

# CITY OF JACKSON



## ENG 20-10 2020 PAVEMENT MARKING CONTRACT

**Bid Responses Due: THURSDAY, AUGUST 20, 2020 by 9:30:00 AM**

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CITY OF JACKSON, MICHIGAN  
161 W. Michigan Avenue  
Jackson, Michigan 49201

July 22, 2020

INVITATION TO BID

Sealed proposals for ENG 20-10 2020 PAVEMENT MARKING CONTRACT will be received by the City of Jackson Purchasing Agent, 161 W. Michigan Avenue, 10th Floor, Jackson, Michigan, THURSDAY, AUGUST 20, 2020 until 9:30:00 AM.

The work includes the following partial listing of items with approximate quantities:

Application of waterborne paint and cold plastic for rehabilitation of pavement markings throughout the City of Jackson. Major items include: 600,000 feet of longitudinal waterborne pavement markings, 3,600 feet of cold plastic crosswalk and stop bar markings, 121 cold plastic symbol markings, and 3,000 feet of longitudinal pavement marking removal.

Bidders may obtain packets containing Instructions to Bidders, Proposal Forms, Specifications and Contract Forms from the city's website at <http://www.cityofjackson.org/rfq>.

Prospective bidders are invited to attend a pre-bid meeting on No prebid will be held. Contractor's can direct their questions to Shelly Allard at [sallard@cityofjackson.org](mailto:sallard@cityofjackson.org). Bids are to be submitted via email to [sallard@cityofjackson.org](mailto:sallard@cityofjackson.org).

Original bid documents are to sent via USPS for delivery after the bid opening.

**Bidders will be required to meet the City of Jackson's prequalification requirements prior to bid opening. Bidders must be prequalified for Pavement Marking (F).**

The City of Jackson does not discriminate on the basis of race, religion or national origin, color, age, sex, height, weight, marital status, and physical or mental handicap as to: access, availability, employment, or participation in any of its programs and activities.

City of Jackson

By

Phil Hones, Purchasing Agent

# INSTRUCTIONS TO BIDDERS

1. **PROJECT:** The work includes the following partial listing of items with approximate quantities:

*Application of waterborne paint and cold plastic for rehabilitation of pavement markings throughout the City of Jackson. Major items include: 600,000 feet of longitudinal waterborne pavement markings, 3,600 feet of cold plastic crosswalk and stop bar markings, 121 cold plastic symbol markings, and 3,000 feet of longitudinal pavement marking removal.*

The scope of this work shall include all labor, equipment and materials necessary to complete this project according to the specifications listed in the contract documents. All labor, equipment and materials necessary for completion of the work, but not specifically listed as a pay item, will be deemed to be included in one or more of the pay items listed in the bid sheet.

2. **PROPOSALS:**

- a. Proposals are to be submitted on the forms attached. They should be submitted to the Purchasing Agent, City of Jackson, as provided in the Invitation for Bids in a sealed envelope marked "ENG 20-10 2020 PAVEMENT MARKING CONTRACT".
- b. Proposals, affidavits, certificates and all appendices must be fully and properly filled out and executed.
- c. Proposals must be bid on a unit price basis as applied to the estimated quantities. Where errors of extension of totals are made, the unit price bid multiplied by the estimated quantity shall govern. The preliminary estimates of quantities indicated, although given with as much accuracy as possible, are to be regarded as approximately only, and are given for the general guidance of the bidders and as a basis upon which the different proposal may be compared. The City reserves the right to increase or diminish any or all of these quantities within reasonable limits and the Contractor will be paid for the actual work completed and accepted by the City at the prices stated in his Proposal.

Upon the discovery of an obvious error in a bid document that could result in a change in the amount of a bid, the staff of the Purchasing Department shall contact the bidder in writing and advise the bidder that it has seven working days from the date of the letter to correct the error. This correction shall be in writing directed to the Purchasing Agent and shall be postmarked not later than seven working days from the date of the letter referred to in the first sentence of this paragraph.

If no correction is received in a timely fashion, then the Purchasing Agent shall reject the bid. If a correction is received and the Purchasing Department deems the same to be appropriate and proper in every way, the Purchasing staff shall attach same to the original bid document and shall then proceed to tabulate the bids as corrected.

