (38 mm [-0 mm, +6 mm]) to the bottom of a cast-in-place deck slab.

D. 2 1/2 inches [-0.25 inch, +0.75 inch] (65 mm [-6 mm, +19 mm]) to the top surfaces of cast-in-place concrete deck slabs.

E. 2 inches [-0 inch, +0.5 inch] (50 mm [-0 mm, +13 mm]) at all other surfaces.

509.05 Bending. Bend concrete reinforcement to the dimensions shown on the plans and in Table 509.05-1 (509.05-1M). Reject concrete reinforcement showing transverse cracks.

TABLE 509.05-1	STANDARD	BENDS
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	Bar		Dimension % A		Dimension % A		Dimension % A		
	Nominal Dimensions		180° Bend		90° Bend		135° Bend		
Bar	Diameter	Area	Weight	D	Α	D	А	D	А
Size	in	in ²	lb/ft	in	in	in	in	in	in
3	0.375	0.11	0.376	2 1/4	5	2 1/4	5	1 1/2	4
4	0.500	0.20	0.668	3	6	3	7	2	4 1/2
5	0.625	0.31	1.043	3 3/4	7	3 3/4	8 1/2	2 1/2	5 1/2
6	0.750	0.44	1.502	41/2	8	4 1/2	10		
7	0.875	0.60	2.044	5 1/4	10	5 1/4	12		
8	1.000	0.79	2.670	6	11	6	131/2		
9	1.128	1.00	3.400	9 1/2	15	9 1/2	15 1/2		
10	1.270	1.27	4.303	10 3/4	17	10 3/4	18		
11	1.410	1.56	5.313	12	19	12	20		
14	1.693	2.25	7.65	18 1/4	27	18 1/4	25		
18	2.257	4.00	13.60	24	36	24	33		
Tolera minus	nces: For d the diamete	iameter er of the	of bend bar. Sta	ls, "D" ndard f	, the fabr	toler icatin	ance ma g tolera	ay be nces s	plus or hall be

Tolerances: For diameter of bends, "D", the tolerance may be plus or minus the diameter of the bar. Standard fabricating tolerances shall be in accordance with the CRSI Manual of Standard Practice. No weight allowances will be made for tolerances. Weight applies to steel only.

	Dom			Dimension		Dimension %		Dimension 9	
	Nominal Dimensions			180° Bend		90° Bend		135° Bend	
Bar	Diameter	Area	Weight	D	Α	D	А	D	Α
Size	mm	mm²	kg/m	mm	mm	mm	mm	mm	mm
#10M	9.5	71	0.560	60	130	60	130	40	105
#13M	12.7	129	0.994	75	155	75	180	50	115
#16M	15.9	199	1.552	95	180	95	215	65	140
#19M	19.1	284	2.235	115	205	115	255		
#22M	22.2	387	3.042	135	255	135	305		
#25M	25.4	510	3.973	150	280	150	345		
#29M	28.7	645	5.060	240	380	240	395		
#32M	32.3	819	6.404	275	430	275	455		
#36M	35.8	1006	7.907	305	485	305	510		
#43M	43.0	1452	11.38	465	685	465	635		
Tolerances: For diameter of bends, "D", the tolerance may be plus									
shall be	in accorda	ince wit	th the CF	Stan	lanual	of St	andar	d Pra	ctice.

TABLE 509.05-1M STANDARD BENDS

No weight allowances will be made for tolerances. Weight applies to steel only.

509.06 **Approval of Placing.** Before placing concrete, obtain the Engineer's approval of concrete reinforcement in place.

509.07 **Splicing.** Splice reinforcement only as specified or determined by the Engineer. Splice spiral reinforcement by lapping 1 1/2 turns. Do not replace spiral reinforcement removed for a material sample if the sample is from the end of the spiral and less than or equal to 30 inches (0.8 m) long.

Mechanical connectors shall be capable of developing 125 percent of the yield strength of the connected bars. For threaded connections, do not reduce the nominal area of the bars shown in the plans without increasing the grade of the reinforcing bar shown in the plans. The total slip of the bar within the splice sleeve of the connector after loading in tension to 30.0 ksi (207 MPa) and relaxing to 3.0 ksi (21 MPa) shall not exceed the following measured displacements between gage points clear of the splice sleeve:

A. For bar sizes up to No. 14: 0.01 in. (0.25 mm)

B. For No. 18 bars: 0.03 in. (0.76 mm)

Splice Nos. 14 and 18 (Nos. 45M and 55M) reinforcing steel bars with mechanical connectors.

The Department will not permit lap splices for these size bars.

Splice Nos. 14 and 18 (Nos. 45M and 55M) reinforcing steel bars with mechanical connectors. The Department will not permit lap splices for these size bars.

Splice additional steel used to replace random samples as follows:

Τ	CABLE 509.0	07-1		TABLE 509.07-1M			
Bar	Lap Length (inches)			Bar	Lap Length (mm)		
		Epoxy				Epoxy	
Size	Uncoated	Coated		Size	Uncoated	Coated	
4	22	27		13M	560	690	
5	29	35		16M	740	890	
6	34	41		19M	870	1040	
7	43	52		22M	1090	1320	
8	57	69		25M	1450	1750	
9	72	87		29M	1830	2210	
10	92	111		32M	2340	2820	
11	113	137		36M	2870	3480	

The Department will not permit mechanical splices for GFRP reinforcement.

509.08 Supports. Use precast mortar blocks, metal supports, or plastic supports of adequate strength, of the proper depth, and in sufficient number to support concrete reinforcement. Space supports for concrete reinforcement no more than 4 feet (1.2 m) apart transversely and longitudinally. Metal supports shall have a shape that is easily enveloped by the concrete.

Mortar blocks may only be used to support the lower matt of reinforcing steel in concrete that is cast directly against bedrock or soil.

509.09 Epoxy Coated Reinforcing Steel. Use plastic coated or epoxy coated bar supports and tie wires to protect the epoxy coating from physical damage, as specified in 709.00, during placement and to prevent electrical coupling between mats. Carefully handle and install bars to perform minimal patching at the job site. Repair physical damage to the epoxy coating with a patching material all damaged coating areas greater than 1/4-inch (6 mm) square or 1/4-inch (6 mm) diameter; approximately 1/8-inch (3 mm) square or 1/8-inch (3 mm) diameter if the opening is within 1/4-inch (6 mm) of an equal or larger opening; or, a length of 6 inches (150 mm) regardless of area. Coating damage in cases where the damaged area is less than specified above need not be repaired. Use patching material of the same composition and quality as the original coating. Prepare the surface to a near white metal.

If repair is required, clean and repair the damaged areas and allow adequate cure time before placing concrete. The Engineer will approve the installation once patching has been done as outlined above.

509.10 GFRP Reinforcement. Secure GFRP reinforcement with plastic- or epoxy-coated tie wire; nylon or plastic zip ties; or thermoplastic injection molded clips. The maximum total unrepaired visible damage on each linear foot of each FRP bar shall not exceed 2% of the surface area in that linear foot of bar. The depth of the permissible damage shall not exceed 0.04 in. (1.0 mm). Replace the damaged bar or lap splice a new GFRP bar adjacent to the damaged portion with the appropriate lap length on either side of the damage. Do not field bend or straighten GFRP bars. Minimum inside bend radii shall conform to the requirements of Table 509.05-1 (509.05-1M). Do not field cut GFRP reinforcement.

509.11 Method of Measurement. The Department will measure Epoxy Coated Reinforcing Steel by the number of pounds (kilograms) shown on the plans. Additional measurements or calculations are not required.

The Department will measure GFRP Deformed Bars by the number of feet (meters) shown on the plans. Additional measurements or calculations are not required.

If the Contractor believes the pay weight or length, as shown on the plans, is in error, the Contractor is responsible to prove this discrepancy by recalculating the total weight or length for the reference number involved. The Contractor shall submit its figures to the Engineer for review and approval. The number of

pounds (kilograms) of reinforcing steel or feet (meters) of GFRP reinforcement shall be the actual number of pounds (kilograms) or feet (meters) of the various sizes incorporated in the concrete as shown on the plans, completed and accepted.

If the weight of the reinforcing steel is recalculated, determine the number of pounds (kilograms) from the number, length, and weight of the bars as shown on the steel list of the plans, based on the weight per foot (meter) shown in the Table 509.05-1 (509.05-1M) with deductions for bars not used, and addition for extra bars used as directed by the Engineer.

509.12 Basis of Payment. The Department will not include the supports, mechanical connectors, and tie wires in the calculated weights but will consider them incidental to the price bid.

The Department will pay for accepted quantities at the contract price as follows:

Item	Unit	Description
509	Pounds (Kilograms)	Epoxy Coated Reinforcing
509	Pounds (Kilograms)	Uncoated Reinforcing
509	Feet (Meters)	No. GFRP Deformed Bars

511.03

On page 343, **Revise** the first paragraph to the following:

511.03 Concrete. Provide concrete for structures according to 499.03, using Class QC 1, QC 2, QC 3, or QC 4 or QC 5 as specified in the Contract.

511.04

On Page 343, **Delete** the third paragraph and table and **Replace** with the following:

When the concrete bid item does not require QC/QA, the Engineer will make at least one set of acceptance test cylinders for each 50 cubic yards (40 m³) of concrete.

511.15

On page 355, **Replace** the first two paragraphs with the following:

511.15 Surface Finish. For concrete that is to be sealed with Epoxy-Urethane according to 512.03, perform surface profiling and surface finish according to 512.03.F.

For all others, finish the concrete surface as detailed below:

511.15.A.

On page 355, **Replace** the paragraph with the following:

A. Standard Finish. On all surfaces, remove fins and irregular projections with a stone or power grinder, taking care to avoid contrasting surface textures. Repair all cavities produced by form ties and, on visible surfaces, repair all defects using a mortar consisting of one part of hydraulic cement conforming to Item 499 and 1-1/2 parts sand conforming to 703.03, by volume and water conforming to 499.02 with a maximum water/cementitious ratio of 0.4. A defect is an imperfection in the concrete measuring at least 3/4" (19mm) in diameter or at least 1/2" (13 mm) deep but not exceeding a total volume of 1 cubic inch (16.387 mL). Finish all repaired surfaces on the structure in a similar manner and to the extent required to produce a uniform appearance.

512.03.F.

On page 364, **Replace** the entire section with the following:

F. Surface Preparation and Profiling.

1. Non-Epoxy Sealer

Remove dust, dirt, oil, wax, curing compounds, efflorescence, laitance, coatings and other foreign materials from surfaces to be sealed.

Ensure that all wastes generated by the surface preparation operation are managed in accordance with 107.19.

If the concrete surface had curing compound applied, acid test the surface after blasting to see if the curing compound was removed. Perform the acid test for every 500 square feet (47 square meters). Use a 30%, by weight, solution of hydrochloric acid. Apply 4 to 5 drops to the concrete surface. If foaming/fizzing occurs the curing compound is removed. Rinse the tested location with an ammonia solution to neutralize the concrete area tested (1 cup ammonia to 5 gallons water).

(NOTE: Muriatic acid and ammonia can be bought in a hardware store. Muriatic acid is used to clean masonry. Only dilute by pouring the acid into the water. DO NOT pour the water into the acid.)

When surfaces show intermittent or no foaming, use chemicals or other cleaning compounds to remove the curing compounds. Only use products approved by the sealer manufacturer. Furnish the Engineer documentation of the sealer manufacturer's approval and method to test if materials are removed.

2. Epoxy-Urethane Sealer

Remove dust, dirt, oil, wax, curing compounds, efflorescence, laitance, coatings and other foreign materials from surfaces to be sealed.

Ensure that all wastes generated by the surface preparation operation are managed in accordance with 107.19.

If the concrete surface had curing compound applied, acid test the surface after blasting to see if the curing compound was removed. Perform the acid test for every 500 square feet (47 square meters). Use a 30%, by weight, solution of hydrochloric acid. Apply 4 to 5 drops to the concrete surface. If foaming/fizzing occurs the curing compound is removed. Rinse the tested location with an ammonia solution to neutralize the concrete area tested (1 cup ammonia to 5 gallons water).

(NOTE: Muriatic acid and ammonia can be bought in a hardware store. Muriatic acid is used to clean masonry. Only dilute by pouring the acid into the water. DO NOT pour the water into the acid.)

When surfaces show intermittent or no foaming, use chemicals or other cleaning compounds to remove the curing compounds. Only use products approved by the sealer manufacturer. Furnish the Engineer documentation of the sealer manufacturer's approval and method to test if materials are removed.

After concrete has cured and forms are removed, use one or both of the following methods to produce a surface profile that feels and looks like 100 grit sandpaper or coarser. Provide the Engineer sandpaper for comparison. Perform the ASTM D7682-12, Method B, Standard Test Method for Replication and Measurement of Concrete Surface Profile Using Replica Putty to obtain a replica coupon of the prepared concrete surface on a flat, test section, on the first day of production, and as requested by the Engineer. With a micrometer, measure the surface profile obtained on the coupon, and provide the coupon to the Engineer.

a. Water blast at 7000 psi (48Mpa) minimum, or

b. Abrasive blast, followed by air brooming or power sweeping, to remove dust and sand from the surface and opened pores, or

c. Use a combination of water blast and abrasive blast.

Install suitable traps, filters, drip pans and other separation devices in the cleaning equipment so oil and other foreign material are not deposited on the surface.

Fill all cavities produced by form ties and other single defects or defected areas with a prequalified trowelable mortar in accordance with Supplemental Specification 843.02 and 843.06. Provide a

broom/brush finish to all trowelable mortar patches. Cure the trowelable mortar according to Supplemental Specification 843.07.

A defect is an imperfection in the concrete measuring at least 3/4" (19mm) in diameter or at least 1/2" (13mm) deep but not exceeding a total volume of 1 cubic inch (16.387 mL). A defected area is an area with a density of imperfections between 1/4" (6 mm) and 3/4" (19 mm) in diameter or between 1/4" (6mm) and 1/2" (13 mm) deep numbering 10 or more per 1 square foot (0.09 square meters) area.

Air dry for at least 10 days after completion of the manufacturer's recommended cure time for trowelable mortar. Brush abrasive blast, followed by air brooming or power sweeping, to remove dust and sand from the surface and opened pores.

512.03.G.

On page 365, **Replace** the first paragraph of the subsection with the following:

G. Application and Coverage. Do not apply sealer to surfaces with moisture. Determine moisture on surface in accordance with ASTM D4263 - Indicating Moisture in Concrete by the Plastic Sheet Method. Apply the sealer within 48 hours after moisture testing and brush abrasive blast. Do not apply sealer if rain is anticipated within six (6) hours after application. Clearly mark where the sealer application stops if not continuous.

513.13

On page 383, **Replace** the last sentence of the first paragraph with the following:

Weld stiffeners connected to cross frames and/or diaphragms to the top and bottom flange.

516.03

On Page 433, **Replace** the second paragraph with the following:

Coat metal parts of expansion joints not part of extensions to existing steel expansion joints with metalized 100 percent zinc wire. Prepare the surface to be coated and apply coating as required by The Society of Protective Coatings SSPC-CS-23.00(1). Apply coating to a minimum thickness of 6 mils. The vertical extensions to existing steel expansion joints are not to have any protection and the horizontal extensions to existing steel expansion joints are to match the existing protection.

518

Beginning on page 438 **Replace** the section with the following:

ITEM 518 DRAINAGE OF STRUCTURES

- 518.01 Description
- 518.02 Fabrication
- 518.03 Materials
- 518.04 General
- 518.05 Porous Backfill
- **518.06** Prefabricated Geocomposite Drain (PGD)
- 518.07 Pipe
- 518.08 Scuppers
- 518.09 Excavation
- 518.10 Method of Measurement
- 518.11 Basis of Payment

518.01 Description. This work consists of constructing drainage systems.

518.02 Fabrication. Fabricate scuppers according to Item 513. Select a fabricator that is at least pre-qualified at level SF. The Department will base final acceptance of all fabricated members on the Engineer's approval that the fabricated items can be successfully incorporated into the structures. Submit mill test reports for structural steel, steel castings, bronze, and sheet lead certified according to 501.06.

518.03 Materials. Furnish materials conforming to:

Scuppers, structural steel and cast steel	
Metal pipe	707
Plastic pipe	707.33, 707.45
Other metals	711
Prefabricated Geocomposite Drain (PGD)	
Geotextile fabric, Type A	
Reinforced thermosetting resin pipe	

Furnish pipe specials of a grade at least as high as the type of pipe specified.

Furnish porous backfill consisting of gravel, stone, or air-cooled blast furnace slag, with a No. 57 size gradation according to Table 703.01-1. The sodium sulfate soundness loss shall not exceed 15 percent.

Furnish ACBFS conforming to Supplement 1027.

518.04 General. As shown on the plans, connect all parts to new or existing sewers or other outlets.

When installing to superstructure, take into account the deflection of spans under full dead load.

518.05 Porous Backfill. Place porous backfill as shown on the plans. When not shown on the plans, place backfill at least 2 feet (0.6m) thick behind the full length of abutments, wing walls, and retaining walls. Measure the thickness of porous backfill normal to the abutment or wall face. The Contractor may leave undisturbed rock or shale within 18 inches (0.5 m) of the abutment or wall. Place 2 ft³ (0.23 m³) of bagged No. 3 aggregate at each weep hole to retain the porous backfill. Place the porous backfill for the full width of the trench and extend it to the bottom of the approach slab or base, as shown in the plans. Place porous backfill in loose lifts not to exceed 12 inches. Run a plate compactor or tamper over the top of each lift for consolidation of approximately 85% of original layer thickness. If placed in loose lifts greater than 12 inches, flood the porous backfill at the appropriate moisture content for consolidation of approximately 85% of original layer thickness.

518.06 Prefabricated Geocomposite Drain (PGD) Do not use PGD on Integral Abutments or above the beam seat elevation on Semi Integral Abutments.

A. Preparation. Prepare the surface of the wall or abutment, on which the PGD is to be placed, to be free of soil, debris, and excessive irregularities that prevent continuous contact between the wall surface and the PGD.

B. Placement. Place PGD strips to provide continuous coverage over the face of the wall. Unroll PGD directly onto the prepared surface. Do not drag the PGD across the ground. Tension the PGD to remove any creases or wrinkles. Do not expose PGD to weather or direct sunlight for longer than 5 days. Place the geotextile fabric side to face toward the backfill or retained soil.

Construct the PGD in horizontal or vertical courses. Place the PGD in direct contact with the wall and secure to the surface using either adhesives per manufactures recommendation or nails as follows. Secure with 2 inch (51 mm) or longer concrete nails along with washers or wood battens of not less than 9 square inches (5887 square mm). Space the concrete nails no more than 3 feet (0.9 m) apart, both horizontally and vertically. Use at least one horizontal row of nails in each horizontal course of PGD, or use at least one vertical column of nails in each vertical course of PGD. Do not affect the drainage area and the downward flow in the drain by the adhesive or fasteners.

C. Splicing and covering. Form horizontal or vertical seams between courses by utilizing the flap of geotextile extending from one course and lapping over the flap on that of the next course. Securely fasten the overlapped flaps with a continuous strip of 3 inch (76 mm) wide, waterproof, plastic tape.

Where splices are necessary without a geotextile flap, place and center a 12 inch (0.3 m) wide continuous strip of geotextile over the seam and fasten with continuous strips of 3 inch (76 mm) wide, waterproof, plastic tape.

As an alternative method of splicing, either horizontally or vertically, rolls of PGD may be joined together by turning back the geotextile flap at the roll edges and interlocking the drainage core approximately two inches. Fold the flap under and tape it beyond the seam with 3 inch (76 mm) wide, waterproof, plastic tape. Shingle lap the core and fabric in the direction of water flow.

To prevent soil intrusion, cover all exposed edges of the PGD core by tucking the geotextile flap over and behind the core edge. Alternatively, a 12 inch (0.3 m) wide strip of geotextile may be used to wrap the edge, taping it to the geotextile side 8 inches (203 mm) in from the edge with a continuous strip of 3 inch (76 mm) wide, waterproof, plastic tape and folding the remaining 4 inches (102 mm) over and behind the core edge. Caps (bottom, top, or end) provided by the manufactures can also be used according to manufacturer's instructions.

Construct all seams, splices, and caps to prevent the backfill material from entering the PGD.

D. Connecting to Weep Holes and Drainage System. Connect the PGD to the drainage system as shown on the plans or per manufacturer's recommendations if not shown in the plans. Maintain a positive outlet for the water in the PGD at all locations.

Do not seal, block or restrict weep holes with the PGD. If available, use weep hole fittings provided by the manufacturer and installed to the manufacturer's instructions. If the PGD core is not perforated at the weep hole location, make a hole in the PGD core matching the diameter of the weep hole or larger to accommodate the pipe or fitting. When making holes in the core, do not damage the geotextile fabric.

Use manufacturer provided outlet fittings that transition between the PGD and the outlet pipe, and prevent material from entering the outlet pipe. If manufacturer fittings are not available, provide smooth-lined or corrugated outlet fittings according to manufacturer's recommendations. Fasten and seal outlet fittings to the wall drains according to manufacturer's recommendations.

E. Repair. Patch or replace damaged PGD. Remove the damaged area and place a PGD patch and splice the edges according to 518.06.C. If the damaged portion is larger than 50 percent of the PGD roll width, cut across the entire width of the roll to remove the damaged portion and splice according to 518.06.C.

If damage is limited to tears in the geotextile fabric, place a geotextile patch extending 6 inches (152 mm) beyond the damaged area in all directions or to the edge of the roll, and seal the entire perimeter with 3-inch (76 mm) wide, waterproof, plastic tape.

Replace and repair damaged PGD at no additional expense to the Department.

F. Backfilling. Replace or repair any PGD component that is damaged during the backfilling operation. Use hand operated compaction equipment to compact the backfill within 1-foot (0.3m) of the PGD.

518.07 Pipe. For drain pipe leading down from the superstructure, use either galvanized steel pipe, 748.06, or plastic pipe, 707.45, or reinforced thermosetting resin pipe, 707.80. Provide specials, elbows, tees, wyes, and other fittings essential for a complete and satisfactory installation of the same material and quality as the pipe. Construct watertight joints of adequate strength. In steel pipe, weld joints or use clamptype couplings having a ring gasket. In plastic pipe, make joints according to the applicable ASTM standard. In reinforced thermosetting resin pipe, make joints according to manufacturer guidelines and

procedures. Securely fasten the pipe to the structure with hanger or clamp assemblies that are galvanized according to 711.02.

Place subsurface pipe as shown in the plans. If the plans require drainage pipe in the porous backfill, provide plastic pipe conforming to 707.33.

For corrugated metal pipe, perforated specials are not required and the Contractor may make bends with adjustable elbows conforming to the thickness requirements of the pipe specifications.

518.08 Scuppers. Construct secure and watertight connections, including the connections to adjacent concrete. Provide castings, true to form and dimension. Weld the joints of structural steel scuppers. Galvanize scuppers according to 711.02.

518.09 Excavation. Excavate all material encountered to the dimensions necessary to provide ample space at least to install pipe or other drainage facility behind abutments and for outlets.

518.10 Method of Measurement. The Department will measure Porous Backfill and Porous Backfill with Geotextile Fabric, by the number of Square Yards (Square Meters), Cubic Yards (Cubic Meters) or lump sum. The Department will measure Prefabricated Geocomposite Drain by the number of Square Yards (Square Meters) or lump sum. The Department will measure pipe specials by the same method as the pipe. If pipe is by the foot (meter), the Department will measure the pipe along its centerline.

The Department will measure all Square Yard (Square Meters) items as the area of the abutment or wall being covered for drainage.

518.11 Basis of Payment. The cost to backfill, if not separately itemized in the Contract, and excavation is incidental to the drainage facility that necessitates them.

The Department will include bagged aggregate with porous backfill for payment.

The Department considers all items to place the Prefabricated Geocomposite Drain including surface preparation, tape, fasteners, adhesives, outlet fittings or other support material, incidental to the Prefabricated Geocomposite Drain.

The Department will pay for perforated and non-perforated pipes for the Prefabricated Geocomposite Drain as separate pay items per 518.07.

The Department will pay for accepted quantities at the contract prices as follows:

Item	Unit	Description
518	Cubic Yard	
	(Cubic Meter)	
	Square Yard	Porous Backfill
	(Square Meter) or	
	Lump Sum	
518	Cubic Yard	
	(Cubic Meter)	
	Square Yard	Porous Backfill
	(Square Meter) or	with Geotextile Fabric
	Lump Sum	
518	Square Yard	Prefabricated Geocomposite
	(Square Meter) or	Drain
	Lump Sum	
518	Foot (Meter)	inch (mm) Pipe,
		Including Specials

ing Supports
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Conductors
nm) Pipe
uding Specials

On page 451, **Replace** the first sentence of the first paragraph with the following: **523.02 General.** Perform dynamic tests on two successfully tested piles.

<mark>602.03.E</mark>

On page 470, **Replace** the next to last sentence of the first paragraph with the following sentence: Only provide prefabricated wingwalls and headwalls as alternatives that have been approved by the Office of Geotechnical Engineering, included on the Department's Approved List, and when allowed by the Contract Documents.

605.02

On page 476, **Replace** the first paragraph of 605.02 with the following:

Backfill unclassified pipe underdrains, shallow pipe underdrains, deep pipe underdrains, base pipe underdrains, or rock cut underdrains, with or without a Geotextile Fabric, construction underdrains and aggregate drains with granular material consisting of ACBFS, limestone, or gravel. Furnish granular material meeting Size Nos. 8, 9, or 89. Gradations may be modified in accordance with Supplement 1069.11.C. Use granular material with a maximum sodium sulfate soundness loss of 15 percent.

<mark>606.02</mark>

On page 480, **Replace** the third paragraph with the following: Construct type MGS using round wooden posts of 69" length.

608.03.E.

On Page 486, **Delete** the last two sentences of paragraph E.

After the minimum curing period and a 30 day drying time apply an approved non-epoxy sealer (705.23.B) according to Item <u>512</u>. Ensure any remaining curing compounds that are incompatible with the selected sealer and all foreign materials are removed prior to sealer treatment.

609.06.E.

On Page 491, Delete the last two sentences of paragraph E.

After the minimum curing period and a 30 day drying time apply an approved non epoxy sealer (705.23.B) according to Item <u>512</u>. Ensure any remaining curing compounds that are incompatible with the selected sealer and all foreign materials are removed prior to sealer treatment.

611.02.B

On page 497, **Delete** the following: Corrugated steel spiral rib pipe......707.12

611.02.B

On page 497, **Add** the following after the fifth item on the list: Polymer-precoated corrugated steel spiral rib pipe......707.11

Page 30 of 71

611.02.C

On page 498, Delete the following:	
Corrugated steel spiral rib pipe	707.12
Confugated steel spiral no pipe	•••••••••••••••••••••••••••••••••••••••

611.02.C

On page 498, **Add** the following after the fifth item on the list: Polymer-precoated corrugated steel spiral rib pipe.....707.11

611.03

On page 501, **Add** the following to the seventh paragraph between the "707.07" and "707.12" material references:

,707.11

611.11

On page 512, **Add** the following sentence to the beginning of the fourth paragraph of the section: For all aluminum conduits, prior to placing concrete, coat the area to be paved with a zinc chromate primer or an epoxy paint formulated for applying to aluminum. Extend primer or epoxy 4 inches beyond the proposed paving limits.

611.12 Performance Inspection

On page 515, **Add** the following to TABLE 611.12.B:

		Type of
Conduit Type	Measurement Equipment	Measurement
Rigid conduit and 748.06, steel casing pipe	Crawler mounted camera according to SS902.01 with crack measuring capabilities according to SS902.02 C	Joint gaps Crack widths
Plastic conduit, 707.12, corrugated steel spiral rib conduit, 707.24, corrugated aluminum spiral rib conduit, 748.01, ductile iron pipe, and Circular corrugated metal conduit not listed below	Crawler mounted camera with laser profiler according to SS902.02 A, B, and C or Mandrel according to SS902.03 and Crawler mounted camera according to SS902.01 with crack measuring capabilities according to SS902.02 C	Joint gaps Crack widths Deflection
The following types of corrugated metal conduit: 707.04, precoated, galvanized steel culverts 707.05 and 707.07, bituminous coated corrugated steel pipe with paved invert, 707.11 Polymer-precoated corrugated steel spiral rib pipe 707.13 and 707.14, bituminous lined corrugated steel pipe	Crawler mounted camera with laser profiler according to SS902.02 A, B, and C	Joint gaps Crack widths Deflection

614.03

On page 523, **Add** the following title to the beginning of the second paragraph: **A. Training and Responsible Person.**

614.03

On Page 524, **Add** the following title to the beginning of the second paragraph: **B. Temporary Traffic Control Devices**.

614.03

On Page 524, **Add** the following paragraph after the third paragraph: For truck-mounted attenuators and trailer attenuators (TMAs) see 614.03.D.

On page 524, **Replace** the first sentence of the seventh full paragraph with the following:

Furnish traffic cones consisting of a highly visible orange predominant color with reboundable reflective sheeting complying with the requirements of 730.191 and in conformance with the OMUTCD.

614.03

On Page 525, Add the following paragraph after the first paragraph:

All temporary traffic control devices shall conform to the Quality Standards for Temporary Traffic Control Devices and Acceptable Delineation Methods for Vehicles.

614.03

On Page 525, **Add** the following title to the beginning of the second paragraph:

C. Conspicuity.

614.03

On Page 525, in the 7th paragraph **Replace** the following: "A. Apply one" with "1. Apply one".

614.03

On Page 525, in the 8th paragraph **Replace** the following: "B. Outline" with "2. Outline".

614.03

On Page 525, in the 9th paragraph **Replace** the following: "C. Outline" with "3. Outline".

614.03.C

On Page 526, **Replace** the second paragraph with the following:

Acceptable methods for delineating material supply vehicles are depicted in the Quality Standards for Temporary Traffic Control Devices and Acceptable Delineation Methods for Vehicles.

614.03

On Page 526, **Add** the following at the end of the subsection:

D. Truck-mounted or Trailer Attenuator (TMA). Furnish a TMA that is NCHRP-350 (manufactured prior to 1/1/20) or MASH TL-3 compliant. Do not use a TMA in place of the arrow board at the beginning of a merge taper, or as a substitute in locations where other positive protection methods are required (portable barrier/impact attenuators, tapering outside of the clear zone, etc.). Use of a TMA for a work area already otherwise protected by positive protection shall be at the Contractor's expense.

Furnish a TMA to protect each work area in the following situations:

1. When working on a multi-lane highway (45 mph and above) in a closed lane or shoulder without portable or permanent traffic barriers separating the work area from the traveled lanes.

2. Any situation on a multi-lane highway (45 mph and above) where a TMA is depicted or labeled as required or optional on a shadow vehicle in the OMUTCD.

Furnish a TMA for each work area if two or more localized work areas occur within the same stationary work zone and are separated by more than 700 feet.

Attach the TMA to the shadow vehicle in accordance with manufacturer specifications and place in advance of the work area according to recommended spacing in Table 614.03-1. Distances are

considered as guidelines. However, engineering judgement should be used to alter distances to take into account traffic conditions, vehicle mix, sight distance, and other site-specific conditions.

Table 614.03-1 For Shadow Vehicles Weighing 22.000 lb. or More					
Recommended Spacing ^[1]					
Speed Limit (MPH)	Stationary Operation (Ft)	Moving Operation (Ft) ^[2]			
Greater than 55	150	172			
45-55	100	150			
Less than 45	74	100			
For Shadow Vehicles Weighing Less than 22,000 lb. but Greater Than 9,900 lb.					

Speed Limit (MPH)	Stationary Operation (Ft)	Moving Operation (Ft) ^[2]
Greater than 55	172	222
45-55	123	172
Less than 45	100	100

[1] Recommended spacing is distance between front of shadow vehicle and beginning of work area to provide adequate roll ahead distance and minimize the risk of vehicles cutting in ahead of the shadow vehicle.

[2] Distances are appropriate for speeds up to 15.5 mph.

614.10

On page 529, **Add** the following sentence to the end of the second paragraph:

Covering of one or more permanent or temporary vehicle or pedestrian signal head(s) shall be according to 632.25, except payment shall be included in Item 614 Maintaining Traffic.

614.10

On page 529, **Add** the following sentence to end of the second paragraph: Energized signal covers shall block light from being visible.

614.11.B.1

On page 530, **Replace** TABLE 614.11-1 and TABLE 614.11-1M with the following:

		Line Width (inch)			
	4	6	8	12	24
Type of Pavement Marking		Gallon	per Mile	of Line	
Solid Line	22	33	44	66	132
10-foot Dashed Line	5.5	8.25			
4-foot Dashed Line	2.2	3.3			
Dotted Line	7.3	10.95	14.6	21.9	
Arrows, Symbols, and Words	1.4 gallons per 100 square feet				
Glass Beads: 740.09, Type A	1	15 pounds per 100 square feet			

TABLE 614.11-1

	Line Width (mm)				
	100	150	200	300	600
Type of Pavement Marking	Ι	liter per l	Kilomete	r of Line	
Solid Line	52	78	105	157	314
3.0 m Dashed Line	13	19.5			
1.2 m Dashed Line	5.2	7.8			
Dotted Line	17.3	25.95	34.6	51.9	
Arrows, Symbols, and Words	0.6 liters per square meter				
Glass Beads: 740.09, Type A	7.3 kg per square meter				

TABLE 614.11-1M

614.11.B.2

On page 530, **Replace** TABLE 614.11-2 and TABLE 614.11-2M with the following:

	Line Width (inch)				
	4	6	8	12	24
Type of Pavement Marking	Gallon per Mile of Line				
Solid Line	12	18	24	36	72
10-foot Dashed Line	3	4.5			
Dotted Line	4	6	8	12	
Arrows, Symbols, and Words	0.75 gallons per 100 square feet				
Glass Beads: 740.09, Type A	7.5 pounds per 100 square feet				

TABLE 614.11-2

TABLE 614.11-2M

		Line Width (mm)			
	100	150	200	300	600
Type of Pavement Marking	I	liter per	Kilomete	r of Line	
Solid Line	28	42	56	84	168
3.0 m Dashed Line	7	10.5			
Dotted Line	9.4	14.1	18.8	28.2	
Arrows, Symbols, and Words	0.3 liters per square meter				
Glass Beads: 740.09, Type A	3.7 kg per square meter				

614.11.G.1.a

On page 532, **Delete** the third paragraph:

Use only sand, shot, or water blasting for removal of all pavement markings in preparation for placing Item 422 Chip Seal or Item 421 Microsurfacing.

614.16.B

On page 539, **Add** the following language as a new line at the end of the subsection: 6. TMAs.

614.16.C

On page 539, **Replace** the subsection with the following:

C. If traffic permanently damages beyond use any of the work zone traffic control items listed in 107.15, the Department will compensate the Contractor for replacement of the damaged item by Change Order provided the Contractor has pursued but failed to obtain compensation from the motorist.

614.16

On page 540, **Revise** the section as follows:

Item	Unit	Description
614	Lump Sum	Maintaining Traffic
614	Lump Sum	Detour Signing
614	Each	Replacement Drum
614	Each	Replacement Sign
614	Each	Object Marker, Way
614	Each, Mile, Foot	Work Zone Pavement Markings
	(Kilometer, Met	er)
614	Each	Work Zone Raised Pavement Marker
614	Sign Month	Portable Changeable Message Sign
614	Each	Work Zone Speed Limit Sign
614	Each	Work Zone Marking Sign
614	Hour	Law Enforcement Officer with Patrol Car
614	Each	Barrier Reflector
614	Each	Work Zone Crossover Lighting System
614	Each	Work Zone Impact Attenuator
614	Mile (Kilometer)	Work Zone Lane Line, Class,*,**
614	Mile (Kilometer)	Work Zone Center Line, Class,**
614	Foot (Meter)	Work Zone Channelizing Line, Class,*,**
614	Mile (Kilometer)	Work Zone Edgeline, Class,*,**
614	Foot (Meter)	Work Zone Gore Marking, Class II,**
614	Foot (Meter)	Work Zone Stop Line, Class I,**
614	Foot (Meter)	Work Zone Arrow, Class I,**
614	Foot (Meter)	Work Zone Crosswalk Line, Class I,**
614	Foot (Meter)	Work Zone Dotted Line, Class,*,**
614	Cubic Yard	Asphalt Concrete for Maintaining Traffic
	(Cubic Meter)	

* Width of marking (4" or 6" for Lane Lines, Edgelines and Dotted Lines; 8" or 12" for Channelizing Lines and Dotted Lines).

** Type material (642 paint; 740.06, Type I or Type II; or left blank to allow any of the three.)

617.03

On page 544, **Replace** the first paragraph of 617.03 with the following:

617.03 Prosecution. If reconditioning shoulders as part of a resurfacing project and traffic is maintained, place shoulder material along with the paving operations as rapidly as possible. Complete all shoulder reconditioning within four days following placement of the surface course and any course that results in a drop-off of 2.0 inches (50 mm) or greater. Adjacent to a safety edge constructed as part of the Work, complete all shoulder reconditioning within ten days following construction of the safety edge.

618

On page 546, **Replace the** Item heading with the following: ITEM 618 RUMBLE STRIPS

618.03

On page 547, **Replace** the second and third sentences with the following:

The Department will measure lengths along the inside edge of the shoulder, edge line or center line, from the center of the first depression in a segment to the center of the last depression in that segment. If Rumble Strips are provided on more than one shoulder or edge line, the Department will measure lengths separately for each shoulder or edge line segment and add the individual lengths together to obtain the total length for the shoulder or the edge line.

618.04

On page 547, **Replace** the pay items with the following:

618	Feet (Meter)	Rumble Strips, Shoulder (Asphalt Concrete)
618	Mile (Kilometer)	Rumble Strips, Shoulder (Asphalt Concrete)
618	Feet (Meter)	Rumble Strips, Shoulder (Concrete)
618	Mile (Kilometer)	Rumble Strips, Shoulder (Concrete)
618	Feet (Meter)	Rumble Stripes, Edge line (Asphalt Concrete)
618	Mile (Kilometer)	Rumble Stripes, Edge line (Asphalt Concrete)
618	Feet (Meter)	Rumble Stripes, Edge line (Concrete)
618	Mile (Kilometer)	Rumble Stripes, Edge line (Concrete)
618	Feet (Meter)	Rumble Stripes, Center line (Asphalt Concrete)
618	Mile (Kilometer)	Rumble Stripes, Center line (Asphalt Concrete)
618	Feet (Meter)	Rumble Stripes, Center line (Concrete)
618	Mile (Kilometer)	Rumble Stripes, Center line (Concrete)

618.04

On page 547, Add the following paragraph after the first paragraph:

The Department will pay for longitudinal pavement marking material in accordance with Item 641.

619

On page 548, **Replace** Table 619.02-1 FIELD OFFICE with the following:

Item	Type A	Type B	Type C
Minimum ceiling height, ft (m)	7 (2.1)	7 (2.1)	7 (2.1)
Floor space, ft ² (m ²)	150	500	1000
	(14)	(46)	(93)
Separate enclosed room, ft ² (m ²) (Part of specified floor space)	0 (0)	0 (0)	100 (9)
Telephone service ^[1]	2	2	2
Internet service connection ^[5]	1	1	1
Multi-Function copier that is setup for scanning, printing and copying. ^[2]	1, 11×17	1, 11×17	1, 11×17
Calculator with tape	1	2	3

TABLE 619.02-1 FIELD OFFICE

Item	Type A	Type B	Type C
Desk and chair set	1	3	5
Work table, 30 × 72-inch (750 × 1800 mm)	1	2	3
4-drawer, legal size, lockable metal file cabinet		1	2
2-drawer, metal file cabinet	1	2	2
Portable fire extinguishers ^[3]	1	1	2
Plan rack ^[4]	1	1	2
All-weather parking spaces	8	16	20

- [1] For each telephone and/or computer station specified, all ethernet wiring necessary to connect the phone and/or computer and multi-function copier to the internet company system, and a working separate phone number for the printer for faxing.
- [2]Copier must meet minimum specifications provided for each field office type. Contractor responsible for paper supplies, copier supplies, and maintenance of copier.

Type A:

One of the following MFC machines/series:

HP models E77822dn, E77825dn, E77830dn, E87640dn, E87650dn, E87660dn, E77822z, E77825z, E77830z, E87640z, E87650z, E87660z

Type B and C:

One of the following MFC machines/series:

HP Models: E77650dn, E77660dn, E77650dns, E77660dns, E77650z, E77660z, E77650zs,

E77660zs, E77660zts, E77650z+, E77660z+, E77822dn, E77825dn, E77830dn, E87640dn,

E87650dn, E87660dn, E77822z, E77825z, E77830z, E87640z, E87650z, E87660z

[3]Type 2-A:10-B:C, 5-pound (2.27 g) size

[4]Capable of handling the breakdown of 22×34 -inch (559 × 864 mm) sized plans into ten sections.

[5]Provide a broadband internet connection capable of minimum download speeds as follows:

30 Mbps download 5 Mbps upload - Network Latency less than 50 milliseconds. If speeds are not available through an individual or singular circuit, provide the highest speed available in the area and install multiple circuits to achieve the specified speeds. When multiple broadband services are available the following is the preferred order: Cable, DSL, Cellular, and Wireless Radio (Satellite Communication is not compatible with ODOT VPN connection and will not be accepted). If a cellular network is used, provide the cellular equipment, including software and router equipment to connect to the ODOT provided Cisco ASA 5505 firewall. Supply ODOT with all documentation for the broadband circuit including all username/user ids, passwords and account information. Verify that the broadband internet connection is active and working as specified. ODOT IT personnel will confirm that bandwidth and network latency are compliant with the required field office specifications. All field office Internet connections are for ODOT use only.

621.03.E

On page 552, **Delete** "or on line" in the first sentence of the second paragraph.

622.08

On page 556, **Replace** the first sentence of the fourth paragraph with the following:

The Department will measure Portable Barrier Anchored, Portable Barrier Unanchored, Portable Barrier 50" (1270mm) and Portable Barrier 50" (1270mm) Bridge Mounted by the number of feet (meters) for each application of the barrier placed according to the plans.

On page 556, **Replace** the second paragraph with the following:

The Department will pay for accepted quantities at the contract prices as follows:

Item	Unit	Description
622	Foot (Meter)	Concrete Barrier, Type
622	Each	Concrete Barrier End Anchorage, Reinforced,
		Туре
622	Each	Concrete Barrier End Section, Type
622 Fo	ot (Meter) Portable	e Barrier,' (mm)
622 Fo	ot (Meter) Portable	e Barrier,' (mm)
		Bridge Mounted
622	Foot (Meter)	Portable Barrier, Unanchored
622	Foot (Meter)	Portable Barrier, Anchored
622	Foot (Meter)	Portable Barrier, 50" (1270 mm)
622	Foot (Meter)	Portable Barrier, 50" (1270 mm) Bridge Mounted
622 Fo 622 622 622 622 622	Foot (Meter) Portable Foot (Meter) Foot (Meter) Foot (Meter) Foot (Meter)	Barrier,'' (mm) Bridge Mounted Portable Barrier, Unanchored Portable Barrier, Anchored Portable Barrier, 50" (1270 mm) Portable Barrier, 50" (1270 mm) Bridge Mounted

<mark>625</mark>

On page 562, Replace "625.20 Plastic Caution Tape" in the list with the following: 625.20 Underground Warning / Marking Tape

<mark>625.05</mark>

<mark>625.20</mark>

On page 572, **Replace** the section with the following:

625.20 Underground Warning / Marking Tape. Install tape approximately 6 to 10 inch (150 to 250 mm) below the final finished grade. Place with the printed side up and parallel with the finished surface. Ensure that the tape is not pulled, distorted, or otherwise misplaced in completing the trench backfill. Provide approximately 10 ft (3 m) of tape inside each adjacent pull box connecting the underground utility run. Bond the tracer wire to a good earth ground in each pull box.

<mark>630.06.B.</mark>

On page 585, **Replace** the first sentence of the fourth paragraph with the following:

When specified, furnish sign support identification stickers of Type F reflective sheeting listing the support type, design number, span/arm length, county, route, and section number (example: TC-15.116, design 1, 80 ft span, CUY-90-17.58).

<mark>630.06.B.</mark>

On page 585, **Delete** from the second sentence of the fifth paragraph the following:

Fabricate box trusses from aluminum or steel tubular members with built-in camber and mark each section "TOP".

<mark>630.15</mark>

On page 590, **Replace** "Span Wire Sign Support TC-17.10, Design _____" pay item with the following.

630 Each Span Wire Sign Support, Type TC-17.11, Design _____

<u>632.03</u>

On page 597, Delete "732.08" from Detectors in the material list.

632.05

Cable	Tag
Ground	GND
Power (2 wire) $1\emptyset$ 120 volt	AC +AC- or ACN
Power (3 wire) 1Ø 120/240 volt	AC + 1, AC + 2
Neutral wire	AC- or ACN
Phase A	ØA
Phase 1	Ø 1
Phase 1 northbound left turn lanes	Ø 1 NBLT
Phase A, pedestrian signal	Ø A PD
Radar, Advance Detection Phase,	RAD-Adv Ø2,
Direction	NB
Radar, Stop Line Detection Phase,	RAD-SL Ø1,
Direction	SBLT
Overlap, phase A + C	\varnothing A + C
Overlap, phase $1 + 6$	\varnothing 1 + 6
Detector lead-in, phase A	DET A
Detector lead-in, phase 1	DET 1
Detector lead-in, phase 1 northbound	DET 1 NBLT
left turn lanes	
Detector lead-in, phase A (call type)	DET A CALL
Detector lead-in, phase 1	DET 1 CALL
(call type) northbound thru lanes	NB-THRU
Detector harness ^[1]	DET A
Interconnect	IC
Pre-emption, fire	PE FIRE
Pre-emption, railroad	PE RR
[1]Place the tag next to the MS plug at th	e detector amplifier

On page 598, Add the following to Table 632.05-1: TABLE 632.05-1 TABLE AND WIRE IDENTIFICATION

632.15

On page 601, **Replace** the fifth paragraph with the following: Conform to the requirements of AASHTO LRFDLTS-1, including all interim releases.

On page 604, **Replace** the first paragraph with the following:

Cover vehicular signal heads if erected at intersections where traffic is maintained before energizing the signals. Cover pedestrian signal heads when specified in the plans. Use a sturdy opaque covering material specifically made for use with traffic signals and ensure that the color of the cover is different than the signal head, tan or beige white, so that it is clear to drivers and pedestrians the heads are covered, not dark. Use a method of covering and cover attachment and materials as approved by the Engineer. Covers are to be free of text, pictures, or any type of advertising. Maintain covers and remove them when directed by the Engineer.

632.25

On page 604, Add the following paragraph after the second paragraph.

Do not operate covered signals at night and ensure no conflicting signal light is visible at night. Comprise covers of 16 oz./yd. vinyl-coated polyester fabric consisting of no more than 2 layers sewn together. Completely cover signal, including central slits or ports in the cover, any time no active work is occurring on the signal installation.

633

On page 609, **Delete** the following from the table of contents: **633.07** Controllers

633

On page 609, **Delete** the following from the section index: **633.06 Testing and Prequalification**

633.01

On page 610, **Revise** the first sentence to the following.

This work consists of furnishing and installing traffic signal control equipment, including controllers, cabinets, auxiliary equipment, and specified accessories, completely wired, at the locations shown on the plans and ready for service.

633.03

On page 610, **Delete** the following from the last paragraph: Furnish material and equipment conforming to:

Concrete (cabinet foundations and work pads)

QC Misc or QC 1	
Conduit	725.04, 725.051, 725.052
Controller unit	
Cabinet and auxiliary equipment	
Cabinet riser	
Flasher controller	
Controller, master, traffic responsive	733.06
Remote monitoring station	
Uninterruptible Power Supply	

On page 611, Delete the entire section.

633.07

Beginning on page 611, **Delete** the entire section.

633.07 Controllers. Install controller units, consisting of the timing unit, software, and signal timing, into the specified type of prewired cabinet.

Program controller units as shown on the plans unless otherwise directed by the Engineer. If the plan timing data or the supplemental timing data supplied by the Engineer does not exactly fulfill the timing requirements of the installed equipment, notify, in writing, the Engineer of the problem and identify the discrepancies. The Engineer will consult with the maintaining agency and notify the Contractor within 2 weeks. After programming, briefly operate controllers, with the signals turned off by means of the signal shutdown switch, to ensure that operation is reasonable and conforms to the plans.

If the plans show two or more intersection controllers operated in a progressive signal system, coordinate signals by relating the various controller cycle start times to a zero time base, or other cycle start time at an adjacent signalized intersection. Ensure that the controller unit software provides coordination capability to allow associated controllers to be operated within the progressive traffic system. Coordination equipment shall supervise the operation of its associated controller by causing the end of certain phases and the beginning of the following phases to occur at set points. Program coordination timing according to the coordination timing data shown on the plans or provided by the Engineer.

633.13

On page 613, Delete the entire section.

633.13 Controller, Master, Traffic Responsive. The traffic responsive master controller supervises and controls the operation of an interconnected system of local controllers. Ensure that the master controller is able to communicate with a remote monitoring station. Locate this master controller in a local intersection controller cabinet unless otherwise shown on plans. If the local controller cabinet size is not sufficient to accommodate the master controller and its associated wiring, furnish the proper size cabinet for the local intersection controller to house the local controller, master controller, modem, and all auxiliary devices.

633.19

On page 614, **Delete** the first two paragraphs:

The Department will measure Controller Unit, Type ____, with Cabinet, Type ____ by the number of each complete unit, and will include controller unit with software, all required auxiliary equipment, loop detector units, and a prewired cabinet, with all items completely wired and tested. Ground mounted cabinets will include anchor bolts and conduit ells for installation in the foundation. Pole mounted cabinets will include pole mounting hardware.

The Department will measure Controller Unit, Type ____ by the number of each controller timing unit with software, and will include any signal timing programming or installation. The Department will measure Controller Unit, Type ____, Furnish Only by the number of each controller timing unit with software, and will exclude any signal timing programming or installation

633.19

On page 615, **Delete** the second paragraph:

The Department will measure Controller, Master, Traffic Responsive by the number of each unit, and will include installation, signal system software, programming, and any increase in cabinet size to

house the master controller in the local intersection cabinet. The Department will measure Controller, Master, Traffic Responsive, Furnish Only by the number of each unit, and will include software, but exclude any programming or installation.

633.20

On page 615, Delete the following items:				
633	Each	Controller Unit, Type, with Cabinet, Type		
633	Each	<u>Controller Unit, Type</u>		
633	Each	Controller Unit, Type, Furnish Only		
633 —	Each	Controller, Master, Traffic Responsive		
633 —	Each	Controller, Master, Traffic Responsive, Furnish Only		

641

On page 627, **Revise** the table of contents to the following:

- 641.01 Description
- 641.02 Materials
- 641.03 General
- 641.04 Equipment
- 641.05 **Pavement Preparation**
- 641.06 Layout and Premarking
- 641.07 Line Placement Tolerance
- 641.08 Marking Types
- 641.09 Two-Way Radio Communication
- 641.10 Removal of Pavement Markings
- 641.11 Unsatisfactory Materials and Deduction for Deficiency
- 641.12 Method of Measurement
- 641.13 Basis of Payment

641.05

On page 629, **Add** the following after the first sentence in the first paragraph:

Before applying marking material, the pavement surfaces must be completely dry. Test for moisture using the following test procedures, if needed as directed by the Engineer:

MOISTURE TEST

Tape a 12 inch (300 mm) square sheet of thin plastic to the
road surface, sealing all edges.
After 15 minutes examine the side of the sheet facing the road
surface.
If more than a sparse amount of moisture is present, do not
apply marking material.

641.11

On page 632, **Revise** the header to the following:

641.11 Unsatisfactory Materials and Deduction for Deficiency.

641.11

On page 632, **Replace** the second paragraph with the following:

The Department will consider materials unsatisfactory if conformance to at least one of the following:

A. Deficiency of marking material or glass beads is 20 percent or more.

B. Materials applied outside the temperature or application requirements in Items 642, 643, and 646 without written approval of the Engineer.

C. Markings not meeting the performance parameters contained in Supplement 1047, Appendices C, D, E, and G.

- 1. Numerical rating of 8 or lower for Daytime Color (Appendix C)
- 2. Composite rating of 8 or lower for Night Visibility (Appendix D)
- 3. Numerical rating of 9 or lower for Durability (Appendix E)
- 4. Less than the initial measurement for Retroreflectivity (Appendix G)

Replace pavement markings and glass beads in all sections determined to be unsatisfactory by retracing over the unsatisfactory markings at the full thickness specified in Items 642, 643 and 646.

642.02

On page 633, **Add** the following to the to the end of the first sentence of the first paragraph: "in accordance with supplement 1089."

643.02

On page 636, **Add** the following to the to the end of the first sentence of the second paragraph: "in accordance with supplement 1089."

643.04

On page 636, **Delete** the first sentence of the third paragraph.

After sampling of resin is completed, transfer the entire contents of each material container to the striper tanks.

644.02

On page 638, **Add** the following to the to the end of the first sentence of the second paragraph: "in accordance with supplement 1089."

644.04

On page 640, **Replace** the fifth full paragraph with the following:

The Department will consider materials unsatisfactory if conformance to at least one of the following:

A. Deficiency of thermoplastic marking material or glass beads is 20 percent or more.

B. Materials applied outside the temperature or application requirements in 644.04 without written approval of the Engineer.

C. Markings not meeting the performance parameters contained in Supplement 1047, Appendices C, D, E, and G.

- 1. Numerical rating of 8 or lower for Daytime Color (Appendix C)
- 2. Composite rating of 8 or lower for Night Visibility (Appendix D)
- 3. Numerical rating of 9 or lower for Durability (Appendix E)
- 4. Less than the initial measurement for Retroreflectivity (Appendix G)

Replace thermoplastic markings and glass beads in all sections determined to be unsatisfactory by entirely removing the unsatisfactory thermoplastic material by grinding as per 641.10 and then reapplying at the full thickness specified in 644.04. Do not apply a layer of sprayed thermoplastic to sections determined to be unsatisfactory to achieve the required thickness.

646.02

On page 643, **Add** the following to the to the end of the first sentence of the second paragraph: "in accordance with supplement 1089."

647.01

On page 648, **Add** the following to the first sentence of the first paragraph after "740.08": , 740.09

647.02

On page 648, **Add** the following sentence after the second sentence: Glass beads, Type E740.09

647.04.B.

On page 649, **Replace** the second sentence of the second paragraph with the following: Drop-on glass beads are required.

647.04.C.

On page 649, **Replace** the second sentence of the second paragraph with the following: Drop-on glass beads are required.

648.02

On page 650, **Add** the following to the to the end of the first sentence of the second paragraph: "in accordance with supplement 1089."

648.04

On page 651, **Delete** the second sentence in the first paragraph and the table that follows the first paragraph:

Test for moisture using the following test procedures, if needed as directed by the Engineer: MOISTURE TEST

Tape a 12 inch (300 mm) square sheet of thin plastic to the road surface, sealing all edges.

After 15 minutes examine the side of the sheet facing the road surface.

If more than a sparse amount of moisture is present, do not apply spray thermoplastic.

648.05

On page 652, **Replace** the sixth paragraph with the following:

The Department will consider materials unsatisfactory if conformance to at least one of the following: A. Deficiency of spray thermoplastic marking material or glass beads is 20 percent or more.

B. Materials applied outside the temperature or application requirements in 648.05 without written approval of the Engineer.

C. Markings not meeting the performance parameters contained in Supplement 1047, Appendices C, D, E, and G.

- 1. Numerical rating of 8 or lower for Daytime Color (Appendix C)
- 2. Composite rating of 8 or lower for Night Visibility (Appendix D)
- 3. Numerical rating of 9 or lower for Durability (Appendix E)
- 4. Less than the initial measurement for Retroreflectivity (Appendix G)

Replace or reapply spray thermoplastic markings and glass beads in all sections determined to be unsatisfactory.

700.00

On Page 687 Add the following table row after specification 409:

421	Microsurfacing	CSS-1hM: Certified Material. At the	CSS-1hM: Certified material:
	Emulsion and	refinery or source as directed by OMM.	Submit to OMM. Non-
	Tack Coat	Project and/ or Plant Sample per 421.12.	certified material: Submit to
		Non-certified material is sampled and	OMM. Do not use until
		approved by OMM before use.	approved.
		421 Tack Coat per 421.09: Project and/	421 Tack Coat per 421.09.
		or Plant Sample per 421.12.	Dilute per 421.09. Do not use
		Tag and ship sample to the District lab	non-certified material to
		for OMM Asphalt section testing.	dilute.
		Document in SM.	

On Page 689, for Spec. Number 701.11, **Replace** "Ground Granulated Blast Furnace Slag (GGBFS)" with "Slag Cement".

700.00

On Page 689, for Spec. Number 701.13 Replace "Fly Ash" with "Fly Ash/Natural Pozzolan".

700.00

On Page 690 **Replace** the second full table row with the following:

702.02	Cut Back Asphalt	Certified material:	Certified material: Submit to
702.03	-		OMM.
702.04	Cut Back Asphalt	At the refinery or source as directed by	
702.07	Emulsions	OMM. Project and/ or Plant: One	
702.12		sample per each 25,000 gallons. None	
702.13	Emulsified	for less than 300 gallons.	Non-certified material:
	Asphalts		Submit to OMM. Do not use
			until approved.
	Asphalt Emulsion	Non-certified material:	
	MWS		
	Non-Tracking	Will be sampled and approved by	
	Asphalt Emulsion	OMM before use.	
	SBR Asphalt	702.13 – Provide Certified Test Data	
	Emulsion	per specification requirements.	

700.00

On Page 690 Add the following table row after the third full table row:

702.08	Cold Liquid-	Provide Certified Test Data per	
	Applied	specification requirements.	
	Elastomeric		
	Waterproofing		
	Membrane		

700.00

On Page 693 **Add** the following row after 705.26:

705.27	Carbonate Micro-	Verify manufacturer on Concrete Plant Batch Ticket is on
	fines	Certified List for S 1016 maintained by OMM.
		Verify material against bill of lading description.
		Document in SM

On page 696, **Replace** 707.11 with the following:

707.11	Polymer-	Products will be supplied by a source on	Notify District Testing and
	precoated	the Certified List for S 1019 maintained	OMM Structural Welding and
	corrugated steel	by OMM.	Metals section, if rejecting
	spiral rib pipe	Receive with TE-24.	material because material
		Check dimensions and markings.	non-performs or looks
		Document in SM.	defective during use.

700.00

On page 709, **Delete** 732.07 A from the table.

732.07.A	Loop Detector	Verify type and brand name of material is	Notify District Testing if
	Units NEMA TS	on TAP at the time of use.	rejecting material.
	1	Inspect for conformance to dimension and	If material non-performs or
		condition.	looks defective during use
		Document in SM.	notify District Testing and
			OMM.

<mark>700.00</mark>

On page 710, **Delete** 732.08 from the table.

<mark>732.08</mark>	Loop Detector	Verify type and brand name of material	Notify District Testing if
	<mark>Units, Delay and</mark>	is on TAP at the time of use.	rejecting material.
	Extension Type	Inspect for conformance to dimension	If material non-performs
		and condition.	or looks defective during
		Document in SM.	use notify District Testing
			and OMM.

700.00

On page 711, **Delete** 733.02 E, 733.02 F, and 733.03 A from the table.

733.02. E	Controller Unit	Verify type and brand name of material is	Notify District Testing if
	Type 2070L	on TAP at the time of use.	rejecting material.
		Inspect for conformance to dimension and	If material non-performs or
		condition.	looks defective during use
		Document in SM.	notify District Testing and
			OMM.
733.02. F	Controller Unit	Verify type and brand name of material is	Notify District Testing if
----------------------	-----------------------	---	-----------------------------
	Type 2070E	on TAP at the time of use.	rejecting material.
		Inspect for conformance to dimension and	If material non-performs or
		condition.	looks defective during use
		Document in SM.	notify District Testing and
			OMM.
733.03.A	Cabinet Type TS	Verify type and brand name of material is	Notify District Testing if
	1	on TAP at the time of use.	rejecting material.
		Inspect for conformance to dimension and	If material non-performs or
		condition.	looks defective during use
		Document in SM.	notify District Testing and
			OMM.

On page 711, **Delete** 733.02.C, 733.02.D, 733.02.G, and 733.06 from the table:

733.02 C	Controller Unit Type	Verify type and brand	Notify District
755.02.0	$TS2/\Lambda 1$	name of material is on	Testing if rejecting
	152/111	TAP at the time of	material
		The at the time of	If material non
		use.	n anforma on lo also
		inspect for	performs or looks
		conformance to	defective during use
		dimension and	notify District Testing
		condition.	and OMM.
		Document in SM.	
733.02.D	Controller Unit Type	Verify type and brand	Notify District
	TS2/A2	name of material is on	Testing if rejecting
		TAP at the time of	material.
		use.	If material non-
		Inspect for	performs or looks
		conformance to	defective during use
		dimension and	notify District Testing
		condition.	and OMM.
		Document in SM.	
733.02.G	Controller Unit Type	Verify type and brand	Notify District
	2070LX	name of material is on	Testing if rejecting
		TAP at the time of	material.
		use.	If material non-
		Inspect for	performs or looks
		conformance to	defective during use
		dimension and	notify District Testing
		condition	and OMM
		Document in SM	
733.06	Controller Master	A soure the same	Notify District
155.00	Traffic Responsive	manufacturer as the	Testing if rejecting
	Thank Kesponsive	supplied controller	motorial
		supplied controller	material.
		unit / 33.02.	

On page 711, **Revise** 733.03 D as follows:

733.03 D	Cabinet Type	Verify type and brand name of material	Notify District Testing if
	336L	is on TAP at the time of use.	rejecting material.
		Inspect for conformance to dimension	If material non-performs or
		and condition.	looks defective during use
		Document in SM.	notify District Testing and
			OMM.

On page 711, **Delete** 733.03 E:

733.03.Е	Cabinet Type 336	Verify type and brand name of material	Notify District Testing if
		is on <u>TAP</u> at the time of use.	rejecting material.
		Inspect for conformance to dimension and	If material non-performs or
		condition.	looks defective during use
		Document in SM.	notify District Testing and
			OMM.

700.00

On page 711, **Revise** 733.04 A as follows:

733.04 A C	Cabinet Riser for	Field inspect for 1/4 aluminum thickness	Notify District Testing if
T T	TS-1 - TS-2	and accept.	rejecting material.
с	abinet		

700.00

On page 712, **Revise** 733.07 to the following:

733.07	Remote	Compatible with the supplied 733.02	Notify District Testing if
	Monitoring	and 733.06 Supplemental Specification	rejecting material.
	Station	809.10.G unit.	

701.00

On Page 714 **Replace** section 701.00 with the following:

701.00 Acceptance. Provide cements meeting 701.01, 701.02, 701.04, 701.05, 701.07 and 701.09 and certified according to Supplement 1028; fly ash or natural pozzolan meeting 701.13 and certified according to Supplement 1026; slag cement meeting 701.11 and certified according to Supplement 1034; and micro silica meeting 701.10 and certified according to Supplement 1045, without prior sampling, testing and approval by the Department. Lists for certified cement, fly ash, natural pozzolan, slag cement and micro silica sources are maintained by the Laboratory.

701.11

On Page 714 **Replace** section 701.11 with the following:

701.11 Slag Cement. Provide slag cement according to ASTM C 989, Grade 100 minimum.

701.13

On Page 714 **Replace** the first paragraph of section 701.13 with the following:

701.13 Fly Ash or Natural Pozzolan for Use in Portland Cement Concrete. Provide fly ash or natural pozzolan according to ASTM C 618, Class C, F, or N, except ensure a maximum loss on ignition (LOI) of 3 percent for fly ash and 5 percent for natural pozzolan.

702.01

On Page 715, **Replace** the first sentence with the following: General. According to AASHTO M 320-10 Table 1 and Supplement 1105 except as follows.

702.01

On Page 716, **Add** before the next-to-last sentence of the first full paragraph the following: Do not use paraffin wax, organic wax, or like materials.

<mark>702.01</mark>

On Page 716, Add the following sentence after the fourth sentence in the second full paragraph (5.3): Do not use recycled engine oil bottoms (REOB), vacuum tower asphalt extender (VTAE), or like materials as modifiers.

702.01

On Page 716 **Replace** the sixth full paragraph with the following:

5.7 Ensure that PG 64-22 has a Penetration (AASHTO T49) of no more than 80.

702.12

On Page 721, **Replace** the section with the following:

702.12 Non-Tracking Asphalt Emulsion. Provide certified non-tracking asphalt emulsion material meeting Table 702.12-1 and Supplement 1128 and Supplement 1032. Emulsion will comply with all specification requirements for at least 30 days after sample date.

Tests on emulsion, AASHTO T 59, unless otherwise designated:	
Viscosity, Saybolt Furol at 77 °F (25 °C) (SFS)	20 to 100
Storage Stability Tests, 24-hr (% difference), max.	1.0
Settlement tests, 5-day (% difference), max.	5.0
Sieve Tests (%) (Distilled Water), max.	0.30
Distillation, Residue % solids, min. [1]	50
Oil distillate, %, max.	3

Table 702.12-1

[1] Products may use residual by evaporation to perform residual and may use the material to perform residual tests but must be submitted during approval process in S-1128. Will be required to perform residual by distillation to obtain oil distillate %.

703.05.C

On page 733, Add the following sentence to the end of the paragraph:

Should the sample contain less than 10 percent of any of the sizes specified in AASHTO T104 Section 5.1, that individual size shall not be held to the above maximum loss requirement.

705.01

On page 747, **Replace** the section with the following:

705.01 Glass Fiber Reinforced Polymer (GFRP) Dowel Bars. Furnish round and straight fiber reinforced polymer (GFRP) dowel bars. Ensure resin used to manufacture the GFRP bars consists of an epoxy vinyl ester resin. Ensure the glass fiber used is ECR glass which meets ASTM D578. Ensure that the minimum glass fiber content is 70 percent by weight. Furnish dowel bars of a type meeting the dimensional requirements of the standard construction drawings. Provide certified test data according to 101.03 with each shipment.

705.28

On page 757, Add the following section:

705.28 Glass Fiber Reinforced Polymer (GFRP) Deformed Bars. Furnish GFRP reinforcement according to ASTM D7957 except as noted. Furnish deformed bars of a type meeting the dimensional requirements of the standard construction drawings. Provide certified test data according to 101.03 with each shipment.

The Mean Tensile Modulus of Elasticity limit (ASTM D7957 Table 1) shall meet or exceed 8700 ksi (60 GPa).

The Mean Ultimate Tensile Strain limit (ASTM D7957 Table 1) shall meet or exceed 1.4%.

The Tensile Modulus of Elasticity limit (ASTM D7957 Table 2) shall meet or exceed 8700 ksi (60 GPa).

The Ultimate Tensile Strain limit (ASTM D7957 Table 2) shall meet or exceed 1.4%.

The Minimum Guaranteed Ultimate Tensile Force (ASTM D7957 Table 3) shall be as follows:

Bar Designation	Minimum Guaranteed Ultimate Tensile Force
No	Kip (kN)
2 (M6)	6.1 (27)
3 (M10)	13.2 (59)
4 (M13)	27.6 (123)
5 (M16)	36.6 (163)
6 (M19)	51.9 (231)
7 (M22)	68.5 (305)
8 (M25)	89.9 (400)
9 (M29)	124 (550)
10 (M32)	138 (615)

706.05

On page 772, **Replace** the second paragraph with the following:

7.1 For the following box sizes, span by rise, refer to ASTM C1577: 6x4, 5, 6; 7x4, 5, 6, 7; 8x4, 5, 6, 7, 8; 9x4, 5, 6, 7, 8, 9; 10x4, 5, 6, 7, 8, 9, 10; 11x4, 5, 6, 7, 8, 9, 10, 11; and 12x4, 5, 6, 7, 8, 9, 10, 11, 12 feet. For the following box sizes, span by rise, refer to SS940: 14x4, 5, 6, 7, 8, 9, 10; 16x4, 5, 6, 7, 8, 9, 10; 18x4, 5, 6, 7, 8, 9, 10; and 20x4, 5, 6, 7, 8, 9, 10 feet.

On page 788, **Replace** the table with the following:

	Pipe	Pipe	e-Arch
Diameter	Wall Thickness	Size	Wall Thickness
(inch)	(inch)	(inch)	(inch)
6	0.052		
8	0.064		
10	0.064		
12	0.064		
15	0.064	17 × 13	0.064
18	0.064	21 × 15	0.064
21	0.064	24 × 18	0.064
24	0.064	28×20	0.064
27	0.064		
30	0.064	35×24	0.064
33	0.064		
36	0.064	42×29	0.064
42	0.064	49 × 33	0.079
48	0.064	57 × 38	0.109
54	0.079	64 × 43	0.109
60	0.109	71 × 47	0.138
66	0.138	77 × 52	0.168
72	0.138	83 × 57	0.168
78	0.168		
84	0.168		

On page 789, **Replace** the first table with the following:

Pipe
Wall Thickness
(mm)
1.32
1.63
1.63
1.63
1.63
1.63
1.63
1.63
1.63
1.63
1.63
1.63
1.63
1.63
2.01
2.77
3.51
3.51
4.27
4.27

Р	'ipe-Arch
Size	Wall Thickness
(mm)	(mm)
430×340	1.63
530×380	1.63
610×460	1.63
710×510	1.63
885 × 610	1.63
1060×740	1.63
1240×840	2.01
1440×970	2.77
1620×1100	2.77
1800×1200	3.51
1950 × 1320	3.51
2100×1450	4.27

707.11

On page 792, **Revise** the following to:

707.11 Polymer-Precoated Corrugated Steel Spiral Rib Conduits. Provide conduits that have a center-to-center rib spacing of 7 1/2 inches (190 mm). Provide conduits and fittings according to AASHTO M 36, Type IR, with the following modifications:

6.1 Fabricate pipe from polymer-precoated, on both sides, steel sheet according to AASHTO M 246.

7.2.2 The ribs shall conform to AASHTO M 196, Section 7.2.2.

7.7.1 Reroll the ends of the individual pipe sections to form at least two annular corrugations on each end. Paint the rerolled end with zinc rich paint.

8.1.2 Ensure that the minimum wall thickness (coated) of steel pipe is as for

Ріре					
Diameter	Wall Thickness	Diameter	Wall Thickness		
(inch)	(inch)	(mm)	(mm)		
18	0.064	450	1.63		
21	0.064	525	1.63		
24	0.064	600	1.63		
30	0.064	750	1.63		
36	0.064	900	1.63		
42	0.064	1050	1.63		
48	0.064	1200	1.63		
54	0.079	1350	2.01		
60	0.079	1500	2.01		
66	0.109	1650	2.77		
72	0.109	1800	2.77		
78	0.109	1950	2.77		
84	0.138	2100	3.51		
90	0.138	2250	3.51		

9.1 Coupling bands shall have annular corrugations.

9.2 Coupling bands shall conform to 707.01.

9.3 A bell and spigot joint according to ASTM A 760 (A760M) may be used with the following modifications:

9.3.1 These joints may be used for conduits ranging in size from 18 (450mm) to 48 (1200mm) inches in diameter.

9.3.2 Ensure the bell and spigot has a soil tight joint by use of a shop applied gasket on the bell end and a field applied gasket on the spigot end.

9.3.3 Provide a minimum of 0.064 (1.63mm) inch nominal sheet thickness or not more than two (2) nominal sheet thickness thinner than the thickness of the pipe to be joined.

14.1 Ensure that the certification and sampling conform to 707.01.

Pipe					
Diameter	Wall Thickness	Diameter	Wall Thickness		
(inch)	(inch)	(mm)	(mm)		
18	0.064	450	1.63		
21	0.064	525	1.63		
24	0.064	600	1.63		
30	0.064	750	1.63		
36	0.064	900	1.63		
42	0.064	1050	1.63		
48	0.064	1200	1.63		
54	0.079	1350	2.01		
60	0.079	1500	2.01		
66	0.109	1650	2.77		
72	0.109	1800	2.77		
78	0.109	1950	2.77		
84	0.138	2100	3.51		
90	0.138	2250	3.51		

On page 793, **Replace** the table with the following:

707.62

On page 802, **Replace** the first paragraph with the following:

Polypropylene Corrugated Single Wall Pipe. Provide polypropylene corrugated single wall pipe for drainage pipe from 3 to 30-inch diameters according to ASTM F 3219, with the following modification:

707.65

On page 803, **Replace** the first paragraph with the following:

Polypropylene Corrugated Double Wall Pipe. Provide polypropylene corrugated double wall pipe for non-pressure storm sewer pipe from 12 to 60-inch diameters according to ASTM F 2881 with the following modification:

707.69

On page 803, **Replace** the entire section with the following:

Polypropylene Triple Wall Pipe. Provide polypropylene triple wall pipe and fittings for nonpressure sanitary sewer pipe from 30 to 60-inch diameters according to ASTM F 2764, with the following modifications:

1.2 Provide pipe and fittings for underground use for non-pressure sanitary sewer and storm sewer systems.

10.1 Provide a letter for certification to cover each shipment of material verifying that it meets specification requirements.

708.01

On Page 804, **Replace** the second paragraph with the following:

5.1 A green colorant approximately AMS-595A-34159.

708.02 B.1.f

On page 804, **Replace f.** with the following.

f. Color. Greenish gray, approximating AMS-595A-34159, visual comparison.

708.02 C.1.a

On page 805, **Replace a.** with the following.

a. Color. White, meeting or exceeding, AMS-595A-37875 according to ASTM E 1347.

708.02 D.1.a

On page 806, **Replace a.** with the following.

a. Finish, Specular gloss, ASTM D 523. Use AMS-595A-16440 Gray: 70 % minimum after 3000 hours weathering resistance. Color change less than 2.0 ΔE^* , (C.I.E 1976 L*a*b*) ASTM D2244.

708.02.D.1.f

On page 806, **Replace f.** with the following:

f. Colors.

(1) **Specified.**^[2]</sup>

Brown	AMS-595A, 10324	
Green	AMS-595A, 14277	
Blue	AMS-595A, 15526	
^[2] If not defined in the plans, the Engineer will specify from the list.		

(2) Elective. As specified on the plans.

709.00 5.1

On page 808, **Replace** section 5.1 with the following:

5.1 Ensure that steel reinforcing bars to be coated are deformed and conform to 709.01, 709.03, or 709.05, and are free of oil, grease, or paint.

710.06

On page 815, **Replace** the first sentence of the first paragraph with the following: Furnish deep beam rail according to AASHTO M 180, Type II or VI, Class A, with the following modifications:

712.16

On page 835, Insert Item 712.16 after the last paragraph of Item 712.15:

712.16 Prefabricated Geocomposite Drain (PGD). Furnish Prefabricated Geocomposite Drain (PGD) consisting of a drainage core with geotextile fabric bonded to one side. Use drainage core material consisting of a preformed, stable, polymer plastic material with a cusped or geonet structure. Use drainage core that supports the geotextile and provides a bonding surface for the geotextile at intervals not exceeding 1-1/8 inches (29 mm) in any direction. Supply core that provides at least 14 square inches per square foot of flat area in contact with the geotextile.

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Furnish a geotextile fabric composed of over 85% of polyester, polypropylene, polyolefin, or polyamide fibers by weight, that are formed into a stable network to ensure the performance during handling, installation, and service life. Use geotextile fabric that is resistant to chemical attack, rot, and mildew. Use geotextile fabric that is free of treatments or coatings that would adversely change the hydraulic properties of geotextile after installation. Furnish PGD that has the geotextile fabric covering the full length of the drainage core and has minimum 3 inch (76 mm) wide flaps/flanges of fabric extending beyond both longitudinal edges of the drainage core. Do not supply PGD that has ripped or torn geotextile fabric.

Furnish PGD in rolls, or in another acceptable manner, wrapped with an opaque, waterproof wrapping. Label or tag each roll or package to provide product identification sufficient to determine the product type, manufacturer, quantity, lot number, roll number, and date of manufacture. Prior to installation, protect the PGD from mud, dirt, dust, debris, harmful ultraviolet light, direct sunlight or temperature greater than 140 °F (60 °C). Furnish 3 inch (76 mm) wide, plastic tape for the sealing, seaming, and splicing the PGD. Furnish waterproof tape designed for underground applications that provides a strong bond that does not deteriorate over time in a buried condition. Furnish fittings and accessories provided by the manufacturer if available.

Submit Certified Test Data showing the product will meet or exceed the requirements listed in Tables 712.16-1 and 712.16-2.

TAB	LE 712.16-1	RF	CQUIRED PGD	CORE PROPER	TIES
	Test Method	Unit	Required Value Conventional Abutment/Wall Height		
Property					
			<10 ft	10 to 30 ft	30 to 50 ft
			(3 m)	(3 to 9m)	(9 to 15m)
Thickness	ASTM D5199	in (mm)	0.4 to 1.0 (10 to 25)		
Minimum Compressive Strength	ASTM D1621	psf (kPa)	4625 (221)	10625 (508)	16625 (796)
Minimum In-Plane Flow Rate*	ASTM D4716	gal/min/ft (l/min/m)	5 (62)	15 (186)	25 (310)

* Tested under a confining pressure of 3,600 psf (172 kPa) and a hydraulic gradient of 1.0.

TABLE 712.16-2		REQUIRED PGD GEOTEXTILE PROPERTIES			
	Test Method	Unit	Required Value		
Property			Unit Percent In Situ Soil Passing 0.075 mm		0.075 mm
			<15	15 to 50	>50
Minimum Permittivity	ASTM D 4491	sec ⁻¹	0.5	0.2	0.1
Apparent Opening Size	ASTM D 4751	mm	$AOS \le 0.43$	$AOS \le 0.25$	$AOS \le 0.22$

Minimum Grab Strength	ASTM D 4632	lb (N)	157 (700)
Maximum Elongation	ASTM D 4632	%	50
Minimum Trapezoidal Tear Strength	ASTM D 4533	lb (N)	56 (250)
Minimum	ASTM D 6241	lb (N)	309 (1375)
Puncture Strength	or ASTM D 4833	lb (N)	58 (260)

On page 836, in the second paragraph, **Replace** "730.192 or 730.192" with "730.192 or 730.193"

<mark>721.01</mark>

On page 836, Add the following sentence as the first sentence of the first paragraph: Furnish castings conforming to Supplement 1062.

<mark>721.02</mark>

On page 836, Add the following sentence as the first sentence of the first paragraph: Furnish prismatic retroreflectors conforming to Supplement 1062.

721.03

On page 836, **Replace** the section in its entirety with the following:

721.03 Casting Adhesive. Furnish casting adhesives that conform to Supplement 1062.07 - Raised Pavement Marker Casting Adhesive Acceptance Procedure.

Only furnish material listed on the Department's QPL.

725.20

On page 848, **Replace** the entire section with the following:

725.20 Multiple Cell Conduit and Fittings. Ensure that fittings are factory made couplings that couple inner ducts and the outer conduit simultaneously, maintain the continuity and indexing of the inner ducts and are of a push fit design mechanically locked in place.

Furnish materials according to the Department's QPL.

A. Polyvinyl Chloride. Ensure that the multiple cell conduit consists of inner ducts conforming to NEMA TC-8 type DB in an outer conduit conforming to NEMA TC-2 (type EPC-40 or EPC-80 as specified except that size shall be the true inside diameter) in a factory preassembled unit.

B. High Density Polyethylene. Ensure that the multiple cell conduit consists of inner ducts conforming to ASTM F2160 with smooth or ribbed inside, and Superglide permanent friction layer, in an outer conduit conforming to ASTM F2160 in a factory preassembled unit.

On page 848, **Revise** the first sentence to the following:

Ensure that the complete luminaire support from the luminaire(s) down through the connection to the foundation or other structure to which the luminaire support is attached conforms to the requirements of AASHTO's *Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals* LTS-6 (2013), except that the 40% hand-hole width criterion of 11.9.2 is not required.

<mark>725.22</mark>

On page 854, **Replace** the entire section with the following:

725.22 Underground Warning / Marking Tape. Furnish tape that is an inert material, approximately 6 inch (150 mm) wide composed of polyethylene plastic, highly resistant to alkalis, acids or other chemical components likely to be encountered in soils. Furnish tape in accordance with the ORC 3781.29 color code and with black identifying lettering in accordance with Table 725.22-1 printed on one side only.

Table 725.22-1 Underground Utility Facility Color Codes

Identifying Lettering	<mark>Color</mark>
ELECTRIC	Red
GAS	Yellow
COMMUNICATION	Orange
WATER	Blue
SEWER	Green

Furnish tape in continuous rolls with the identifying lettering repeated continuously the full length of the tape. Furnish tape with a break strength of at least 3000 lb (1361 kg) when tested to ASTM D6775. Furnish tape with a minimum diameter #12 AWG HDPE insulated copper clad steel tracer wire. Provide certified data verifying compliance with these requirements.

<mark>730.14</mark>

On page 858, **Replace** the entire section with the following: **730.14 Aluminum Castings**. Furnish certified material according to Supplement 1092 or 1093.

A. Furnish sand castings according to ASTM B 26/B 26M, 356-T6 or T7.

B. Furnish self-aligning aluminum extrusheet sign mounting clips with manufacturer identification mark conspicuously incorporated in relief on the top surface of the casting, and in accordance with Supplemental Specification 992.

C. Furnish permanent mold castings according to ASTM B 108, 356-T6 or T7.

731.06

On page 861, **Revise** the first paragraph to the following:

731.06 Sign Flasher Assembly. Furnish beacons consisting of single traffic signal sections with 8 or 12-inch (200 or 300 mm) yellow lenses. Ensure that the flasher control unit flashes the beacons at a rate for each beacon of between 50 to 60 times per minute with the light period from one-half to two-thirds of the total cycle. Furnish flasher control units that have all solid state components and that meet NEMA TS-2. House control units within a weatherproof corrosion-resistant enclosure with a lockable door. Include the LED lamps.

On page 861, **Revise** the first paragraph to the following:

731.07 School Speed Limit Sign Assembly. Furnish yellow beacons that are 8 inches (200 mm) or 12 inches (300 mm). Ensure that the flashers flash the beacons alternately at a rate for each beacon of 50 to 60 times per minute with the light period from one-half to two-thirds of the total cycle. Furnish flashers that have all solid state components and that meet NEMA TS-2. Ensure that the backing members with hardware are compatible with the method of support.

<mark>732.04.A.1.j.</mark>

On page 865, **Replace** the last sentence with the following:

The optical assembly shall be used for all ball and arrow modules and shall be optional on arrow and pedestrian modules.

732.06

On page 869, **Replace** the last sentence of the second paragraph with the following:

Furnish housing with manufacturers applied external surfaces black Color 17038 or yellow Color 13655, Federal Standard 595, unless specified otherwise in the Plans.

732.06

On page 869, **Replace** the third paragraph with the following:

The pushbutton shall be a minimum of 2 inches across in at least one dimension. The force required to activate the pushbutton shall be no greater than 3.5 pounds (15.5N) and operate with a closed fist. There shall be a visible and audible indicator that the button press has occurred.

732.06

On page 869, **Replace** the fourth paragraph with the following: Furnish materials according to the Department's QPL.

732.07.A.

Beginning on page 869, Delete the entire section.

A. NEMA TS-1. Ensure that the loop detector units comply with the requirements of NEMA TS-1, section 15, with the following modifications. Furnish shelf mounted loop detector units that are powered from 120 volts. Use solid state isolated output units for all controller applications where directly connected to a solid state digital controller unit. Ensure that the conductors in the cable harness for loop input pins are twisted three to five times per 1 foot (300 mm).

Ensure that the electrical connections for four channel shelf-mounted units either are the 19-pin MS connector, as required by the foregoing specification, or consist of four connectors of the type required for single-channel shelf-mounted detector units.

If specified, design detector unit electrical connection plugs or wiring harness such that any multichannel shelf-mounted detector unit may be readily replaced with single-channel detector units. Accomplish this by furnishing only units with the connector type required for single channel shelfmounted detector units, or by wiring the controller back panel to single channel harnesses which are, in turn, plug-connected to an adapter harness which is mated to the multi-channel connector of the detector unit.

Furnish loop detector unit with an LED or LCD display indication of call strength (Δ L/L or equivalent). This display shall be a bar graph or numerical display with at least eight (8) discrete levels indicated.

Furnish materials according to the Department's TAP List.

<mark>732.08</mark>

On page 870, **Delete** the entire section.

<mark>732.11</mark>

On page 871, **Replace** the sixth sentence of the first paragraph with the following:

The Pole Identification Tag shall be clearly and deeply stamped with the ODOT Standard Construction Drawing Number, Design Number, and the fabrication date of the pole (e.g., TC-81.22, DES. 12, 05-12) in characters with a minimum height of 3/8 in.

<mark>732.12</mark>

On page 872, **Replace** the fourth sentence of the first paragraph with the following:

The Pole Identification Tag shall be clearly and deeply stamped with the ODOT Standard Construction Drawing Number, Design Number, and the fabrication date of the pole (e.g., TC-81.22, DES. 12, 05-12) in characters with a minimum height of 3/8 in.