- d. Proposals may be withdrawn up to the time for opening bids announced in the Invitation for Bids. Proposals shall remain in effect for 60 days after opening.
  - e. Each bidder shall be held to have examined the site of the proposed work and adjacent areas in order to arrive at a clear understanding of the conditions under which the work is to be done. He shall be held responsible to have compared the site with the drawings and specifications and to have satisfied himself as to the conditions of the site, existing obstructions, the actual elevations, and any other conditions affecting the carrying out of his work. No allowance or extra consideration on behalf of the Contractor shall be allowed by reason of error, negligence, oversight, or carelessness on the part of the Contractor.
  - f. The City may request of any bidder evidence of experience performing the work being bid, and may require information on financial status and equipment available for the project.
  - g. Each bidder shall indicate on page 12 of the Proposal Forms the name, address, and a complete description of work to be performed by each subcontractor on this project. All subcontractors must be approved by the City, and must meet the same requirements of the successful bidder.
  - h. On contracts that have two or more divisions, proposals that offer a percentage deduction if a single bidder is awarded more than one division, will be considered provided that the deduction is clearly identified in the proposal.
3. **BID SECURITY:** All Proposals must be accompanied by a certified check made payable to the order of the City of Jackson in the amount of 5% of the aggregate bid total. Bid bonds with authorized surety companies as sureties and of like amount may be substituted for certified checks at the option of the bidder. Such bid bonds must be run to the City of Jackson, Michigan.

All proposals submitted without bid security will be returned to the bidder unread.

The bid deposit of all except the three (3) lowest bidders will be returned within (3) days after the opening of bids. The bid deposit of the three lowest bidders will be returned within forty-eight (48) hours after Contract and required bonds have been finally approved by the City.

4. **EQUAL EMPLOYMENT OPPORTUNITY:** All bidders shall complete the Equal Employment Opportunity Certification, Certification of Nonsegregated Facilities, and Non-Collusion Affidavit, found in Section P of the Proposal Forms.

5. **AWARD:**

A. If the contract is over \$50,000, then the City Council will be advised of the bids received and receive staff recommendations on award. Award of contract, if any, will be made to the single lowest responsible bidder for the entire scope of the project. Provided however, the City Council has the authority to reject any and all bids, and to accept or recommend the acceptance of other than the lowest responsive bid when the public interest is served thereby and such action is in the best interest of the City.

B. The City Council reserves the right to reject any and all bids and to waive minor irregularities and/or technicalities in the bids.

6. **CONTRACT:**

A. If the awarded contract is \$50,000 or greater, the following bond requirements will apply:

Contractor shall, within ten (10) days of notice of award, provide City at Contractor's expense with three bonds using the forms attached hereto (B-1 through B-7):

(1) A performance bond executed to the City, to be in an amount of one hundred percent (100%) of the full contract price to be conditioned on the faithful performance of the contract and to include the protection of the City from all liens and damages arising out of the work;

(2) A Labor and Material Payment Bond to be executed to the People of the State of Michigan and the City of Jackson, to be in the amount of one hundred percent (100%) of the full contract price, and to be conditioned on the payment of all labor and materials used in the work and for the protection of the City from all liens and damages arising therefrom, as required by Act 213 of the Public Acts of Michigan of 1963, as amended; and

(3) A Maintenance and Guarantee Bond in a minimum amount of twenty five percent (25%) of the contract price.

All bonds shall be signed by the contractor and a surety company licensed to do business in the State of Michigan with sureties acceptable to the City. Said bonds shall be payable to the City of Jackson and filed in the office of the City Clerk.

- B. Within 10 days of notification of award, the Contractor must provide certificates of insurance evidencing insurance coverage as required by the Contract.
- C. The successful bidder will be required to sign a contract in three counterparts in substantially the form provided with this bid packet. Failure to do so within 10 days of Notification of Award will result in forfeiture of the bid security.
- D. The Contractor will be provided with Notification to Proceed upon completion of the steps in this paragraph. The Contractor must begin work within 5 days of the Notice to Proceed.
- E. Contract Documents require that all work on this project be completed by OCTOBER 23, 2020.
- F. This agreement is subject to: two, one (1) year renewals contingent upon the approval of both parties. If both parties agree to renew the contract, it shall remain at the same unit bid price as the original contract.

# PROPOSAL

TO: City Manager  
c/o Purchasing Agent  
City of Jackson, Michigan

Date: \_\_\_\_\_

In compliance with your invitation for bids dated \_\_\_\_\_

to perform **ENG 20-10 2020 PAVEMENT MARKING CONTRACT**

in the City of Jackson, the undersigned, a(n)

1. individual, resident of \_\_\_\_\_  
doing business as \_\_\_\_\_  
at \_\_\_\_\_
2. partnership, consisting of \_\_\_\_\_  
and \_\_\_\_\_  
under the firm name of \_\_\_\_\_
3. corporation by the name of \_\_\_\_\_  
organized and existing under the laws of the State of \_\_\_\_\_  
with offices at \_\_\_\_\_  
(strike inapplicable clauses)

hereby proposes to perform said work, strictly as specified in the bid documents at the prices set forth on the attached schedule of bid prices, upon receipt of written notice of acceptance of this bid within ninety (90) calendar days after opening of the bids at the time stated in said Invitation; to execute a properly completed contract in the form provided with the bid documents in accordance with this bid; to give bond with good and sufficient surety or sureties, satisfactory to the City Attorney of Jackson, for the faithful performance of said contract, for payment of labor and materials, and, if required, for maintenance of work; and to give such bond within ten (10) days after notice of award.

FEDERAL ID# \_\_\_\_\_

(Corporate Seal, if applicable) Name of Bidder: \_\_\_\_\_

Signed By: \_\_\_\_\_

Its: \_\_\_\_\_

# BID SHEET

DATE:

**PROPOSAL FOR:   ENG 20-10 2020 PAVEMENT MARKING CONTRACT**

TO:   The Mayor and the City Council  
       City of Jackson, Michigan

Ladies and Gentlemen:

The Undersigned has examined the plans, specifications, and the location of the above described work, and is fully informed as to the conditions relating to its performance, and understands the quantities shown in the estimate and on the plans are accurate to the best belief and knowledge of the Engineer, but are not guaranteed.

The undersigned hereby proposes to furnish all equipment, materials, supplies, labor, and services necessary to commence and complete the project as described in the Contract Documents; and in strict conformity with the requirements of the Specifications and such other special provisions and supplemental specifications as may be a part of this proposal for the above described project at the following unit prices all labor, equipment and materials necessary for completion of the work, but not specifically listed as a pay item, will be deemed to be included in one or more of the pay items listed in the bid sheet.

Bidder has examined and carefully studied the Bidding Documents, other related data identified in the Bidding Documents, and the following Addenda, receipt of which is hereby acknowledged (list addenda by Addendum Number and Date):

Addendum No.	Date
_____	_____
_____	_____
_____	_____

## SCHEDULE OF BID PRICES

**NOTE: UNIT PRICES MUST BE LISTED AND SHALL GOVERN.**

ITEM NUMBER	PAY ITEM	DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT PRICE	TOTAL COST
1	8110024	Pavt Mrkg, Ovly Cold Plastic, 6 inch, Crosswalk	Ft	1,500		
2	8110041	Pavt Mrkg, Ovly Cold Plastic, 12 inch, Crosswalk	Ft	1,500		
3	8110045	Pavt Mrkg, Ovly Cold Plastic, 24 inch, Stop Bar	Ft	600		