732.22

On page 875, **Revise** the first sentence to the following:

732.22 Backplates. Furnish louvered backplates constructed of wrought sheet aluminum, according to ASTM B 209 (B 209M), 6061-T6, 0.050 inch (1.3 mm) minimum thickness.

732.22

On page 875, **Replace** the tenth sentence with the following: Reflective sheeting shall be Type J, ASTM D4956 Type XI.

733.01

On page 875, **Delete** the second definition.

"NEMA TS-1" and "Type TS-1" refers to equipment manufactured in conformance with the National Electrical Manufacturers Association (NEMA) Standards Publication No. TS-1.

733.01

On page 875, **Add** the following as the first paragraph:

"ATC" refers to equipment manufactured in conformance with the Advanced Transportation Controller Standard, a joint standard of AASHTO, ITE, and NEMA.

733.02

On page 876, **Delete** the entire section.

733.03

On page 879, **Delete** the following from the second paragraph:

Supply two through four phase controller operation with a minimum twelve position backpanel, configured for four pedestrian movements and four overlaps, with a twelve channel NEMA TS-1 conflict monitor or NEMA TS-2 malfunction management unit.

733.03

On page 879, **Delete** the following from the fourth paragraph:

For signal phasing configurations that require a larger capacity backpanel or conflict monitor, supply a 16 position backpanel with a 16 channel NEMA TS 1 conflict monitor or NEMA TS-2 malfunction management unit.

733.03.15.

On page 880, Add the following paragraph after number 15:

Furnish 60-month warranties or the manufacturers' standard warranty, whichever is greater for the following equipment:

a. ATC/NEMA Cabinet & Equipment

(1) Bus Interface Units

(2) Malfunction Management Units

b. ATC/CalTrans Cabinet & Equipment

(1) Model 2010/2018 Conflict Monitor Units

Ensure that the warranty period begins on the date of shipment to the project. Ensure that each unit has a permanent label or stamp indicating the date of shipment. Label shall indicate the equipment vendor name and or logo.

733.03.A.

Beginning on page 880, **Delete** the entire section.

A. Type TS-1.

1. Cabinets. Furnish a cabinet size that provides ample space for housing the controller unit and all associated electrical devices furnished with it, together with any other auxiliary devices that are specified. Furnish a cabinet with sufficient shelf space to accommodate all existing, proposed, and designated future equipment. Ensure that the space provided accommodates the appropriate controller unit frame as designated in NEMA TS-1, Section 14.

Construct the cabinets of cast aluminum or sheet aluminum, drawn or formed, with aluminum support and stiffening of members provided as necessary. Ensure that the exterior is smooth with no sharp edges. Weld all joints. Ensure that the cabinet is rigid and is designed to support all components. Ensure that the application of the following loads do not result in breakage, deformation, or loss of weatherproof qualities: a 100-pound (445 N) load applied to any 1-inch (25 mm) square surface of the cabinet or door (open or closed), in any direction; or a 300 pound (1.3 kN) load applied vertically downward to any 4-inch (100 mm) square of the top surface or to the top edge of the closed and latched door.

Provide cabinet exterior surfaces of bare aluminum. When the plans specify a cabinet color, prime and finish all cabinet exteriors with two coats of high-grade enamel paint of the specified color. Ensure that the cabinet interior surfaces are the same as the exterior, or may be painted flat white.

Ensure that the cabinet contains at least one rain-tight louvered vent equipped with a replaceable filter. Install vents to allow for the release of excessive heat and any explosive gases that might enter the cabinet.

Ensure that the cabinets are functional in design and have a door in the front providing access to substantially the full interior area. Attach a gasket of elastomeric material to the cabinet or door to form a weatherproof seal. Furnish door hinge pins of stainless steel or equivalent corrosion resistant material. Furnish a door stop to retain the door in at least a 90 degree open position.

Include a small, hinged, and gasketed door in door (police door) on the outside of the main controller door. Ensure that the door-in-door does not allow entrance to the controller mechanism nor to exposed electrical terminals, but provides access to a small switch panel and compartment (police panel).

Fit the cabinet with the necessary provisions for mounting, with a bottom conduit connection provided for pole-mounted cabinets. Furnish suitable hardware and equipment for each cabinet mounting method, including bolts for drilled and tapped holes on metal supports, pole attachment clamps, pedestal slipfitter, and anchor bolts and conduit ells for installation in concrete foundations. Furnish steel anchor

bolts that are galvanized at least 1 inch (25 mm) beyond the threads. Certified cabinet anchor bolts are not required.

Directly place all equipment designed for shelf mounting on a shelf except for loop detector units (amplifiers) and similar devices designed for stacking on each other. Arrange components on shelves and devices on the door so that a 1-inch (25 mm) minimum space separates them when the door is shut. Ensure that plugs, wires, controls, or similar items do not compromise this space.

Reserve a minimum 4-inch (100 mm) clear area on the bottom of the cabinet for the routing of cables. Do not locate panel mounted equipment in the bottom 6 inches (150 mm) of the cabinet. Do not locate shelves or components within 6 inches (150 mm) of the bottom of foundation mounted cabinets.

Arrange all equipment for easy withdrawal and replacement, without the necessity of disturbing adjacent equipment. Permanently locate devices within the cabinet to allow free circulation of air and that do not restrict air flow from fan ducts or vents.

Ensure that the auxiliary equipment operates within a weatherproof cabinet at ambient temperatures between -30 and 165 °F (-34 and 74 °C).

When terminals and panel mounted devices with exposed electrical contact points are located next to shelf mounted equipment, provide spacers, shelf lips, or other means to assure that component units cannot be accidentally moved into contact with any exposed electrical terminal points.

Ensure that load switches, relays, flashers, fuses, switches, terminal blocks, and other equipment mounted or plugged into the back or side panels are readily accessible. Ensure that switches, controls, and indicator lights are visible and easily operable without moving the components from their normal shelf positions.

Furnish an aluminum shelf with integral storage compartment in the space immediately below the controller. Ensure the storage compartment has telescoping drawer guides for full extension. Ensure the compartment top has a non-slip plastic laminate attached.

Furnish LED strip lighting for internal illumination.

Furnish materials according to the Department's TAP List.

2. Accessory Equipment

a. Ventilating Fan. Equip all cabinets with a forced air ventilating fan. Furnish a fan that provides a capacity of at least 100 cubic feet (2.8 m³) per minute. Furnish a fan that is thermostatically controlled and adjusted to start at cabinet temperatures above 120 °F (49 °C) and to stop when the temperature has dropped below 100 °F (38 °C).

b. Load Switches. Furnish all cabinets with solid state, triple signal load switches complying with NEMA TS-1, Section 5. Additionally, ensure that all load switches have both input and output indicators.

c. Conflict Monitor. Furnish all cabinets with a separate solid-state conflict monitor device. Ensure that the cabinet wiring, in the event of monitor disconnection, transfers the signals to a flashing condition. Furnish conflict monitors that comply with NEMA TS-1, Section 6. Additionally, ensure that all conflict monitors are capable of causing the signals to flash as a result of the following events:

(1) All red lamps associated with a load switch are burned out;

(2) Within one second when red and green, or yellow and green color pairings are displayed on the same phase;

(3) The absence of a minimum yellow interval.

Ensure that the monitor indicates the exact load switch output channel upon which the failure event occurred. Furnish conflict monitors that are capable of storing a minimum of nine fault events (event logging feature). Furnish a monitor that utilizes a LCD display and has a RS-232 port for connection to a laptop computer. Furnish software and connector cables to diagnose the conflict monitor.

d. Flashers. Furnish solid state flashers that comply with NEMA TS-1, Section 8. When signals have a normal stop and go sequence that includes flashing, either ensure that the controller unit generates that flashing display or provide flashers. For this purpose, provide separate flashers from those provided for emergency back-up. Furnish flashers that are designed with two circuits of at least 10 amperes each.

Equip each controller cabinet with terminals that are wired so that, by an interchange of jumpers, the flashing operation is arranged to display either flashing yellow or flashing red on the vehicular signals.

c. Relays. Ensure that the relays required for proper operation of the specified equipment are furnished and completely wired. Furnish relays that are enclosed, readily replaceable, and designed for one million operations without failure or need for adjustment.

f. Surge Protection Devices. Furnish surge protection on incoming power lines, interconnect lines, and detector leads.

The primary surge protection device (SPD) shall be an EDCO SHA-1250 or approved equal. A plug in base shall be used to hold the device. All wiring connections shall be made to the base, and appropriate cabinet clearances maintained, to allow the SPD module to be relaced by hand without the use of tools.

Furnish loop detector lead-in cable protection that consists of devices installed in each detector circuit where the lead-in connects to the terminal block. House each device in a case that consists of two stages; a 3-electrode gas tube arrestor and a semiconductor circuit. Ensure that the arrestor shunts to ground a common mode transient with a 1,000 ampere peak and an 8/20 microsecond wave shape, ionizing at 400 volts within 100 nanoseconds when subjected to a 1,000 volt per microsecond transient. Furnish a semiconductor circuit that clamps a differential transient to 30 volts within 40 nanoseconds of the appearance of the transient, and a common mode transient to 30 volts within 500 nanoseconds of the ionization of the gas tube arrestor. Ensure that the second stage is able to withstand a peak current of 13 amperes. Furnish a device that has impedance characteristics compatible with the detector unit so as not to cause false calls or increase the loop impedance above the sensitivity of the detector unit.

Furnish pedestrian pushbutton inputs with the same protection as specified for the loop detector lead in cables.

Protect interconnect cable against transients by devices across each conductor of the cable and ground. The devices may be either 2 or 3-terminal devices. If 3-terminal devices are used, connect two conductors and ground to the same device. Furnish a protection device that consists of a gas tube arrestor with a maximum ionization voltage of 1000 volts on a 10,000 volt per microsecond transient or a maximum ionization voltage of 950 volts on a 3000 volt per microsecond transient. Ensure that the maximum time from beginning of the transient to ionization is 1.1 microseconds on a 10,000 volt per microsecond transient. Ensure that the device is not ionized by normal voltage variations on a 120-volt AC line. Furnish a device that is able to withstand a 10,000 ampere peak with an 8/20 microsecond waveshape.

g. Main Power Breaker. Furnish an incoming AC+ power line that is controlled by a main circuit breaker rated at 240 volts and an auxiliary breaker, with capacity and wiring as specified in NEMA TS-1, Section 10.3.2.2 and Figure 10-4.

If a power service disconnect switch is located before the controller cabinet, the neutral (AC-) and the grounding bar in the controller cabinet shall not be connected together as shown in NEMA TS-1, Figure 10-4.

h. Radio Interference Filter. Furnish an incoming AC+ power line that contains a radio frequency interference (RFI) filter installed between the main circuit breaker and the solid state equipment. Also, provide RFI filtering for the load switches and flasher, unless the equipment furnished provides signal and flasher circuits switching at the zero voltage point of the power line sinusoid wave form.

i. Convenience Outlet and Light. Wire a convenience outlet into the cabinet for use by electrical maintenance equipment. Ensure that the outlet contains at least one standard duplex three-wire NEMA 5-15 receptacle of the ground-fault circuit-interrupting (GFCI) type. Wire a second non-GFCI convenience outlet, not fed thru the UPS system (if used). Furnish and mount a white LED lamp in the upper portion of the cabinet. Furnish a door switch to control the convenience light.

j. Manual Control and Pushbutton. When required by the plans, provide intersection controller units with means for substituting manual operation of interval timing for automatic interval timing. Ensure that manual operation provides the same interval sequence as when the controller unit is operating automatically.

Obtain manual interval timing by a momentary pushbutton contact switch mounted on a 5-foot (1.5 m) minimum flexible weatherproof extension cord. Store that switch and cord behind the small door-in-door.

k. Switches. Furnish completely wired switches that are required for proper operation of specified equipment. Clearly and permanently label switches as to function and setting position, and ensure that they are accessible without the necessity of moving components.

(1) Signal Shutdown Switch. Furnish a cabinet with a signal shutdown switch for turning off the power to the signals at the intersection. Ensure that this switch only affects the power to the signals, and allows the controller to continue in operation. Locate the switch in the panel behind the small door-in-door (police door).

(2) Auto/Flash Switch. Furnish a cabinet with a flash control switch for activating the flashing of vehicular signals in a preselected emergency flash display. Ensure that the operation of the flash control switch causes a flashing display even under conditions of controller unit malfunction or of its removal from the cabinet. Ensure that the operation of the switch overrides any operation commands from a local or remote time switch. Locate the switch in the panel behind the small door in door (police door).

Program the transfer to and from flashing operation, when called remotely or by a local time switch, to occur only at points in the cycle allowed by the OMUTCD.

(3) Automatic/Manual Transfer Switch. Furnish a cabinet with an automatic/manual transfer switch. In the automatic position, ensure that the controller unit automatically sequences the signal head displays. In the manual position, ensure that the signal phase or interval sequencing occurs only upon manual activation of the manual control pushbutton. Locate the switch in the door in door (police door). Ensure that it is unnecessary, when switching from manual to automatic operation, or vice versa, to do so at any certain time or to make any time adjustments.

(4) **Run/Stop-Time Switch.** Furnish a cabinet with a run/stop time switch that activates the controller stop time feature when in the "stop time" position. Locate the run/stop time switch on a switch panel in the cabinet.

(5) Controller Shutdown Switch. Furnish a cabinet with a controller shutdown switch that cuts off power to the controller unit, conflict monitor, and detector units. Ensure that power is not cut

off to those components required to maintain flashing operation. Locate the controller shutdown switch on a switch panel in the cabinet.

(6) Coordinated/Free Switch. Furnish controllers operated in a coordinated system with a coordinated/free switch. Ensure that this switch allows the choice of operating the controller under the supervision of a coordination device or operating the controller independently of coordination control. Locate the coordinated/free switch on a switch panel in the cabinet.

(7) Detector Test Switches. Furnish momentary contact switches that will enter a vehicular or pedestrian call for any actuated phase. Furnish a switch for each actuated phase vehicular and pedestrian detection input. Conveniently group and label the switches.

I. Terminal Blocks. Furnish cabinets that include terminal blocks mounted on panels on the walls of the cabinet. Ensure that the blocks are not obstructed by shelf-mounted devices. Furnish sufficient terminal sets for each individual harness wire as well as for contacts of signal load switches, flasher transfer relays, flasher, and other components. Also, provide separate terminal sets for field wiring connections, including power, signal, interconnection, and detector lead in cables. Group terminal sets to separate higher voltage (120 VAC) from lower voltage, and arrange them into logical groups. Protect terminal blocks from accidental contact during the installation and removal of shelf-mounted equipment. Locate the blocks no closer than 4 inches (100 mm) from the bottom of pole and pedestal mounted cabinets, and no closer than 6 inches (150 mm) from the bottom of foundation mounted cabinets.

Ensure that the terminal points are UL listed as suitable to carry the rated loading. Ensure that the capacity and size of the terminals are as specified in NEMA TS-1, Section 10.2.5. Ensure that the terminal points for signal field wiring for each circuit accommodates at least four 12 AWG conductors with spade type terminals.

Furnish terminal points for incoming power wiring that accepts either spade terminals or bare stranded wire and are suitable for either aluminum or copper conductors.

Space terminal sets for easy wiring. Furnish at least six reserve terminal sets for controllers. Harnesses may terminate on the back of terminal blocks using through-panel terminals. Clearly mark terminal sets for ready identification including through-panel terminals that are identified on both sides. Ensure that the contact between adjacent terminal points are made by bus bar, or by wire jumpers having spade type terminals securely attached to each end.

m. Terminal Buses. Furnish a cabinet with supply terminal buses fed from the line side of the incoming 120 VAC power line, after the phase wire has passed through the main power switch. Ensure that the requirements for use of radio interference filters are according to Item 8 of this Section, with the buses supplying load switches and with flashers being filtered when required. Ensure that a signal bus relay controls power to the bus supplying power for the signal load switches. The following overrides NEMA requirements for signal bus relays. A solid-state relay shall be used for the signal bus relay. The signal bus relay shall maintain output equal to or above the rating of the cabinet main overcurrent protection device over the NEMA TS-2 Environmental Operating Range of -50 to +185 degrees F (-45 to +85 degrees C).

Furnish a common terminal bus for the connection of the neutral wire of the incoming 120 VAC power line. Ensure that the common bus has sufficient terminal points to accommodate all potential cabinet wiring as well as field wiring. Use a separate common terminal, insulated from the panel, for the interconnect common.

Furnish bus terminal points that comply with Item 12 of this Section for conductor accommodation, attachment and identification.

n. Grounding System/Bus Bars. Furnish a cabinet that includes a grounding system as specified in NEMA TS-1, Section 10.3.2.1 with an adequate number (minimum of three) of ground terminal points.

o. Wiring. Neatly organize and route the harnesses and wiring bundles to individual terminals. Ensure that the harness provides a wire for each pin or contact of the device. Connect each wire to a marked terminal position. Use labeled spade type terminals or plug connections on all harness wiring. Group and lash or restrain wire bundles in such a manner that they will not interfere with the access to components, terminal blocks or buses, or the legibility of terminal identification. Ensure that the harnesses are of sufficient length to reach any point within the cabinet. Ensure that the cables and harness bundles are easily traced through the cabinet to their terminations. Route all wiring terminated on printed circuit boards (as commonly done for BIU backpanel connectors) at right angles to the pin array; no wires shall pass over the connector pins.

Wire the cabinet so that controller pin connections associated with a given phase number matches the phase number assigned to the specified traffic movement as shown on the plans.

Furnish all wiring with stranded conductors. Ensure that the wiring is adequate for the voltage and load that represents the ultimate load of the devices connected. Ensure that the ampacity rating of the wires are as specified in NEMA TS-1, Section 10.3.3.1. Ensure that the wiring is color coded as follows:

(1) Solid white, AC common.

(2) Solid green or green with yellow stripes, equipment ground.

(3) Solid black, AC line side power (AC+).

p. Loop Detector Units. Furnish loop detector units that comply with the requirements of NEMA TS-1, Section 15, with the following modifications:

(1) Furnish loop detector units that are shelf mounted and powered from 120 volts.

(2) Ensure that the unit uses solid state isolated output devices.

(3) Furnish conductors in the cable harness for loop input pins that are twisted three to five times per foot (300 mm).

(4) Furnish detector unit electrical connection plugs or wiring harness that are designed such that any multi-channel shelf mounted detector unit is readily replaced with single channel detector units. Furnish only units with the connector type required for single channel shelf mounted detector units, or by wiring the controller back panel to single channel wiring harnesses which are, in turn, plug connected to an adapter harness that is mated to the multi-channel connector of the detector unit.

(5) When shown on the plans, supply delay and extension timing capability on the detector unit; otherwise, the controller unit software requirements of 733.02 will provide these features.

(6) Ensure that the harness provides a wire for each pin or contact of the device.

(7) Furnish loop detector unit with an LED or LCD display indication of call strength ($\Delta L/L$ or equivalent). This display shall be a bar graph or numerical display with at least eight (8) discrete levels indicated.

If vehicle detector types other than "loop" detectors are required by the plans, provide these detectors by separate bid item.

Furnish TS-1 cabinets according to the Department's TAP List.

733.03.B.1.h.

On page 888, **Replace** the first paragraph with the following.

Section 7.3, unless otherwise specified in the plans, provide a Size 5 cabinet for pole mounted cabinets, Size 7 for ground mounted cabinets. Supply larger cabinets if required to house the equipment to meet the plan requirements; such as master controllers such as additional ITS equipment, preemption devices, 16 position backpanels or special detection units.

733.03.B.2.

On page 888, **Replace** the entire section with the following:

2. Furnish loop detector and pedestrian inputs that have lightning/surge protection as specified in 733.03.A.2.f.

Furnish loop detector lead-in cable protection that consists of devices installed in each detector circuit where the lead-in connects to the terminal block. House each device in a case that consists of two stages; a 3-electrode gas tube arrestor and a semiconductor circuit. Ensure that the arrestor shunts to ground a common mode transient with a 1,000 ampere peak and an 8/20 microsecond wave-shape, ionizing at 400 volts within 100 nanoseconds when subjected to a 1,000 volt per microsecond transient. Furnish a semiconductor circuit that clamps a differential transient to 30 volts within 40 nanoseconds of the appearance of the transient, and a common mode transient to 30 volts within 500 nanoseconds of the ionization of the gas tube arrestor. Ensure that the second stage is able to withstand a peak current of 13 amperes. Furnish a device that has impedance characteristics compatible with the detector unit so as not to cause false calls or increase the loop impedance above the sensitivity of the detector unit.

Furnish pedestrian pushbutton inputs with the same protection as specified for the loop detector lead-in cables.

733.03.B.6.

On page 889, **Revise** the first paragraph to the following.

6. The primary surge protection device (SPD) shall be an EDCO SHA-1250 or approved equal. A plug-in base shall be used to hold the device. All wiring connections shall be made to the base, and appropriate cabinet clearances maintained, to allow the SPD module to be replaced by hand without the use of tools. Cabinet power distribution shall conform to Figure 5-4, NEMA TS-2 2003 v02.06. In addition, locates a non GFCI NEMA 5-15 utility outlet on the right side power panel. install three (3) non GFCI NEMA 5-15 utility outlets on the right side of the power panel for a total of six (6) receptacles. These outlets shall be powered independently of the UPS by direct connection to incoming utility power through a 15-amp circuit breaker labeled "UTILITY OUTLET."

733.03.B.8.

On page 889, **Delete** the entire section:

8. Include datakey module. Provide a datakey with each controller, taped securely to the top of the controller chassis.

733.03.C.6.g.1

On page 899, **Revise** the first paragraph to the following.

(1) Install an RS232 port for laptop communications on the front panel of the Monitor. If specified in the plans, an IP ethernet port shall be used in place of RS232.

733.03.D.

On page 900, Delete 733.03.D in its entirety.

733.03

On page 901, **Replace "E. Type 336L."** with the following:

Page 69 of 71

D. Type 336L.

733.05

On page 903, **Revise** the first sentence to the following:

733.05 Flasher Controller. Furnish solid-state flasher that complies with NEMA TS-2, Section 8, and have two circuits, each rated at 10 amperes.

733.05

On page 903, **Revise** the second sentence of the paragraph to the following:

Furnish a cabinet that conforms to applicable requirements of 733.03. **A** B, except that the following items are not required: a small door-in-door (police door), shelves, and a fan.

733.06.B.1.

On page 903, **Replace** the first paragraph with the following.

1. Design. Furnish a solid state, digital microprocessor master controller design. Furnish a controller that uses menu driven prompts. If the master controller is used with Type 2070 controllers, provide software unless otherwise shown on the plans.

733.06

On page 903, **Delete** the entire section.

733.07.B.1

On page 905, **Revise** the sentence to the following:

1. Local intersection controller (see 733.02 Supplemental Specification 809.10.G)

733.07.C

On page 906, **Revise** the first sentence to the following:

Furnish controller units conforming to 733.02 Supplemental Specification 809.10.G for the type of controller shown on the plans.

733.09.A.

On page 907, **Replace** the second paragraph with the following:

Furnish a UPS compatible with all of the following traffic signal equipment; NEMA TS-2 controllers and cabinets, Model 332 & 336 cabinets, 2070 controller and electrical service pedestals.

733.09.D.

On page 909, in the first paragraph, **Replace** the first sentence with the following.

Furnish an enclosure mountable to a standard Model 332, NEMA TS-2 traffic signal cabinet and be constructed of natural unpainted aluminum.

740.04.G

On page 913, **Replace** the first sentence of the section with the following: Furnish yellow material containing a minimum of 5 percent by weight of primary yellow lead free pigment (measured according to ASTM D 126 or Department approved lab method).

740.08

On page 916, **Replace** the section in its entirety with the following:

740.08 Heat-Fused Preformed Thermoplastic Pavement Marking Material. Furnish heat-fused preformed thermoplastic pavement marking materials conforming to the following:

Material Type	Thickness	Pre-heat	Post-heat
Type A90	90 mil (2.29 mm)	Yes	Yes
Type B90	90 mil (2.29 mm)	No	Yes
Type A125	125 mil (3.18 mm)	Yes	Yes
Type B125	125 mil (3.18 mm)	No	Yes

Furnish heat-fused preformed thermoplastic pavement marking materials conforming to AASHTO M249 with the following the following requirements:

A. Pigments. Furnish white material with sufficient titanium dioxide pigment to meet FHWA Docket No. FHWA-99-6190 Table 5 and Table 6 as revised and corrected. Furnish yellow material with sufficient pigment to meet FHWA Docket No. FHWA-99-6190 Table 5 and Table 6 as revised and corrected. The yellow pigments must be organic and must be heavy-metal free.

B. Heating indicators. Furnish the material with the top surface of the material (same side as the factory applied surface beads) shall have regularly spaced indents. The closing of these indents during application, shall act as a visual cue that the material has reached a molten state allowing for satisfactory adhesion and proper bead embedment, and as a post-application visual cue that the application procedures have been followed.

C. Skid Resistance. Furnish the material with properly applied and embedded surface beads, must provide a minimum resistance value of 45 BPN when tested according to ASTM E 303.

D. Environmental Resistance. Furnish the material that must be resistant to deterioration due to exposure to sunlight, water, salt or adverse weather conditions and impervious to oil and gasoline.

Ensure that the material contains reflective glass beads, 740.09 Type E. Prequalify materials according to Supplement 1047. Furnish materials according to the Department's Approved List.

740.09.E

On page 918, Add the following new section after section 740.09.D. Type D.:

E. Type E. Furnish heat-fused preformed plastic pavement marking materials that contain a minimum of thirty percent (30%) intermixed graded glass beads by weight and factory applied coated surface beads in addition to the intermixed beads at a rate of 1 lb. (\pm 10%) per 10 sq. ft.

Furnish factory applied coated surface beads with the following specifications:

- 1) Minimum 80% rounds
- 2) Minimum refractive index of 1.50

Furnish intermixed graded glass beads and factory applied coated surface beads that conform to Type 1 and/or Type 3 AASHTO M247 as recommended by the manufacturer.

Use materials certified according to Supplement 1089.

IMPROVEMENT PLANS

SECTION 5.6



UNDERGROUND UTILITIES

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SERVICE

Utilities Protection

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BEFORE YOU DIG.

(Non-members must be called directly)

1-800-925-0988

PLAN PREPARED BY: AECOM

(330) 836-9111



STATE OF OHIO DEPARTMENT OF TRANSPORTATION SUM-W. STEE RD. RESURFACING CITY OF CUYAHOGA FALLS SUMMIT COUNTY

INDEX OF SHEETS:

TITLE SHEET	1
SCHEMATIC PLAN	2
TYPICAL SECTIONS	3
GENERAL NOTES	4-7
GENERAL SUMMARY AND SUBSUMMARIES	8-10
CALCULATIONS	11
PLANS	12-15

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PROJECT DESCRIPTION

REHABILITATION OF 1.40 MILES OF WEST STEELS CORNER ROAD INCLUDING PLANING THE EXISTING PAVEMENT SURFACE, PERFORMING PAVEMENT REPAIRS AS REQUIRED BASED ON CONDITION AND BUDGET, REPLACING EXISTING GUARDRAIL. RESURFACING THE ROADWAY. AND REPLACEMENT OF PAVEMENT MARKINGS.

PROJECT EARTH DISTURBED AREA: N/A (MAINTENANCE PROJECT) ESTIMATED CONTRACTOR EARTH DISTURBED AREA: N/A NOTICE OF INTENT EARTH DISTURBED AREA: N/A (NOI NOT REQUIRED)

2019 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING CHANGES AND SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL NOT REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY AND THAT PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

-
APPROVED BY THE CITY OF CUYAHOGA FALLS
APPROVED / ONY U. DEMASI
APPROVED Unthing S. Jumbo
DATE <u>6/24/20</u> SERVICE DIRECTOR, ANTHONY ZUMBO

CONSTRUCTION PROJECT NO. PID NO.	102904
RAILROAD INVOLVEMENT	NONE
UM-W. STEELS CORNERS RD.	RESURFACING (PID 102904)



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EXISTING LEGEND

- (\widehat{A}) EXISTING ASPHALT CONCRETE SURFACE COURSE (T=1-1/2")
- (\widetilde{B}) EXISTING ASPHALT CONCRETE INTERMEDIATE COURSE (T=1-1/2")
- (\widetilde{C}) EXISTING BITUMINOUS AGGREGATE BASE (T=6")
- (\overline{D}) EXISTING AGGREGATE BASE (T=6")
- (E) EXISTING CURB

PROPOSED LEGEND

- (1) ITEM 254, PAVEMENT PLANING, ASPHALT CONCRETE (T=3")
- (2) ITEM 407, NON-TRACKING TACK COAT
- (3) ITEM 441, ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (446) [T=1-3/4"]
- (4) ITEM 441, ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (446), PG70-22M [T=1-1/4"]
- (5) ITEM 606, GUARDRAIL, TYPE MGS, AS PER PLAN







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<u>GENERAL</u>

WORK LIMITS

THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. PROVIDE THE INSTALLATION AND OPERATION OF ALL WORK ZONE TRAFFIC CONTROL AND WORK ZONE TRAFFIC CONTROL DEVICES REQUIRED BY THESE PLANS WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS.

PROFILE AND ALIGNMENT

PLACE THE PROPOSED PAVEMENT TO FOLLOW THE ALIGNMENT AND PROFILE OF THE EXISTING PAVEMENT. PLACE THE PROPOSED ASPHALT OVERLAY AND LEVELING WITH A UNIFORM THICKNESS AS SHOWN ON THE TYPICAL SECTIONS.

PAVEMENT MARKING LANE WIDTHS

THE NORMAL LANE WIDTHS FOR THE PAVEMENT MARKINGS ON THIS PROJECT SHALL BE AS SHOWN ON THE TYPICAL SECTION ON SHEET 3.

UTILITIES

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THE CONTRACTOR SHALL USE THE FOLLOWING PROCEDURE AT EACH LOCATION WHERE WORK IS PERFORMED, IN ACCORDANCE WITH SECTIONS 105.07 AND 107.16 IN THE CONSTRUCTION AND MATERIALS SPECIFICATIONS.

THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER, THE OHIO UTILITIES PROTECTION SERVICE (OUPS), THE OHIO & GAS PROCEDURES UNDERGROUND PROTECTION SERVICE (OGPUPS), THE OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 4 HEADQUARTERS AND ALL NON REGISTERED UTILITY OWNERS AT LEAST TWO (2) WORKING DAYS PRIOR TO COMMENCING CONSTRUCTION IN ALL AREAS.

OUPS 1-800-362-2764 (CONTACT LIMITED BASIS PARTICIPANTS DIRECTLY) *OGPUPS* 1-800-925-0988 ODOT 330-786-3145 (KEN GREENE)

LISTED BELOW ARE ALL UTILITIES LOCATED WITHIN THE PROJECT CONSTRUCTION LIMITS TOGETHER WITH THEIR RESPECTIVE OWNERS:

<u>ELECTRIC</u> CUYAHOGA FALLS ELECTRIC DEPARTMENT ATTN: JASON MALYSA 2550 BAILEY ROAD CUYAHOGA FALLS, OHIO 44221 (330) 971-8047

OHIO EDISON ATTN: MICHAEL JANSON 2600 ERIE STREET SOUTH MASSILLON, OH 44646

GAS

DOMINION EAST OHIO ATTN: JASON HARRIS 320 SPRINGSIDE DRIVE. SUITE 320 AKRON, OHIO 44333 (330) 266-2150

THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE NOT SHOWN ON THE PLANS, BUT CAN BE OBTAINED FROM THE OWNERS OF THE UTILITIES. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO UTILITIES.

CONSTRUCTION NOISE

ACTIVITIES AND LAND USE ADJACENT TO THIS PROJECT MAY BE AFFECTED BY CONSTRUCTION NOISE. IN ORDER TO MINIMIZE ANY ADVERSE CONSTRUCTION NOISE IMPACTS, DO NOT OPERATE POWER-OPERATED CONSTRUCTION-TYPE DEVICES BETWEEN THE HOURS OF 8:00PM AND 7:00AM UNLESS SPECIFIC WRITTEN APPROVAL HAS BEEN GRANTED BY THE CITY OF CUYAHOGA FALLS. IN ADDITION, DO NOT OPERATE AT ANY TIME ANY TYPE OF DEVICE IN SUCH A MANNER THAT THE NOISE CREATED SUBSTANTIALLY EXCEEDS THE NOISE CUSTOMARILY AND NECESSARILY ATTENDANT TO THE REASONABLE AND EFFICIENT PERFORMANCE OF SUCH EQUIPMENT.

PROTECTION OF EXISTING MAILBOXES

CONTRACTOR SHALL USE EXTREME CARE WHEN PERFORMING WORK NEAR EXISTING MAILBOXES. CONTRACTOR MUST MAKE EVERY EFFORT AND TAKE EVERY PRECAUTION NOT TO DAMAGE ANY EXISTING MAILBOXES. MAILBOXES DAMAGED BY THE NEGLIGENCE OF THE CONTRACTOR, AS DETERMINED BY THE ENGINEER, SHALL BE REPLACED AT THE EXPENSE OF THE CONTRACTOR. REPLACEMENT MAILBOXES AND ANCILLARY EQUIPMENT MUST BE SATISFACTORY TO THE PROPERTY OWNER AND BE APPROVED BY THE ENGINEER.

PROGRESSION OF WORK

PRIOR TO PAVEMENT PLANING. THE CONTRACTOR SHALL WALK THE SITE AND MARK USING LATHE THE CRITICAL LOCATIONS OF EXISTING PAVEMENT MARKINGS TO AID THE PROPOSED PAVEMENT MARKING DETAILS, SEE SHEETS <u>12-15</u>. IMMEDIATELY FOLLOWING PAVEMENT PLANING, AREAS OF ITEM 251 PARTIAL DEPTH PAVEMENT REPAIR AND ITEM 253 PAVEMENT REPAIR SHALL BE MARKED BY THE ENGINEER CONFORMING TO CMS 251.02 AND 253.02, RESPECTIVELY. PARTIAL DEPTH PAVEMENT REPAIR AND PAVEMENT REPAIR SHALL THEN COMMENCE AS PER THE CMS AND THE ABOVE NOTES. RESURFACING, AS SHOWN ON THE TYPICAL SECTIONS, SEE SHEET <u>3</u>, SHALL COMMENCE UPON COMPLETION OF ITEMS 251 AND 253. UPON COMPLETION OF RESURFACING, PAVEMENT MARKINGS SHALL BE PLACED AS DETAILED ON THE PROPOSED PAVEMENT MARKINGS DETAILS. AREAS OF SOLID AND DASHED CENTERLINE SHOULD BE NOTED TO ENSURE EXISTING PASSING ZONES ARE MAINTAINED FOLLOWING THE COMPLETION OF THIS PROJECT.

DRAINAGE

ITEM SPECIAL - MISCELLANEOUS METAL

EXISTING CASTINGS MAY PROVE TO BE UNSUITABLE FOR REUSE, AS DETERMINED BY THE CITY ENGINEER. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE THE CASTINGS OF THE REQUIRED TYPE, SIZE AND STRENGTH (HEAVY OR LIGHT DUTY) FOR THE PARTICULAR STRUCTURE IN QUESTION. ALL MATERIAL SHALL MEET ITEM 611 OF THE SPECIFICATIONS AND SHALL HAVE THE PRIOR APPROVAL OF THE ENGINEER.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER.

SPECIAL. MISCELLANEOUS METAL	1000 POUND
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THE CONTRACTOR IS CAUTIONED TO USE EXTREME CARE IN THE REMOVAL, STORAGE AND REPLACEMENT OF ALL EXISTING CASTINGS. CASTINGS DAMAGED BY THE NEGLIGENCE OF THE CONTRACTOR, AS DETERMINED BY THE ENGINEER, SHALL BE REPLACED WITH THE PROPER NEW CASTINGS AT THE EXPENSE OF THE CONTRACTOR.

PAVEMENT

ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR (441)

A QUANTITY OF THIS ITEM SHALL BE PROVIDED FOR USE AS DIRECTED BY THE ENGINEER. THE ITEM SHALL CONSIST OF REPAIRING EXISTING LOCATIONS EXHIBITING SURFACE DETERIORATION AND PLACING ITEM 441 ASPHALT CONCRETE. TYPE 2. THE ASPHALT CONCRETE SHALL BE COMPACTED WITH A TYPE I PNEUMATIC TIRE ROLLER AND A STEEL WHEEL ROLLER AS PER 401.13. IT IS NOT THE INTENT TO REPAIR EVERY DETERIORATED AREA WITHIN THE PROJECT. THE ENGINEER SHALL DETERMINE WHICH AREAS ARE TO BE REPAIRED. UNLESS OTHERWISE DIRECTED BY THE ENGINEER, THIS ITEM SHALL BE PERFORMED AFTER THE COMPLETION OF MAINLINE PAVEMENT PLANING. ALSO, THIS ITEM SHALL COMMENCE WITHIN 7 DAYS OF THE COMPLETION OF MAINLINE PAVEMENT PLANING. PAYMENT SHALL BE BASED ON THE ACTUAL NUMBER OF SQUARE YARDS OF PAVEMENT REPAIR. THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:

251. PARTIAL DEPTH PAVEMENT REPAIR (441) 3103 SQ. YD. THIS ITEM OF WORK SHALL CONSIST OF REMOVING AND DISPOSING OF ALL UNSUITABLE MATERIAL BY EXCAVATING THE EXISTING SUBGRADE AND SUBBASE TO AN AVERAGE DEPTH OF 6 INCHES OR AS DIRECTED BY THE ENGINEER. EXACT LIMITS OF REMOVAL SHALL BE DETERMINED BY THE ENGINEER. ALL EQUIPMENT, LABOR, TOOLS, AND INCIDENTALS NECESSARY TO COMPLETE THIS ITEM SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 203 EXCAVATION. AS PER PLAN. THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:

203, EXCAVATION, AS PER PLAN

ITEM 304 - AGGREGATE BASE. AS PER PLAN

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN PROVIDED AND SHALL BE USED AS DIRECTED BY THE ENGINEER TO BACKFILL AREAS WHICH WERE EXCAVATED UNDER ITEM 203 EXCAVATION, AS PER PLAN. THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:

304, AGGREGATE BASE, AS PER PLAN



A QUANTITY OF THIS ITEM SHALL BE PROVIDED FOR USE AS DIRECTED BY THE ENGINEER. THIS ITEM SHALL CONSIST OF CUTTING AND REMOVING DETERIORATED PAVEMENT FULL DEPTH AND PLACING 12"± 301 ASPHALT CONCRETE BASE, PG64-22. THE MAXIMUM COMPACTED DEPTH OF ANY ONE LAYER SHALL BE 6 INCHES. UNLESS OTHERWISE DIRECTED BY THE ENGINEER, THIS ITEM SHALL BE PERFORMED AFTER THE COMPLETION OF MAINLINE PAVEMENT PLANING. ALSO, THIS ITEM SHALL COMMENCE WITHIN 7 DAYS OF THE COMPLETION OF MAINLINE PAVEMENT PLANING. IT IS NOT THE INTENT TO REPAIR EVERY DETERIORATED AREA WITHIN THE PROJECT. THE ENGINEER SHALL DETERMINE WHICH AREAS ARE TO BE REPAIRED. PAYMENT SHALL BE BASED ON THE ACTUAL NUMBER OF SQUARE YARDS OF PAVEMENT REMOVED AND REPLACED TO THE LIMITS DESIGNATED BY THE ENGINEER. THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SLIMMARY:

253, PAVEMENT REPAIR







ITEM 203 - EXCAVATION, AS PER PLAN

30 CU YD

1552 SQ YD

30 CU YD

2 102904) CORNERS (PID ഗ STEELS ACING I-W. SURF, SUM ЯЧ 4 15

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INTERSECTIONS

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INTERSECTIONS SHALL BE RESURFACED 25 FEET BEYOND THE EDGE LINE, UNLESS OTHERWISE DIRECTED BY THE ENGINEER OR INDICATED IN THE PLAN. INTERSECTIONS SHALL BE PAVED AFTER COMPLETION OF THE SURFACE COURSE. A BUTT JOINT, AS PER STANDARD CONSTRUCTION DRAWING BP-3.1, SHALL BE USED TO PROVIDE A SMOOTH TRANSITION TO THE EXISTING PAVEMENT. INTERSECTIONS SHALL BE RESURFACED WITH STANDARD MIX, AS SHOWN ON THE TYPICAL SECTIONS. ANY GRADING OR TACK COAT NECESSARY TO ACCOMPLISH THIS WORK SHALL BE INCLUDED IN THE COST OF THE PERTINENT BID ITEM.

ITEM 617 - COMPACTED AGGREGATE, AS PER PLAN

IN LOW SHOULDER AREAS EXCEEDING 1", OR AS DIRECTED BY THE ENGINEER, RECYCLE ASPHALT PAVEMENT (RAP) SHALL BE USED IN AREAS ADJACENT TO THE PAVED BERM. THE RAP SHALL HAVE A MINIMUM PG CONTENT OF 4.5% AND MEET THE FOLLOWING GRADATION. ONCE THE STOCKPILE MEETS GRADATION, THE PG CONTENT OF THE RAP SHALL BE DETERMINED PER 441.03. THE RAP ANALYSIS MUST BE SUBMITTED TO THE ENGINEER FOR APPROVAL TWO (2) WEEKS PRIOR TO USE. METHOD OF MEASUREMENT SHALL BE AS PER 617.06. PLACEMENT AND COMPACTION SHALL MEET THE REQUIREMENTS OF ITEM 617. ALL MATERIALS, LABOR, EQUIPMENT, TOOLS AND INCIDENTALS NECESSARY TO COMPLETE THE WORK SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 617 - COMPACTED AGGREGATE, AS PER PLAN.