ITEM NUMBER	PAY ITEM	DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT PRICE	TOTAL COST
4	8110049	Pavt Mrkg, Ovly Cold Plastic, Direction Arrow Sym, Bike	Ea	20		
5	8110056	Pavt Mrkg, Ovly Cold Plastic, Bike	Ea	20		
6	8110063	Pavt Mrkg, Ovly Cold Plastic, Lt Turn Arrow Sym	Ea	20		
7	8110068	Pavt Mrkg, Ovly Cold Plastic, Only	Ea	25		
8	8110069	Pavt Mrkg, Ovly Cold Plastic, Railroad Sym	Ea	20		
9	8110071	Pavt Mrkg, Ovly Cold Plastic, Rt Turn Arrow Sym	Ea	6		
10	8110076	Pavt Mrkg, Ovly Cold Plastic, Thru and Lt Turn Arrow Sym	Ea	2		
11	8110077	Pavt Mrkg, Ovly Cold Plastic, Thru and Rt Turn Arrow Sym	Ea	4		
12	8110078	Pavt Mrkg, Ovly Cold Plastic, Thru Arrow Sym	Ea	4		
13	8110231	Pavt Mrkg, Waterborne, 4 inch, White	Ft	95,000		
14	8110232	Pavt Mrkg, Waterborne, 4 inch, Yellow	Ft	420,000		
15	8110233	Pavt Mrkg, Waterborne, 6 inch, White	Ft	85,000		
16	8110343	Rem Spec Mrkg	Sft	2,572		
17	8117050	Pavt Mrkg, Ovly Cold Plastic, Yield Triangle	Ea	20		
18	8120210	Pavt Mrkg, Longit, 6 inch or Less Width, Rem	Ft	3,000		
<b>TOTAL</b>					\$	

TOTAL BID WRITTEN OUT:

Bidders Name:	
Address:	
City, State, Zip:	
Telephone:	
Fax:	
Email Address:	
Federal ID Number:	
Bid Signed By:	Print or Type
Title:	

1. I am the person described in and who executed the foregoing bid and that the several matters stated are in all respects true.
2. That I am an employee of the firm or company described in and I am authorized to submit said bid.

By \_\_\_\_\_ Its \_\_\_\_\_

## CONTRACT COMPLIANCE

DATE: July 22, 2020  
TO: All Bidders  
FROM: City of Jackson  
SUBJECT: CONTRACT COMPLIANCE

The Commission of the City of Jackson, on 12/19/72, passed a resolution committing the City to a policy and procedure regarding compliance to affirmative hiring practices by contracting agencies doing business with the City of Jackson, effective 12/20/72.

The purpose of the policy and procedure is to ensure that all citizens of our community have the opportunity for the equality of treatment in service and employment.

The City requests that all bidders who will be doing business with the City in the amount of \$5,000 or more during any fiscal year, shall comply with the provisions of the Contract Compliance Policy.

Bidders will be required to show an Equal Employment Opportunity Certificate of Compliance or demonstrate compliance with standards for equal employment opportunity established by state and federal statute.

City Council of Jackson, Michigan

**CONTRACT COMPLIANCE**

CERTIFICATION

\_\_\_\_\_ certifies that he/she/it will not discriminate against any employee or applicant for employment with respect to hire, tenure, term, conditions, or privileges or employment because race, religion or national origin, color, age, sex, height, weight, marital status, sexual orientation, gender identity, and physical or mental handicap.

In connection with this commitment \_\_\_\_\_ understands that he/she/it name will be reviewed by the State of Michigan, Department of Civil Rights for determination of its status as an awardable Bidder.

The undersigned hereby agrees that he/she/it will abide by the terms of any agreements made with the City of Jackson in order to achieve awardable status.

Dated: \_\_\_\_\_ By: \_\_\_\_\_  
(Company)

By: \_\_\_\_\_  
(Title)

\_\_\_\_\_  
Address

\_\_\_\_\_  
City

\_\_\_\_\_  
State

## NON-DISCRIMINATION CLAUSE FOR ALL CITY OF JACKSON CONTRACTS

In connection with the performance of this contract, the contractor agrees as follows:

1. The contractor will not discriminate against any employee/employer for employment because of race, religion or national origin, color, age, sex, height, weight, marital status, sexual orientation, gender identity, and physical or mental handicap. The contractor will take affirmative action to ensure that minority applicants are employed, and that employees are treated during employment without regard to their race, religion, color, national origin, age, sex, height, weight, marital status or handicap. Such action shall include, but not be limited to, the following: layoff or termination, rates of pay or other forms of compensation, selection for training, upgrading or promotion, transfer or recruitment.
2. The contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to race, religion, color, national origin, age, sex, height, weight, marital status or handicap. As a disclaimer, the contractor may state in the advertisement that he/she is an equal opportunity employer.
3. The contractor will furnish and file compliance reports with the City of Jackson as requested. Such reports shall elicit information as to the practices, policies, program and employment statistics for the contractor and said contractor shall permit access to all books, records and accounts regarding employment practices by agents and representatives of the City duly charged with investigative duties to assure compliance with this clause.
4. Breach of the covenants herein may be regarded as a material breach of the contract, or purchasing agreement.
5. The contractor will include, or incorporate by reference, the provisions of paragraphs (1) through (4) in every subcontract or purchase order unless exempted by the rules, regulations or orders of the Michigan Civil Rights Commission and will provide in every subcontract or purchase order that said provisions will be binding upon each subcontractor or seller.

**EQUAL EMPLOYMENT OPPORTUNITY CERTIFICATION**

The undersigned understands and agrees that, as a Contractor for services, there shall be no discrimination against any employee or applicant for employment because of race, religion or national origin, color, age, sex, height, weight, marital status, sexual orientation, gender identity, and physical or mental handicap, including but no limited to employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation and selection for training.

The Contractor further agrees to the following:

- (a) It will assist and actively cooperate with the City in obtaining compliance of any subcontractors with the equal opportunity rules, regulations, and relevant orders.
- (2) It will furnish the City such information as might be required for the supervision of its compliance program, and will otherwise assist the City in the discharge of its responsibility for ensuring compliance.
- (3) In the event that the Contractor fails or refuses to comply with the equal opportunity regulations, the City may cause to be canceled, terminated, or suspended in whole or in part the contractual arrangement between the City and the Contractor.

NAME OF BIDDER: \_\_\_\_\_

ADDRESS: \_\_\_\_\_  
\_\_\_\_\_

SIGNED BY: \_\_\_\_\_

TITLE: \_\_\_\_\_

DATE: \_\_\_\_\_

**CERTIFICATION OF NONSEGREGATED FACILITIES**

The bidder certifies that he does not maintain or provide for his employees any segregated facilities and do not permit his employees to perform their services at any location, under his control, where segregated facilities are maintained. The bidder certifies further that he will not maintain or provide for his employees any segregated facilities at any of his establishments, and that he will not permit his employees to perform their services at any location under his control where segregated facilities are maintained. The bidder agrees that a breach of this certification will be a violation of the Equal Opportunity clause in any contract resulting from acceptance of this bid. As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, restrooms and washrooms, restaurants and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees which are segregated by explicit directive or are in fact segregated on the basis of race, color, religion, or national origin, because of habit, local custom, or otherwise. The bidder agrees that (except where he has obtained identical certification from proposed subcontractors for specific time periods) he will obtain identical certification from proposed subcontractors prior to the award of subcontracts exceeding \$10,000 which are not exempt from the provisions of the Equal Opportunity clause, and that he will retain such certifications in his files.

Dated: \_\_\_\_\_ By: \_\_\_\_\_  
(Name of Bidder)

By: \_\_\_\_\_  
(Title)

\_\_\_\_\_  
Address

\_\_\_\_\_  
City

\_\_\_\_\_  
State

**NON-COLLUSION AFFIDAVIT OF PRIME BIDDER**

STATE OF \_\_\_\_\_ )

ss

COUNTY OF \_\_\_\_\_ )

\_\_\_\_\_, being first duly sworn, deposed and says that:

1. He is \_\_\_\_\_ of, \_\_\_\_\_ the Bidder that has submitted the attached bid;
2. He is fully informed respecting the preparation and contents of the attached bid and of all pertinent circumstances respected such bid;
3. Such bid is genuine and is not a collusive or sham bid;
4. Neither the said Bidder nor any of its officers, partners, owners, agents, representatives, employees or parties in interest, including this affiant, has in any way colluded, conspired, connived or agreed, directly or indirectly with any other Bidder, firm or person to submit a collusive or sham bid in connection with the contract for which the attached bid has been submitted or to refrain from bidding in connection with such contract, or has in any manner, directly or indirectly, sought by agreement or collusion or communication or conference with any other Bidder, firm or person to fix the price or prices in the attached bid or of any other Bidder, or to fix any overhead, profit or cost element of the bid price or the bid price of any other Bidder, or to secure through any collusion, conspiracy, connivance or unlawful agreement any advantage against the City of Jackson or any person interested in the proposed contract; and
5. The price or prices quoted in the attached bid are fair and proper and are not tainted by any collusion, conspiracy, connivance or unlawful agreement on the part of the Bidder or any of its agents, representatives, owners, employees, or parties in interest, including this affiant.