MODIFIED GRADATION SHALL APPLY:

TOTAL PERCENT S<u>IEVE</u> <u>PASSING</u> 100 11/2" 50 - 100 35 - 50 3/1 NO. 4 NO. .30 9 - 33 NO. 200 0 - 13

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:

617, COMPACTED AGGREGATE, AS PER PLAN 100 CU YD

ITEM 441 ASPHALT CONCRETE SURFACE COURSE TYPE 1, (448), (DRIVEWAYS)

THIS ITEM OF WORK SHALL CONSIST OF PAVING ALL EXISTING DRIVEWAYS THAT DO NOT HAVE A CURB CUT OR ARE NOT PAVED AS AN INTERSECTION AS SHOWN ON THE ASPHALT CONCRETE PLAN SHEET. DRIVEWAYS ARE TO BE PAVED A DISTANCE OF 10 FT. FROM THE EDGE OF PAVED SHOULDER UNLESS OTHERWISE DIRECTED BY THE ENGINEER. DRIVEWAYS SHALL BE PAVED AFTER COMPLETION OF THE SURFACE COURSE. ASPHALT CONCRETE AVERAGE THICKNESSES SHALL BE 2 IN. FOR AGGREGATE DRIVEWAYS (UNIMPROVED) AND 1 IN. FOR IMPROVED DRIVEWAYS. AGGREGATE DRIVEWAYS SHALL BE GRADED PRIOR TO PAVING SUCH THAT SURFACE DRAINAGE DOES NOT ENCROACH UPON THE PAVED SHOULDER AND SHALL BE GRADED TO ACHIEVE THE THICKNESS OF THE SURFACE COURSE. THE MAXIMUM PAVED WIDTH SHALL NOT EXCEED THAT ALLOWED FOR THROAT AND RADIUS FOR UNCURBED DRIVEWAYS AS PER STANDARD DRIVE DESIGN MANUAL. ALL GRADING, TOOLS, EQUIPMENT, MATERIAL AND INCIDENTALS REQUIRED TO LAYOUT AND CONSTRUCT THE DRIVEWAYS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 441 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448) (DRIVEWAYS)

ITEM 606 GUARDRAIL, TYPE MGS, AS PER PLAN

GUARDRAIL, TYPE MGS, SHALL BE CONSTRUCTED AS PER THE STANDARD DRAWINGS AND CMS 606. IN ADDITION TO THESE REQUIREMENTS THE CONTRACTOR SHALL VERIFY THE EXISTING SLOPES PRIOR TO CONSTRUCTING THE GUARDRAIL. IF THE EXISTING SLOPES ARE STEPPER THAN WHAT IS REQUIRED IN THE STANDARD DRAWINGS AND CMS 606, THE CONTRACTOR SHALL PERFORM ITEM 209 - RESHAPING UNDER GUARDRAIL TO RESHAPE THE GRADED SHOULDER OR PROVIDE ITEM 606 - GUARDRAIL, TYPE MGS WITH LONG POSTS. THE COST TO PROVIDE AND INSTALL ITEM 606 - GUARDRAIL, TYPE MGS WITH LONG POSTS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 606 - GUARDRAIL, TYPE MGS, AS PER PLAN

ITEM 209 - RESHAPING UNDER GUARDRAIL

TREATED SHOULDER WIDTH BEYOND THE LIMITS OF THE COMPACTED AGGREGATE SHALL BE GRADED TO PROVIDE POSITIVE DRAINAGE INTO THE DITCH AND SHALL BE PERFORMED ONLY IN THE AREAS NECESSARY. RESHAPING SHALL BE ACCOMPLISHED BY THE REMOVAL OF, OR ADDITION OF MATERIAL TO PROVIDE A 0.08 SLOPE TO THE DITCH BREAK POINT. EXCESS MATERIAL SHALL BE WINDROWED ON THE SHOULDER. THE RESHAPED AREAS SHALL BE COMPACTED TO A SUFFICIENT DENSITY TO PREVENT EROSION UNTIL SEEDING AND MULCHING AS PER 659 IS PERFORMED. ALL EXCESS MATERIAL SHALL BE REMOVED FROM THE BERMS AND NOT ALLOWED TO ENTER THE DITCH LINE AND SHALL BE DISPOSED OF OFF THE PROJECT BY THE CONTRACTOR

THE METHOD OF MEASUREMENT OF ITEM 209 RESHAPING UNDER GUARDRAIL SHALL BE STATIONS, WITH ONE STATION EQUAL TO 100 LINEAR FEET. THE DISTANCE SHALL BE MEASURED ALONG EACH EDGE OF PAVEMENT. ALL MATERIALS, LABOR, EQUIPMENT. TOOLS AND INCIDENTALS NECESSARY TO COMPLETE THE WORK SHALL BE INCLUDED IN THE UNIT BID PRICE FOR ITEM 209 RESHAPING UNDER GUARDRAIL. IN AREAS WHERE GRADING IS NOT REQUIRED BEYOND THE 617 LIMIT. RESHAPING UNDER GUARDRAIL WILL BE NON-PERFORMED AS DIRECTED BY THE ENGINEER. THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:

209, RESHAPING UNDER GUARDRAIL, 2 STA

SAFETY EDGE (ASPHALT CONCRETE)

IN ADDITION TO THE REQUIREMENTS OF 401.12, ATTACH A DEVICE TO THE SCREED OF THE PAVER THAT CONFINES THE MATERIAL AT THE END GATE AND EXTRUDES THE ASPHALT MATERIAL IN SUCH A WAY THAT RESULTS IN A COMPACTED WEDGE SHAPE PAVEMENT EDGE OF APPROXIMATELY 30 DEGREES (NOT STEEPER THAN 40 DEGREES). ENSURE THE DEVICE MAINTAINS CONTACT WITH THE EXISTING SURFACE, AND ALLOW FOR AUTOMATIC TRANSITION TO CROSS ROADS, DRIVEWAYS AND OBSTRUCTIONS. DO NOT USE CONVENTIONAL SINGLE PLATE STRIKE OFF.

CONSTRUCTION OF SAFETY EDGE CAN BE OMITTED AT LOCATIONS WHERE EXISTING WIDTH OF GRADED SHOULDER OR BERM IS LESS THAN 12". PROJECTS WITH VARYING CONDITIONS SHOULD USE SAFETY EDGE WHERE POSSIBLE. PLAN PREPARATION HAS MADE EVERY REASONABLE ATTEMPT TO IDENTIFY SAFETY EDGE LOCATIONS.

USE THE TRANSTECH SHOULDER WEDGE MAKER, THE CARLSON SAFETY EDGE END GATE, THE ADVANT-EDGER, THE RAMP CHAMP SERIES II WITH SAFETY EDGE SHOE, THE TROXLER SAFETSLOPE OR A SIMILAR APPROVED-EQUAL DEVICE THAT PRODUCES THE SAME WEDGE CONSOLIDATION RESULTS. CONTACT INFORMATION FOR THESE WEDGE SHAPE COMPACTION DEVICES IS THE FOLLOWING:

TRANSTECH SYSTEMS, INC. 1594 STATE STREET SCHENECTADY, NY 12304 1-800-724-6306 WWW.TRANSTECHSYS.COM

CARLSON SAFETY EDGE END GATE 18425 50TH AVENUE EAST TACOMA, WA 98446 253-875-8000

ADVANT-EDGE PAVING EQUIPMENT LLC 33 OLD NISKAYUNA RD. LOUDONVILLE, NY 12211 814-422-EDGE WWW.ADVANTAEDGEPAVING.COM

CARLSON SAFETY EDGE END GATE 18425 SOTH AVENUE EAST TACOMA. WA 98446 253-875-8000 WWW.CARLSPNPAVINGPRODUCTS.COM

TROXLER ELECTRONIC LABORATORIES, INC. 3008 E. CORNWALLIS RD. PO BOX 12057 RESEARCH TRIANGLE PARK, NC 27709 1-877-TROXLER (876-9537) WWW.TROXLERLABS.COM

IF ELECTING TO USE A SIMILAR DEVICE, PROVIDE PROOF THAT THE DEVICE HAS BEEN USED ON PREVIOUS PROJECTS WITH ACCEPTABLE RESULTS OR CONSTRUCT A TEST SECTION PRIOR TO THE BEGINNING OF WORK AND DEMONSTRATE WEDGE COMPACTION TO THE SATISFACTION OF THE ENGINEER. SHORT SECTIONS OF HANDWORK WILL BE ALLOWED WHEN NECESSARY FOR TRANSITIONS AND TURNOUTS OR OTHERWISE AUTHORIZED BY THE ENGINEER

IN ADDITION TO THE REQUIREMENTS OF 401.16, MAKE THE FIRST ROLLER PASS 8 TO 12 INCHES (200 TO 300 mm) AWAY FROM TAPERED EDGE. DO NOT ROLL THE TAPER.



SAFETY EDGE DETAIL FOR 2 COURSE OVERLAY

NOTES:

- GREATER THAN 6".

* 40° MAX

ITEM 209 - PREPARING SUBGRADE FOR SHOULDER PAVING, AS PER PLAN

WIDTH.

PRIOR TO PAVING THE SAFETY EDGE, GRADE AN AREA 10 INCHES WIDE, BEGINNING AT THE EDGE OF THE PAVED ROADWAY, TO PROVIDE A LEVEL SURFACE FREE OF VEGETATION FOR CONSTRUCTION OF THE SAFETY EDGE. IF NECESSARY, EXCAVATE THE GRADED AREA TO THE DEPTH NECESSARY TO CONSTRUCT THE SAFETY EDGE. COMPACT THE GRADED SHOULDER ACCORDING TO 617.05, OR AS DIRECTED BY THE ENGINEER



CURB. MISC.: CURB. TYPE 6 REPAIR SHALL CONSIST OF REMOVING AND REPLACING EXISTING CURB THAT IS IN POOR CONDITION AS DIRECTED BY THE ENGINEER. ALL MATERIALS AND LABOR REQUIRED FOR THE COMPLETE INSTALLATION, INCLUDING SAWCUT, REMOVAL OF THE EXISTING CURB, EXCAVATION, PROPOSED CURB, AND UNDERDRAIN SHALL BE INCLUDED IN THE UNIT PRICE BID PER FOOT OF ITEM 609 - CURB, MISC .: CURB, TYPE 6 RFPAIR.

FULL DEPTH PAVEMENT SAWCUT PER ITEM 252

ITEM 609 - CURB, TYPE 6

ITEM 605 - 6" BASE PIPE UNDERDRAINS

1. SAFETY EDGES ARE REQUIRED AT THE OUTSIDE EDGES OF THE PAVED ROADWAY (EDGE OF TRAVEL LANE OR EDGE OF PAVED SHOULDER).

2. CONSTRUCT THE SAFETY EDGE THE FULL ASPHALT CONCRETE OVERLAY THICKNESS OR 2.5" WHICHEVER IS GREATER. NOT TO EXCEED THE MAXIMUM SAFETY EDGE THICKNESS OF 6". CONSTRUCT A NEAR-VERTICAL FACE BELOW THE SAFETY EDGE FOR THICKNESS

3. BLADE AND SHAPE EXISTING SHOULDER MATERIAL TO FORM A UNIFORM SURFACE UNDER THE SAFETY EDGE PRIOR TO PLACEMENT OF THE ASPHALT CONCRETE OVERLAY.

PREPARE THE SHOULDER FOR PAVING A CONSISTENT SAFETY EDGE IN BOTH THICKNESS AND

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STA	TION	SIDE	PREPARING SUBGRADE FOR SHOULDER PAVING, AS PER PLAN
ΤO	FROM		MILE
STEELS COP	RNERS ROAD		
136+70.00	155+00.00	LT/RT	0.35
160+00.00	195+79.00	LT/RT	0.68
CARRIED TO) GENERAL SL	IMMARY	1.03

ITEM 609 - CURB, MISC.: CURB, TYPE 6 REPAIR

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:



MAINTENANCE OF TRAFFIC

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THIS ITEM SHALL CONSIST OF MAINTENANCE OF TRAFFIC ON EXISTING ROADWAYS IN ACCORDANCE WITH THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, CURRENT EDITION, LATEST REVISION, THE SPECIFICATIONS AND THE FOLLOWING:

- 1. A MINIMUM OF ONE TEN (10) FOOT BIDIRECTIONAL LANE SHALL BE MAINTAINED USING FLAGGERS ON THE EXISTING PAVEMENT OR COMPLETED PAVEMENT DURING CONSTRUCTION OF THE WORK.
- 2. THE CONTRACTOR SHALL INFORM THE CITY OF CUYAHOGA FALLS (330) 971-8180 AND THE ODOT DISTRICT OFFICE (330) 786-2211, EIGHTEEN (18) DAYS PRIOR TO THE BEGINNING OF WORK.
- 3. CONES SHALL NOT BE ACCEPTABLE TRAFFIC CONTROL DEVICES FOR LANE RESTRICTIONS OR LANE REDUCTIONS THAT ARE IN OPERATION ONE HALF-HOUR AFTER SUNSET OR ONE HALF-HOUR BEFORE SUNRISE. ALL NIGHTTIME LANE RESTRICTIONS SHALL REQUIRE DRUMS OR BARRICADES AT A MAXIMUM SPACING OF FIFTY (50) FEET. WEIGHTED CHANNELIZERS MAY BE USED IN ACCORDANCE WITH THE ADDITIONAL NOTE HEREIN.
- 4. LANE RESTRICTIONS OR REDUCTIONS SHALL NOT BE PERMITTED AFTER NORMAL WORKING HOURS. NORMAL WORKING HOURS SHALL BE THOSE HOURS DURING WHICH THE CONTRACTOR HAS A FULL COMPLEMENT OF EMPLOYEES AND EQUIPMENT ACTIVELY REMOVING AND/OR PLACING PAVEMENT MATERIALS.
- 5. THE CONTRACTOR SHALL FURNISH, ERECT, MAINTAIN AND SUBSEQUENTLY REMOVE ALL FLAGS, BARRICADES, SIGNS, SIGN SUPPORTS AND FURNISH AND MAINTAIN ALL FLAGGERS, WATCHERS AND INCIDENTALS RELATED THERETO.
- 6. ALL FULL DEPTH PAVEMENT REMOVAL AND REPLACEMENT OPERATIONS SHALL BE COMPLETED THE SAME DAY THE EXCAVATION IS MADE. IF THE CONTRACTOR CANNOT COMPLETE THE WORK, THE EXCAVATION SHALL BE BACKFILLED.
- 7. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR BE PERMITTED TO HAVE SUCCESSIVE WORK ZONES UNLESS THE DISTANCE BETWEEN THE DRUMS, BARRICADES OR CONES EXCEEDS ONE (1) MILE.
- 8. NO WORK SHALL BE PERFORMED BETWEEN 10:00PM AND 7:00AM DAILY.
- 9. IN ADDITION TO THE REQUIREMENTS OF 614.11 WORK ZONE PAVEMENT MARKINGS, AT THE END OF EACH DAY OF WORK, THE CONTRACTOR SHALL REPLACE (WITH WORK ZONE MARKINGS) ALL CENTER, STOP OR CHANNELIZING LINES THAT WERE REMOVED OR COVERED DURING THE PAVEMENT REMOVAL OR PLACEMENT OPERATIONS.
- 10. A QUANTITY OF 614 ASPHALT CONCRETE FOR MAINTAINING TRAFFIC SHALL BE PROVIDED FOR USE IN MAINTAINING PAVEMENT, SHOULDERS AND OTHER LOCATIONS AS DIRECTED BY THE ENGINEER.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:

614. ASPHALT CONCRETE FOR MAINTAINING TRAFFIC 50 CU YD

- 11. PRIOR TO OPENING TO TRAFFIC, EACH LANE SHALL BE IN A SAFE, PASSABLE CONDITION AS APPROVED BY THE ENGINEER.
- 12. A QUANTITY OF ITEM 614 WORK ZONE MARKING SIGN HAS BEEN INCLUDED IN THE PLAN. THIS QUANTITY SHALL INCLUDE, BUT NOT BE LIMITED TO, THE FOLLOWING SIGNS: W8-1 [BUMP], W6-3 [TWO-WAY TRAFFIC], W8-H13 [NO EDGE LINES], R4-1 [DO NOT PASS], R4-2 [PASS WITH CARE], W8-11 [UNEVEN LANES]. THESE QUANTITIES SHALL BE AS PER 614.04.

THE FOLLOWING QUANTITIES SHALL BE USED FOR THE MAINTENANCE OF TRAFFIC ON THIS PROJECT:

PHASE 1 - PLANED SURFACE

	614, WORK ZONE	CENTER LINE, CLASS III, 642 PAINT	1.40 MILE
	614, WORK ZONE	STOP LINE, CLASS III, 642 PAINT	12 FT
	614, WORK ZONE	MARKING SIGN (ALL PHASES)	12 EACH
PHASI	E 2 - INTERMEDI	ATE COURSE	
	614, WORK ZONE	CENTER LINE, CLASS III, 642 PAINT	1.40 MILE
	614, WORK ZONE	STOP LINE, CLASS III, 642 PAINT	12 FT
PHASI	E 3 – SURFACE (COURSE	
	614, WORK ZONE	E CENTER LINE, CLASS III, 642 PAINT	1.40 MILE
	614, WORK ZONE	STOP LINE, CLASS III, 642 PAINT	12 FT
TO B	E USED AS DIREC	CTED BY THE ENGINEER:	
	614, WORK ZONE	EDGE LINE, CLASS III, 6", 642 PAINT	2.05 MILE

- 13. LENGTH AND DURATION OF LANE CLOSURES AND RESTRICTIONS SHALL BE AT THE APPROVAL OF THE ENGINEER. IT IS THE INTENT TO MINIMIZE THE IMPACT TO THE TRAVELING PUBLIC. LANE CLOSURES OR RESTRICTIONS OVER SEGMENTS OF THE PROJECT IN WHICH NO WORK IS ANTICIPATED WITHIN A REASONABLE TIME FRAME, AS DETERMINED BY THE ENGINEER, SHALL NOT BE PERMITTED. THE LEVEL OF UTILIZATION OF MAINTENANCE OF TRAFFIC DEVICES SHALL BE COMMENSURATE WITH THE WORK IN PROGRESS.
- 14. ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH CMS 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.
- 15. EMERGENCY VEHICLES SHALL BE ABLE TO PASS AT ALL TIMES.
- 16. AT THE END OF EACH NORMAL BUSINESS DAY ALL LANES OF TRAFFIC SHALL BE FULLY OPEN TO TRAFFIC.
- 17. THE CONTRACTOR SHALL FURNISH A LOCATION OUTSIDE THE CITY RIGHT-OF-WAY FOR ALL PERSONAL VEHICLES BELONGING TO THE CONTRACTOR'S PERSONNEL AND SUPPLIERS AS PART OF THEIR COST FOR THIS BID ITEM. CONSTRUCTION VEHICLES NOT BEING USED DURING DAILY REGULAR OPERATIONS SHALL BE PARKED AT THIS SITE OR A CONSTRUCTION VEHICLE SITE OUTSIDE THE CITY RIGHT-OF-WAY.

CONTRACTOR'S EQUIPMENT - OPERATION AND STORAGE

A QUALIFIED FLAGGER SHALL BE EMPLOYED WHERE THE CONTRACTOR'S EQUIPMENT MUST MERGE WITH THE TRAFFIC STREAM. THE CONTRACTOR'S EQUIPMENT SHALL BE EQUIPPED WITH AT LEAST ONE AMBER FLASHING LIGHT. PAVERS, ROLLERS AND OTHER EQUIPMENT MAY BE PARKED IN AREAS ALONG THE ROADWAY WHEN PAVING OPERATIONS ARE SCHEDULED TO CONTINUE WITHIN THE NEXT WORKDAY. OTHERWISE THE EQUIPMENT SHALL BE STORED AT A STORAGE AREA OUTSIDE THE R/W, THE LOCATION OF WHICH SHALL HAVE PRIOR APPROVAL OF THE ENGINEER. WHEN PARKING ALONG THE ROADWAY THE EQUIPMENT SHALL BE PLACED AND DELINEATED AS PER 614.03. ADEQUATE BARRICADES AND LIGHTS SHALL BE PLACED ON THE PAVEMENT SIDE OF THE EQUIPMENT TO IDENTIFY THE LIMITS OF THE EQUIPMENT. ALL OTHER EQUIPMENT, INCLUDING PRIVATE VEHICLES, SHALL BE STORED AT THE APPROVED CONTRACTOR'S STORAGE AREA. NO EQUIPMENT SHALL BE PARKED ON PRIVATE PROPERTY UNLESS PRIOR APPROVAL OF THE OWNER AND THE PROJECT ENGINEER / SUPERVISOR HAS BEEN GRANTED.

ADVANCED NOTICE TO PAVE

THE CONTRACTOR SHALL SUBMIT FOR APPROVAL TO THE CITY OF CUYAHOGA FALLS CONSTRUCTION ENGINEER A DETAILED SCHEDULE FIFTEEN (15) DAYS PRIOR TO THE PLACEMENT OF THE OVERLAY COURSES, ON HOW THEY PROPOSE TO PROSECUTE THE PAVING OPERATIONS. THE DETAILS SHALL SHOW THE ORDER OF PERFORMANCE OF EACH STAGE (START TO FINISH) OF THE WORK INCLUDING THE MAINTENANCE OF TRAFFIC THAT WILL BE USED.

TRAFFIC CONTROL INSPECTOR

THE CONTRACTOR SHALL DESIGNATE AN INDIVIDUAL OTHER THAN THE SUPERINTENDENT AND SUBJECT TO THE APPROVAL OF THE ENGINEER, TO CONTINUOUSLY INSPECT ALL TRAFFIC CONTROL DEVICES WHENEVER CONSTRUCTION WORK IS BEING PERFORMED WITHIN THE WORK LIMITS OF THE PROJECT. THE DESIGNATED INDIVIDUAL SHALL ALSO INSPECT ALL TRAFFIC DEVICES AT THE BEGINNING AND AT THE END OF EACH WORK DAY. THE DESIGNATED INDIVIDUAL OR A QUALIFIED REPRESENTATIVE SHALL ALSO BE AVAILABLE ON AN AROUND-THE-CLOCK BASIS TO REPAIR AND/OR REPLACE DAMAGED OR MISSING TRAFFIC CONTROL DEVICES. THESE INDIVIDUALS SHALL BE EQUIPPED WITH CELLULAR PHONES AND THEIR NAMES AND PHONE NUMBERS SHALL BE GIVEN TO THE PROJECT ENGINEER AT THE PRE-CONSTRUCTION MEETING. THE DESIGNATED INDIVIDUAL MAY HAVE OTHER CONSTRUCTION RELATED DUTIES AS LONG AS IMMEDIATE ATTENTION IS GIVEN TO TRAFFIC CONTROL. PAYMENT FOR THE TRAFFIC CONTROL INSPECTOR SHALL BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 614 MAINTAINING TRAFFIC.

ITEM 614 - MAINTAINING TRAFFIC (LANES OPEN DURING HOLIDAYS OR SPECIAL EVENTS)

NO WORK SHALL BE PERFORMED AND ALL EXISTING LANES SHALL BE OPEN TO TRAFFIC DURING THE FOLLOWING DESIGNATED HOLIDAYS OR EVENTS:

BLOSSOM MUSIC CENTER EVENTS	S DATES TO BE DETERMINED BY THE
CHRISTMAS	FOURTH OF JULY
NEW YEARS	LABOR DAY
MEMORIAL DAY	THANKSGIVING
THE PERIOD OF TIME THAT THE LANE WEEK ON WHICH THE HOLIDAY OR EVE TO DETERMINE THIS PERIOD:	S ARE TO BE OPEN DEPENDS ON THE DAY OF THE NT FALLS. THE FOLLOWING SCHEDULE SHALL BE USED
DAY OF HOLIDAY OR EVENT	TIME ALL LANES MUST BE OPEN TO TRAFFIC
SUNDA Y	12:00N FRIDAY THROUGH (6:00 AM) MONDAY

MONDAY TUESDAY WEDNESDAY THURSDAY THURSDAY (THANKSGIVII FRIDAY SATURDAY

NO EXTENSIONS OF TIME UNLESS SUCH DELAYS ARE ARE AREA-WIDE. SHOULD THE CONTRACTOR SHALL L MINUTE THE ABOVE DESCR

FAILURE TO COMPLY

FOR ANY FAILURE TO COM PLANS AND NOTES OR WIT MANUALS, THE ROADWAY D CONDITION UNACCEPTABLE PUBLIC. ANY FAILURE TO CONDITION ACCEPTABLE F SHALL BE CONSIDERED A CONTRACTOR COMPLIES W

WEIGHTED CHANNELIZERS

THE WEIGHTED CHANNELIZE MADE OF A LIGHTWEIGHT, LEAST FORTY-TWO (42) IN "HANDLE" OR LIFTING DEV.

THE MARKINGS ON THE WE ALTERNATING ORANGE ANL WEIGHTED CHANNELIZER SI ANY NON-RETROREFLECTI STRIPES SHALL NOT EXCE HAVE A FOUR (4) INCH MIN

THERE ARE NO DURATION DAY OR NIGHT. ON THIS TRANSITION TAPERS AS W

MAXIMUM SPACING OF TH

STEPS SHOULD BE TAKEN BLOWN OVER OR DISPLAC PRESENT A HAZARD IF TH SHOULD THEY AFFECT TH USED SHOULD BE IN ACCO

PAYMENT FOR FURNISHING CHANNELIZIERS SHALL BE MAINTAINING TRAFFIC.

TEMPORARY RAMPING OF

IN ORDER TO PROVIDE FO DRIVES SHALL BE TEMPOR FACES SHALL BE TEMPOR SHALL BE WARNED WITH W GRADE BREAK SHALL NOT WEDGE.

ALL TEMPORARY RAMPING USING ITEM 614 - ASPHALT CON

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ITEM 614

12:00N FRIDAY THROUGH (6:00 AM) TUESDAY 12:00N MONDAY THROUGH (6:00 AM) WEDNESDAY 12:00N TUESDAY THROUGH (6:00 AM) THURSDAY 12:00N WEDNESDAY THROUGH (6:00 AM) FRIDAY 12:00N WEDNESDAY THROUGH (6:00 AM) MONDAY 12:00N THURSDAY THROUGH (6:00 AM) MONDAY 12:00N FRIDAY THROUGH (6:00 AM) MONDAY 12:00N FRIDAY 500N FRIDAY THROUGH (6:00 AM) MONDAY 500N FRIDAY 500N FRID	CALCULATED DRG CHECKED AMP
MPLY WITH PROVISIONS FOR TRAFFIC CONTROL SET OUT IN THESE TH THE PROVISIONS OF THE ODOT 2016 CMS AND/OR OMUTCD IN THE VICINITY OF THE WORK AREA SHALL BE CONSIDERED IN A E FOR THE SAFETY AND CONVENIENT USE BY THE TRAVELING D KEEP THE ROADWAY IN THE VICINITY OF THE WORKING AREA IN A FOR THE SAFE AND CONVENIENT USE BY THE TRAVELING PUBLIC BREACH OF CONTRACT. WORK SHALL BE SUSPENDED UNTIL THE WITH THE PROVISIONS OF THE AFOREMENTIONED ITEMS.	
YERS SHALL BE PREDOMINATELY ORANGE IN COLOR AND SHALL BE FLEXIBLE, AND DEFORMABLE MATERIAL. THEY SHALL BE AT NCHES IN HEIGHT WITH A WEIGHTED BASE. THEY MAY HAVE A VICE WHICH EXTENDS ABOVE THE 42 INCH MINIMUM HEIGHT.	lotes
EIGHTED CHANNELIZER SHALL BE HORIZONTAL, CIRCUMFERENTIAL, D WHITE RETROREFLECTIVE STRIPES SIX (6) INCHES WIDE. EACH HALL HAVE A MINIMUM OF TWO ORANGE AND TWO WHITE STRIPES. VE SPACES BETWEEN THE HORIZONTAL ORANGE AND WHITE EED TWO (2) INCHES WIDE. THE WEIGHTED CHANNELIZER SHALL NIMUM WIDTH, REGARDLESS OF ORIENTATION.	ENERAL N
S OF WORK RESTRICTIONS FOR USE OF WEIGHTED CHANNELIZERS, ROADWAY THE WEIGHTED CHANNELIZER MAY BE USED IN THE WELL AS IN THE TANGENT AREAS, DAY OR NIGHT.	GE
e weighted channelizer shall be forty (40) feet.	
TO ENSURE THAT THE WEIGHTED CHANNELIZERS WILL NOT BE YED BY WIND OR MOVING TRAFFIC. BALLASTS SHOULD NOT WE WEIGHTED CHANNELIZERS ARE INADVERTENTLY STRUCK, NOR E VISIBILITY OF THE WEIGHTED CHANNELIZERS. ALL BALLASTS ORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.	
G, INSTALLING, MAINTAINING AND REMOVING WEIGHTED INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 614,	
VERTICAL SURFACES AT DRIVEWAYS	
OR LOCAL ACCESS, LONGITUDINAL VERTICAL FACES ABUTTING RARILY RAMPED AS DETAILED BELOW. TRANSVERSE VERTICAL ARILY RAMPED A MAXIMUM OF TWO FEET IN LENGTH AND TRAFFIC V8-1 [BUMP] SIGNS IN ADVANCE OF THE RAMPED AREAS. THE EXCEED A MAXIMUM OF 8 PERCENT AT EITHER END OF THE	
S SHALL BE INSTALLED, AT THE DIRECTION OF THE ENGINEER,	
CRETE FOR MAINTAINING TRAFFIC.	04) (40
	ERS 029(
WEDGE, MINIMUM APPLICATION FOR MATERIAL	ORN D 1(
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EXISTING	EEL
EXISTING ASPHALT AFTER PLANING	. ST FAC
4 - ASPHALT CONCRETE FOR -	M – W. Isur
WAINTAINING IRAFFIC	SUI

ALTERNATE MAINTENANCE OF TRAFFIC PLANS

IF THE CONTRACTOR SO ELECTS, HE MAY SUBMIT ALTERNATE METHODS FOR THE MAINTENANCE OF TRAFFIC TO THE CITY OF CUYAHOGA FALLS FOR APPROVAL, PROVIDED THE INTENT OF THE ABOVE PROVISIONS ARE FOLLOWED AND NO ADDITIONAL INCONVENIENCE TO THE TRAVELING PUBLIC RESULTS THEREFROM. NO ALTERNATIVE PLAN SHALL BE PLACED INTO EFFECT UNTIL APPROVAL HAS BEEN GRANTED IN WRITING BY THE PROJECT ENGINEER.

WINTER TRAFFIC LIMITATIONS

ALL TRAFFIC LANES SHALL BE OPEN TO TRAFFIC BETWEEN NOVEMBER 2 AND APRIL 1. NOVEMBER 1 SHALL BE CONSIDERED TO CONSTITUTE AN INTERIM COMPLETION DATE AND DISINCENTIVES OF \$750 SHALL BE ASSESSED FOR EACH CALENDAR DAY THAT THE ROADWAY REMAINS CLOSED TO TRAFFIC BEYOND THE SPECIFIED LIMIT. THE CONTRACTOR MAY CLOSE LANES PRIOR TO APRIL 1 WITH WRITTEN APPROVAL FROM THE CITY OF CUYAHOGA FALLS.

PAVEMENT DROP-OFF

ANY PAVEMENT HAVING A VERTICAL ELEVATION DIFFERENTIAL GREATER THAN 1-1/4" WITH THE ABUTTING EXISTING PAVEMENT, THAT IS TO BE USED FOR TRAFFIC SHALL HAVE A WEDGE TREATMENT OF EITHER ITEM 614 - ASPHALT CONCRETE FOR MAINTAINING TRAFFIC OR ITEM 254 - A TAPERED PLANING OF EXISTING PAVEMENT. ALL WORK SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 614 - MAINTAINING TRAFFIC.

ITEM 614 - LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE

USE OF LAW ENFORCEMENT OFFICERS (LEOS) BY CONTRACTORS OTHER THAN THE USES SPECIFIED BELOW WILL NOT BE PERMITTED AT PROJECT COST. LEOS SHOULD NOT BE USED WHERE THE OMUTCD INTENDS THAT FLAGGERS BE USED.

IN ADDITION TO THE REQUIREMENTS OF CMS 614 AND THE OMUTCD, A UNIFORMED LEO WITH AN OFFICIAL PATROL CAR (CAR WITH TOP-MOUNTED EMERGENCY FLASHING LIGHTS AND COMPLETE MARKINGS OF THE APPROPRIATE LAW ENFORCEMENT AGENCY) SHALL BE PROVIDED FOR THE FOLLOWING TRAFFIC CONTROL TASKS:

- DURING THE ENTIRE ADVANCE PREPARATION AND CLOSURE SEQUENCE WHERE COMPLETE BLOCKAGE OF TRAFFIC IS REQUIRED.
- DURING A TRAFFIC SIGNAL INSTALLATION WHEN IMPACTING THE NORMAL FUNCTION OF THE SIGNAL OR THE FLOW OF TRAFFIC OR WHEN TRAFFIC NEEDS TO BE DIRECTED THROUGH AN ENERGIZED TRAFFIC SIGNAL CONTRARY TO THE SIGNAL DISPLAY (E.G., DIRECTING MOTORISTS THROUGH A RED LIGHT).
- FOR LANE CLOSURES: DURING INITIAL SET-UP PERIODS, TEAR DOWN PERIODS, SUBSTANTIAL SHIFTS OF A CLOSURE POINT OR WHEN NEW LANE CLOSURE ARRANGEMENTS ARE INITIATED FOR LONG-TERM LANE CLOSURES/SHIFTS (FOR THE FIRST AND LAST DAY OF MAJOR CHANGES IN TRAFFIC CONTROL SETUP). IN GENERAL, LEOS SHOULD BE POSITIONED AT THE POINT OF LANE RESTRICTION OR ROAD CLOSURE AND TO MANUALLY CONTROL TRAFFIC MOVEMENTS THROUGH INTERSECTIONS IN WORK ZONES.
- WHEN CONSTRUCTION VEHICLES ARE ENTERING/EXITING THE ZONE DIRECTLY FROM/INTO AN OPEN LANE OF TRAFFIC. IF A LANE HAS BEEN CLOSED TO PROVIDE AN ACCELERATION/DECELERATION LANE FOR THE VEHICLE, THE LEO WILL NOT BE REQUIRED.

LEOS SHOULD NOT FORGO THEIR TRAFFIC CONTROL RESPONSIBILITIES TO APPREHEND MOTORISTS FOR ROUTINE TRAFFIC VIOLATIONS. HOWEVER, IF A MOTORIST⁵/₃₂S ACTIONS ARE CONSIDERED TO BE RECKLESS, THEN PURSUIT OF THE MOTORIST IS APPROPRIATE.

THE LEOS WORK AT THE DIRECTION OF THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR SECURING THE SERVICES OF THE LEOS WITH THE APPROPRIATE AGENCIES AND COMMUNICATING THE INTENTIONS OF THE PLANS WITH RESPECT TO DUTIES OF THE LEOS. THE ENGINEER SHALL HAVE FINAL CONTROL OVER THE LEOS' DUTIES AND PLACEMENT, AND WILL RESOLVE ANY ISSUES THAT MAY ARISE BETWEEN THE TWO PARTIES.

THE LEO SHALL REPORT IN TO THE CONTRACTOR PRIOR TO THE START OF THE SHIFT, IN ORDER TO RECEIVE INSTRUCTIONS REGARDING SPECIFIC WORK ASSIGNMENTS DURING HIS/HER SHIFT. THE LEO IS EXPECTED TO STAY AT THE PROJECT SITE FOR THE ENTIRE DURATION OF HIS/HER SHIFT. THE LEO SHALL REPORT TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT. ONCE THE LEO HAS COMPLETED THE DUTIES DESCRIBED ABOVE AND STILL HAS TIME REMAINING ON HIS/HER SHIFT, THE LEO MAY BE ASKED TO PATROL THROUGH THE WORK ZONE (WITH FLASHING LIGHTS OFF) OR BE PLACED AT A LOCATION TO DETER MOTORISTS FROM SPEEDING. SHOULD IT BE NECESSARY TO LEAVE THE PROJECT SITE, THE LEO SHALL NOTIFY THE DENGINEER. THE CONTRACTOR SHALL PROVIDE THE LEO WITH A TWO-WAY COMMUNICATION DEVICE WHICH SHALL BE RETURNED TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT.

LEOS (WITH PATROL CAR) REQUIRED BY THE TRAFFIC MAINTENANCE TASKS ABOVE SHALL BE PAID FOR ON A UNIT PRICE (HOURLY) BASIS UNDER ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY. THE HOURS PAID SHALL INCLUDE ANY MINIMUM SHOW-UP TIME REQUIRED BY THE LAW ENFORCEMENT AGENCY INVOLVED.

ANY ADDITIONAL COSTS (ADMINISTRATIVE OR OTHERWISE) INCURRED BY THE CONTRACTOR TO OBTAIN THE SERVICES OF AN LEO ARE INCLUDED WITH THE BID UNIT PRICE FOR ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE.

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CALCULATED DRG CHECKED AMP	
IOTES	
CENERAL N	
GT 2 SUM-W. STEELS CORNERS RD. Resurfacing (Pid 102904)	

																	CALCULATED DRG CHECKED AMP
OFFICE CALCS	4	5	6	7	9	9	10	10	11	ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.]	
					64					202	30000	64	SE	WALK REMOVED		-	
					2010					202	38000	2010	FT	GUARDRAIL REMOVED		-	
	30									203	10001	30	СҮ	EXCAVATION, AS PER PLAN	4	-	
		2 1.03								209 209	15000 72051	2 1.03	STA MILE	RESHAPING UNDER GUARDRAIL PREPARING SUBGRADE FOR SHOULDER PAVING, AS PER PLAN	5 5	-	
					908 22					606 606	15051 26100	908 22	FT EACH	GUARDRAIL, TYPE MGS, AS PER PLAN ANCHOR ASSEMBLY, TYPE E	5	-	
					64 8					608 608	52000 53020	64 8	SF SF	CURB RAMP DETECTABLE WARNING			
		150								609	98000	150	FT	CURB, MISC.: CURB, TYPE 6 REPAIR	5		
					9					623	39500	9	EACH	MONUMENT BOX ADJUSTED TO GRADE		-	A A
							10			611	98630 99654	10	EACH	DRAINAGE/WATERWORK CATCH BASIN ADJUSTED TO GRADE MANHOLE AD USTED TO CRADE		-	N N
	1000						4			SPECIAL	61199820	1000	LB	MINHOLE ADJUSTED TO GRADE	4		SU
							2			638	10800	2	EACH	VALVE BOX ADJUSTED TO GRADE			$\exists \forall$
																-	E R
	3103									251	01000	3103	SY	PAVEMENI PARTIAL DEPTH PAVEMENT REPAIR (441)	4	-	
	1552									253	01000	1552	SY	PAVEMENT REPAIR	4	-	
31037						1231				254	01000	32268	SY	PAVEMENT PLANING, ASPHALT CONCRETE		-	
	30									304	20001	30	СҮ	AGGREGATE BASE, AS PER PLAN	4	-	
4655						111				407	20000	4766	GAL	NON-TRACKING TACK COAT		-	
1078 1509						38			15	441 441 441	10100 10200 50400	1093 1509 38	С	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (446), PG70-22M ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (446) ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), (DRIVEWAYS)	5		
		100								617	10101	100	СҮ	COMPACTED AGGREGATE, AS PER PLAN	5	-	
								2.05		646	10010	2.05	MIL F	TRAFFIC CONTROL		-	
								1.38		646 646	10110 10200	1.38	MILE MILE MILF	LANE LINE, 6" CENTER I INF		-	
								192 11		646 646	10310 10400	192 11	FT FT	CHANNELIZING LINE, 12" STOP LINE			
								1		646	20300	1	EACH	LANE ARROW		-	
				64						614	11110	64	HOUR	MAINTENANCE OF TRAFFIC LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE		-	S RD. 904)
			12 50							614 614	12460 13000	12 50	EACH CY	WORK ZONE MARKING SIGN ASPHALT CONCRETE FOR MAINTAINING TRAFFIC		-	NER: 1029
			2.05							614 614	21330	4.20 2.05 36	MILE	WORK ZONE EDGE LINE, CLASS III, 6", 642 PAINT WORK ZONE EDGE LINE, CLASS III, 6", 642 PAINT		1	COF
			50								20010		11			-	C (I
										614	11000	LS		MAINTAINING TRAFFIC		-	TEE
										624	10000	LS		MOBILIZATION		1	KFA
												-			-	-	M-V FSU
																	SUI RI
																	8
																	15

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ROADWAY	SUBSUMMARY
NOAD N AI	SODSONNAN

DRIVEWAY SUBSUMMARY

					202	202	606	606	608	608	623	
PLAN SHEET NO.	REFERENCE NO.	STA	TION	SIDE	WALK REMOVED	GUARDRAIL REMOVED	GUARDRAIL, TYPE MGS, AS PER PLAN	ANCHOR ASSEMBLY, TYPE E	CURB RAMP	DETECTABLE WARNING	MONUMENT BOX ADJUSTED TO GRADE	
		FROM	ΤΟ		SF	FT	FT	EACH	SF	SF	EACH	
		STATE	ROAD									
12	GR-1	122+87.00	125+49.50	LT		263	162.50	2				
12	GR-2	123+17.00	124+29.50	RT		113	12.50	2				
				0.511								
12	M-1	126+50.20		CEN							1	
10		120,04,00	170,00 50	DT		707	220 50	2				
12	GR-S	128+94.00	132+20.50	<i>R1</i>		327	220.50	2				
12	6A-4	130+10.15	130+21.00	LI		150	50.25	2				
12	GR-5	136+72.50	137+97.50	RT		125	25.00	2				
		100 12100	107 07100			,20	20100					
13	M-2	140+50.20		CEN							1	
13	GR-6	145+28.00	146+90.50	LT		163	62.50	2				
13	GR-7	146+09.00	147+21.50	RT		113	12.50	2				
13	M-3	147+42.10		CEN							1	
17		151, 65, 00	157,00,00	DT		225	125 00	2				
13	0R-0	151+05.00	153+90.00	<u>π</u>		225	125.00	2				
15	611-9	131730.00	134+23.00	LI		225	123.00	2				
14	CR-1	160+89.00		RT						8		
14	CR-2	161+35.00		RT	64				64			
14	M-4	160+99.40		CEN							1	
14	M-5	161+12.30		RT							1	
14	GR-10	167+25.00	169+00.00	LT		175	75.00	2				
14	<i>GR-11</i>	167+79.00	169+04.00	RI		125	25.00	2				
14	ME	171,07.20		CEN							1	
14	M-7	181+35 80		CEN							1	
15	M-8	185+52 30		CEN							1	
15	M-9	190+39.93		CEN							1	
	1			02.,							· ·	
ΤΟΤΑ	LS CAI	RRIED TO G	ENERAL SUM	MARY	64	2010	908	22	64	8	9	

DRIVEWAY SUBSUMMARY

				~		254	407	441	441
SHEET NO.	REF NO.	STATION	SIDE	ING DRIVE COMPOSITION	APRON AREA	PAVEMENT PLANING, ASPHALT CONCRETE	NON-TRACKING TACK COAT	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), (DRIVEWAYS)	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), (DRIVEWAYS)
				ST	CADD	A1/9	(0.09xA)	(1xA1)	(2xA1)
					A1		9	(12x27)	(12x27)
				7	SQ FT	SY	GAL	СҮ	СҮ
	WEST STEEL	S CORNERS R	POAD						
12	DR-1	138+52.00	LT	ASPHAL T	238.00	26.44	2.38	0.73	
12	DR-2	138+54.00	RT	ASPHAL T	178.00	19.78	1.78	0.55	
12	DR-3	139+95.00	LT	ASPHAL T	198.00	22.00	1.98	0.61	
13	DR-4	140+59.00	RT	ASPHAL T	338.00	37.56	3.38	1.04	
13	DR-5	141+10.00	RT	ASPHAL T	198.00	22.00	1.98	0.61	
13	DR-6	141+86.00	RT	ASPHAL T	198.00	22.00	1.98	0.61	
13	DR-7	141+91.00	LT	ASPHAL T	198.00	22.00	1.98	0.61	
13	DR-8	142+58.00	LT	ASPHAL T	198.00	22.00	1.98	0.61	