Dated: \_\_\_\_\_ By: \_\_\_\_\_  
(Company)

By: \_\_\_\_\_  
(Title)

Subscribed and sworn to before me, a Notary Public, this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

\_\_\_\_\_  
Notary Public, \_\_\_\_\_ County,  
My commission expires: \_\_\_\_\_



**RIGHT TO KNOW  
CONTRACTOR RELEASE FORM**

I, \_\_\_\_\_ an authorized representative of \_\_\_\_\_ am aware that as a requirement to perform work for the City of Jackson on a contractual basis, I must have provided my employees with the basic training requirements of the HAZARD COMMUNICATION STANDARD as prescribed by the Michigan Right to Know amendments to Act 154 of the Public Acts of 1974 (Act 80, Public Acts 1986), prior to starting any work for the City. While engaged in working for the City, I will continue to comply with Michigan Right to Know Law until completion of the contract.

I am aware that if I bring any hazardous chemical to the City's work place, I must have available the MSDS for these chemicals, in a place accessible to all employees in the work place. If necessary, due to the "special protection information" requirement stated on the MSDS for the chemicals, I will provide all employees with any special training, special protective clothing or equipment necessary to eliminate or lessen the possible exposure to the hazardous chemical or chemicals.

By execution of this Release, the contractor acknowledges that he and all subcontractors and suppliers, will comply with all requirements of the HAZARD COMMUNICATION STANDARD. Further, the contractor shall hold harmless from and indemnify the City against all claims, suits, actions, costs, counsel fees, expenses, damages, judgements or decrees, by reason of his failure, or the failure of any subcontractor, suppliers, or any person employed under said contractor to comply with the requirements of Act 154 of the Public Acts of 1974 as amended.

Dated \_\_\_\_\_

\_\_\_\_\_  
Signature



# City of Jackson Ethics Disclosure Form Vendors and Contractors

Name	Company
Telephone	Email Address

Contract or matter pending with the City:

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I, \_\_\_\_\_, being duly sworn, and pursuant to City of Jackson Ordinance No. 2015-18, I hereby disclose and swear to the following (check all that apply and provide details below):

- I, or my company's owners, members, major shareholders, or corporate officers, have a financial interest in a contract or matter pending before Jackson City Council.
- A relative<sup>1</sup> or immediate family member<sup>2</sup> of myself or my company's owners, members, major shareholders, or corporate officers has a financial interest in a contract or matter pending before a City office, department, board, or commission.
- I, or my company's owners, members, major shareholders, or corporate officers, have an interest in real or personal property that is subject to a decision by the City regarding the purchase, sale, lease, zoning, property improvements, NOORPR or FVA registration, a development agreement, or a special tax designation or abatement.

Property address: \_\_\_\_\_

Property interest: \_\_\_\_\_

- An immediate family member or relative of myself or my company's owners, members, major shareholders, or corporate officers, has a financial interest in real or personal property that is subject to a decision by the City

<sup>1</sup> Relative means any spouse, domestic partner, great grandparents, step great grandparents, grandparents, step grandparents, sons, stepsons, daughters, step daughters, grandsons, step grandsons, granddaughters, step granddaughters, brothers, step brothers, sisters, step sisters, and in-laws of a Public Employee, the Mayor, an Elected Official, an Appointed Official, a member of a Board or Commission, a Contractor, or an Advisor of the City.

<sup>2</sup> Immediate family member means a Public Employee, the Mayor, an Elected Official, an Appointed Official, a member of a Board or Commission, a Contractor, or an Advisor's spouse, domestic partner, individual who lives in the Public Employee's household or an individual claimed by a Public Employee or a Public Employee's spouse as a dependent under the United States Internal Revenue Code at 26 USC 1, et seq.

regarding the purchase, sale, lease, zoning, property improvements, NOORPR or FVA registration, a development agreement, or a special tax designation or abatement.