						254	407	441	441
				NOI		N L. J	×	PE S)	PE S)
				111	4	NG	ACI	4 X S	4 XS
				So	RE,	4 <i>NI</i> CRE		EN, EN,	EN, EN,
				M	1 A	0 V	NI	NONN	NONI
ž	9		4	CC	NON	L C	07. OZ	00	00
ΕŢ	F	STATION	SID	VE	1 <i>PF</i>	11 7 11 7	CA	10, 11, 12	10, 11, 12
ΉE	RE			IRI		VEN	/ - <u>/</u>	419 742 748	419 742 748
				0		9.4 1 2 1 2 1	NO N	ASF RF.	ASF.
				IN(~ `	<	, VS I,	, V,
				IS1	CADD	A1/9	(0.09xA)	(1xA1)	(2xA1)
				ΕX	A1		9	(12x27)	(12x27)
					SQ FT	 SY	GAL	CY	CY
13	DR-9	142+81.00	RI	ASPHALT	198.00	22.00	1.98	0.67	
13	DR-10	143+70.00	RI	ASPHALT	218.00	24.22	2.18	0.67	
13	DR-II	144+58.00	RI	ASPHALT	218.00	24.22	2.18	0.67	
15	עד יוע	143+04.00		ASPHALI	100.00	13.18	1.18	0.55	
13	UT-13	141+05.00		ASPHALI	170.00	 10 70	1.98	0.01	
13	DD_15	143+20.00	LI DT	ASPHALI ASDUNIT	192 00	 13.10 22 00	1.10	0.55	
13	DR-10	150+03.00		ΑΟΓΠΑΓΙ	258 00	22.00	1.30	0.01	
17	DR-10 DR-17	154+20 00	1 7	ΑΟΓΠΑΓΙ ΔΩΡΗΛΙΤ	178 00	19 78	1 78	0.00	
14	DR-18	161+39 00	1 T	ASI HALI ASPHALT	178 00	19 78	1.78	0.55	
14	DR-19	162+56 00	1 T	ASPHALT	178.00	19.78	1.78	0.55	
14	DR-20	164+11 00	1 T	ASPHALT	298 00	.3.3 11	2.98	0.92	
14	 	166+69.00	1 T	ASPHALT	298.00	33 11	2.98	0.92	
14	DR-22	167+07.00	1 T	A.SPHALT	278.00	30.89	2.78	0.86	
14	DR-23	167+58.00	RT	ASPHALT	198.00	22.00	1.98	0.61	
14	DR-24	168+79.00	LT	ASPHALT	458.00	50.89	4.58	1.41	
14	DR-25	170+13.00	RT	ASPHALT	178.00	19.78	1.78	0.55	
14	DR-26	170+73.00	LT	ASPHALT	258.00	28.67	2.58	0.80	
14	DR-27	171+74.00	LT	ASPHAL T	198.00	22.00	1.98	0.61	
14	DR-28	172+78.00	RT	ASPHAL T	178.00	19.78	1.78	0.55	
14	DR-29	173+73.00	LT	ASPHAL T	258.00	28.67	2.58	0.80	
14	DR-30	174+32.00	LT	AGGREGATE	278.00				1.72
14	DR-31	175+16.00	RT	ASPHAL T	178.00	19.78	1.78	0.55	
14	DR-32	175+37.00	LT	ASPHAL T	178.00	19.78	1.78	0.55	
14	DR-33	175+93.00	LT	ASPHAL T	238.00	26.44	2.38	0.73	
14	DR-34	176+50.00	RT	AGGREGATE	218.00				1.35
14	DR-35	177+57.00	LT	ASPHAL T	178.00	19.78	1.78	0.55	
14	DR-36	177+81.00	RT	AGGREGATE	218.00				1.35
14	DR-37	178+26.00	RT	ASPHAL T	178.00	19.78	1.78	0.55	
14	DR-38	178+68.00	RT	ASPHALT	178.00	19.78	1.78	0.55	
15	UR-39	1/9+59.00	LT	ASPHALT	1/8.00	19.78	1.78	0.55	
15	UK-40	180+41.00		ASPHALT	1/8.00	19.78	1.78	0.55	
15	UK-41	101+29.00		ASPHALI	170.00	19.18	1.78	0.55	
15 1E	UK-42	101+05.00		ASPHALI	210.00	13.18	1.18	0.55	
15	DP-11	183+21 00		ASPHALI ASDUNIT	210.00	24.22	2.10 1.70	0.01	
15	DR-15	185+70 00		ΑΟΓΠΑΓΙ	178 00	19.10	1.10	0.55	
15	DR-40	186+88 00		ΑΟΓΠΑΓΙ ΔΩΡΗΛΙΤ	178 00	 19.10	1.10	0.00	
15	DR-47	187+89 00	RT	AST HALT	278 00	 30.89	2 78	0.00	
15	DR-48	188+06 00	1 T	ASPHALT	238.00	26.44	2.38	0.73	
15	DR-49	188+71.00	RT	ASPHALT	178.00	 19.78	1.78	0.55	
15	DR-50	189+39.00	RT	ASPHALT	178.00	19.78	1.78	0.55	
15	DR-51	190+93.00	RT	ASPHALT	178.00	19.78	1.78	0.55	
15	DR-52	192+86.00	LT	ASPHALT	178.00	19.78	1.78	0.55	
15	DR-53	193+08.00	RT	ASPHALT	218.00	24.22	2.18	0.67	
15	DR-54	193+42.00	LT	ASPHALT	298.00	33.11	2.98	0.92	
15	DR-55	194+40.00	RT	ASPHALT	218.00	24.22	2.18	0.67	
	TOTALS	CARRIED TO	GEI	NERAL SUMM	IARY	1231	111	3	8
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CALCULATED	DRG	CHECKED	AMP	
		IN ARIEO		
	ANERU AU.	102001)	(+00701	
	IEELS CUT	CINC (DID		
	SUM-W. S	RECLIPEA		
(() 5)	

PAVEMENT MARKING SUBSUMMARY

DRAINAGE/WATERWORK	SUBSUMMARY
DIMINIOL MITTERNION	000000000000000000000000000000000000000

PLAN SHEET NO.	REFERENCE NO.	STATION	SIDE	CATCH BASIN ADJUSTED TO	MANHOLE ADJUSTED TO GRADE	VAL VE BOX ADJUSTED TO GRADE	IEET NO.	RENCE NO.
		FROM TO	0	EACH	EACH	EACH	St	FE
		STATE ROAD						RE
12	W-1	121+79.65	RT			1		
12	D-1	121+83.20	LT	1				
12	D-2	121+84.00	R/	1	/			
12	D-3	121+85.70	<u>π</u> ι ι τ	1				
12	D-5	122+20.10	RT	1				
12		122.20,10		,			12	S
12	D-6	123+90.30	LT	1			12 15	C C
12	D-7	123+90.30	RT	1			12 - 15	Ĺ
12	D-8	130+49.40	LT	1			12 - 15	L _
12	D-9	130+49.40	RT	1			12 - 13	EW
12	D-10	131+24.00	LI	/			14 - 15	FW
12	D-11	131+24.00	RT	1			1/	<u> </u>
14	D-12	170+09.70	RT		1		15	LH
14	D-13	171+80.90	RT		1		15	AR
15	W-2	184+56.68	LT			1		
15	D-14	185+70.30	RT		1			
								TO
TC	TALS C.	ARRIED TO GENERAL	SUMMARY	10	4	2	<u> </u>	

					646	646	646	646	646	646
					0.10	0.10	0.10	010	0.10	0.10
SHEET NO.	REFERENCE NO.	STATION			EDGE LINE, 6"	LANE LINE, 6"	CENTER LINE	CHANNELIZING LINE, 12"	STOP LINE	LANE ARROW
		FROM	ΤO		MILE	MILE	MILE	FT	FT	EACH
12	S	122+00.00		LT					11	
12 - 15	С	122+00.00	195+79.00	CEN			1.40			
12 - 15	L	122+00.00	194+83.00	RT		1.38				
12 - 13	EW	136+70.00	155+00.00	LT/RT	0.69					
14 - 15	EW	160+00.00	195+79.00	LT/RT	1.36					
15	СН	194+83.00	195+79.00	RT				192		
15	AR	194+92.00		RT						1
	TOTALS	CARRIED TO GENERAL	SUMMARY		2.05	1.38	1.40	192	11	1

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SUBSUMMARIES

LCULAT DRG HECKEI AMP



				SAFET	Y EDGE	CALCULA	1 <i>TIONS</i>			
STATION		SIDE	LENGTH THICKNESS ANGLE		IGLE	TANGENT	BASE OF WEDGE	CROSS-SECTIONAL AREA OF WEDGE	WE VOL 441 SU	
TO	FROM		FEET	FEET	DEGREE	RADIANS		FEET	SQ FT	CL
136+75.00	155+05.00	LT/RT	1830.00	0.2083	30	0.5236	0.5774	0.3608	0.0376	5
160+05.00	195+79.00	LT/RT	3574.00	0.2083	30	0.5236	0.5774	0.3608	0.0376	9
	TOTALS CA	ARRIED T	O GENERAL S	SUMMARY						

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	CALCULATED DRG CHECKED AMP
ED GE PUME SURFACE U YD 5.00 7.95 15	CALCULATIONS
	(ज=) SUM-W. STEELS CORNERS RD. Resurfacing (PID 102904)


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<u>NOTES</u>

FOR GENERAL SUMMARY AND CALCULATIONS, SEE SHEETS 8 THRU 11.

<u>LEGEND</u>

CR CURB RAMP ITEM D DRAINAGE ITEM DR DRIVEWAY ITEM G GUARDRAIL ITEM M MONUMENT ITEM W WATERWORK ITEM (EW) EDGE LINE, 6" (WHITE) (c) CENTER LINE, SOLID, DOUBLE (L) LANE LINE, 6" (s) STOP LINE (AR) ARROW ON PAVEMENT LIMITS OF PAVEMENT RESURFACING

CORNERS ROAD STA. 160+00

- W. STEELS 140+00 TO

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PLAN STA

SUM-W. STEELS CORNERS RD. RESURFACING (PID 102904)

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CORNERS F TO ENDING . STEELS 179+00 Ś STA. PLAN SUM-W. STEELS CORNERS RD. RESURFACING (PID 102904)

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STANDARD DRAWINGS

SECTION 5.7





ACCEPTABLE METHOD OF FORMING JOINT

SAWED JOINT

Tie bars shall be #5 deformed bars. A satisfactory device shall be used to hold the tie bars in proper positions or they may be installed by a mechanical installing device. Tie bars shall be centered on the longitudinal joint as nearly as practical.

BUTT JOINT: The longitudinal joint between adjoining slabs poured in separate operations shall be butt joint with hook bolts or tie bars, unless otherwise shown on the plans. Bent tie bars shall not be permitted.

TYPE D (DRILLED TIED LONGITUDINAL) JOINT: Type D joints shall be constructed in accordance with CMS 255.05. The nylon or plastic retention disc shall be clear or opaque white in color. Grout shall meet the requirements or CMS 255.02. $\frac{5}{6}$ " expansion anchors, $\frac{712.01.4}{100}$ may be used in lieu of the #5 x 24" deformed bar and shall be installed according to the manufacture's recommendations.

not be permitted.

See sheet 2/2 for additional details.



TYPE D (DRILLED TIED LONGITUDINAL) JOINT





BUTT JOINT w/ HOOK BOLT

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NOTES

GENERAL: Longitudinal joints shall be used when specified on the typical section and shall be constructed as shown on this drawing in Items 451 and 452 Pavement and Item 305 Base.

The joint shall be on the centerline of the pavement unless otherwise shown on the plans. Where the pavement width exceeds 16', an additional longitudinal joint shall be introduced into the jointing details as directed by the Engineer.

The use of self drilling expansion shield anchors, 712.01.B shall

BUTT JOINT w/ TIE BAR







TIE BAR OR HOOK BOLT SPACING



HOOK BOLT ALTERNATE



TABLE A					
Transverse Joint Spacing	Number of Tie Bars per Slab	Max. spacing Minimum between Offset to Tie Bars Transverse Joi			
15′	6	30″	15″		
21′	8	30″	21″		

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NOTES ά GENERAL: This drawing shows alternate types of curb that may be used on various types of pavement. The typical section of the project shows the type to be used, also the thickness of the edge of the pavement or the STATE OF OHIO DEPARTMENT OF FRANSPORTATION ADMINISTRATOR Holstein JOINTS: 1" expansion joints shall extend up to the top of the curb and shall be constructed in the curb and gutter section in such a manner that the joint seal will extend the full width of the gutter and into the curb face a sufficient distance to seal the joint to an elevation of a least 2" above the flow line of the gutter. Dowel bars shall be used in the curb David L. | and gutter section at expansion joints and to the surface of the Transverse expansion joint material shall meet the requirements of GUTTER PLATE THICKNESS: Thickness of gutter plate "T" shall be 9" unless TOLERANCES: Dimensional tolerances are as follows: Fish STDS. ENGINEEI \Box OFFICE OF ROADWAY ENGINEERING LEGEND D Expansion joint material and joint sealer are not required for the portion of the curb that is adjacent to a flexible pavement type. Both materials are required, as detailed, for the full height of rigid pavement 2 Butt joints shall be provided between combined curb-and-gutter and new or existing rigid pavements, with tie bars or hook bolts provided at intervals of 5'. See SCD BP-2.1 for details of tie bars and hook bolts. If the combined curb-and-gutter adjoins a new rigid base or an existing rigid base or pavement that is to be surfaced with asphalt concrete, a butt joint shall also be provided. However, tie bars or hook bolts shall be omitted when the vertical overlap ("V" in detail below) AND GUTTER between the curb-and-gutter and rigid pavement is less than 7". Bituminous Surface Material CONCRETE CURBS CONCRETE CURBS COMBINED CURB AND Rigid Pavement 7-20-18. Surface of BP-5.1 DATED Pavement <1" rad. + REPLACES As Shown on Typical Sections in Plans Γ, S TYPE 9 DRAWING Δ ш THIS



ACCEPTABLE CONSTRUCTION PLACEMENT

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GUARDRAIL BOLT (For Post and Splice Bolts)						
L	T min.	Bolt Use				
22″ andard Rail)	22" ndard Rail)					
34" 4" Type was mir, "b, "b arrier Rail)						
14″	4″ Type MGS: SP/WB, PE					
11/4 "	1 ¹ /8 "	Splice Bolt				
= Wood Post WB = Wood Blockout = Steel Post PB = Plastic Blockout						
ger Bolt may be needed for round Wood t larger than 8″ dia.						



	THIS DRAWING REI	PLACES MGS-1.1 DATED 7-21-2017				
1/	SCD NUMBER	STANDARD ROADWAY CONSTRUCTION DRAWING MIDWEST GUARDRAIL SYSTEM	OFFICE OF BOADWAV	STDS. ENGINEER	STATE OF OHIO DEPARTMENT OF TRANSPORTATION ADMINISTRATOR	REVISION DATE
3	MGS-1.1	GUARDRAIL DETAILS (Rail Components)	ENGINEERING	D. Fisher	David L. Holstein	1-19-2018



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MEASURING GUARDRAIL HEIGHT





STEEL BEAM POSTS								
Size	Beam depth	Flange width	Flange thickness	Web thickness				
Rolled W6x8.5	5.8″	3.94″	0.193″	0.170″				
Rolled W6x9	5.9″	3.94″	0.215″	0.170″				
Welded 6x8.5	6.0″	3.94″	0.193″	0.170″				
Welded 6x9	6.0″	3.94″	0.215″	0.170″				

NOTES

GUARDRAIL HEIGHT: For initial installation, construct the guardrail within ± 1" of the standard 31" height to the top of W-Beam rail. When subsequent projects, such as resurfacings, affect the height of existing guardrail, adjustment is not required if the finished height is within ±3" of the standard height.

POSTS: The Standard Post Length is 6'-0" (+3",-0" tolerance). Wood Posts are permitted instead of Standard Steel Posts per CMS 710.11.

POST EMBEDMENT DEPTH: Standard embedment depth is 3'-4" minimum. Embedment depth shall be 37" when using the round wooden post option. Do not drive posts located over a culvert with less than 4'-3" of cover; instead set in drilled or dug holes. Where site constraints prohibit the post from being placed at least one foot in front of the slope break point, use longer posts as shown in the Guardrail Post Length and Position Detail. The face of the rail may not be beyond the slope break point.

SPECIAL POST MOUNTINGS: Install posts located over a drainage inlet or structure with a cover of less than 3'-4" as shown in the FOOTING ANCHOR Detail.

ANCHORS: Holes shall comply with CMS 510. Use non-shrink, nonmetallic grout per CMS 705.20.

PROTECTIVE COATING: In lieu of the complying with CMS 710.06, coat expansion shields, anchors and concrete insert anchor assemblies embedded in concrete in accordance with ASTM A 153 or be of stainless steel. Any bolts screwed into these devices shall meet CMS 710.06.

PAYMENT: Payment for standard guardrail is measured in feet as Item 606 - Guardrail, Type MGS. Runs with longer posts should be paid as Item 606 - Guardrail, Type MGS With Long Posts, also measured in feet. All costs associated with special post mountings are included in the unit price bid of Item 606 Guardrail of the type specified in the plans.





	REVISION DATE	1-19-2018
735° 1000 1000 1000 1000 1000 1000 1000 10	STATE OF OHIO DEPARTMENT OF TRANSPORTATION ADMINISTRATOR	David L. Hoistein
	SIDS. NGINEER	D. Fisher
	OFFICE OF	ENGINEEKING
	S MGS-1.1 DATED 7-21-2017 SIANDARD ROADWAY CONSTRUCTION DRAWING MIDWEST GUARDRAIL SYSTEM GUARDRAIL DETAILS	(Rail Components)
	THIS DRAWING REPLACES	
	3/3	3



ELEVATION (Wood Posts shown)

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NOTES	DATE	018
RAIL: Use W-Beam rail meeting AASHTO M 180–12 Type II Class A, as specified in CMS 606. Either 13'-6½" long (12'-6" between splices) or 26'-½" long (25'-0" between splices) rail sections may be used.	REVISION	1-19-2
POSTS: Posts may be constructed of wood or steel. Use the same type of post throughout the length of the project unless otherwise specified in the plans or permitted by the Engineer.	T OF ATOR	in
Wood post shall be fabricated and pressure-treated for approved species as per CMS 710.12. Bore bolt holes and, if required, trim the tops of posts after the posts are set.	DEPARTMEN I ADMINISTF	Holste
See SCD MGS-1.1 for Standard Steel Posts.	OHIO LATION	
All rectangular posts are 6'-0" long (+3", -0 tolerance) unless otherwise in the Contract Document. Posts may be drilled holes or may be driven to grade. Embedment depth shall be 37" when using the round wooden post option.	STATE OF TRANSPOR	David
BLOCKOUTS: Blockout dimensions are dependent on post used. Wood Blockouts are to be pressure treated as specified in CMS 710.14. Bore bolt holes. Approved Alternate blockouts may be used in lieu of the wood blockouts shown. The approved list is maintained by the Office of Roadway Engineering.	STDS. ENGINEER	. Fisher
When terminating double-sided barrier guardrail with an impact attenuator, use reduced 8″ deep blockouts on the last # posts on the barrier design to accomodate the narrower widths of the attenuators.	<u> </u>	□ 5 2
WASHERS: Install appropriate sized standard galvanized steel washers on the nut side of bolts installed on wood posts. Beam washers are not to be used.		A D W A NEERI
DELINEATION: For Barrier Reflectors see CMS 626.		N N N
PAYMENT: Guardrail is paid in feet per ITEM 606 - Guardrail, Type MGS. Half or Quarter Post Spacing Guardrail per ITEM 606 - Guardrail, Type MGS Half Post Spacing ITEM 606 - Guardrail, Type MGS Quarter Post Spacing		_
EPLACES MGS-2.1 DATED 7-19-2013	STANDARD ROADWAY CONSTRUCTION DRAWING MIDWEST GUARDRAIL SYSTEM,	STANDARD TYPE MGS Regular, Half, & Quarter Post Spacing
THIS DRAWING REPLACES MOS-2.1 DATED 7-19-2013	SCD NUMBER SCD NUMBER SCD NUMBER SCD NUMBER SCD NUMBER SCD NUMBER SCD SCD NUMBER SCD SCD NUMBER SCD SCD NUMBER SCD NUM SCD NUMBER SCD NUMBER SCD NUMBER SCD NUMBER SCD NUMBER SCD NUM SCD NU	MGS-2.1 STANDARD TYPE MGS Regular, Half, & Quarter Post Spacing





DISTANCE BETWEEN S		SIGNS (FT)						
ROAD TYPE	А	В	С					
Two-Lane (≤ 40 MPH)	100	100	100					
Two-Lane (45-50 MPH)	350	350	350					
Two-Lane (55-60 MPH)	500	500	500					

170						
SPEED LIMIT (MPH)	BUFFER (D) (FT) MIN.					
25	155					
30	200					
35	250					
40	305					
45	360					
50	425					
55	495					
60	570					

LEGEND						
WORK AREA						
DRUMS/CONES	• • •					
DIRECTION OF TRAVE						
SHADOW VEHICLE WITH TMA						

NOTES:

FLAGGERS

 Flaggers, one for each direction, shall be used to control traffic continuously for as long as a one lane operation is in effect. The flaggers shall be able to communicate with each other at all times.

LENGTH OF CLOSURE

 Several small work areas close together should be combined into one work zone. However, the closure shall not be more than 2000' long unless approved by the Engineer. The minimum length between closures shall be 2000'. Only one side of the road shall be closed in any one work zone.

SIGN LOCATION AND SPACING

- 3A. The minimum spacing between work zone signs is shown in Table I. Maximum spacing should not be greater than 1.5 times the distances shown in Table I.
- 3B. Sign spacing should be adjusted to avoid conflict with existing signs. Minimum spacing to existing signs shall be 200' for speeds of 45 mph or less and a minimum of 400' for speeds of 50 mph or greater.
- 3C. The location of the advance warning signs should be adjusted to provide for adequate sight distance for the existing vertical and horizontal roadway alignment.

ADJUSTMENTS FOR SIGHT DISTANCE

4. The location of the flagger station and the advance warning signs should be adjusted to provide for adequate sight distance for the existing vertical and horizontal roadway alignment.

BASIC SIGNING

- 5A. ROAD WORK AHEAD (W2O-1) signs shall be provided on entrance ramps or roadways entering the work limits.
- 5B. END ROAD WORK (G20-2) signs are only required for lane closures of more than 1 day. It is intended that these signs be placed on the mainline, on all exit ramps, and on roadways exiting the work limits.
- 5C. Overlapping of signing for adjacent projects should be avoided where the messages could be confusing. Any ROAD WORK AHEAD (W20-1) or END ROAD WORK (G20-2) sign which falls within the limits of another traffic control zone shall be omitted or covered during the period when both projects are active.

SIGNING DETAILS

- 6A. The Advisory Speed (W13-1P) plaque shall be used when specified in the plan.
- 6B. 36" warning signs may be used when the approach speed limit is 40 mph or less.

FLASHING WARNING LIGHTS

 Type A flashing warning lights shown on the ROAD WORK AHEAD (W2O-1) signs and on the LANE CLOSED AHEAD (W2O-5) signs are required whenever a night lane closure is necessary.

DRUMS / CONES

- 8A. Drum spacing shall be as follows:
- a) Spacing along the closure shall be 40' center-to-center. b) Spacing along the approach taper shall be 10' centerto-center.
- 8B. Cones may be substituted for drums as follows:
 - a) Cones used for daytime traffic control shall have a minimum height of 28".
 b) Cones used for nighttime traffic control shall have
 - b) Lones used for high fime frattic control shall have a minimum height of 42".
- c) Use of cones at night shall be prohibited along tapers.
- 8C. Provisions shall be made to stabilize the cones and drums to prevent them from blowing over.
- 8D. A minimum of two drums shall be used to close the paved shoulder.

(RESERVED FOR FUTURE USE)

9A. (intentionally blank)

AREA ILLUMINATION

- 10A. Adequate area illumination of each flagger station shall be provided at night. Use of portable flood lighting is acceptable. Luminaires shall be located adjacent to each flagger station.
- 10B. To ensure the adequacy of floodlight placement and the elimination of glare, the Contractor and the Engineer shall drive through the worksite each night when the lighting is in place. Light placement and shielding shall be adjusted to the satisfaction of the Engineer.

INTERSECTION / DRIVEWAY ACCESS

- 11. Within the length of closure, provision shall be made to control traffic entering from intersecting streets and major drives as necessary to prevent wrong-way movements and to keep vehicles off of new pavement not ready for traffic. The Contractor shall:
 - a) Place across the closed lane, either three drums (cones) or barricades, and/or
 - b) Provide an additional flagger at every public street intersection and major driveway.

Drums (cones) placed across the closed lane shall be located 25' beyond the projected pavement edges of the driveway or cross highway, as shown in Standard Construction Drawings (SCDs MT-97.11 or MT-97.12. For barricades, see SCD MT-101.60.

Existing STOP signs shall be relocated as necessary to assure proper location for the traffic conditions.

The method of control shall be subject to the approval of the Engineer.

SHADOW VEHICLE

- 12A. The shadow vehicle shall be in place and unoc whenever workers are in the work area. This shall be removed from the pavement whenver are not in the work area.
- 12B. The shadow vehicle shall be equipped with a h intensity yellow rotating, flashing, oscillating strobe light(s).
- 12C. The shadow vehicle shall be equipped with a ta mounted or trailer attenuator (TMA) in accord with CMS 614.03 when called for in the plans.

CHIP SEAL OPERATIONS

- 13. For chip seal operations, additional signing sh incorporated in the advanced warning area.
- a) The LOOSE GRAVEL (W8-7) and FRESH TAR (W21-2 both be used in advance of the chip seal op
- b) Repeat the LOOSE GRAVEL sign with a 35 mpt Speed (W13-1) plaque every half mile per CMS
- c) The FRESH TA'R and the LOOSE GRAVEL signs subbe used for signing of side roads intersection area.

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	REVISION DATE	04-19-2019
upied ehicle orkers gh- or uck- nce	STATE OF OHIO DEPARTMENT OF TRANSPORTATION ADMINISTRATOR	David L. Holstein
ll be signs shall ration.	STDS. ENGINEER	Soisson
Advisory 122.09. all both g the work	OFFICE OF	ENGINEERING
	ICES MT-97.10 DATED 07-18-2014. Standard Roadway construction drawing FLAGGER CLOSING 1 LANE OF A 2-LANE	HIGHWAY - STATIONARY OPERATION
	DRAWING REPLA MBER	7 .10

PAVEMENT MARKING OPERATION PROCEDURES

<u>NOTES</u>:

GENERAL

- 1A. In addition to CMS 614, traffic shall be maintained in accordance with the following requirements.
- IB. The purpose of the following requirements for traffic control for pavement marking operations is to provide safety for highway users, workers and equipment and to protect the markings from damage during application.
- 1C. These requirements are the required minimums. If at any time during the application of markings it is found by the Engineer that these minimum traffic control requirements are not achieving the necessary safety and marking protection, additional traffic control shall be implemented at no additional cost.
- 1D. The Engineer may suspend work in order to relieve traffic congestion at any time.
- IE. No work shall be done during peak hours or during any other times which could result in excessive queuing, as determined by the Engineer.
- IF. Vehicles transporting flammable pavement marking materials (material supply vehicles) shall not be utilized for lead or trail vehicles or for power broom equipment.
- 1G. All pavement marking application, protection and support equipment following the line marking machine shall have the traffic control equipment of a shadow vehicle.
- *IH. Line marking machines shall not be used for sign and cone placement.*

CONES AND WET PAINT - KEEP OFF SIGNS

- 2A. Cones and WET PAINT KEEP OFF (R11-H6-24) signs shall be placed to protect the line whenever the track-free time exceeds 2 minutes.
- 2B. These devices shall not be removed until the line has dried to a track-free condition.
- 2C. Retrieval equipment shall have the traffic control equipment of a shadow vehicle.
- 2D. Cones shall have a minimum height of 28".
- 2E. Cones shall be spaced at a maximum distance of 200' to protect the wet line. In areas of traffic congestion, on curves, and at other locations where tracking of the wet line is expected, closer spacings may be required.
- 2F. The WET PAINT KEEP OFF (R11-H6-24) signs shall be placed facing traffic as follows:
 - a) The beginning and end of line application, b) All side and cross roads, and
 - c) Maximum intervals of one mile.
- 26. When line markings require greater than a two minute drying time or when the actual field conditions exceed two minute drying time, the lane from which the line marking machine applies line markings shall be closed until the line has dried to a totally track-free condition.

IMMOBILE OPERATIONS

- 3A. When loading material, cleaning or performing other operations in the field, every effort shall be made to have all equipment completely off of the traveled way.
- 3B. When it becomes necessary to enter upon private property, permission shall be obtained in advance.
- 3C. When the Contractor cannot remove his equipment from the traveled way, all traffic control devices on the vehicles shall be in operation and flaggers and vehicles shall be stationed to protect the work site and the traveling public.
- 3D. Two-way traffic shall be maintained.
- *3E.* Flaggers shall be equipped in accordance with CMS 614.08.

AUXILIARY MARKINGS

 Pavement preparation and placing of auxiliary markings are considered to be stationary operations and traffic control shall be in accordance with plan details, standard construction drawings and the Ohio Manual of Uniform Traffic Control Devices (OMUTCD).

NIGHTTIME OPERATION

- 5A. Nighttime operation is defined to include the time from sunset to sunrise, and at any other time when there are unfavorable atmospheric conditions or when there is not sufficient natural light to render discernable persons, vehicles, and substantial objects on the highway at a distance of 1000'.
- 5B. During nighttime conditions the following traffic control shall be provided:
 - a) Cones shall be reflectorized or equipped with lighting devices for maximum visibility (see OMUTCD 6F.64), and
 - b) The guide and side-mounted carriages shall be illuminated.
- 5C. The presence of highway lighting does not waive these requirements.

ARROW BOARD

- 6A. A Type B arrow board shall be from the ODOT approved list. For more information, refer to Supplemental Specification 921 "Arrow Boards."
- 6B. Arrow boards, when used on two-lane, two-way roadways shall be displayed only in the caution mode.
- 6C. When not in use, arrow boards shall be tilted horizontally or covered.

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	REVISION DATE	04-19-2019
	STATE OF OHIO DEPARTMENT OF TRANSPORTATION ADMINISTRATOR	David L. Holstein
	STDS. ENGINEER	Soisson
	OFFICE OF	ROADWAY ENGINEERING
ES MT-99.20 DATED 07-20-2018.	STANDARD ROADWAY CONSTRUCTION DRAWING	PAVEMENT MARKING OPERATIONS
THIS DRAWING REPLAC	scd number	MT-99°20

PAVEMENT MARKING VEHICLES AND EQUIPMENT

LEAD VEHICLE

- 8A. A lead vehicle shall be used to warn opposing traffic of the approach of center line and other marking equipment when this equipment extends into the adjacen't opposing traffic lane.
- 8B. The lead vehicle shall precede the "left-of-center" marking equipment a distance that will provide advance safe warning to approaching traffic.
- 8C. The operator of this unit shall drive ahead of the crest of a vertical curve or around a horizontal curve and wait until the "left-of-center" marking equipment nears and then proceed, maintaining an advance location of 400' to 600'.
- 8D. A lead vehicle shall be equipped with the following traffic control devices:
 - a) A high-intensity yellow rotating, flashing, oscillating, or strobe light(s), clearly visible a minimum of one quarter mile.
 - b) Lighted headlights and taillights, and
 - c) A KEEP RIGHT (W24-H4-48) sign and WET PAINT (W24-H3-48) sign mounted a minimum of 5' above the road surface measured to the bottom of the sign, and visible to opposing traffic.

POWER BROOM EQUIPMENT

- Power broom equipment shall be equipped and operated during pavement preparations with the following traffic traffic control devices:
 - a) A high-intensity yellow rotating, flashing, oscillating, or strobe light(s), clearly visible a minimum of one quarter
 - b) Lighted headlights and taillights, and
 - c) A Type B arrow board, displayed to the rear, mounted a minimum of 7' above the road surface, measured to the bottom of of the board.

VEHICLE FOR LAYOUT AND PREMARKING

- 10. The vehicle used in layout and premarking shall be equipped and operated with the following equipment:
 - a) A high-intensity yellow rotating, flashing, oscillating, or strobe light(s), clearly visible a minimum of one quarter mile.
 - b) Lighted headlights and taillights, and
 - c) A KEEP RIGHT (W24-H4-48) sign mounted a minimum of 5' above the road surface measured to the bottom of the sign, and visible to opposing traffic.

LINE MARKING MACHINE

- 11A. All traffic line marking machines shall be equipped and operated with the following traffic control equipment:
 - a) Three high-intensity yellow rotating, flashing, oscillating, or strobé lights, clearly visible a minimum of one quarter mile, one forward, one on the right rear and one on the left rear of the vehicle.
 - b) Any one of the following two:
 - A Type B arrow board displayed to the rear, mounted a minimum of 7' above the road surface, measured to the bottom of the board.

or

2) A DO NOT PASS (R11-H7-48) sign visible to the rear during center line marking on two-lane, two-way roadways and mounted a minimum of 7' above the road surface, measured to the bottom of the sign. This sign may be used to cover the arrow board when used on two-lane, two-way roadways.

- 11B. A WET PAINT with Arrow (W24-H2a-24 or W24-H2-48) sign shall face the rear as follows:
 - a) The sign shall be positioned with the arrow pointing to the wet line.
 - b) When used, a W24-H2a-24 sign shall be mounted on the side of the vehicle nearest the wet marking material.
 - c) W24-H2a-24 and W24-H2-48 signs shall be mounted a minimum of 1' above the road surface, measured to the bottom of the signs.
- 11C. A KEEP RIGHT (W24-H4-48) sign and WET PAINT (W24-H3-48) sign mounted a minimum of 5' above the road surface, measured to the bottom of the sign facing opposing traffic when this unit extends into the adjacent opposing traffic lane.
- 11D. The guide and side-mounted marking carriages shall each be equipped with a clean red flag not less than 24" square and fastened to a staff of sufficient length so as to permit the flag to move freely of any obstruction.

SHADOW VEHICLE

- 12A. When required, a shadow vehicle shall be in place whenever workers are in the work area. The vehicle shall be removed from the pavement whenever workers are not in the work area. The shadow vehicle shall be positioned at the track-free end of the wet line.
- 12B. Shadow vehicles shall be equipped and operated with the following traffic control equipment (Also see Figure 6H-17 & 6H-35 in the OMUTCD):
 - a) A high-intensity yellowrotating, flashing, oscillating, or strobe light(s), clearly visible a minimum of one auarter mile.

b) Any one of the following two:

 A Type B arrow board, displayed to the rear, mounted a minimum of 7' above the road surface, measured to the bottom of the board.

or

- 2) A DO NOT PASS (R11-H7-48) sign visible to the rear during center line marking on two-lane, two-way roadways and mounted a minimum of 7' above the road surface, measured to the bottom of the sign. This sign may be used to cover the arrow board when used on two-lane, two-way roadways.
- c) On multi-lane highways (45 mph and above), a truck-mounted or trailer attenuator (TMA) in accordance with CMS 614.03.
- 12C. A WET PAINT with Arrow (W24-H2a-24 or W24-H2-48) sign shall face the rear as follows:
 - a) The sign shall be positioned with the arrow pointing to the wet line.
 - b) When used. W24-H2a-24 shall be mounted on the side of the vehicle nearest the wet marking material.
 - c) W24-H2a-24 signs shall be mounted a minimum of 1' above the road surface and W24-H2-48 shall be mounted a minimum of 5' above the road surface, both measured to the bottom of the sign.

MINIMUM PAVEMENT MARKING TRAFFIC CONTROL EQUIPMENT REQUIREMENTS

This table indicates the traffic control equipment which shall be furnished for each type of long line pavement marking operation. In addition, the type of traffic control equipment which shall be furnished when directed by the Engineer is indicated.

	PAVEMENT MARKING LINE TYPE ①					
	CENTER LINE		EDGE LINE		LANE LINE (2) CHANNELIZING LINE (3)	
EQUIPMENT	LONGER THAN 2 MIN. DRY	2 MIN. OR LESS DRY	LONGER THAN 2 MIN. DRY	2 MIN. OR LESS DRY	LONGER THAN 2 MIN. DRY	2 MIN. OR LESS DRY
LEAD VEHICLE	A	A	С	С	С	С
POWER BROOM EQUIPMENT	В	В	А	A	В	В
LINE MARKING MACHINE	A	A	А	A	А	A
SHADOW VEHICLE	D	А	D	A	RED IGHT (MUL TI- HEIGHT VGENT ' TAPER)	A
SHADOW VEHICLE (ADDITIONAL)	С	В	С	В	RE REQUI " MIN HEI "GHTIME 42" MIN. ED IN TAI UIRED IN	A
SHADOW VEHICLE (SIGN AND CONE RETRIEVAL)	А	С	А	С	E CLOSUI TIME: 28 REQ'D; <u>N</u> SHWAYS): REQUIRE UMS REQ	С
SHADOW VEHICLE (SHADOW FOR RETRIEVAL)	А	С	А	С	LAN DAY CONES LANE HIL CONES WITH DR	С
			1		1	1

- (1)see the plans and OMUTCD Part 6.
- 2 Includes both dashed and solid lane lines.
- 3 application of transverse lines.
- Required equipment
- В Equipment required when directed by the engineer
 - Not required

С

Л Required equipment for sign and cone placement

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For equipment requirements for auxiliary marking operations

Channelizing line segments of 200' or less shall be considered auxiliary markings, except when applied as components of gore marking's sprayed in moving operations separate from the

	THIS DRAWING REP	PLACES MT-99.20 DATED 07-20-2018.				
2	SCD NUMBER	STANDARD ROADWAY CONSTRUCTION DRAWING	OFFICE OF	STDS. ENGINFER	STATE OF OHIO DEPARTMENT OF TRANSPORTATION ADMINISTRATOR	REVISION DATE
7	MT_00 00	TRAFFIC CONTROL FOR LONG LINE	ROADWAY			
2		PAVEMENT MARKING OPERATIONS	ENGINEERING	Soisson	David L. Holstein	04-19-2019



THROUGH ARROW



Speed (S) (MPH)	Lane Width (W) (FT)	Taper Length (L) # (FT)	Advance Warning Distance (d) (FT)
25	12	125	325
30	12	180	460
35	12	245	565
40	12	320	670
45	12	540	775
50	12	600	885
55	12	660	990
60	12	720	1100
65	12	780	1200
70	12	840	1250



	4.17' 5.5'	
8.5. 2.5	2.67	
12.17'	2. <u>33</u> 2. <u>33</u> EE E E	
<u>.</u>	<u>2.67'</u> <u>1'</u> <u>183'</u> <u>2.33'</u> <u>4.17'</u> <u>5.5'</u>	

TABLE 1 - LANE-USE ARROWS

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ARROW TYPE	SIZE (FT)	AREA (SQ FT)
Turn Arrow	8.00	17
Through Arrow	9.50	13
Turn and Through Arrow	12.75	28
Lane-Reduction Arrow	18.00	46
Through Arrow Turn and Through Arrow Lane-Reduction Arrow	9.50 12.75 18.00	13 28 46

* - Indicates Station Reference Point

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NOTES:

SCHOOL Marking

- 1A. The SCHOOL markings shall be installed on all paved approaches in advance of all School Zones.
- 1B. The SCHOOL markings should be placed at least 100' in advance of the School Zone. The preferred placement of the SCHOOL marking is adjacent to the School Zone Advance sign.
- 1C. On two-way, two-lane highways the following shall apply:
 - 1.) When the approach lane to the School Zone is 11' or more in width -
 - a.) The SCHOOL word marking and transverse lines shall be contained in, and centered in, the lane.
 - b.) The character height shall be 6' for urban areas and 8' for rural areas.
 - 2.) When the approach lane to the School Zone is less than 11' in width
 - a.) One installation of the SCHOOL word marking and transverse lines shall extend across both lanes of traffic.
 - b.) The characters shall be 10' in height.
- 1D. On multi-lane approaches the following shall apply -
 - 1.) When the approach lanes to the School Zone are 11' or more in width
 - a.) The SCHOOL word marking and transverse lines shall
 - be contained in, and centered in, each lane. b.) The character height shall be 6' for urban areas and 8' for rural areas.
 - 2.) When the approach lanes to the School Zone are less than 11' in width
 - a.) One installation of the SCHOOL word marking shall extend to the width of two approach lanes.
 - b.) Transverse lines shall 'extend across all approach lanes of traffic.
 - c.) The characters shall be 10' in height.
- *IE. Center or lane lines shall not pass through the SCHOOL word marking.*
- IF. 6' and 8' high SCHOOL word marking shall be marked with 4" strokes.

10' high SCHOOL word marking shall be marked with 8" strokes.

1G. The area of the transverse lines varies with the width of the pavement; therefore, the area must be added to the value in Table 3 (sheet 2).

Railroad Crossing Markings

- 2A. On multi-lane approaches, markings shall be as follows
 - a.) The RXR symbol shall be placed in each approach lane.
 b.) Transverse lines used with the railroad symbols shall extend across all appraach lanes.
- 2B. The railroad symbol should be located so that the Railroad Advance Warning (W10-1) sign is within the two transverse boundary lines of the railroad symbol.
- 2C. The stop line shall be located for best sight distance between 15' 50' of the near edge of the tracks.
- 2D. The stop line shall be approximately 8' from a gate (if present).
- 2E. Width (W) of the "X" will vary according to the lane width.
- 2F. The height of the "R" shall be 6'.
- 2G. The area of the transverse lines and stop lines varies with the width of the pavement; therefore the area must be added to the value in Table 5 (sheet 2).

Stop Line Marking

- 3A. Except as specified in Notes 3B and 3C, the stop line should be placed as follows:
 - a.) The stop line should be placed where cross-corner vision is maximum.
 - b.) In no case shall the stop line be placed more than 30' or less than 4' from the nearest edge of the intersecting roadway.
 - c.) For normal intersections the maximum distance should be 10'.
- 3B. If a marked crosswalk is present the stop line should be placed 4' in advance of, and parallel to, the nearest crosswalk line.
- 3C. For signalized intersections the stop line should be placed at a minimum distance of 40' from the nearest signal head.

ONLY Word Marking

- 4A. The ONLY word marking is optional.
- 4B. Where used, the spacing between ONLY and arrow markings should be based on Table 4 (sheet 2).
- 4C. When lane-use arrow markings are used and the ONLY marking is not, an additional lane-use arrow should be used in its place to retain the spacing as shown in Table 4 (sheet 2).

Lane-Use Arrow Markings

- 5A. Lane-use arrow marking a through traffic lane(becomes a mandatory t
- 5B. Where used, the spacin be based on Table 4 (sh turn lane length, the s may be adjusted.

Two-Way Left-Turn Only (Th

- 6A. Arrow sets should be intervals of:
- a.) 500′ 1000′ for sp 40 mph, b.) 1000′ – 1500′ for sp
- 6B. In addition, an arrow
 - a.) 100' 200' from th roadway, or b.) Inside both ends of

Shared Lane Marking

- 7A. When chevron markings added to the value of Table 2 on sheet 1).
- 7B. When used, the shared immediately after an in intervals not greater 1

Lane-Reduction Arrow Mark

- 8A. Lane-reduction arrow m lane reduction transition
 - a.) Lane-reduction arro speeds of less tha appropriate based
- b.) Lane-reduction arr speeds of 45 mph
- c.) Lane-reduction arro
- acceleration lanes
- d.) Where lane-reducti be placed as follo
 - i.) First lane-reduct 'Begin Taper' poir ii.) Second lane-redu point.

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	-	
	REVISION DATE	01-19-2018
is are optional except where (s) approaching an intersection urn lane(s). ng between markings should neet 2). However, based on the pacing between the markings WLTO) Arrows	STATE OF OHIO DEPARTMENT OF TRANSPORTATION ADMINISTRATOR	David L. Holstein
longitudinally spaced at		
eeds less than or equal to beeds over 40 mph set should be placed: e near edge of an intersecting	E STDS. ENGINEER	IG P. Singh
f TWLTO lanes. are used, its area must be the bike symbol markings (see	OFFICE O	ROADWAY ENGINEERIN
tersection and spaced at than 250' thereafter.		s
ings narkings should be placed where a on occurs on a roadway as follows: ow markings may be placed for		MARKING
an 45 mph, if determined to be on engineering judgement. ow markings should be placed for or over. ow markings may be placed in long on arrows are used, they should ws: tion arrow 100' in advance of the nt. uction arrow placed at the 3/4d	STANDARD ROADWAY CONSTRUCTION DRAWING	WORD AND SYMBOL PAVEMENT
THIS DRAWING F	SCD NUMBER	TC-71.10
	3	/ 3

PROPOSAL NOTES

SECTION 5.8

PN 013 – 04/20/2018 - DISADVANTAGED BUSINESS ENTERPRISE (DBE) UTILIZATION PLAN AND GOOD FAITH EFFORTS

DBE UTILIZATION PLAN

All Bidders shall submit a DBE Utilization Plan at the time of bid setting forth specific information demonstrating how the Bidder will achieve the DBE goal. By submitting a DBE Utilization Plan, the Bidder is affirming that they will be using the DBE firms identified in the Utilization Plan to meet the DBE contract goal. The DBE Utilization Plan shall be submitted with the Project Bids (EBS)/Bid Express Online Submission through the DBE List folder at time of bid submission. Any bids received without electronic submission of the DBE Utilization Plan at or before bid time, will be deemed unresponsive. Bidders shall download the dbe.bin file from

http://www.dot.state.oh.us/Divisions/ContractAdmin/Contracts/Construction/dbe-bids.bin.

This file contains the current list of certified DBEs and is updated regularly. The dbe-bids.bin file must be saved in the same directory as the Project Bids (EBS) file.

The DBE Utilization Plan shall include the following information:

- 1) The names and addresses of the certified DBE firm(s) that will be used to meet the DBE goal;
- A description of the work that each DBE will perform. To count toward meeting a goal, each DBE firm must be certified in a NAICS code applicable to the kind of work the firm would perform on the contract;
- 3) Whether the DBE firm(s) being used to meet the goal will be utilized as a subcontractor, regular dealer, manufacturer, consultant or other capacity; and
- 4) The dollar amount of the participation of each DBE firm used to meet the DBE goal.

PROJECTS AWARDED ON ALTERNATES

In the event the project is awarded on alternates which increases or decreases the total dollar amount of the bid, a revision to the DBE Utilization Plan and DBE Affirmation Form(s) shall be submitted and approved by the Office of Small & Disadvantaged Business Enterprise within five (5) calendar days after the notification of the alternates.

DBE AFFIRMATION

The Apparent Low Bidder shall ensure the DBE firms being utilized to meet the DBE goal affirm their participation in the bid within five (5) calendar days after the bid opening to ODOT. The contract dollar amount(s) and/or DBE firm(s) included in the Apparent Low Bidder's DBE Utilization Plan must match the contract dollar amount(s) and/or DBE firm(s) included on the DBE Affirmation Form(s). If the contract dollar amount(s) and/or DBE firm(s) do not match, the Apparent Low Bidder shall utilize the Request to Terminate/Substitute DBE Form located at http://Transportation.ohio.gov/Divisions/ODI/SDBE/Pages/Resources.aspx and submit for review and approval by the Office of Small & Disadvantaged Business Enterprise within five (5) calendar days of the bid opening.

Low Bidder shall utilize the DBE Affirmation Form located The Apparent at http://Transportation.ohio.gov/Divisions/ODI/SDBE/Pages/Resources.aspx.The DBE Affirmation Form will be utilized as written confirmation from each listed DBE firm that it is participating in the contract in the kind and amount of work provided in the Bidder's DBE Utilization Plan. The Apparent Low Bidder shall submit a separate DBE Affirmation Form for each DBE it is utilizing for the DBE goal and their Good Faith Efforts package if they were not able to attain the DBE Goal via DBE participation.

All other Bidders shall submit a DBE Affirmation Form(s) if notified that the information is required in order for ODOT to complete its bid assessment. Bidders shall have five (5) calendar days from the date of notification to submit all required DBE Affirmation Forms to ODOT. Notification will be by phone or email.

In the event a DBE firm fails to confirm the information contained in the DBE Affirmation Form within five (5) calendar days of bid opening, the Apparent Low Bidder shall submit a Request to Terminate/Substitute DBE Form, as set forth herein. The Request to Terminate/Substitute DBE Form shall be submitted within five (5) calendar days after bid opening in order for the Apparent Low Bidder to still be considered for contract award. The Apparent Low Bidder shall include as its reason for termination the DBE firm's failure to provide a timely affirmation and should include all efforts the Apparent Low Bidder made to obtain the affirmation from the DBE firm and shall attach proof of these efforts, if available. If the Apparent Low Bidder intends to replace the DBE Firm, it shall include the replacement firm's information on the form. In the event the Apparent Low Bidder is unable to affirm a DBE firm included in its original DBE Utilization Plan at bid submission and it results in a goal shortfall, Good Faith Efforts (GFE's) must be submitted by the fifth calendar day after bid opening. All GFE documentation submitted for consideration should demonstrate the efforts the Bidder made prior to the time of bid submission to secure sufficient DBE participation on the project to meet the DBE goal although the Bidder was unable to do so. A DBE firm's failure to timely confirm information contained in the DBE Affirmation Form will be considered as good cause to terminate the DBE firm and will also be considered a part of the Apparent Low Bidder's Good Faith Efforts in meeting the goal.

DBE BIDDERS

In the event that the Bidder is also a certified DBE firm, the Bidder is required to complete a DBE Utilization Plan as set forth above. In this instance, however, the certified DBE Bidder would not need to submit a DBE Affirmation Form for the work it is planning to self-perform in order to meet the goal. ODOT will consider the submission of the bid as the certified DBE Bidder's written confirmation that it is participating in the contract. However, a DBE Affirmation Form must be submitted for all other DBE firms that are being utilized toward the DBE goal.

JOINT VENTURES

In the event that the Bidder is a Joint Venture, the Joint Venture will only be considered a Certified DBE firm if the Joint Venture itself has been certified. The Joint Venture may, however, utilize a Certified DBE firm that is also a partner in the Joint Venture as part of its DBE Utilization Plan. The Certified DBE Firm/Joint Venture Partner, however, does not need to submit a DBE Affirmation Form for any work that the Certified DBE Firm/Joint Venture Partner is going to perform to meet the goal. ODOT will consider submission of the Joint Venture's bid as the Certified DBE Firm/Joint Venture Partner's confirmation that it is participating in the contract.

GOOD FAITH EFFORTS (GFE's)

In the event that the DBE contract goal established by ODOT is not met, the Apparent Low Bidder shall demonstrate that it made adequate good faith efforts to meet the goal, even though it did not succeed in obtaining enough DBE participation to do so.

If the Apparent Low Bidder does not meet the goal at bid time, the Apparent Low Bidder shall submit its Good Faith Efforts (GFE's) documentation within five (5) calendar days of the bid opening. Submission of DBE affirmation(s) with additional participation sufficient to the meet the DBE contract goal does not cure the Apparent Low Bidder's failure to meet the goal at bid time or eliminate the Apparent Low Bidder's responsibility of submitting GFE's within five (5) calendar days of the bid opening.

The Apparent Low Bidder shall demonstrate its GFE's by submitting the following information within five (5) calendar days after the bid opening:

- (1) All written quotes received from certified DBE firms;
- (2) All written (including email) communications between the Apparent Low Bidder and DBE firms;

- (3) All written solicitations to DBE firms, even if unsuccessful;
- (4) Copies of each non-DBE quote when a non-DBE was selected over a DBE for work on the contract;
- (5) Phone logs of communications with DBE firms.

The Apparent Low Bidder shall utilize the Pre-Bid GFE Template to document their GFE's. This template and supporting documentation shall be sent along with any DBE Affirmation Forms within five (5) calendar days of bid opening. ODOT has provided Good Faith Efforts Guidance located at http://www.dot.state.oh.us/Divisions/ODI/SDBE/DBE%20Goal%20Forms/Contractors%20Good%20Faith%20Efforts%20Guidelines.pdf

All other Bidders shall submit documentation of GFE's if notified that the information is required in order for ODOT to complete its bid assessment. Bidders shall have five (5) calendar days from the date of notification to submit all required GFE documentation. Notification will be by phone or email.

ODOT shall utilize the guidance set forth in 49 CFR §26.53 Appendix A in determining whether the Bidder has made adequate good faith efforts to meet the goal.

ADMINISTRATIVE RECONSIDERATION

ODOT will review the GFE documentation and issue a written determination on whether adequate GFE's have been demonstrated prior to contract award. If ODOT determines that the Apparent Low Bidder has failed to demonstrate adequate GFE's to meet the goal, the Apparent Low Bidder will have an opportunity for administrative reconsideration prior to the contract being awarded.

As part of this reconsideration, the Apparent Low Bidder may provide written documentation or argument concerning the issue of whether it met the goal or made adequate good faith efforts to do so. Such written documentation or argument must be provided to ODOT, attention to the Office of Chief Legal Counsel, 1980 West Broad Street, MS 1500, Columbus, Ohio 43223 (with copy to the Office of Contract Sales, MS 4110), within two (2) business days of ODOT's written determination that GFE's were not adequately demonstrated. The Apparent Low Bidder may also include in their written documentation a request for an in person meeting to discuss the issue of whether it met the goal or made adequate good faith efforts to do so. ODOT's Office of Chief Legal Counsel will respond to the Apparent Low Bidder within five (5) business days of receiving written documentation or holding the in-person meeting.

ODOT will send the Apparent Low Bidder a written decision on reconsideration explaining the basis for finding that the Apparent Low Bidder did or did not meet the goal or make adequate good faith efforts to do so. The result of the reconsideration process is not administratively appealable to the United States Department of Transportation.

TERMINATION OR REPLACEMENT OF A DBE

By submitting a DBE Utilization Plan, the Bidder is committing to use the DBE firms identified in the plan. The Apparent Low Bidder/Awarded Contractor shall utilize the specific DBEs listed in the DBE Utilization Plan to perform the work and supply the materials for which each is listed unless the Apparent Low Bidder/Awarded Contractor obtains written consent as provided in this paragraph. In order to request termination or substitution of a DBE firm, the Apparent Low Bidder/Awarded Contractor shall utilize the Request to Terminate/Substitute DBE Form located at http://Transportation.ohio.gov/Divisions/ODI/SDBE/Pages/Resources.aspx.

This termination/replacement procedure applies only to DBE firms or the amount of work being utilized to meet the goal.

Without ODOT's written consent to terminate/replace a DBE firm being utilized to meet the goal, the Awarded Contractor shall not be entitled to any payment for DBE listed work or material unless it is performed or supplied by the listed DBE.

GOOD CAUSE

ODOT may provide written consent to terminate a DBE only if it agrees, for reasons stated in a concurrence document, that the Apparent Low Bidder/Awarded Contractor has good cause to terminate the DBE firm.

For purposes of this paragraph, good cause to terminate a DBE includes the following circumstances:

- 1) The listed DBE firm fails or refuses to provide the required DBE Affirmation Form or to execute a written contract;
- 2) The listed DBE firm fails or refuses to perform the work of its subcontract in a manner consistent with normal industry standards. Provided, however, that good cause does not exist if the failure or refusal of the DBE firm to perform its work on the subcontract results from the bad faith or discriminatory action of the awarded contractor;
- 3) The listed DBE firm fails or refuses to meet the awarded contractor's reasonable, nondiscriminatory bond requirements.
- 4) The listed DBE firm becomes bankrupt, insolvent, or exhibits credit unworthiness;
- 5) The listed DBE firm is ineligible to work on public works projects because of suspension and debarment proceedings pursuant 2 CFR Parts 180, 215 and 1200 or applicable state law;
- 6) ODOT has determined that the listed DBE firm is not a responsible contractor;
- 7) The listed DBE firm voluntarily withdraws from the project and provides to you written notice of its withdrawal;
- 8) The listed DBE is ineligible to receive DBE credit for the type of work required;
- 9) A DBE owner dies or becomes disabled with the result that the listed DBE contractor is unable to complete its work on the contract; and
- 10) Other documented good cause that ODOT determines compels the termination of the DBE firm. Provided, that good cause does not exist if the awarded contractor seeks to terminate a DBE it relied upon to obtain the contract so that the awarded contractor can self-perform the work for which the DBE contractor was engaged or so that the awarded contractor can substitute another DBE or non-DBE contractor after contract award.

REPLACEMENT

When a DBE firm is terminated or fails to complete its work on the contract for any reason the Awarded Contractor must make GFEs to find another DBE firm to replace the original DBE. These GFEs shall be directed at finding another DBE to perform at least the same amount of work under the contract as the DBE that was terminated, to the extent needed to meet the contract goal. The GFEs shall be documented by the Awarded Contractor. If ODOT requests documentation under this provision, the Awarded Contractor shall submit the documentation within seven (7) calendar days, which may be extended for an additional seven (7) calendar days if necessary at the request of the contractor, and ODOT shall provide a written determination to the contractor stating whether GFEs have been demonstrated.

In addition to post-award terminations, the provisions of this section apply to pre-award deletions and substitutions of DBE firms put forward by Bidders in the DBE Utilization Plan.

ADDITION

In the event additional DBE participation is required for the project, the Awarded Contractor shall utilize the DBE Affirmation Form located at http://Transportation.ohio.gov/Divisions/ODI/SDBE/Pages/Resources.aspx. The DBE Affirmation Form will be utilized as written confirmation from each DBE firm that it is participating in the contract in the kind and amount of work on the project.

WRITTEN NOTICE TO DBE

Before transmitting to ODOT its request to terminate and/or substitute a DBE firm, the Apparent Low Bidder/Awarded Contractor must give notice in writing to the DBE firm, with a copy to ODOT, of its intent to request to terminate and/or substitute, and the reason(s) for the request.

The Apparent Low Bidder/Awarded Contractor must give the DBE five (5) calendar days to respond to the notice, advising ODOT and the Apparent Low Bidder/Awarded Contractor of the reasons, if any, why it objects to the proposed termination of its subcontract and why ODOT should not approve the Apparent Low Bidder/Awarded Contractor's action. If required in a particular case as a matter of public necessity (e.g., safety), ODOT may provide a response period shorter than five (5) days.

GOAL ATTAINMENT POST AWARD

The Awarded Contractor shall make available upon request a copy of all DBE subcontracts. The Awarded Contractor shall ensure that all subcontracts or agreements with DBEs require that the subcontract and all lower tier subcontractors be performed in accordance with this Proposal Note.

Approval of a DBE Utilization Plan does not ensure approval of C-92 Requests to Sublet nor does approval of a DBE Utilization Plan indicate that the DBE goal has been met. ODOT will monitor goal attainment throughout the life of the project. It is the responsibility of the Awarded Contractor to advise ODOT of any changes to the DBE Utilization plan throughout the life of the project. The DBE goal of a project is stated as a percentage of the contract. In the event the contract amount increases or decreases, the actual dollar amount of the DBE goal for the project may increase or decrease accordingly.

SANCTIONS AND ADMINISTRATIVE REMEDIES

PRE-BID

Failure by the Apparent Low Bidder to do any of the following shall result in the bid being rejected as non-responsive in accordance with ORC §5525.08:

- 1) Failure to submit a complete DBE Utilization Plan at the time of bid;
- 2) Failure to submit DBE Affirmation Form(s) and/or failure to submit Request to Terminate/Substitute DBE Form(s) as required by this Proposal Note; or
- Failure to meet the goal and/or failure to demonstrate GFEs to meet the goal as required by this Proposal Note.

POST-BID

Failure by the Awarded Contractor to carry out the requirements of this Proposal Note, including the submission of adequate good faith efforts to meet the goal for a project, is a material breach of the contract and may result in the issuance of sanctions as follows:

- 1st Tier: Letter of Reprimand
- 2nd Tier: Damages equivalent to the DBE shortfall

3rd Tier: If a pattern of paying damages persists or the Contractor has falsified, misrepresented or withheld information, ODOT can pursue other remedies available by law including suspension, revocation, and/or debarment.

Factors to be considered in issuing sanctions may include, but are not limited to the following:

- the magnitude and the type of offense
- the degree of the Contractor's culpability
- any steps taken to rectify
- the Contractor's record of performance on other projects including, but not limited to:
 - annual DBE participation
 - o annual DBE participation on projects without goals
 - the number of complaints ODOT has received regarding the Contractor
 - o the number of times the Contractor has been previously sanctioned by ODOT

PN 060 - 04/20/2018 - PREVAILING WAGES ON STATE PROJECTS WITH NO FEDERAL AID

The following is in addition to Section 108.10.

This contract is subject to Ohio Prevailing Wage Laws, Chapter 4115 of the Ohio Revised Code and the Prime Contractor and all subcontractors shall comply with all provisions contained therein or as otherwise provided by this note. The Prime Contractor guarantees that the prevailing wage scale to be paid to all laborers and mechanics employed on this contract shall be in accordance with the schedule of the prevailing hourly wage and fringe benefits as determined by the Ohio Department of Commerce for the county in which the work is being performed. The failure to pay prevailing wages to all laborers and mechanics employed on this project, shall be considered a breach of contract. Such a failure may result in the revocation of the contractor's and/or subcontractor's certificate of qualification and debarment. A schedule of the most current prevailing wage rates may be accessed by registering with the Ohio Department of Commerce, Labor and Worker Safety

Division, Wage and Hour Bureau at the following web address:

http://198.234.41.198/w3/webwh.nsf?Opendatabase

The Contractor and all subcontractors shall compensate the employees on this contract at a pay rate not less than the hourly wage and fringe rate listed on the website noted above, for the applicable job classification or as may be modified by the Ohio Department of Commerce, Division of Labor and Worker Safety Wage and Hour Bureau, when new prevailing rates are established.

Overtime shall be paid at one and one-half times the basic hourly rate for any hours worked beyond forty hours during a pay week. The Prime Contractor and all subcontractors shall pay all compensation by company check or direct deposit to the worker and fringe benefit program.

The wage and fringe rates determined for this project or as may be later modified, shall be posted by the Prime Contractor in a prominent and accessible place on the project, field office, or equipment yard where they can be easily read by the workers or otherwise made available to the workers. On the first pay date of contract work the Prime Contractor and all subcontractors shall furnish each employee covered by prevailing wage a completed form whpw1512 in accordance with section 4115.05 of the Ohio Revised Code, showing the classification, hourly pay rate, fringes, and identifying the District Prevailing Wage Coordinator (DPWC) District Contractor Compliance Officer (CCO) if such employees are not covered by a collective bargaining agreement or understanding between employers and bona fide organizations of labor. These forms shall be signed by the Prime Contractor or subcontractor and the employee and kept in the Prime Contractor's or subcontractor's payroll files.

The Prime Contractor shall submit to the designated Department representative, certified payrolls for the Prime Contractor and all subcontractors on form whpw1509 or equivalent, in accordance with sections 4115.07 and 4115.071 (C) of the Ohio Revised Code, three weeks after the start of work and every subsequent week until the completion of the contract. Additionally, a copy of the "Apprentice Certification" obtained from the Ohio State Apprenticeship Council, must accompany all certified payrolls submitted, for all apprentices working on this project. Upon completion of the contract and before the final payment, the Contractor shall submit to the DPWC CCO a final wage affidavit in accordance with section 4115.07 of the Ohio Revised Code stating that wages have been paid in conformance with the minimum rates set forth in the contract. Please be aware that it is ultimately the responsibility of the Prime Contractor to ensure that all laws relating to prevailing wages in Chapter 4115 of the Ohio Revised Code, are strictly adhered to by all subcontractors.

The Prime Contractor and all subcontractors shall make all of its payroll records available for inspection, copying or transcription by any authorized representative of the contracting agency. Additionally, the Prime Contractor and all subcontractors shall permit such representatives to interview any employees during working hours while the employee is on the job.

The Prime Contractor and all subcontractors shall submit via the Department's Civil Rights & Labor System (CRL), certified payrolls each week beginning three weeks after the start of work. The Department will not

accept payrolls not uploaded via CRL (i.e. - no handwritten payrolls). These payrolls shall include, but not be limited to, the following:

- 1. Employee name, address, social security number, classification, and hours worked.
- 2. The basic hourly and overtime rate paid, total pay, and the manner in which fringe benefit payments have been irrevocably made.
- 3. The contract ID and pay week dates.
- 4. Signature of an authorized company representative will be done online through CRL.

CRL Requirements with interactive training guides can be found at http://transportation.ohio.gov/crl/.

Additionally, a copy of the "Apprentice Certification" obtained from the Ohio State Apprenticeship Council, must accompany all certified payrolls submitted for all apprentices working on this project. Instructions for attaching the apprenticeship certificate can also be found at <u>http://transportation.ohio.gov/crl/</u> under "Attaching the Apprenticeship Certificate."

If the Prime Contractor or any subcontractor fails to comply with any of the provisions contained in this proposal note, the Department may terminate the contract, debar the Prime Contractor or Subcontractor and/or withhold or suspend pay estimates after written notice and a reasonable opportunity to comply has been provided.
PN 095 - 03/30/2020 Potential Impacts and Delays Due to COVID-19

In an effort to anticipate the potential impacts to the Project caused by the COVID-19 threat and in following direction from the Governor and other authorities, the Contractor is on notice of the need to comply with all federal, state and local orders generated to prevent the spread of contagious or infectious diseases, including the Stay at Home Order from the Ohio Director of Health dated March 22, 2020, and subsequent orders, located through the following website:

https://coronavirus.ohio.gov/wps/portal/gov/covid-19/home/public-health-orders/directors-order-tostay-at-home

Contractor is on notice that the Project is considered essential and that the contractor and his employees, subcontractors and suppliers are considered essential businesses and performing essential functions as defined under the Stay at Home Order.

Notwithstanding any other provisions of the contract documents, in the event of project delay or impacts to performance due to a voluntary or mandatory COVID-19 virus Directives, Orders, quarantine or closure directed by government authorities, either party may, by providing notice to the other party as required under CMS 108.02(F), extend the Completion Date for a period of up to thirty (30) days. Extensions under this paragraph shall be considered an excusable, non-compensable delay in accordance with CMS 108.06(B). If any portion of the Work is still not able to be performed upon the expiration of the extension, either party may provide notice to the other party requesting a termination for convenience under 108.09. The termination for convenience remains at the sole discretion of the Director.

The Contractor and ODOT will exercise best efforts to utilize remote services to perform Work that otherwise cannot be performed in person due to a voluntary or mandatory COVID19 virus quarantine, closure, or impact as directed by Stay at Home Order.

Impacts to the Project generated by the Stay at Home Order shall not be considered an "issue" under 108.02 (F) for Projects sold after the date of this Note. Contractors are on notice that their bids should include any impacts they foresee or should have reasonably foreseen due to the Stay at Home Order or existing or reasonably foreseeable orders by any other federal, state or local official.

If any emergency order or declaration of any government official is lifted at any time, ODOT will provide written notice to the Contractor that this Note shall be considered void thirty (30) days after receipt of the written notice. If the Stay at Home Order from the Ohio Director of Health dated March 22, 2020 is lifted at any time, this Note shall be considered null and void thirty (30) days after the lifting of those orders.

PN 105 – 10/19/2018 - CRITICAL PATH METHOD PROGRESS SCHEDULE FOR SINGLE SEASON PROJECTS

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- I. Recovery Schedule
- J. Basis of Payment

A. General. The progress schedule required for this project is the critical path method schedule (CPM schedule). The Contractor shall designate a Schedule Representative who shall be responsible for coordinating with the Engineer during the preparation and maintenance of the schedule. The requirements of this note replace the progress schedule requirements in 108.03 of the Construction & Material Specifications.

B. Interim Schedule. Interim schedules are not permitted for this project.

C. Baseline Schedule. The Contractor shall submit a baseline schedule within 15 days of the execution of the Contract, or prior to the start of work, whichever comes first. The baseline schedule will be in CPM schedule format and as described below. The Engineer will review the baseline schedule and will either "approve", "approve as noted" or "reject" the schedule within 7 days of receipt. If the

Engineer does not provide written notification regarding the disposition of the baseline schedule within 7 days, the submission will be considered approved.

For baseline schedules that are "approved as noted", the Contractor shall make the necessary revisions and resubmit the revised schedule within 7 days. The Engineer will only reject baseline schedules that are not in compliance with contract requirements.

For baseline schedules that are "rejected", the Engineer shall indicate in writing all portions of the schedule that are not in compliance with the contract requirements. The Engineer shall conduct a mandatory meeting with the Contractor and the Contractor's Schedule Representative within 7 days of the Engineer's written notice. The purpose of this meeting is to resolve all issues with the baseline schedule. At this meeting the Contractor shall provide clarification and all requested information necessary for the Engineer to "approve" the baseline schedule.

In the event the baseline schedule is not "approved" within 60 days of execution of the contract, all work shall cease on the project until the baseline schedule is "approved".

Approval of the baseline schedule does not revise the Contract Documents. The baseline schedule must be "approved" or "approved as noted" by the Engineer prior to the Engineer evaluating any Contractor claims associated with time impacts.

1. Schedule Requirements. Submit an .xer or .xml file (to be determined by the Engineer) prepared in Primavera software manufactured by Oracle. The Department will "Import" or accept progress schedule files from the Contractor. All Calendars assigned to activities must be project level Calendars not Global or Resource Calendars; all Activity Codes shall be project level and not Global or EPS level Activity Codes; no Resources shall be assigned to activities, and no Project Codes shall be assigned.

Table 1 – Schedule Filer	name Convention		
Progress Schedule	1 st Submission	2 nd Submission	3 rd Submission
Interim Schedule	YYPPPP01IS	YYPPPP02IS	YYPPPP03IS
Baseline Schedule	YYPPPP01B	YYPPPP02B	YYPPPP03B
Schedule Update #1	YYPPPP01SU01	YYPPPP02SU01	YYPPPP03SU01
Schedule Update #2	YYPPPP01SU02	YYPPPP02SU02	YYPPPP03SU02
Delay Analysis	YYPPPP01TIA01	YYPPPP02TIA01	YYPPPP03TIA01

Weather Delay Analysis	YYPPPP01WD01	YYPPPP02WD01	YYPPPP03WD01
Recovery Schedule	YYPPPP01RS01	YYPPPP02RS01	YYPPPP03RS01

YY – Project Year PPPP – Project Number

Provide a working day schedule that shows the various activities of work in sufficient detail to demonstrate a reasonable and workable plan to complete the Project by the Original Contract Completion Date. Show the order and interdependence of activities and the sequence for accomplishing the work. Describe all activities in sufficient detail so that the Engineer can readily identify the work and measure the progress of each activity. The baseline schedule must reflect the scope of work, required phasing, maintenance of traffic requirements, interim completion dates, the Completion Date, and other project milestones established in the Contract Documents. Include activities for submittals, working drawings, shop drawing preparation, submittal review time for the Department shop drawings, material procurement and fabrication, and the delivery of materials, plant, and equipment, and other similar activities.

The Contractor shall be responsible for assuring all work, including all subcontractor work, is included in the schedule. The Contractor shall be responsible for assuring that all work sequences are logical and that the schedule indicates a coordinated plan.

Failure by the Contractor to include any element of work required for performance of the Contract shall not excuse the Contractor from completing all work within the required time. The Engineer's review of the baseline schedule will be for compliance with the specifications and contract requirements. Approval by the Engineer will not relieve the Contractor of any of their responsibilities for the accuracy or feasibility of the schedule. Omissions and errors will be corrected as described in Section F or I in this note and will not affect contract time.

- a) Administrative Identifier Information:
 - i. Project Number
 - ii. County
 - iii. Route Number
 - iv. FHWA Number
 - v. PID Number
 - vi. Contract Signed Date

- vii. Completion Date
- viii. Contractor's Name
- ix. Contractor's Dated Signature
- x. ODOT's Dated Approval Signature
- b) Project Activities:
 - i. Activity Identification (ID). Assign each activity a unique identification number. Activity ID length shall not exceed 10 characters. Once accepted, the Activity ID shall be used for the duration of the project.
 - Activity Name. Each activity shall have a narrative description consisting of a verb or work function (e.g.; form, pour, excavate) and an object (e.g.; slab, footing, underdrain). Do not include commas in the narrative description.
- iii. Activity Original Duration. Assign a planned duration in working days for each activity. Do not exceed a duration of 20 working days for any construction activity unless approved by the Engineer. Activity durations will be in whole days, do not include decimals in the duration. Do not represent the maintenance of traffic, erosion control, and other similar items as single activities extending to the Completion Date. Break these Contract Items into component activities to meet the duration requirements of this paragraph.
- iv. Activity Relationships:
 - All activities, except the first activity, shall have a predecessor(s). All activities, except the final activity, shall have a successor(s).
 - Use only finish-to-start relationships with no leads or lags to link activities, or use start-to-start relationships with lags no greater than the predecessor duration to link activities.
 - Use of finish-to-finish relationship is required when both activities are already linked with a start-to-start relationship.
 - Negative lags are not allowed with any relationship
- c) Project Milestones:

- i. Start Project: The Contractor shall include as the first milestone in the schedule, a milestone named "Start Project". The date used for this milestone is the date the contract is executed and signed by the Department.
- ii. End Project Milestone: The Contractor shall include as the last activity in the project schedule, a milestone named "End Project". The date used for this milestone is considered the project completion date.
- iii. Start Phase Milestone: The Contractor shall include as the first activity for a project phase, an activity named "Start Phase X", where "X" identifies the phase of work. The Contractor may include additional milestones but, as a minimum, must include all contractual milestones.
- iv. End Phase Milestone: The Contractor shall include as the last activity in a project phase, an activity named "End Phase X" where "X" identifies the phase of work. The Contractor may include additional milestones, but at a minimum must include contractual milestones.
- d) Level of Effort Activities:

Use level of effort activities to show the duration of specified contract work periods, phases and road closures. The level of effort activity type is allowed to have a start-to-start relationship with the first activity in a series of activities and a finish-to-finish relationship with the last activity in a series of activities.

e) Constraints:

Use constraints sparingly in the schedule. If constraints are used, use only Early Constraints or Late Constraints.

f) Calendars:

Weather, seasonal (winter) and environmental shutdown periods shall be shown using non-work calendars. The activity can be assigned to a calendar indicating time periods of non-work. These custom calendars can be created to show days, weeks, or months of non-work. Seasonal weather conditions, as shown in CMS 108.06-1 shall be evenly dispersed into the CPM schedule calendars as non-work days and included in the planning and scheduling of all work. All calendars developed by the Contractor shall be established as Project Calendars, with the calendar name including the project year, project number and describing the function (i.e. 160345 – 5 day workweek, 160345 – earthwork, 160345 – structures, 160345 – asphalt, 160345 – concrete cure, 160345 – environmental restriction, 160345 – 7 day week, etc.). Each calendar should indicate an 8 hour workdays. No Global Calendars shall be incorporated into any progress schedule submission. Project Calendars cannot inherit holidays and exceptions from a Global Calendar.

g) Activity Codes:

The Contractor shall, at a minimum, include Project Activity Codes for Area, Phase, and Responsibility for each activity. Work Breakdown Structure is permitted, but is not to be used in lieu of Activity Codes. No Global Activity Codes shall be incorporated into any progress schedule submission.

h) Schedule Options:

The schedule may only be calculated using retained logic. Show open ends as non-critical. Total float shall be calculated as finish float. Ignore relationships to and from other projects.

- 2. Submission Requirements. Submit all schedules within the time frames specified. Submit the schedule and information in electronic file format via email or compact disc (CD) compatible with the Engineer's computer. Submit the following information along with the electronic baseline schedule:
 - a) A pdf of the baseline schedule in CPM format including the Administrative Identifier Information discussed in Section C.1.a on the first page of the schedule. For each activity on the chart, indicate the Activity ID, Activity Description, Original Duration, Remaining Duration, Total Float, Start Date, Finish Date, and Calendar ID. Use arrows to show the relationships among activities. Identify the critical path of the project on the bar chart in red. The critical path is defined as; the longest path of activities in the project that determines the project completion date. The activities that make-up the critical path of activities are the "Critical Activities."
 - b) A hard copy of the Six Week Look Ahead Schedule in CPM format. This schedule will have all the requirements of the baseline schedule in bar chart format except that it shall be limited to those activities that have an early start or early finish within

a six week period of the data date.

c) A complete Scheduling/Leveling Report (SCHEDLOG.TXT file generated by the Primavera scheduling software application) which includes Schedule Settings, Statistics, Errors, Warnings, Scheduling/Leveling Results, Exceptions, Activities with unsatisfied constraints, Activities with unsatisfied relationships, and Activities with external dates. The statistics shall include, number of Activities, number of Activities Not Started, number of Activities In Progress, number of Activities Completed, number of Activity Relationships, and number of Activities with Constraints. Total number of activities on the critical path, percent complete, activities without predecessors, activities without successors, and activities out of sequence.

D. Float. Use of float suppression techniques, such as; preferential sequencing (arranging critical path through activities more susceptible to Department caused delay), lag logic restraints, zero total or free float constraints, extending activity times, or imposing constraint dates other than as required by the contract, shall be cause for rejection of the project schedule or its updates.

- 1. **Definitions of Float.** Total Float is the length of time along a given network path that the actual start and finish of activity(s) can be delayed without delaying the project completion date. Project Float is the length of time between the End Project Milestone and the Contract Completion Date.
- 2. Ownership of Float. Float available in the schedule, at any time shall not be considered for the exclusive use of either the Department or the Contractor. During the course of contract execution, any float generated due to the efficiencies of either party is not for the sole use of the party generating the float; rather it is a shared commodity to be reasonably used by either party. Efficiencies gained as a result of favorable weather within a calendar month, where the number of days of normally anticipated weather is less than expected, will also contribute to the Project Float. A schedule showing work completing in less time than the contract time, and accepted by the Department, will be considered to have Project Float. Project Float will be a resource available to both the Department and the Contractor. No time extensions will be granted nor delay damages paid unless a delay occurs which impacts the project's critical path, consumes all available float and extends the work beyond the Contract Completion Date.

3. Negative Float. Negative float will not be a basis for requesting time extensions. Any extension of time will be addressed in accordance with the Section G. Scheduled completion date(s) that extend beyond the contract (or phase) completion date(s) may be used in computations for assessment of liquidated damages. The use of this computation is not to be construed as an order by the Department to accelerate the project.

E. Monthly Update Schedule. A monthly update schedule is a schedule in which only progress is updated from the prior data date to the current data date. Work added and/or excusable delays encountered since the prior data date must be represented as a schedule revision as described in Section F.

1. Update Requirements. On the fifth day of the current month, during the life of the Project, submit an updated schedule and all required information with a data date of the first day of the current month. The date for submission and data date may be adjusted to accommodate regularly scheduled progress meetings. Submit the monthly updated bar chart and the updated schedule in electronic format as specified in Section C.2. The Engineer shall "approve" or "reject" the schedule update within 7 days of receipt of the updated CPM schedule. The Engineer may withhold estimates if the updated schedule is not submitted as required by this section. For each updated schedule, identify the actual start and finish dates for all completed activities and the actual start date and remaining duration for all activities in progress. Correct out-of-sequence progress listings generated by the Scheduling Statistics Report on the critical path only. The project schedule shall be reviewed at each monthly progress meeting. Any corrections shall be made prior to the next monthly progress meeting.

Submit the following with each updated schedule:

- i. A pdf of the updated in CPM format.
- ii. A pdf of the Six Week Look Ahead Schedule in CPM Format
- iii. Provide a written narrative that identifies any non-critical revisions or shifts in the critical path and submit reasons for the changes or shifts in the critical path.
- iv. A complete Scheduling/Leveling Report (SCHEDLOG.TXT) file generated by the

Primavera scheduling software application.

- v. A pdf of the Claim Digger Report (generated by the Primavera Software application) providing a comparison between this updated schedule and the previous Monthly Updated Schedule.
- vi. Electronic files (formatted as described above)
- 2. Early Completion Monthly Update Schedule. An Early Completion Monthly Update Schedule is defined as a monthly update schedule submitted by the Contractor in which the Finish Date precedes the Contract Completion Date. If after incorporating necessary revisions in accordance with Section F, the Finish Date precedes the Contract Completion Date by at least 30 days, the Engineer will initiate a change order amending the Contract Completion Date to the Early Completion Date shown on the accepted Early Completion Monthly Update. The amended Completion Date will be effective upon execution of that change order and all contract provisions concerning the Completion Date such as incentives, disincentives, excusable delays, compensable delays, and liquidated damages will be measured against the amended Completion Date. The Contractor may elect not to execute the change order amending the Completion Date; however, in so doing, the Contractor waives its rights to delay damages in meeting the projected early Completion Date is used as Project Float.
- **3.** Late Completion Monthly Update Schedule. A Late Completion Monthly Update Schedule is defined as a monthly update schedule submitted by the Contractor in which the Finish Date exceeds the Contract Completion Date. In the event the Finish Date is more than 14 days beyond the current contract completion date and a schedule revision is not warranted, the Contractor must proceed in accordance with Section I.

F. Revisions. The Work may require and/or the Contractor may make revisions to the CPM schedule. Addition of new activities or new calendars or changes to existing activities, calendars or logic constitute a revision.

- 1. Any revision which modifies the critical path or impacts an interim date or project completion date must be represented on a companion schedule submitted with the monthly update schedule. A fragnet shall be used to define the sequence of new activities that are proposed to be added to the existing schedule. The fragnet shall identify the predecessors to the new activities and demonstrate the impacts to successor activities. If submitted as a fragnet, the Contractor shall compute two Finish Dates. The first Finish Date shall be computed without consideration of any impact by the fragnet. The Second Finish Date shall be computed with stating the reason for the proposed revisions.
- 2. Any revision which does not modify the critical path or the interim date or project completion date can be submitted in a narrative form accompanying the monthly update schedule. The narrative shall include the reason for the revisions.

The Engineer shall "approve" or "reject" proposed revisions within ten days of receipt of appropriate schedules and narrative. All approved revisions will be incorporated into the Monthly Update Schedule which will become the Revised Monthly Update Schedule.

G. Time Extensions for Delays in Accordance with C&MS 108.06.B and 108.06.D. The Work may require and/or the Contractor may request an extension of the Completion Date. Perform the following analysis to compute the duration of the time extension. Submit a pdf copy and an electronic copy of each analysis performed.

- 1. Determine project progress prior to circumstance(s) necessitating the time extension. The previous accepted monthly update, updated to the date of the circumstance alleging to have caused delay, shall be used to display the prior progress of the project. This schedule is referred to as the Un-impacted Schedule
- **2.** Prepare a fragmentary network (fragnet) depicting the circumstance that is believed to have delayed the project.
- **3.** Insert the fragnet into the Un-impacted Schedule, run the schedule calculations and determine the finish date. This schedule is referred to as the Impacted Schedule.
- **4.** Compare the Impacted Schedule finish date with the Un-impacted Schedule finish date to determine the duration of any warranted time extension.

Submit the impacted schedule with the request for time extension. Include a narrative report describing the effects of new activities and relationships to interim and contract completion dates. All approved time extensions will be incorporated into the monthly update with the fragmet used to determine impacts incorporated into the schedule.

H. Weather Days in Accordance with C&MS 108.06.C. The Contractor may request and/or the Engineer will determine an extension of the completion date due to weather days. Perform the following analysis to compute the duration of the time extension. Submit a pdf copy and an electronic copy of each analysis performed.

- 1. The previously accepted monthly update shall be used to display progress of the project and planned activities for the next 30 day period that incurred weather days. Make a copy of the schedule file to use for the analysis. This schedule is referred to as the Non-weather Schedule.
- **2.** Prepare a list of weather days believed to have delayed the project and the activities that were impacted.
- **3.** Utilizing the calendar(s) of those impacted activities, Remove any planned weather days. Insert the weather day(s) into the calendar(s) for the planned work as a non-work day. Run the schedule calculations and determine the finish date. This schedule is referred to as the Weather Schedule.
- **4.** Compare the Weather Schedule finish date with the Non-weather Schedule finish date to determine the duration of any warranted time extension.

Submit the weather schedule with the request for time extension on a monthly basis. Include a narrative report describing the effects of weather days to interim and contract completion dates.

I. Recovery Schedule. If the Monthly Update Schedule or Revised Monthly Update Schedule projects a finish date for the Project more than 14 calendar days later than the current Completion Date, submit a recovery schedule showing a plan to finish by the current Completion Date if requested by the Engineer. The Department will withhold Estimates until the Engineer approves the recovery schedule. The Engineer will use the schedule to evaluate time extensions and associated costs requested by the Contractor. In the event the current Completion Date is in dispute; the recovery schedule will need to be submitted once the dispute has been resolved.