Property address: \_\_\_\_\_

Property interest: \_\_\_\_\_

An immediate family member or relative of myself or my company's owners, members, major shareholders, or corporate officers, is employed by the City or making an application for employment to the City.

Relative name: \_\_\_\_\_

City Department: \_\_\_\_\_

I, or my company's owners, members, major shareholders, or corporate officers, have made campaign contributions in the last year to a candidate running for elective office with the City.

Name of Candidate: \_\_\_\_\_

Amount of Campaign Contribution: \_\_\_\_\_

The following entities and persons have a financial interest in the contract or matter identified above:

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

Additional information regarding any of the above:

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

None of the above apply.

Dated: \_\_\_\_\_

*Signature*

STATE OF MICHIGAN     )  
  ) SS  
COUNTY OF JACKSON    )

The foregoing instrument was acknowledged before me this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_,  
By \_\_\_\_\_.

\_\_\_\_\_

# AGREEMENT

THIS AGREEMENT, made and entered into this \_\_\_ day of \_\_\_\_\_, 2020, by and between the City of Jackson, Michigan, a Michigan municipal corporation, herein "the City", and whose address is \_\_\_\_\_ herein "the Contractor".

WITNESSETH:

WHEREAS, the City deems it necessary to undertake the herein described Project; and

WHEREAS, the City has advertised for sealed proposals for said Project; and

WHEREAS, the Contractor submitted a proposal for said Project which was accepted by the City as the lowest responsible bid, and

WHEREAS, the City has in all other respects complied with requirements for entering into this Agreement; and

WHEREAS, the persons executing this Agreement are duly authorized by the respective parties;

NOW, THEREFORE, for, and in consideration of, the recited promises and the mutual covenants and agreements herein contained, the parties hereto agree as follows:

- I. A. Contractor agrees to provide all equipment, material, supplies, labor and services necessary to commence and complete the project as described in the Contract Documents; and
- B. Contractor agrees to perform all work described in the Contract Documents in a substantial and workmanlike manner, and to comply with all the requirements in the Contract Documents at the unit prices' bid for the total sum of
- C. Contractor agrees to commence work within five (5) days from Notice to Proceed and to complete all work within the time limit as listed in the Instructions to Bidders.
- II. The City agrees to pay the Contractor in the manner, and at such times, as set forth in the Contract Documents.
- III. This Agreement includes of all the Contract Documents listed in the General Conditions, which are fully incorporated by reference whether attached or not.
- IV. Contractor covenants and agrees that it will be bound by the terms of the attached Equal Employment Opportunity Clause.

- V. This Agreement is binding on the parties hereto, and their respective heirs, personal representatives, and assigns.
- VI. The provisions of the City of Jackson's Purchasing Manual as last amended shall, where applicable, be binding on all transactions.
- VII. This agreement is subject to: two, one (1) year renewals contingent upon the approval of both parties. If both parties agree to renew the contract, it shall remain at the same unit bid price as the original contract.

IN WITNESS WHEREOF, the parties hereto have executed, or caused to be executed by their duly authorized officials, this Agreement in three (3) counterparts, each of which shall be deemed an original, the day and year above written.

CITY OF JACKSON, MICHIGAN  
a Municipal Corporation

\_\_\_\_\_  
Witness By Derek Dobies, Mayor

\_\_\_\_\_  
Witness By Andrea Muray, City Clerk  
\* \* \* \*

\_\_\_\_\_  
Witness By Company Name  
Signature  
Please print or type name

\_\_\_\_\_  
Title

APPROVED AS TO SUBSTANCE:

APPROVED AS TO FORM:

\_\_\_\_\_  
Jonathan Greene  
**Interim City Manager**

\_\_\_\_\_  
Matthew M. Hagerty  
**City Attorney**

# GENERAL CONDITIONS

I. **DEFINITION OF TERMS USED:** The terms used in the Contract Documents are defined as follows:

A. "City" shall mean the City of Jackson, Michigan, a municipal corporation or the City department responsible for overseeing the performance of the work.