J. Basis of Payment. The Department will make partial payments according to C&MS Section 109.09 and as modified by the following schedule:

- 1. The Department will release 60 percent of the lump sum amount bid for CPM Progress Schedule to the Contractor with the first regular estimate payable after the Engineer has approved the CPM Baseline schedule submission.
- 2. The Department will release an additional 30 percent of the lump sum amount bid for CPM Progress Schedule to the Contractor with the first regular estimate payable after 50 percent of the original contract amount is complete.
- **3.** The Department will release the remaining 10 percent of the lump sum amount bid for CPM Progress Schedule to the Contractor with the first regular estimate payable after 90 percent of the original contract amount is complete.

The Department will pay for the accepted quantities at the contract price as follows:

Item	Unit	Description
108E30000	Lump Sum	CPM Progress Schedule Short Duration Projects

Designer's Note: This note should be used for single season projects whose cost is greater than \$5 million; which have more than 3 phases; or, as may otherwise be appropriate. The Critical Path Method Progress Schedule is now a contract pay item as per Section J of the note and should be included in the Proposal as a pay item. It is recommended that this note be used for the projects described above where PN 120, PN 121, PN 122, PN 123, PN 124 and PN 125 are specified. Any questions should be addressed to the Construction Administration Staff Specialist in the Office of Construction Management.

PN 420 – 1/17/2020 - SURFACE SMOOTHNESS REQUIREMENTS FOR PAVEMENTS

DESCRIPTION: The surface tolerance specification requirements are modified as follows for all pavements of constant width with at least 1 centerline mile (1.6 km) of continuous paving. Short breaks in paving such as bridge decks, intersections, etc. are not considered breaks in continuous paving. Also included is pavement for ramps, including acceleration lanes and deceleration lanes, where the total length is greater than 0.5 miles (0.8 km); and all interstate-to-interstate ramps including acceleration lanes and deceleration lanes, regardless of total length.

For roads with less than 1 centerline mile (1.6 km) of paving; ramps, acceleration lanes, and deceleration lanes not included above; and sections of undivided highways, as defined in this note, within corporation limits with posted speed limits less than 40 miles per hour, smoothness measurement and corrective action for all areas of localized roughness with an IRI in excess of 250 inches per mile (3.95 m/km) in 25 feet (7.6 m) is required. For these same areas, no corrective action for 0.1-mile (0.16 km) sections having an IRI greater than 90 inches per mile (1.42 m/km) is required and no pay adjustments will be made.

Do not include pavement for turn lanes including center turn lanes, shoulders, crossovers, approach slabs, and bridge decks in IRI measurements, corrective actions, and pay adjustments.

Areas not part of this specification are subject to the requirements of the original item(s) specified.

If the pavement surface is Rubberized Open Graded Asphalt Friction Course (Supplemental Specification 803), this specification applies to the surface of the course immediately below and references to the number of courses placed do not include the SS803 course.

MATERIALS AND EQUIPMENT: Provide smoothness measuring equipment conforming to Supplement 1058. Furnish the Department's approval letter of the profiler and the operator to the Engineer. The Engineer will verify the smoothness measuring equipment conforms to Supplement 1058. The Engineer will complete the Smoothness Profiler Verification Report found in Supplement 1058, Appendix A, to document profiler calibration prior to measurement. The Engineer will verify the profile operator's certification against the operator list posted on the Office of Construction Administration webpage. Furnish equipment meeting the requirements of C&MS 257.02 for performing corrective diamond grinding.

SMOOTHNESS MEASUREMENT: Measure the pavement surface smoothness in both wheel paths. Wheel paths are located parallel to the centerline or baseline of the roadway or ramp and approximately 3.0 feet (1.0 m) from the centerline of the lane or ramp, measured transversely in both directions. Ensure the path of the profiler is parallel to the lane centerline at all times. Measure the entire length of pavement, event marking the profile runs such that profile data can later be identified when the profile sensor(s) is within 1.0 foot (0.3 m) of any existing pavement not constructed on the project, pressure relief joint, approach slab, or other non pavement features (i.e. manholes, valve boxes). It is the operator's responsibility to note such locations in the collected inertial profiles. Remove any objects such as dirt, debris, curing covers, etc., prior to

performing the surface smoothness measurements. Replace any curing covers after the measurements are taken. Repair any membrane curing damaged during the measurements.

Do not perform any surface smoothness measurements until the pavement has cured sufficiently to allow measuring without damaging the pavement. When the pavement will not support the profiler on the next working day, notify the Engineer and inform the Engineer when the measurements will be taken. Provide the Engineer at least 24 hours' notice prior to performing any measurements. Do not take measurements until project site verification is demonstrated to the Engineer according to Supplement 1058.

Develop an IRI according to ASTM E 1926 for each 0.1-mile (0.16 km) section. Submit two copies of the summary report from ProVAL conforming to Supplement 1110 and two electronic copies of all longitudinal pavement profiles in ProVAL compatible format to the Engineer. The Engineer will submit one copy of the summary report and one electronic copy of the profiles to the Office of Technical Services.

Provide necessary traffic control and survey stationing for all surface smoothness measurements.

MANDATORY CORRECTIVE ACTION: Perform corrective action for the applicable surface type as required. Provide a list of all mandatory corrective action locations, with station, lane, and proposed corrections to the Engineer for approval. Do not perform any corrective actions without approval of the Engineer. Corrective action required to meet the maximum allowable IRI values that are performed after the contract completion date will be a Punch List item in accordance with C&MS 109.12.B. Corrective action will not be assessed liquidated damages in C&MS 108.07 or contract disincentives. If correction action on the Punch List is not completed within a reasonable time, it will be subject to an assessment of fifty percent of liquidated damages in accordance with C&MS 109.12.B.

Asphalt Concrete Surface: Classify asphalt pavement areas into one of the following types based on the work performed as part of the Project.

- Type A: Asphalt pavement specified as at least two uniform courses with the total thickness placed greater than or equal to 3 inches (75 mm).
- Type B: Asphalt pavement specified as either: a) at least one uniform course with the total thickness placed less than 3 inches (75 mm) and including Item 254 or SS897 planing prior to resurfacing, or b) at least two uniform courses with the total thickness less than 3 inches (75 mm) without including Item 254 or SS897 planing prior to resurfacing.
- Type C: Asphalt pavement specified as a single uniform course not meeting the criteria of Type B. The uniform course may be placed on a non-uniform leveling course.

TABLE 420-1 ASPHAL	T CONCRETI	E PAVEMENT C	LASS CRITE	RIA	
	Divided	Undivided	d Highways*		
Pavement Class	Corrective Action	Pay Adjustment Schedule (Table 420-3)	Corrective Action	Pay Adjustment Schedule (Table 420-3)	
Type A [\geq 3in. + 2-course]	[1],[5]	А	[2],[5]	А	
Type B [< 3in. + Milling] or [< 3in. + 2-course]	[1],[5]	А	[3],[5]	А	
Type C [< 3in. + 1-course]	[2],[5]	А	[4]	В	

* Divided highways have physical separation such as a grass median, raised concrete median, guardrail, or barrier between the two directions of travel. Highways with continuous two way left turn lanes are considered undivided. Undivided highways with short sections, less than 1000 feet (300 m), of physical separation are considered undivided for the entire length.

Corrective Action:

- [1] Correct all areas of localized roughness having deviations, high or low points, with an IRI in excess of 160 inches per mile (2.53 m/km) in 25 feet (7.6 m).
- [2] Correct all areas of localized roughness having deviations, high or low points, with an IRI in excess of 200 inches per mile (3.16 m/km) in 25 feet (7.6 m).
- [3] Correct all areas of localized roughness having deviations, high or low points, with an IRI in excess of 225 inches per mile (3.55 m/km) in 25 feet (7.6 m).
- [4] Correct all areas of localized roughness having deviations, high or low points, with an IRI in excess of 250 inches per mile (3.95 m/km) in 25 feet (7.6 m).
- [5] Correct any 0.1-mile (0.16 km) sections having an IRI greater than 90 inches per mile (1.42 m/km).

Perform corrective action as required in Table 420-1. Do not propose diamond grinding corrections in excess of one-third the contract Item course thickness. When removal is required for corrective action, remove the entire asphalt course(s) affected, for the full lane width, and replace per the original contract item(s). Apply Item 407 Tack Coat prior to placing any asphalt concrete. Do not diamond grind more than 5 percent by longitudinal length of the lane-miles (lane-km) eligible for a pay adjustment.

Re-measure each 0.1-mile (0.16 km) section where corrective action was performed to ensure compliance with Table 420-1.

If the final surface course is Item 803, seal any diamond ground areas with material meeting the requirements of 702.04 prior to placing the Item 803.

Portland Cement Concrete Surface: Classify pavement areas into one of the following types based on the work performed as part of the Project.

Type A: Concrete pavement with the total specified thickness greater than or equal to 8 inches (200 mm).

- Type B: Concrete pavement with the total specified thickness greater than 6 inches (150 mm) and less than 8 inches (200 mm).
- Type C: Concrete pavement with the total specified thickness less than or equal to 6 inches (150 mm).

TABLE 420-2 PORTLAND CE	MENT CONC	RETE PAVEMI	ENT CLASS	CRITERIA	
	Divided	Highways*	Undivided Highways*		
Pavement Class	Corrective Action	Pay Adjustment Schedule (Table 420-3)	Corrective Action	Pay Adjustment Schedule (Table 420-3)	
Type A [≥ 8in.]	[1],[5]	А	[1],[5]	А	
Type B [> 6 in. & < 8in.]	[1],[5]	А	[2],[5]	А	
Type C [< = 6 in.]	[2],[5]	А	[3]	В	

* Divided highways have physical separation such as a grass median, raised concrete median, guardrail, or barrier between the two directions of travel. Highways with continuous two way left turn lanes are considered undivided. Undivided highways with short sections, less than 1000 feet (300 m), of physical separation are considered undivided for the entire length.

Corrective action:

- [1] Correct all areas of localized roughness having deviations, high or low points, with an IRI in excess of 160 inches per mile (2.53 m/km) in 25 feet (7.6 m).
- [2] Correct all areas of localized roughness having deviations, high or low points, with an IRI in excess of 200 inches per mile (3.16 m/km) in 25 feet (7.6 m).
- [3] Correct all areas of localized roughness having deviations, high or low points, with an IRI in excess of 225 inches per mile (3.55 m/km) in 25 feet (7.6 m).
- [5] Correct any 0.1-mile (0.16 km) sections having an IRI greater than 90 inches per mile (1.42 m/km).

Perform corrective action as required in Table 420-2 by diamond grinding or removing and replacement per the original contract items.

Re-measure each 0.1-mile (0.16 km) section where corrective action was performed to ensure compliance with Table 420-2.

Complete all corrective action prior to determination of pavement thickness. If corrective action is required, the surface texture after diamond grinding is acceptable and no additional texturing is required.

Asphalt and Portland Cement Concrete Surfaces: If corrective action is required, develop a corrective action plan at least 7 days before beginning corrective action. Include in the plan identification and detailed location descriptions of all localized and lot violations and proposed corrective action. Do not begin corrective action until receiving the Engineer's acceptance of the corrective action plan. The corrective action plan is limited to grinding, pavement removal and replacement or a combination of the two. Upon completion of the corrective action, re-measure

surface smoothness according to this specification. In the event the Contractor is not able to correct the surface smoothness to meet the Specification, the DCE may establish a deduction to the Contract in accordance with section 105.03 of the C&MS.

EXEMPTED CORRECTIONS: Required corrective action resulting from contract requirements for maintaining traffic and construction joints placed at the beginning and end of each work period are considered exempted corrections. The contractor will identify and define all exempted correction locations. Exempted corrections for maintaining traffic occur primarily at ramps or other access points where paving must be suspended. Required corrective action due to material availability, weather, or any other reason not listed above, is not considered an exempted correction. No exempted corrections for maintaining traffic exist on projects where the maintenance of traffic plan does not interfere with paving operations. Perform exempted corrections according to the requirements for mandatory corrective action.

METHOD OF MEASUREMENT: Determine the IRI for each lane for each 0.1-mile (0.16 km) section of paving. The IRI for a 0.1-mile (0.16 km) section is the average of the IRI of the two wheel paths.

PAY ADJUSTMENTS: A lump sum pay adjustment will be made according to the following schedule and calculations for each lane for each 0.1-mile (0.16 km) section. Payment will be based on a 12 foot (3.7 m) lane width, regardless of lane width. Pay adjustments are based on the weighted average bid unit cost per square yard for the section multiplied by the pay factor as determined in Table 420-3. Pavement thickness is the total thickness of asphalt concrete, Portland cement concrete, or both placed as part of the contract and does not include any SS803 course, free draining base, aggregate base, stabilized subgrade, etc.

	TABLE 420-3 P	AY SCHEDULE	
SCHEDUI	LE A	SCHEDUI	LE B
IRI	PAY ADJUSTMENT	IRI	PAY ADJUSTMENT
Inches per mile per 0.1 mile section (m/km per 0.16 km section)	Percentage of Unit Cost (PUC) (%)	Inches per mile per 0.1 mile section (m/km per 0.16 km section)	Percentage of Unit Cost (PUC) (%)
35 (0.55) or less	4	45 (0.71) or less	4
Over 35 to 50 (0.55 to 0.79)	$(50 - IRI) * \left(\frac{4}{15}\right)$	Over 45 to 60 (0.71 to 0.95)	$(60 - IRI) * \left(\frac{4}{15}\right)$
Over 50 to 70 (0.79 to 1.10)	0	Over 60 (0.95)	0
Over 70 to 90 (1.10 to 1.42)	$-(IRI - 70) * \left(\frac{6}{20}\right)$		
Over 90 (1.42)	(1)		

(1) Corrective action required

Asphalt Pavements:

$$WUC = \frac{(t_1 \times u_1) + (t_2 \times u_2) + (t_3 \times u_3) \dots}{36}$$

Where: WUC = weighted unit cost (\$/SY). t = lift thickness (in.). u = bid unit cost (\$/CY).

Concrete Pavements:

WUC = bid unit cost (\$/SY)

Pay Adjustment (PA):

 $PA = WUC \times 704 \times PUC$

Where: WUC = weighted unit cost (\$/SY). PUC = percentage of unit cost from Table 420-3, expressed as a decimal.

Pay adjustments will be based on the measured IRI after any mandatory corrective action however no incentive will be paid for any 0.1-mile (0.16 km) section where mandatory corrective action was performed regardless of the resulting IRI. No pay adjustments will be made for sections less than 0.1 miles (0.16 km) long, however corrections for localized roughness are required.

One-tenth mile (0.16 km) sections with exempted corrections only are eligible for incentive pay based on IRI measurements taken after completion of the exempted corrections.

At the Contractor's option, corrective action may be performed on any section with an IRI greater than 70 inches per mile (1.10 m/km) to reduce or eliminate the negative pay adjustment however, no incentive will be paid regardless of the resulting IRI. As an option the Department may allow corrective action, in the form of diamond grinding, Item 254, or SS897 pavement planing, to improve the profile on any course prior to the surface course. If the final course is Item 803 do not perform corrective action on the Item 803. Only diamond grinding may be performed on the course immediately below Item 803.

Negative pay adjustments apply to sections with mandatory corrective action and exempted corrections.

No payment will be made for any 0.1-mile (0.16 km) section subject to Schedule A that has an IRI greater than 90 inches per mile (1.42 m/km) until corrective action has been completed and the IRI has been reduced to less than 90 inches per mile (1.42 m/km).

BASIS OF PAYMENT: Include the cost of all labor, equipment, and materials necessary to meet this specification in the contract unit or lump sum price for the applicable pavement items.

Designer Notes: This note should be used on all paving projects at least 1 centerline mile (1.6 km) long (both divided and undivided highways). Undivided highway sections totally within corporation limits should be excluded.

The designer should consider clarifying in the plans which locations are considered divided highways and which are undivided highways according to the definition in the note if there is any chance of misinterpretation.

If there are any questions on the use or application of this note contact:

Dan Radanovich – Division Planning, Office of Technical Services (614-351-2878) Construction Pavement Engineer – Division of Construction Management, Office of Construction Administration (614-466-3165)

PN 520 10/19/2018 - FUEL PRICE ADJUSTMENT

General: This Fuel Price Adjustment (Fpa) provision is intended to minimize risk to the Contractor or Design Build Team, (DBT) due to fuel price fluctuations that may occur during the Contract. This provision is not designed to estimate actual quantities of fuel used in construction operations, but to provide a reasonable basis for calculating a fuel price adjustment based on average conditions.

The Department determines adjustments under the provisions of this Proposal Note, and presumes that the Contractor/(DBT) has relied on these provisions when determining unit bid prices. The monthly application range for percent change (Mbp/Cbp) will not exceed 50% for a Fuel Price Adjustment increase or decrease as outlined in Section B, Calculation of Fuel Price Adjustment.

A. Price Adjustment Criteria: These requirements provide for a price adjustment, positive or negative, to payments due the Contractor/(DBT) for fluctuations in the cost of fuel consumed in the performance of certain items of work. The total price adjustment must be more than \$400. These price adjustment provisions apply only to those items in the contract as grouped by category and identified in Table A-1. All adjustments will be made based on fuel consumption indicated by Table A-1, and no changes will be made for actual consumption rates.

Category	descriptions	and the fuel	usage factors	which are	applicable to	each are as follows:
					Trr	

	Fuel Adjustment Catego	ries, Table A-	1	
Category	Basis of Calculation and Threshold Quantity	Eligible Items	Units	Fuel Usage Factor
Earthwork	Apply only to the greater of the sum of all Excavation quantities or the sum of all Borrow and Embankment quantities. Threshold Quantity* = 30,000 c.y. (22,936 c.m.)	203, 204	Gallons per cubic yard (Gallons per cubic meter)	0.50 (0.65)
Aggregate Bases	Apply to quantity calculated based on the Method of Measurement and Basis of Payment. Threshold Quantity* = 2,500 c.y. (1,912 c.m.)	304, 307	Gallons per cubic yard (Gallons per cubic meter)	0.75 (0.98)
Select Granular Backfill	Apply to quantity calculated based on the Method of Measurement and Basis of Payment. Threshold Quantity* = 2,000 c.y. (1,529 c.m.)	840	Gallons per cubic yard (Gallons per cubic meter)	0.75 (0.98)
Flexible Bases and Pavements	Apply to quantity calculated based on the Method of Measurement and Basis of Payment. Threshold Quantity* = 1,200 c.y. (917 c.m.)	301, 302, 424, 441, 442, 443, 446, 448, 614, 615, 803, 806, 826, 851, 857, 860, 880	Gallons per cubic yard (Gallons per cubic meter)	1.70 (2.22)
Rigid Bases and Pavements	Apply to quantity calculated based on the Method of Measurement and Basis of Payment. Threshold Quantity* = 1,200 c.y. (917 c.m.)	305, 306, 451, 452, 526, 884,	Gallons per cubic yard (Gallons per cubic meter)	1.00 (1.31)
Structural Concrete	Apply to quantity calculated based on the Method of Measurement and Basis of Payment. Threshold Quantity* = 350 c.y. (268 c.m.)	511, 524, 842, 892	Gallons per cubic yard (Gallons per cubic meter)	4.00 (5.23)

* A Fuel Price Adjustment will only apply when the sum of all **original** contract quantities or for Design Build Projects all completed in-place accepted final quantities for the category meet or exceed the specified

Threshold Quantity. When a Fuel Price Adjustment applies, calculate the Fuel Price Adjustment for the sum of all quantities for the category per this proposal note.

B. Calculation of Fuel Price Adjustment: Fuel Price Adjustments may be either positive or negative. A positive Fuel Price Adjustment will result in a payment to the Contractor/(DBT) while a negative Fuel Price Adjustment will result in a deduction.

The Department will calculate a Monthly Base Price (Mbp) for fuel for each month of each calendar year beginning with January 2001. The method for calculating the Monthly Base Price (Mbp) will be on file in the Division of Construction Management. The Monthly Base Price (Mbp) will be used to calculate all Fuel Price Adjustments. The Contract Base Price (Cbp) will be the Monthly Base Price (Mbp) for the month the contract was bid. All Monthly Base Price (Mbp) values will be posted on the Division of Construction Management, Office of Construction Administration website at: http://www.dot.state.oh.us/Divisions/ConstructionMgt/Admin/Pages/PriceIndexes.aspx

During each month of the contract the Engineer will select the applicable Monthly Base Price (Mbp) and calculate the ratio of the Monthly Base Price (Mbp) divided by the Contract Base Price (Cbp). The formulas below allow for a variation in fuel prices without recognizing cost increases/ decreases within the range of 90% to 110% of the Contract Base Price (Cbp).

When, and only when, the Monthly Base Price (Mbp) divided by the Contract Base Price (Cbp) is less than 0.90 or greater than 1.10 will the Engineer calculate a Fuel Price Adjustment (Fpa).

Cost increases in excess of 150% of the Contract Base Price (Cbp) will not be recognized. When, the Monthly Base Price (Mbp) divided by the Contract Base Price (Cbp) is greater than 1.50, the Fpa shall be calculated using a Cbp/Mbp ratio of 1.50.

Cost decreases in excess of 50% of the Contract Base Price (CBP) will not be recognized. When, the Monthly Base Price (Mbp) divided by the Contract Base Price (Cbp) is less than 0.50, the Fpa shall be calculated using a Cbp/Mbp ratio of 0.50.

For a Price Increase:

 $Fpa = [(Mbp/Cbp) - 1.10] \times Cbp \times Q$

For a Price Decrease:

 $Fpa = [(Mbp/Cbp) - 0.90] \times Cbp \times Q$

Where:

Fpa = Fuel Price Adjustment **Mbp** = Monthly Base Price **Cbp** = Contract Base Price

 \mathbf{Q} = The number of gallons of fuel used in the placement of items identified in Table A-1 during that month at the specified Fuel Usage Factor. Q will be determined by the Engineer for each category by multiplying the applicable Fuel Usage Factor by the sum of quantities of completed and accepted work for the specified items.

The total Monthly Fuel Price Adjustment will be the algebraic sum of the Fuel Price Adjustments for materials placed during the month for each applicable category identified in Table A-1. The Total Fuel Price Adjustment for the project will be the algebraic sum of all Monthly Fuel Price Adjustments. The

Department will calculate the Monthly and Total Fuel Price Adjustment on a monthly basis and make contract modifications as provided in Section C, Payment/Deduction.

C. Payment/Deduction: The Fuel Price Adjustment will be paid, or deducted, upon approval of a change order prepared after completion of all work. Contractor/(DBT) markups are not permitted. Partial payments or deductions will be processed prior to total completion when the unpaid accrued Total Fuel Price Adjustment exceeds \$10,000 or once every 12 months.

D. Expiration of Contract Time: When eligible items of work grouped by category and identified in Table A-1 are performed after expiration of contract time and liquidated damages are chargeable, the value of Monthly Base Price (Mbp) used to compute the price adjustment will be either the Monthly Base Price (Mbp) at the time of actual performance or the Monthly Base Price (Mbp) at the time contract time expired, whichever is less.

E. Extra Work: When eligible items of work grouped by category and identified in Table A-1 are added to the contract as Extra Work and for which a unit price is negotiated the Contractor/(DBT) must use the appropriate price for fuel when preparing required backup data for the negotiated price. No Fuel Price Adjustment will be made for fuel consumed in the performance of eligible work added to the contract as Extra Work at a negotiated price when the work commences within 90 days of the approval of the change order authorizing said extra work. If the eligible work at a negotiated price commences more than 90 days after the approval of the change order authorizing said extra work quantities exceed the applicable threshold quantity in Table A-1. The Fuel Price Adjustment will be calculated using the Monthly Base Price (Mbp) value for the month the change order authorizing said extra work was approved as the value for its Contract Base Price (Cbp).

When Extra Work is added to the contract as a Force Account operating costs for equipment used in the performance of this work will be paid in accordance with C&MS 109.05.C.4 with no further adjustment.

F. Final Quantities: Upon completion of the work and determination of final pay quantities a change order will be prepared to reconcile any difference between estimated quantities previously paid and the final quantities. In this situation, the value for the Monthly Base Price (Mbp) used in the price adjustment formula will be the average of all Monthly Base Price (Mbp) values previously used for computing price adjustments.

Designer Note: This note is to be used on all projects with quantities that meet or exceed the threshold values given for any of the categories of pertinent work listed in Table A-1 of this proposal note. Questions regarding this note should be directed to the Construction Administration Staff Specialist, Office of Construction Administration at 614-387-1164.

PN 534-04/20/2018 - Asphalt Binder Price Adjustment

A. Eligibility

If the Department's asphalt binder index has increased or decreased in excess of 10%, asphalt concrete may be eligible for a price adjustment. The total price adjustment must be more than \$400.

B. Price Adjustment Criteria and Conditions:

The Department will establish and publish the asphalt binder Bidding Index (BI) and Placing Index (PI) for each month of each calendar year. The asphalt binder indexes will be posted on the Department's website.

The Department will establish the asphalt binder indexes based on the data provided in the Poten & Partners, Inc., Asphalt Weekly Monitor[®] (AWM) (<u>http://www.poten.com/copyright.asp</u>).

The Department will use the selling price for PG 64-22 paving grade asphalt from the Midwest/Mid-continent Markets of Illinois/Michigan/Ohio/Indiana/Kentucky for the Ohio cities/areas listed. The Department will average the Ohio cities/areas low and high selling prices as published in the last weekly publishing period of each month that includes the last Friday of the month to calculate the BI and PI. The calculated asphalt binder BI will be posted by the Department as the index for the following month. The calculated asphalt binder PI will be posted by the Department as the index for the current month.

The Director will determine the asphalt binder indexes in the event data from the AWM is unavailable for any reason.

C. Price Adjustment Calculations

If the ratio of the PI to the BI is greater than 1.10 or less than 0.90, the Department will adjust the compensation the contractor receives for eligible quantities of asphalt concrete. The adjustment is based on the bid month and the month of asphalt concrete placement. The adjustment will apply to the price for asphalt binder used in eligible asphalt concrete quantities according to the following formula:

For a price increase:

$$PA = \left(\frac{PI}{BI} - 1.10\right) \times C \times Q$$

For a price decrease:

$$PA = \left(\frac{PI}{BI} - 0.90\right) \times C \times Q$$

Where:

- PA = Price Adjustment
- BI = Bidding Index, the asphalt binder index for the month the project is bid
- PI = Placing Index, the asphalt binder index for the month the asphalt concrete is placed

C = BI x percent virgin asphalt binder / 100

Q = Eligible quantity of asphalt concrete in tons (metric tons)

The percent of virgin asphalt binder used to calculate C is determined from the approved Job Mix Formula (JMF).

The eligible quantity of asphalt concrete, Q, is the complete, in-place, and accepted quantity in tons (metric tons) placed in the month being considered for price adjustment. If the quantity is paid in cubic yards (cubic meters), the Department will convert the volume into tons (metric tons) using the conversion factor established according to the Department's Construction and Material Specifications Item 401.21.

If eligible asphalt concrete is placed beyond an approved Contract Completion Date, the Department will base price adjustments on either the PI for the last month of the approved Contract Completion Date, or the PI for the actual month of placing, using whichever PI is less.

At a minimum, the Department will calculate and apply price adjustments at the end of each construction season and as soon as practical after the completion of the project.

D. Extra Work/Force Account:

When new asphalt concrete pay items are added to the contract as Extra Work, in accordance with the provisions of C&MS Section 109.05, no price adjustments will be made.

Designer Note PN 534 – 04/17/2015 - Asphalt Binder Price Adjustment

For use with the 2013 C&MS

This note will be used on all projects that specify asphalt concrete with a minimum of 1000 CY (765 m^3) for any contract item listed in the Schedule of Contract Items; or on design-build projects where a minimum of 1000 CY (765 m^3) is expected to be used on any contract item listed in the Schedule of Contract Items.

DESIGNERS WHO HAVE QUESTIONS ON APPLICATION OF THIS NOTE SHOULD CONTACT:

Pavement Staff Specialist, Office of Construction Administration at (614) 644-6622

PREVAILING WAGE

SECTION 6

INSTRUCTIONS FOR PREPARING CERTIFIED PAYROLL REPORTS

General:

Contractors and subcontractors re required by law to submit certified payroll reports for work on projects covered by Ohio's Prevailing Wage Law. This form meets the reporting requirements established by Ohio Revised code Chapter 4115. The use of this form is not mandatory; employers may submit their own forms provided that all of the required information is included. This form may be reproduced, or additional copies obtained from:

Ohio Bureau of Employment Services Wage and Hour Division 131 North High Street 5th Floor Columbus, Ohio 43216 (614) 644-2239

Certified Payroll Heading:

Employer name and address: Company's full name and address. Indicate if the company is a subcontractor, if so; list the name of the General or Prime.

<u>Project:</u> Name and location of the project, including county. <u>Contracting Public Authority:</u> Name and address of the contracting public authority.

<u>Week Ending</u>: Month, day, and year for last day of reporting period.

<u>Payroll #:</u> Indicates first, second, third, etc., payroll filed by the company for the project.

Page indicator: Number of pages included in the report.

Project Number: Determined by the public authority. If there is no number leave blank.

Payroll Information by column:

- 1. <u>Employee Name, Address and Social Security Number</u>: This information must be provided for all employees that perform physical labor on the project. Corporate officers, partners, and salaried employees are considered employees and must be paid the prevailing rate. Individual sole proprietors do not have to pay themselves prevailing rate but must repot their hours on the project.
- <u>Work Class:</u> List classification of work actually performed by employee. If unsure of work classification, consult the Ohio Bureau of Employment Services, Wage and Hour Division. Employees working more than one classification should have separate line entries for each classification. Indicate what year/level for Apprentices. Be specific when using laborer and operator classifications, for example, Backhoe Operator or Asphalt Laborer.
- 3. <u>Hours Worked, Day & Date:</u> In the first row of column 3 enter days of pay period example, M T W TH F S SU. The second row is for the date that corresponds with each day for the pay period. In the employee information section enter the number of hours worked on the prevailing wage project and which day the hours were worked. Separate rows are labeled for (ST) straight time hours and (OT) overtime hours. All hours worked after 40, must be paid at the appropriate overtime rate.
- 4. <u>Project Total Hours:</u> Total the hours entered for pay period.
- 5. <u>Base Rate:</u> Enter actual rate per hour paid to the employee. The overtime hourly rate is time and one-half the base rate listed in the prevailing wage schedule plus fringe benefits at straight time rate. The prevailing wage schedule lists the base rate plus fringe benefit amounts. These amounts added together equal the total prevailing wage rate. Employers must pay this total amount in one of three ways.
 - a) Total rate may be paid in entirety in the base rate to the employee; in which case, the cash designation will be checked for fringe benefits.
 - b) Total rate may be paid as listed in prevailing wage rate schedule with total fringe amounts paid approved plans.
 - c) Total rate may be paid with a combination of base rate and fringe payments to approved plans in amounts other than those listed in schedule.
- 6. <u>Project Gross:</u> Enter total gross wages earned on the project for straight time and overtime. Project hours X base rate should equal project gross.
- 7. <u>Fringes:</u> If fringe benefits are paid in the hourly base rate, indicate this by marking the cash space. If fringe benefits are paid to approved plans as listed in the prevailing wage rate schedule, mark the space Approved Plans. If fringe benefits are paid partially in the base rate and partially to approved plans, mark the space Cash & Approved plans. List the hourly amount paid to approved plans for each fringe. If payments are not made on a per hour basis, calculate the hourly fringe credit by dividing the yearly employer contribution by the lesser of: hours actually worked in the year (these must be documented) or 2080. Fringe benefits include: Employer's share of health insurance, life insurance, retirement plan, bonus/profit sharing, sick pay, holiday pay, personal leave, vacation, and education/training programs.
- 8. <u>Total Hours All Jobs:</u> Total all hours worked during the pay period including non-prevailing wage jobs.
- 9. <u>Total Gross All Jobs:</u> Gross amount earned in the pay period for all hours worked.
- 10. Self explanatory
- 11. Self explanatory
- 12. Self explanatory

										CE	RTIFIED) PAYROL	L REPOR	RT								
Employer Name and Address			Name	e of G	Senera	al/Prin	ne Co	ntracto	or		Project	Name and	d Location				Cont	racting Public	Authority			
Check if Subcontractor		Week	Ending	g:					Payr	oll #:			Page	of			<u>_</u>	Project Nun	nber:			
1. Employee Name, Address	2. Work			3. H	ours \	Norke	ed		4. Pr	oject	5. Base	6. Project	7. Fringe	s: Cash	_ Appd Pla	ans		8. Total Hrs	9. Total Gross	10. Taxes	11. Other	12. Net
SSN	Class			D	av & I	Date			Tota	l Hrs	Rate	Gross		Cash & A	pproved P	lans		All Jobs	All Jobs	Withheld	Deducts	Paid
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Date______My signature on this form signifies that I pay, or supervise the payment of the employees shown above. I am certifying: 1) That during the pay period reported on this form, all hours worked on this project have been paid at the appropriate prevailing wage rate for the class of work done. 2) That fringe benefits have been paid as indicated above. 3) That no rebates or deductions have been or will be made, directly or indirectly from the total wages earned, other than permissible deductions as defined in the Ohio Revised Code Chapter 4115. 4) That apprentices are registered with the U.S. Department of Labor Bureau of Apprenticeship and Training. The willful falsification of any of the above statements may subject the contractor or subcontractor to civil or criminal prosecution.

NAME AND TITLE _____

SIGNATURE _____

PLEASE BE ADVISED THAT THIS FORMIS INTENDED TO BE USED AS A SAMPLE ONLY. IT IS NOT INTENDED TO BE THE ACTUAL PAYROLL REPORT TO BE FILED. IN ORDER TO COMPLY WITH THE STATE STATUTE REGARDING THE FILING OF CERTIFIED PAYROLL REPORTS, THE REPORT FILED BY YOUR COMPANY MUST INCLUDE A STATEMENT CERTIFYING THAT THE "PAYROLL IS CORRECT AND COMPLETE AND THE WAGES PAID ARE NOT LESS THAN THOSE REQUIRED BY THE CONTRACT". IF YOU HAVE ANY QUESTIONS REGARDING THE FILING OF CERTIFIED PAYROLL REPORTS, PLEASE CONTACT THE OHIO BUREAU OF EMPLOYMENT SERVICES, WAGE AND HOUR DIVISION AT (614)-644-2239.

CERTIFICATION

Date

I,

(Name of signatory part)

(Title)

do hereby certify:

(1) That I pay or supervise the payment of the persons employed by

; that during payroll

period

commencing on the _____ day of _____ 20___ and

ending the _____ day of _____ 20___ all laborers

and mechanics employed on said project have been paid at the prevailing rate of wages for laborers and mechanics for the class of work called for by said project, and that no rebates have been or will be made either directly or indirectly to or on behalf of said

(Contractor or subcontractor)

from the total wages earned by any person and that no deduction have been made either directly or indirectly from the total wages earned by any person, other than permissible deductions as defined in Chapter 4115. Ohio Revised Code, and described below:

(2) That this and all payrolls required to be submitted for the above period are correct and complete; that the prevailing wage rates for laborers and mechanics are not less than the prevailing wage rates then payable in the same trade or occupation in the locality where the work is being performed, as determined by the Ohio Department of Industrial Relations; and, that the classifications set forth for each laborer and mechanic conform with the work performed,

(3) That apprentices employed during the above period are duly registered in a bona fide apprenticeship program registered with the State Apprenticeship Council.

(4) That:(a) WHERE FRINGE BENEFITS ARE PAID TO APPROVED PLANS, FUNDS, OR PROGRAMS

In addition to the base hourly wage rates paid to each laborer or mechanic listed in the above referenced payroll, payments of fringe benefits as determined by the Ohio Department of Industrial Relations have been made to

in the amount of: \$______for the benefit of such employees, except as noted in Section 4(c) below.

(b) WHERE FRINGE BENEFITS ARE PAID IN CASH

Each laborer or mechanic listed in the above referenced payroll has been paid as indicated on the payroll, an amount not less than the sum of the applicable basic hourly wage ratio plus the amount of the required fringe benefits as determined by the Ohio Department of Industrial Relations, except as noted in Section 4(c) below.

(c) EXCEPTIONS

EXCEPTION (CRAFT)	EXPLANATION
Ohio Bureau of Er	nployment Services
Wage and F	Jour Division

Remarks: 145 South Front Street

PO Box 1618 Columbus, Ohio 43216-1618

Name and Title	Signature

6.2.1

(SAMPLE)

AFFIDAVIT OF CONTRACTOR OR SUBCONTRACTOR

PREVAILING WAGES

T	(Name of person	sionin
affidavit)	Title	5151111
do hereby certify that the wages paid to all e with the Contract to the Improvement, Repai	nployees for the full number of hours worked in con- and Construction of:	nectio
(Projec	Name & Location)	
during the following period from	to	
is in accordance with the prevailing wage pro-	scribed by the contractor document.	
is in accordance with the prevailing wage pro I further certify that no rebates of deducti indirectly made other than those provided by	scribed by the contractor document. ons for any wages due any person have been dire law.	ectly o
is in accordance with the prevailing wage pro I further certify that no rebates of deducti indirectly made other than those provided by	scribed by the contractor document. ons for any wages due any person have been dire law. (Signature of Officer or Agent)	ectly o
is in accordance with the prevailing wage pro I further certify that no rebates of deducti indirectly made other than those provided by 	scribed by the contractor document. ons for any wages due any person have been dire law. (Signature of Officer or Agent)day of, 20	ectly o
is in accordance with the prevailing wage pro I further certify that no rebates of deducti indirectly made other than those provided by	scribed by the contractor document. ons for any wages due any person have been dire law. (Signature of Officer or Agent) day of, 20	ectly o

The above affidavit must be executed and sworn to by the officer or agent or the Contractor or Subcontractor who supervises the payment of employees, before the owner will release the surety and/or make a final payment due under the terms of the Contract.

LPA FEDERAL LOCAL LET AGREEMENT

SECTION 7



OHIO DEPARTMENT OF TRANSPORTATION

John R. Kasich, Governor

Jerry Wray, Director

RECEIVED

District 4 2088 S. Arlington Rd, Akron, OH 44306 330-786-3100 transportation.ohio.gov

JAN 05 2018

ENGINEERING DIVISION CITY OF CUYAHOGA FALLS

December 29, 2017

Tony Demasi City Engineer Cuyahoga Falls 2310 Second St. Cuyahoga Falls OH 44221

SUBJECT: SUM W Steels Corners ; PID 102904; LPA AGREEMENT No :30243

Dear Mr. Demasi:

Please find enclosed for your records one original LPA Federal Project Agreement for the subject project executed on December 13, 2017.

To assist us in tracking the status of this project, we request that you provide this office with monthly status reports for our review and files. These reports will be utilized to coordinate our efforts and assist you in successfully completing this Project. The Department is committed to maintaining project schedules including those administered by local agencies. If you feel this project status schedule not appropriate, please contact this office in advance to make other arrangements.

Formal advertisement for construction of the Project cannot begin until we have approved your PS & E package and provided you authorization per Section 7.1 of the enclosed agreement.

If you have any questions pertaining to this project, please contact me at (330) 786.4923.

Respectfully,

Jeffrey Cutler, P.E. District 4 LPA Manager

Invotine Durva

Christine Surma Planning LPA Liaison

Enclosures c Office of Local Projects, C. Root; Project Manager;file Rev. 6/23/2016

A

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CFDA 20.205

102904 PID NUMBER

30243 AGREEMENT NUMBER

DUNS NUMBER

LPA FEDERAL LOCAL-LET PROJECT AGREEMENT

THIS AGREEMENT is made by and between the State of Ohio, Department of Transportation, hereinafter referred to as ODOT, 1980 West Broad Street, Columbus, Ohio 43223 and the City of Cuyahoga Falls, hereinafter referred to as the LPA, Cuyahoga Falls Engineering Divison, 2310 Second St., Cuyahoga Falls OH 44221

PURPOSE

- 1.1 The National Transportation Act has made available certain Federal funding for use by local public agencies. The Federal Highway Administration (hereinafter referred to as FHWA) designated ODOT as the agency in Ohio to administer FHWA's Federal funding programs.
- 1.2 Section 5501.03 (D) of the **Ohio Revised Code** (hereinafter referred to as ORC) provides that ODOT may coordinate its activities and enter into contracts with other appropriate public authorities to administer the design, qualification of bidders, competitive bid letting, construction, inspection, and acceptance of any projects administered by ODOT, provided the administration of such projects is performed in accordance with all applicable Federal and State laws and regulations with oversight by ODOT.
- 1.3 The <u>resurfacing by mill and fill of 3" asphalt, replacement of loop detectors and new pavement</u> <u>markings on West Steels Corners Rd from Northampton Rd to State Rd in Cuyahoga Falls</u> (hereinafter referred to as the PROJECT) is a transportation activity eligible to receive Federal funding, and which is further defined in the PROJECT scope.
- 1.4 The purpose of this Agreement is to set forth requirements associated with the Federal funds available for the PROJECT and to establish the responsibilities for the local administration of the PROJECT.

2. <u>LEGAL REFERENCES</u>

- 2.1 This Agreement is authorized and/or governed by the following statutes and/or policies, which are incorporated, by reference, in their entirety:
 - a. Section 5501.03(D) of the ORC;
 - b. ODOT Locally Administered Transportation Projects, Manual of Procedures;
 - c. National Transportation Act, Title 23, U.S.C.; 23 CFR 635.105;
 - d. State of Ohio Department of Transportation Construction and Material Specifications Manual (applicable to dates of PROJECT);
 - e. 2 CFR Part 200; and
 - f. Federal Funding Accountability and Transparency Act (FFATA)
- 2.2 The LPA shall comply with all applicable Federal and State laws, regulations, executive orders, and applicable ODOT manuals and guidelines. This obligation is in addition to compliance with any law, regulation, or executive order specifically referenced in this Agreement.
3. <u>FUNDING</u>

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,

- 3.1 The total cost for the PROJECT is estimated to be \$___875,000___as set forth in Attachment 1. ODOT shall provide to the LPA <u>80</u> percent of the eligible costs, up to a maximum of \$__700,000 in Federal MPO STP funds. This maximum amount reflects the funding limit for the PROJECT set by the applicable Program Manager. Unless otherwise provided, funds through ODOT shall be applied only to the eligible costs associated with the actual construction of the transportation project improvements and construction engineering/inspection activities.
- 3.2 The LPA shall provide all other financial resources necessary to fully complete the PROJECT, including all 100 percent Locally-funded work, cost overruns and contractor claims.

4. <u>PROJECT DEVELOPMENT AND DESIGN</u>

- 4.1 The LPA and ODOT agree that the LPA is qualified to administer this PROJECT and is in full compliance with all LPA participation requirements.
- 4.2 The LPA and ODOT agree that the LPA has received funding approval for the PROJECT from the applicable ODOT Program Manager having responsibility for monitoring such projects using the Federal funds involved.
- 4.3 The LPA shall design and construct the PROJECT in accordance with a recognized set of written design standards. The LPA shall make use of ODOT's Location and Design Manual (L&D), or the appropriate AASHTO publication). Even though the LPA may use its own standards, ODOT may require the LPA to use a design based on the L&D Manual for projects that contain a high crash rate or areas of crash concentrations. Where the LPA has adopted ODOT standards for the PROJECT, the LPA shall be responsible for ensuring that any ODOT standards used for the PROJECT are current and/or updated. The LPA shall be responsible for periodically contacting the ODOT District LPA Coordinator or through the following Internet website for any changes or updates: www.dot.state.oh.us/drrc/Pages/default.aspx
- 4.4 The LPA shall either designate an LPA employee, who is a registered professional engineer, to act as the PROJECT Design Engineer and serve as the LPA's principal representative for attending to PROJECT responsibilities, or engage the services of a pre-qualified ODOT consultant, who has been chosen using a Qualification-Based Selection (QBS) process, as required pursuant to ORC sections 153.65 through 153.71. The pre-qualified list is available on the ODOT website at: www.dot.state.oh.us/DIVISIONS/Engineering/CONSULTANT
- 4.5 If Federal funds are used for a phase of project development and the LPA executes an agreement with a consultant prior to the receipt of the "Authorization" notification from ODOT, ODOT may terminate this Agreement and cease all Federal funding commitments.
- 4.6 ODOT reserves the right to move this PROJECT into a future sale year if the LPA does not adhere to the established PROJECT schedule, regardless of any funding commitments.

5. ENVIRONMENTAL RESPONSIBILITIES

5.1 In the administration of this PROJECT, the LPA shall be responsible for conducting any required public involvement events, for preparing all required documents, reports and other supporting materials needed for addressing applicable environmental assessment, for clearance responsibilities for the PROJECT pursuant to the National Environmental Policy Act and related

regulations, including the requirements of the National Historic Preservation Act; and for securing all necessary permits.

- 5.2 If the LPA does not have the qualified staff to perform any or all of the respective environmental responsibilities, the LPA shall hire an ODOT Pre-qualified Consultant through a QBS process. The pre-qualified list is available on the ODOT web page at www.dot.state.oh.us/DIVISIONS/Engineering/CONSULTANT . If the LPA hires a pre-qualified consultant, the LPA shall be responsible for monitoring the consultant's activities and ensuring that the consultant is following all Federal and State laws, regulations, policies, and guidelines.
- 5.3 ODOT shall be responsible for the review of all environmental documents and reports, and shall complete all needed coordination activities with State and Federal regulatory agencies toward securing environmental clearance.
- 5.4 The LPA shall be responsible for assuring compliance with all commitments made as part of the PROJECT's environmental clearance and/or permit requirements during the construction of the project.
- 5.5 The LPA shall require its consultant, selected to prepare a final environmental document pursuant to the requirements of the National Environmental Policy Act, to execute a copy of a disclosure statement specifying that the consultant has no financial or other interest in the outcome of the PROJECT.
- 5.6 The LPA shall provide a letter indicating the proposed Best Management Practices (BMPs) to be utilized for post construction storm water management in accordance with the Ohio EPA National Pollutant Discharge Elimination System (NPDES) Construction General Permit. If no BMPs are proposed, a letter stating concurrence is required from the Ohio EPA.

6. RIGHT OF WAY/ UTILITIES/ RAILROAD COORDINATION

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- 6.1 All right-of-way acquisition activities shall be performed by the LPA in accordance with the Uniform Relocation Assistance and Real Property Acquisition Act of 1970 (Public Law 91-646) as amended by 49 CFR Part 24 (hereinafter referred to as Uniform Act), any related Federal regulations issued by the FHWA, and State rules, policies and guidelines issued by ODOT.
- 6.2 If existing and newly-acquired right of way is required for this PROJECT, the LPA shall certify that the all right of way has been acquired in conformity with Federal and State laws, regulations, policies, and guidelines. Per ODOT's Office of Real Estate, any LPA staff who perform real estate functions shall be prequalified. If the LPA does not have the qualified staff to perform any or all of the respective right of way functions, the LPA shall hire an ODOT Pre-qualified Consultant through a QBS process. The LPA shall not hire the same consultant to perform both the appraisal and appraisal review functions. Appraisal review shall be performed by an independent staff or fee reviewer and shall be hired directly by the LPA. Likewise, a consultant hired to perform right of way acquisition work is not permitted to perform both the relocation and relocation review functions. Relocation review shall be performed by an independent staff or fee reviewer.
- 6.3 If the LPA hires a pre-qualified consultant, the LPA shall be responsible for monitoring the consultant's activities and ensuring that the consultant is following all Federal and State laws, regulations, policies, and guidelines.
- 6.4 All relocation assistance activities shall be performed by the LPA in conformity with Federal and State laws, including the Uniform Act, and any related Federal regulations issued by the FHWA, and State rules, policies and guidelines issued by ODOT. The LPA shall not hire a consultant to perform both the relocation and relocation review functions nor shall the LPA hire a sub-consultant

for relocation and another sub-consultant for relocation review. Relocation review shall be performed by an independent staff person or independent fee reviewer and shall be hired directly by the LPA.

- 6.5 The LPA shall provide the ODOT District Office with its certification that all right of way property rights necessary for the PROJECT are under the LPA's control, that all right of way has been cleared of encroachments, and that utility facilities have been appropriately relocated or accounted for so as not to interfere with PROJECT construction activities. ODOT shall make use of the LPA's Right of Way Certification, as well as evaluate the LPA's and/or consultant's performance of the PROJECT real estate activities under Titles II and III of the Uniform Act, and, as appropriate, certify compliance to the FHWA. The LPA shall be liable to repay to ODOT all of the Federal funds disbursed to it under this Agreement if the certification of the LPA is found to be in error or otherwise invalid.
- 6.6 In the administration of this PROJECT, the LPA agrees to follow all procedures described in the ODOT Utilities Manual and 23 CFR Part 645. When applicable, the LPA shall enter into a utility relocation agreement with each utility prior to the letting of construction. No reimbursable construction costs shall be incurred by the LPA prior to the receipt of the "Authorization to Advertise" notification from ODOT. If such costs are incurred, ODOT may terminate this Agreement and cease all Federal funding commitments.
- 6.7 The LPA shall submit all subsequent modifications to the design of the PROJECT and/or any disposal of property rights acquired as part of the PROJECT to ODOT and FHWA for approval.
- 6.8 The LPA shall be responsible for any necessary railroad coordination and agreements. The LPA shall comply with the provisions of Title 23 of the Code of Federal Regulations and applicable chapters of the ORC regarding all activities relating to Railroad-Highway projects.
- 6.9 Consistent with sections 10.1 and 10.4 of this agreement, the LPA shall assure that, if any property acquired for this project is subsequently sold for less than fair market value, all Title VI requirements are included in the instrument which transfers the property. Consistent with sections 10.1 and 10.4 of this agreement, the LPA shall assure that if the LPA grants a permit or license for the property acquired for this project that the license or permit require the licensee or permit holder to adhere to all Title VI requirements.

7. ADVERTISING, SALE AND AWARD

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- 7.1 The LPA **shall not** advertise for bids prior to the receipt of the "Authorization to Advertise" notification from ODOT. Should advertising or work commence prior to the receipt of the "Authorization to Advertise" notification, ODOT shall immediately terminate this Agreement and cease all Federal funding commitments.
- 7.2 Any use of sole source or proprietary bid items must be approved by the applicable ODOT district. All sole source or proprietary bid items should be brought to the attention of the LPA Coordinator as soon as possible so as not to cause a delay in the plan package submission process. Bid items for traffic signal and highway lighting projects must be in conformance with ODOT's Traffic Engineering Manual.
- 7.3 Once the LPA receives Federal authorization to advertise, the LPA may begin advertising activities. Whenever local advertisement requirements differ from Federal advertisement requirements, the Federal requirements shall prevail. The period between the first legal advertising date and the bid opening date shall be a minimum of twenty-one (21) calendar days. The LPA shall submit to ODOT any addendum to be issued during the advertisement period that changes estimates or materials.

ODOT shall review and approve such addendum for project eligibility. All addenda shall be distributed to all potential bidders prior to opening bids and selling the contracts.

7.4 The LPA must incorporate ODOT's LPA Bid Template in its bid documents. The template includes Form FHWA-1273, Required Contract Provisions, a set of contract provisions and proposal notices that are required by regulations promulgated by the FHWA and other Federal agencies, which must be included in all contracts as well as appropriate subcontracts and purchase orders.

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- 7.5 The LPA shall require the contractor to be enrolled in, and maintain good standing in, the Ohio Bureau of Workers' Compensation Drug-Free Safety Program (DFSP), or a similar program approved by the Bureau of Workers' Compensation, and the LPA must require the same of any of its subcontractors.
- 7.6 Only pre-qualified contractors are eligible to submit bids for this PROJECT. Pre-qualification status must be in effect/current **at the time of award**. For work types that ODOT does not pre-qualify, the LPA must still select a qualified contractor. Subcontractors are not subject to the pre-qualification requirement. In accordance with FHWA Form 1273 Section VII and 23 CFR 635.116, the "prime" contractor must perform no less than 30 percent of the total original contract price. The 30-percent prime requirement does not apply to design-build contracts.
- 7.7 In accordance with ORC Section 153.54, et. seq., the LPA shall require that the selected contractor provide a performance and payment bond in an amount equal to at least 100 percent of its contract price as security for the faithful performance of its contract. ODOT shall be named an obligee on any bond. If the LPA has 100 percent locally-funded work product within this agreement, the LPA must allocate the correct percent of the performance and payment bond cost to the 100 percent locally-funded work product.
- 7.8 Before awarding a contract to the selected contractor, the LPA shall verify that the contractor is not subject to a finding for recovery under ORC Section 9.24, that the contractor has taken the appropriate remedial steps required under ORC Section 9.24, or that the contractor otherwise qualifies under the exceptions to this section. Findings for recovery can be viewed on the Auditor of State's website at https://ohioauditor.gov/findings.html. If the LPA fails to so verify, ODOT may immediately terminate this Agreement and release all Federal funding commitments.
- 7.9 Before awarding a contract to the selected contractor, the LPA shall verify that the contractor is an active registrant on the Federal System for Award Management (SAM). Pursuant to 48 CFR 9.404, contractors that have an active exclusion on SAM are excluded from receiving Federal contracts, certain subcontracts, and certain Federal financial and nonfinancial assistance and benefits. If the LPA fails to so verify, ODOT may immediately terminate this Agreement and release all federal funding commitments.
- 7.10 The LPA is prohibited from imposing any geographical hiring preference on any bidder in the LPA's bid documents or on any successful contractor in the LPA's award or contract for the construction of the PROJECT.
- 7.11 After analyzing all bids for completeness, accuracy, and responsiveness, per ORC 153.12, the LPA shall approve the award of the contract in accordance with laws and policies governing the LPA within 60 days after bid opening. Within 45 days of that approval, the LPA shall submit to ODOT notification of the project award by submitting a bid tabulation, a copy of the ordinance or resolution, and direct payment information as required in Attachment 2 of this agreement, if applicable.

8. CONSTRUCTION CONTRACT ADMINISTRATION

- 8.1 The LPA shall provide and maintain competent and adequate project management covering the supervision and inspection of the development and construction of the PROJECT. The LPA shall bear the responsibility of ensuring that construction conforms to the approved plans, surveys, profiles, cross sections and material specifications. If a consultant is used for engineering and/or inspection activities, the LPA must use a QBS process as required pursuant to ORC sections 153.65 through 153.71. Any construction contract administration or engineering costs incurred by the LPA or their consultant prior to the construction contract award date will not be eligible for reimbursement under this agreement.
- 8.2 The LPA must maintain a project daily diary that is up-to-date and contains the following information: all work performed, list of equipment utilized, project personnel and hours worked, pay quantities, daily weather conditions, special notes and instructions to the contractor, and any unusual events occurring on or adjacent to the project. Additionally, the LPA is responsible for documenting measurements, calculations, material quality, quantity, and basis for payment; change orders, claims, testing and results, traffic, inspections, plan changes, prevailing wage, EEO and DBE, if applicable. The LPA is responsible for ensuring all materials incorporated into the project comply with ODOT's Construction and Material Specifications and meet the requirements of Appendix J in the LATP Manual of Procedures.
- 8.3 The LPA shall certify both the quantity and quality of material used, the quality of the work performed, and the amount of construction engineering cost, when applicable, incurred by the LPA for the eligible work on the PROJECT, as well as at the completion of construction. The LPA shall certify that the construction is in accordance with the approved plans, surveys, profiles, cross sections and material specifications or approved amendments thereto.
- 8.4 The Federal-aid Highway Program operates on a reimbursement basis, which requires that costs actually be incurred and paid before a request is made for reimbursement. The LPA shall review and/or approve all invoices prior to payment and prior to requesting reimbursement from ODOT for work performed on the PROJECT. If the LPA is requests reimbursement, it must provide documentation of payment for the PROJECT costs requested. The LPA shall ensure the accuracy of any invoice in both amount and in relation to the progress made on the PROJECT. The LPA must submit to ODOT a written request for either current payment or reimbursement of the Federal/State share of the expenses involved, attaching copies of all source documentation associated with pending invoices or paid costs. To assure prompt payment, the measurement of quantities and the recording for payment should be performed on a daily basis as the items of work are completed and accepted.
- 8.5 ODOT shall pay, or reimburse, the LPA or, at the request of the LPA and with concurrence of ODOT, pay directly to the LPA's construction contractor ("Contractor"), the eligible items of expense in accordance with the cost-sharing provisions of this Agreement. If the LPA requests to have the Contractor paid directly, Attachment 2 to this Agreement shall be completed and submitted with the project bid tabulations, and the Contractor shall be required to establish Electronic Funds Transfer with the State of Ohio. ODOT shall pay the Contractor or reimburse the LPA within thirty (30) days of receipt of the approved Contractor's invoice from the LPA. When the LPA is requesting a direct payment to its Contractor, the LPA must provide documentation that the LPA has paid its share of the PROJECT costs.
- 8.6 The LPA shall notify ODOT of the filing of any mechanic's liens against the LPA's Contractor within three (3) business days of receipt of notice of lien. Failure to so notify ODOT or failure to process a mechanic's lien in accordance with the provisions of Chapter 1311 of the ORC may result in the

termination of this Agreement. Upon the receipt of notice of a mechanic's lien, ODOT reserves the right to (1) withhold an amount of money equal to the amount of the lien that may be due and owing to either the LPA or the Contractor; (2) terminate direct payment to the affected Contractor; or (3) take both actions, until such time as the lien is resolved.

8.7 Payment or reimbursement to the LPA shall be submitted to:

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Tony Demasi City Engineer Cuyahoga Falls Engineering Division 2310 Second St. Cuyahoga Falls OH 44221

- 8.8 If, for any reason, the LPA contemplates suspending or terminating the contract of the Contractor, it shall first seek ODOT's written approval. Failure to timely notify ODOT of any contemplated suspension or termination, or failure to obtain written approval from ODOT prior to suspension or termination, may result in ODOT terminating this Agreement and ceasing all Federal funding commitments.
- 8.9 If ODOT approves any suspension or termination of the contract, ODOT reserves the right to amend its funding commitment in paragraph 3.1 and, if necessary, unilaterally modify any other term of this Agreement in order to preserve its Federal mandate. Upon request, the LPA agrees to assign all rights, title, and interests in its contract with the Contractor to ODOT to allow ODOT to direct additional or corrective work, recover damages due to errors or omissions, and to exercise all other contractual rights and remedies afforded by law or equity.
- 8.10 Any LPA right, claim, interest, and/or right of action, whether contingent or vested, arising out of, or related to any contract entered into by the LPA for the work to be performed by the Contractor on this PROJECT (the Claim), may be subrogated to ODOT, and ODOT shall have all of the LPA's rights in/to the Claim and against any other person(s) or entity(ies) against which such subrogation rights may be enforced. The LPA shall immediately notify ODOT in writing of any Claim. The LPA further authorizes ODOT to sue, compromise, or settle any such Claim. It is the intent of the parties that ODOT be fully substituted for the LPA and subrogated to all of the LPA's rights to recover under such Claim(s). The LPA agrees to cooperate with reasonable requests from ODOT for assistance in pursuing any action on the subrogated Claim including requests for information and/or documents and/or to testify.
- 8.11 After completion of the PROJECT, and in accordance with Title 23 United States Code 116 and applicable provisions of the ORC, the LPA shall maintain the PROJECT to design standards and provide adequate maintenance activities for the PROJECT, unless otherwise agreed to by ODOT. The PROJECT must remain under public ownership and authority for 20 years unless otherwise agreed to by ODOT. If the PROJECT is not being adequately maintained, ODOT shall notify the LPA of any deficiencies, and if the maintenance deficiencies are not corrected within a reasonable amount of time, ODOT may determine that the LPA is no longer eligible for future participation in any Federally-funded programs.
- 8.12 The LPA must provide the final invoices, and final report (Appendix P) along with all necessary closeout documentation within 6 months of the physical completion date of the project. All costs must be submitted within 6 months of the established completion date. Failure to submit final invoices along with the necessary closeout documentation within the 6 month period may result in closeout of the project and loss of eligibility of any remaining Federal and or State funds.

9. CERTIFICATION AND RECAPTURE OF FUNDS

- 9.1 This Agreement is subject to the determination by ODOT that sufficient funds have been appropriated by the Ohio General Assembly to the State for the purpose of this Agreement and to the certification of funds by the Office of Budget and Management, as required by ORC section 126.07. If ODOT determines that sufficient funds have not been appropriated for the purpose of this Agreement or if the Office of Budget and Management fails to certify the availability of funds, this Agreement or any renewal thereof will terminate on the date funding expires.
- 9.2 Unless otherwise directed by ODOT, if for any reason the PROJECT is not completed in its entirety or to a degree acceptable to ODOT and FHWA, the LPA shall repay to ODOT an amount equal to the total funds ODOT disbursed on behalf of the PROJECT. In turn, ODOT shall reimburse FHWA an amount equal to the total sum of Federal dollars it has received for the PROJECT. If the LPA has not repaid ODOT in full an amount equal to the total funds ODOT disbursed on behalf of the project, any funds recovered from the performance and payment bond as required under section 7.7 shall be used to offset the Federal dollars reimbursed to FHWA.

10. NONDISCRIMINATION

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- 10.1 In carrying out this Agreement, the LPA shall not discriminate against any employee or applicant for employment because of race, religion, color, sex, national origin, ancestry, age, disability as that term is defined in the American with Disabilities Act, military status (past, present, or future), or genetic information. The LPA shall ensure that applicants are hired and that employees are treated during employment without regard to their race, religion, color, sex, national origin, ancestry, age, disability, military status, or genetic information. Such action shall include, but not be limited to the following: employment, upgrading, demotion, or transfer; recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship.
- 10.2 The LPA agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the provisions of this nondiscrimination clause, and in all solicitations or advertisements for employees placed by it, state that all qualified applicants shall receive consideration for employment without regard to race, religion, color, sex, national origin, ancestry, age, disability, military status, or genetic information. The LPA shall incorporate this nondiscrimination requirement within all of its contracts for any of the work on the PROJECT (other than subcontracts for standard commercial supplies or raw materials) and shall require all of its contractors to incorporate such requirements in all subcontracts for any part of such PROJECT work.
- 10.3 The LPA shall ensure that Disadvantaged Business Enterprises (DBEs), as defined in 49 CFR Part 26, will have an equal opportunity to participate in the performance of contracts and subcontracts financed in whole or in part with Federal funds provided in conjunction with this Agreement. To meet this requirement, subcontractors who claim to be DBEs must be certified by ODOT. The LPA shall require that all contracts and other agreements it enters into for the performance of the PROJECT contain the following specific language:

Disadvantaged Business Enterprise (DBE) Requirement. DBE participation goals (subcontracts, materials, supplies) have been set on this project for those certified as DBEs pursuant to Title 23, U.S.C. section 140(c) and 49 CFR, Part 26, and where applicable qualified to bid with ODOT under Chapter 5525 of the **ORC**.

ODOT shall supply the percentage goal to the LPA upon review of the Engineer's Estimate. Prior to executing the contract with the contractor, and in order for ODOT to encumber the Federal/State

funds, the contractor must demonstrate compliance with the DBE Utilization Plan and Good Faith Efforts requirements.

GOOD FAITH EFFORTS (GFEs)

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In the event that the DBE contract goal established by ODOT is not met on a project, the Contractor shall demonstrate that it made adequate good faith efforts to meet the goal, even though it did not succeed in obtaining enough DBE participation to do so.

The Contractor shall demonstrate its GFEs by submitting information including but not limited to the following to the LPA:

- (1) All written quotes received from certified DBE firms;
- (2) All written (including email) communications between the Contractor and DBE firms;
- (3) All written solicitations to DBE firms, even if unsuccessful;
- (4) Copies of each non-DBE quote when a non-DBE was selected over a DBE for work on the contract;
- (5) Phone logs of communications with DBE firms.

The LPA will send the GFE documentation including their recommendation to ODOT at the following address:

Office of Small & Disadvantaged Business Enterprise

The Ohio Department of Transportation

1980 West Broad Street, Mail Stop 3270

Columbus, Ohio 43223

ODOT shall utilize the guidance set forth in 49 CFR §26.53 Appendix A in determining whether the Contactor has made adequate good faith efforts to meet the goal. ODOT will review the GFE documentation and the LPA's recommendation and issue a written determination on whether adequate GFEs have been demonstrated by the Contractor.

The Contractor may request administrative reconsideration within two (2) days of being informed that it did not perform a GFE. The Contractor must make this request in writing to the following official:

Ohio Department of Transportation Division of Chief Legal Counsel 1980 West Broad Street, Mail Stop 1500 Columbus, Ohio 43223

The reconsideration official will not have played any role in the original determination that the Contractor did not document sufficient good faith effort.

As part of this reconsideration, the Contractor will have the opportunity to provide written documentation or an argument concerning the issue of whether it met the goal or made adequate good faith efforts to do so. ODOT will send the Contractor a written decision on reconsideration explaining the basis for finding that the Contractor did or did not meet the goal or make adequate good faith efforts. The result of the reconsideration process is not administratively appealable. ODOT may issue sanctions if the Contractor fails to comply with the contract requirements and/or fails to demonstrate the necessary good faith effort. ODOT may impose any of the following sanctions:

- (a) Letter of reprimand;
- (b) Contract termination; and/or
- (c) Other remedies available by law including administrative suspension.

Factors to be considered in issuing sanctions include, but are not limited to:

- (a) The magnitude and the type of offense;
- (b) The degree of the Consultant's culpability;
- (c) Any steps taken to rectify the situation;
- (d) The Contractor's record of performance on other projects including, but not limited to:
 - (1) Annual DBE participation over DBE goals;
 - (2) Annual DBE participation on projects without goals;
 - (3) Number of complaints ODOT has received from DBEs regarding the Contractor; and,
 - (4) The number of times the Contractor has been previously sanctioned by ODOT; and,
- (e) Whether the Contractor falsified, misrepresented, or withheld information.
- 10.4 During the performance of this contract, the LPA, for itself, its assignees and successors in interest") agrees as follows:

(1) **Compliance with Regulations:** The LPA will comply with the regulations relative to nondiscrimination in Federally-assisted programs of the United States Department of Transportation (hereinafter "U.S. DOT") Title 49, Code of Federal Regulations, Part 21, as they may be amended from time to time, (hereinafter referred to as the "Regulations"), which are herein incorporated by reference and made a part of this contract.

In addition, the LPA will comply with the provisions of the Americans with Disabilities Act, Section 504 of the Rehabilitation Act, FHWA Guidance, and any other Federal, State, and/or local laws, rules and/or regulations (hereinafter referred to as "ADA/504").

(2) **Nondiscrimination:** The LPA, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, national origin, sex, age, or disability, in the selection and retention of contractors or subcontractors, including procurements of materials and leases of equipment. The LPA will not participate either directly or indirectly in the discrimination prohibited by section 21.5 of the Regulations, including employment practices when the contract covers a program set forth in Appendix B of the Regulations, as well as the ADA/504 regulations.

(3) Solicitations for Contractors or Subcontractors, including Procurement of Materials and Equipment: In all solicitations either by competitive bidding or negotiation made by the LPA for work to be performed under a contract or subcontract, including procurements of materials or leases of equipment, each potential contractor, subcontractor, or supplier will be notified by the LPA of the LPA's obligations under this contract and the Regulations relative to nondiscrimination on the grounds of race, color, national origin, sex, age, or disability.

(4) **Information and Reports:** The LPA will provide all information and reports required by the Regulations or directives issued pursuant thereto, and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the STATE or FHWA to be pertinent to ascertain compliance with such Regulations, orders and instructions. Where any information required of the LPA is in the exclusive possession of another who fails or refuses to furnish this information, the LPA will so certify to the STATE or FHWA, as appropriate, and will set forth what efforts it has made to obtain the information.

(5) **Sanctions for Noncompliance:** In the event of the LPA's noncompliance with the nondiscrimination provisions of this contract, the STATE will impose such contract sanctions as it or FHWA may determine to be appropriate, including, but not limited to:

- (a) withholding of payments to the LPA under the contract until the LPA complies, and/or
- (b) cancellation, termination or suspension of the contract, in whole or in part.

(6) **Incorporation of Provisions:** The LPA will include the provisions of paragraphs (1) through (5) above in every contract or subcontract, including procurements of materials and leases of equipment, unless exempt by the Regulations, or directives issued pursuant thereto. The LPA will take such action with respect to any contractor or subcontractor procurement as the STATE or FHWA may direct as a means of enforcing such provisions including sanctions for noncompliance; provided, however, that, in the event the LPA becomes involved in, or is threatened with, litigation with a contractor, subcontractor, or supplier as a result of such direction, the LPA may request the STATE to enter into such litigation to protect the interests of the STATE, and, in addition, the LPA may request the United States to enter into such litigation to protect the interests of the United States.

11. DATA, PATENTS AND COPYRIGHTS - PUBLIC USE

- 11.1 The LPA shall ensure that any designs, specifications, processes, devices or other intellectual properties specifically devised for the PROJECT by its consultants or contractors performing work become the property of the LPA, and that when requested, such designs, specifications, processes, devices or other intellectual properties shall become available to ODOT and FHWA with an unrestricted right to reproduce, distribute, modify, maintain, and use. The LPA's consultants and contractors shall not seek or obtain copyrights, patents, or other forms of proprietary protection for such designs, specifications, processes, devices or other intellectual properties, and in providing them to the PROJECT, shall relinquish any such protections should they exist.
- 11.2 The LPA shall not allow its consultants or contractors to utilize within the development of the PROJECT any copyrighted, patented or similarly protected design, specification, process, device or other intellectual property unless the consultant or contractor has provided for such use by suitable legal agreement with the owner of such copyright, patent or similar protection. A consultant or contractor making use of such protected items for the PROJECT shall indemnify and save harmless the LPA and any affected third party from any and all claims of infringement on such protections, including any costs, expenses, and damages which it may be obliged to pay by reason of infringement, at any time during the prosecution or after the completion of work on the PROJECT.

11.3 In the case of patented pavements or wearing courses where royalties, licensing and proprietary service charges, exacted or to be exacted by the patentees, are published and certified agreements are filed with the LPA, guaranteeing to prospective bidders free unrestricted use of all such proprietary rights and trademarked goods upon payment of such published charges, such patented pavements or wearing courses may be specifically designated in the proposal and competition secured upon the item exclusive of the patent or proprietary charges.

12. TERMINATION; DEFAULT AND BREACH OF CONTRACT

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- 12.1 Neglect or failure of the LPA to comply with any of the terms, conditions, or provisions of this Agreement, including misrepresentation of fact, may be an event of default, unless such failure or neglect are the result of natural disasters, strikes, lockouts, acts of public enemies, insurrections, riots, epidemics, civil disturbances, explosions, orders of any kind of governments of the United States or State of Ohio or any of their departments or political subdivisions, or any other cause not reasonably within the LPA's control. If a default has occurred, ODOT may terminate this agreement with thirty (30) days written notice, except that if ODOT determines that the default can be remedied, then ODOT and the LPA shall proceed in accordance with sections 12.2 through 12.4 of this Agreement.
- 12.2 If notified by ODOT in writing that it is in violation of any of the terms, conditions, or provisions of this Agreement, and a default has occurred, the LPA shall have thirty (30) days from the date of such notification to remedy the default or, if the remedy will take in excess of thirty (30) days to complete, the LPA shall have thirty (30) days to satisfactorily commence a remedy of the causes preventing its compliance and curing the default situation. Expiration of the thirty (30) days and failure by the LPA to remedy, or to satisfactorily commence the remedy of, the default whether payment of funds has been fully or partially made, shall result in ODOT, at its discretion, declining to make any further payments to the LPA, or in the termination of this Agreement by ODOT. If this Agreement is terminated, the LPA may be liable to repay to ODOT all of the Federal funds disbursed to it under this Agreement.
- 12.3 The LPA, upon receiving a notice of termination from ODOT for default, shall cease work on the terminated activities covered under this Agreement. If so requested by ODOT, the LPA shall assign to ODOT all its rights, title, and interest to any contracts it has with any consultants or contractors. Otherwise, the LPA shall terminate all contracts and other agreements it has entered into relating to such covered activities, take all necessary and appropriate steps to limit disbursements and minimize any remaining costs. At the request of ODOT, the LPA may be required to furnish a report describing the status of PROJECT activities as of the date of its receipt of notice of termination, including results accomplished and other matters as ODOT may require.
- 12.4 No remedy herein conferred upon or reserved by ODOT is intended to be exclusive of any other available remedy, but each and every such remedy shall be cumulative and shall be in addition to every other remedy given under this Agreement or now or hereafter existing at law or in equity. No delay or omission to exercise any right or option accruing to ODOT upon any default by the LPA shall impair any such right or option or shall be construed to be a waiver thereof, but any such right or option may be exercised from time to time and as often as may be deemed expedient by ODOT.

13. THIRD PARTIES AND RESPONSIBILITIES FOR CLAIMS

13.1 Nothing in this Agreement shall be construed as conferring any legal rights, privileges, or immunities, or imposing any legal duties or obligations, on any person or persons other than the parties named in this Agreement, whether such rights, privileges, immunities, duties, or obligations be regarded as contractual, equitable, or beneficial in nature as to such other person or persons. Nothing in this Agreement shall be construed as creating any legal relations between the Director

and any person performing services or supplying any equipment, materials, goods, or supplies for the PROJECT sufficient to impose upon the Director any of the obligations specified in section 126.30 of the ORC.

13.2 The LPA hereby agrees to accept responsibility for any and all damages or claims for which it is legally liable arising from the actionable negligence of its officers, employees or agents in the performance of the LPA's obligations made or agreed to herein.

14. <u>NOTICE</u>

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14.1 Notice under this Agreement shall be directed as follows:

If to the LPA:

If to ODOT:

Tony Demasi	CHAD ROOT, PE	
City Engineer	ODOT DISTRICT 4 LPA MANAGER	
Cuyahoga Falls Engineering Division	2088 SOUTH ARLINGTON RD.	
2310 Second St.	AKRON OH 44306	

15. GENERAL PROVISIONS

15.1 Recovery of Direct Labor, Overhead, and/or Fringe Costs:

To be eligible to recover any costs associated with the LPA's internal labor forces used on this project, the LPA shall make an appropriate selection below:¹

- _____1. Direct Labor only (no indirect cost recovery for fringe benefit or overhead costs)
- 2. Direct Labor plus indirect costs determined using the Federal De Minimis Indirect Cost Rate²
- 3. Direct Labor plus Approved Fringe Benefit Costs (fringe benefits only)³
- 4. Direct Labor plus indirect costs determined using the approved applicable Cost Allocation Plan rate⁴
- 5. No cost recovery of any LPA direct labor, fringe benefits, or overhead costs.

For any labor costs to be eligible for reimbursement with Federal and State funds, the LPA shall meet all timekeeping requirements outlined in 2 CFR Part 200 and the ODOT LPA Cost Recovery Guidance, including ODOT Questions and Answers⁵ and related supplementary guidance, as

⁴ Annually, the LPA shall submit an updated rate for review and approval by the ODOT Office of External Audits.

¹ <u>Note</u>: If a timely election is not made at the time of contract execution, the cost recovery method will default to Option 5: No cost recovery of any LPA direct labor, fringe benefits, or overhead costs.

² The De Minimis Indirect Cost Rate is 10 percent of modified total direct costs (MTDC) per 2 CFR §200.414. Regardless of whether the LPA prepares a CAP or uses the 10-percent de minimis rate, LPAs are required to maintain Federally-compliant time-tracking systems. Accordingly, LPAs are permitted to bill for labor costs and associated indirect costs only if such costs are accumulated, tracked, and allocated in accordance with such systems. Before an LPA is eligible to elect the de minimis rate on any project, the LPA's time-tracking system and methods for tracking other project costs must be reviewed and approved by the ODOT Office of External Audits. To obtain this approval, LPAs will be required to complete an Internal Control Questionnaire (ICQ), and LPAs with compliant time-tracking systems will be granted approval (be prequalified) to apply the de minimis rate.

³ Annually, the LPA shall submit an updated rate for review and approval by the ODOT Office of External Audits.

⁵ Question and Answer guidance can be found at the following web address:

http://www.dot.state.oh.us/Divisions/Planning/LocalPrograms/Locallet%20Manual/LPA%20Questions%20and%20Answers%20 Re%202%20CFR%20200%20(latest)%20(2).pdf

applicable. Additionally, if the LPA elects to recover fringe and/or indirect costs, the LPA shall follow 2 CFR Part 200 and the LATP Manual of Procedures.

15.2 Financial Reporting and Audit Requirements: The LPA shall comply with the financial reporting and audit requirements of 2 CFR Part 200.

The LPA must submit performance reports at the interval required by the Federal awarding agency and pass-through entity. Annual reports must be due 90 calendar days after the reporting period; quarterly and semi-annual reports must be due 30 calendar days after the reporting period. Alternatively, ODOT may require annual reports before the anniversary dates of multiple year Federal awards.⁶

LPAs that expend \$750,000 or more in the LPA's fiscal year in Federal awards must have a Single Audit, or program-specific audit, conducted for that year in accordance with 2 CFR §200.501.

Federal and State funds expended to or on behalf of a subrecipient must be recorded by the subrecipient (LPA). The LPA is responsible for tracking these payments throughout the life of the project in order to ensure an accurate Schedule of Expenditures of Federal Award (hereinafter referred to as *Schedule*) is provided for 20.205 funding. The LPA must identify each ODOT PID and/or Project and the corresponding expenditures on its Schedule separately. LPAS are responsible for ensuring funds related to this PROJECT are reported when the activity related to the Federal award occurs.⁷ The LPA is required to report its own expenditures, in addition to any expenditures made by ODOT for the project in the applicable Schedule when the expenditure was made. When a Schedule is not accurately reported for the project, the LPA will be required to make corrections to past, current, and possibly future Schedules and Audit Reports to ensure Federal funds are accurately reported in the correct fiscal year matching the project expenditure. The LPA is required to report all Federal funds received, or expended on its behalf, regardless to differences in the LPA expenditure date and ODOT reimbursement date.

15.3 *Record Retention*: The LPA, when requested at reasonable times and in a reasonable manner, shall make available to the agents, officers, and auditors of ODOT and the United States government, its records and financial statements as necessary relating to the LPA's obligations under this Agreement. All such books, documents, and records shall be kept for a period of at least three years after FHWA approves the LPA's final Federal voucher for reimbursement of PROJECT expenses. In the event that an audit-related dispute should arise during this retention period, any such books, documents, and records that are related to the disputed matter shall be preserved for the term of that dispute. The LPA shall require that all contracts and other agreements it enters into for the performance of the PROJECT contain the following specific language:

As the LPA, ODOT or the United States government may legitimately request from time to time, the contractor agrees to make available for inspection and/or reproduction by the LPA, ODOT or United States government, all records, books, and documents of every kind and description that relate to this contract.

Nothing contained in this Agreement shall in any way modify the LPA's legal duties and obligations to maintain and/or retain its records under Ohio public records laws.

15.4 *Ohio Ethics Laws*: LPA agrees that it they are currently in compliance and will continue to adhere to the requirements of Ohio Ethics law as provided by Section 102.03 and 102.04 of the ORC.

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⁶ See 2 CFR §200.328.

⁷ Per 2 CFR §200.502

15.5 State Property Drug-Free Workplace Compliance: In accordance with applicable State and Federal laws, rules, and policy, the LPA shall make a good faith effort to ensure that its employees and its contractors will not purchase, transfer, use, or possess alcohol or a controlled substance while working on State property.

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- 15.6 *Governing Law*: This Agreement and any claims arising out of this Agreement shall be governed by the laws of the State of Ohio. Any provision of this Agreement prohibited by the laws of Ohio shall be deemed void and of no effect. Any litigation arising out of or relating in any way to this Agreement or the performance thereunder shall be brought only in the courts of Ohio, and the LPA hereby irrevocably consents to such jurisdiction. To the extent that ODOT is a party to any litigation arising out of or relating in any way to this Agreement or the performance thereunder, such an action shall be brought only in a court of competent jurisdiction in Franklin County, Ohio.
- 15.7 *Assignment*: Neither this Agreement nor any rights, duties, or obligations described herein shall be assigned by either party hereto without the prior express written consent of the other party.
- 15.8 *Merger and Modification*: This Agreement and its attachments constitute the entire Agreement between the parties. All prior discussions and understandings between the parties are superseded by this Agreement. Unless otherwise noted herein, this Agreement shall not be altered, modified, or amended except by a written agreement signed by both parties hereto.
- 15.9 Severability: If any provision of this Agreement is held to be invalid or unenforceable by a court of competent jurisdiction, such holding shall not affect the validity or the ability to enforce the remainder of this Agreement. All provisions of this Agreement shall be deemed severable.
- 15.10 *Signatures*: Any person executing this Agreement in a representative capacity hereby represents that he/she has been duly authorized by his/her principal to execute this Agreement on such principal's behalf.

SUM W STEELS CORNERS RD PH1 COUNTY-ROUTE-SECTION 102904

PID NUMBER

30243 AGREEMENT NUMBER

DUNS NUMBER

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be duly executed as of the day and year last written below.

LPA:	City	OF CUYAHOGA FALLS	STATE OF OHIO OHIO DEPARTMENT OF TRANSPORTATION
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Price Dipector By:

By:

Jerry Wray Jerry Wray Birector

Title:

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Date: 11-29-71

Date: /2//3

Attachment 1

10.000

PROJECT BUDGET – SOURCES AND USES OF FUNDS

<u>30243</u> AGREEMENT NUMBER

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SUM W STEELS CORNERS RD PH1 COUNTY-ROUTE-SECTION

102904 PID NUMBER

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DUNS NUMBER

SOURCES	يرجليا	INDE V)S	WHE	A FUND	Q	Other	PUNDS	
USES	amount	%	SAC	Sincount	% %	SAC	amount	% SAC	
PE Preliminary develop; environ clearance	\$0			\$0			\$0		\$0
PE final design;construction plans and specs	\$0			\$0			\$0		0\$
ACQUISITION OF RIGHT OF WAY & UTILITY RELOCATION	\$0			\$0			\$0		0\$
ADVERTISING, COMPETITIVE BIDDING & CONTRACT AWARD	\$0			\$0			\$0		0\$
CONSTRUCTION fund source 1	\$157,500	20	LNTP	\$630,000	80	4TA7	\$0		\$787,500
Const. admin, mat'l testing & inspection	\$17,500	20	LNTP	\$70,000	80	4TA7	\$0		\$87,500
CONSTRUCTION fund source 2	\$0			\$0			\$0		\$0
Const. admin, mat'l testing & inspection	\$0			\$0			\$0		\$0
OTHER DIRECT OUT -OF- POCKET EXPENSES (provide details)	\$0			\$0			\$0		0\$
	\$175,000			\$700,000			\$0		\$875,000

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Attachment 2

102904 PID NUMBER

30243 AGREEMENT NUMBER

DUNS NUMBER

DIRECT PAYMENT OF CONTRACTOR

At the direction of the LPA and upon approval of ODOT, payments for work performed under the terms of the Agreement by the LPA's contractor shall be paid directly to the contractor in the pro-rata share of Federal/State participation. The invoice package shall be prepared by the LPA as previously defined in this agreement, and shall indicate that the payment is to be made to the contractor. In addition, the invoice must state the contractor's name, mailing address and OAKS Vendor ID. Separate invoices shall be submitted for payments that are to be made to the contractor and those that are to be made to the LPA.

When ODOT uses Federal funds to make payment to the contractor, all such payments are considered to be expenditures of Federal funds received and also expended by the LPA (subrecipient). Accordingly, the LPA is responsible for tracking the receipts and payments and reporting the payments Federal (Receipts) Expenditures on the Schedule of Expenditures of Federal Awards (SEFA). An LPA that fails to report these funds accurately and timely may be required to restate the SEFA to comply with Federal reporting requirements.

We_	the City of Cuyahoga Falls	_request that all	payments for	the Federal/State	share of the
cons	truction costs of this agreement	performed by _			

(CONTRACTOR'S NAME)

be paid directly to

(CONTRACTOR'S NAME)

Contractor Name: Oaks Vendor ID: Mailing Address:

Contractor Name: Oaks Vendor ID: Mailing Address:

LPA signature

LPA Name: Oaks Vendor ID: Mailing Address:

Approved, ODOT signature

Disclosure Statement 40 C.F.R. 1506.5 (c)

The consultant , (insert name), hereby certifies that it has no financial or other interest in the execution or outcome of the Ohio Department of Transportation Local-let project described as (brief description of project).

Date

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Signature



TONY V. DEMASI, P.E City Engineer

City of Cuyahoga Falls

Division of Engineering 2310 Second Street Cuyahoga Falls, Ohio 44221-2583 PHONE: 330-971-8180 FAX: 330-971-8168 Mayor Don Walters

CRAIG MARKO, P.E. Assistant City Engineer

November 30, 2017

Ms. Christine Surma Ohio Department of Transportation 2088 South Arlington Road Akron OH 44306

Re: West Steels Corners Road Resurfacing, Northampton Road to State Road PID 102904; LPA Agreement 30243

Dear Ms. Surma:

Enclosed please find two (2) signed copies of the referenced Agreement. Please forward an executed copy to my attention for our records.

Sincerely,

Tony V. Demasi, P.E Engineer

TVD/mp

Enclosures