B. "Contract Documents" shall include the following:

Invitation for Bids	Bid Bond
Instructions to Bidders	Notice of Award
Addendums to Instructions to Bidder	Performance Bond
Payment Bond	Agreement
Insurance Certificate	Authorized Change Orders
Notice to Proceed	Specifications
General Conditions	Special Provisions
Plans and Drawings	Supplemental Specifications
Maintenance Bond	
Bid Proposal and Bid Sheet(s), including all attachments	
All other documents attached hereto	

C. "Contractor" shall mean the person or persons, firm partnership, company or corporation who has contracted for the completion of the work specified in the contract documents.

D. "Work" shall mean the services to be performed by the Contractor as set forth in these contract documents.

II. **CONTRACTOR'S OBLIGATIONS:**

A. **Schedule of Work:** The Contractor shall prior to start of construction, submit to the City for written approval a practicable and feasible schedule, showing the order in which he proposes to carry on the work. The schedule shall be in the form of a progress chart of suitable scale to indicate approximately the percentage of work scheduled for completion at any time. The schedule shall not exceed time limits required by the contract documents. The Contractor shall perform the work in accordance with the schedule. The schedule may only be revised with the written approval of the City.

B. **Drawings and Specifications:** The drawings and specifications are so drafted as to indicate the conditions existing to the best knowledge and belief of the City, but are not guaranteed 100 percent accurate. Should any inconsistency or error appear or occur in the drawings and/or specifications, the Contractor shall report it to the City and obtain proper adjustments before proceeding with the work. In the case where soil borings have been made, and logs thereof are recorded, the information is offered to the Contractor merely as evidence and the Contractor himself must assume entire responsibility for any conclusions which he may draw from it.

C. **Performance and Completion of Work:** Contractor shall provide all labor, materials, tools, and equipment for proper execution and completion of work in accordance with

contract documents, and shall complete and deliver work to the City on schedule within the specified time. The Contractor shall furnish sufficient forces, construction plant and equipment as may be necessary to insure the progress of the work in accordance with the approved progress schedule. If, to maintain satisfactory progress, it is necessary to increase the work force or to work overtime, or to increase machinery, equipment or staging on site, such additional work, machinery, equipment, and staging shall be provided by the Contractor without additional cost to the City.

Failure of the Contractor to comply with the requirements of the Contract under this provision will be grounds for determination by the City that the contractor is not pursuing the work with such diligence as will insure completion within the specified time limits. Upon such determination by the city, it may terminate the contractor's right to proceed with the work, in accordance with the provisions governing Termination of Contract in these General Conditions.

- D. **Materials and Workmanship:** All materials shall meet the requirements of the applicable specifications and shall be installed or used in accordance with the directions of the manufacturer and in such a manner so as to preserve all manufacturer warranties. All work shall be done in a good, substantial, workmanlike manner, by skilled workmen. The Contractor shall assign to the City before final payment all manufacturer's warranties relating to the materials, labor, or equipment used in the work.
- E. **Superintendence by Contractor:** The Contractor shall give his personal superintendence to the work or have a competent foreman or superintendent, satisfactory to the City, in attendance at the site at all times during performance of the work, with authority to act for him and all communications given to the foreman or superintendent shall be as binding as if given to the Contractor. The Contractor shall also be responsible for the general supervision and coordination of work among the various subcontractors.
- F. **Permits, Fees, and Notices:** The Contractor shall secure and pay for the building permit, if required, and all other permits and governmental fees, licenses and inspections necessary for proper execution and completion of the Work.

The Contractor shall comply with and give notices required by laws, ordinances, rules, regulation and lawful orders of public authorities having jurisdiction over Work, as determined by the City.

All work shall comply with all requirements of all current ordinances, laws and regulations of all federal, state and local authorities having jurisdiction. The contractor shall be responsible for requesting, obtaining and paying for inspections of his work as required by said authorities.

If the Contractor observes that portions of the Contract Documents are at variance with applicable laws, statutes, ordinances, building codes, and rules and regulation, the Contractor shall promptly notify the City in writing, and necessary changes shall be accomplished by appropriate modification. If the Contractor performs Work contrary to laws, statutes, ordinances, building codes, rules and regulations, or lawful orders of public authorities, without such notice to the City, the Contractor shall assume full

responsibility for such Work, its correction or removal, and shall bear the attributable costs.

- G. **Protection of Property and Structures:** The Contractor shall carefully protect the property of the City, adjacent properties and structures, and utilities both above and below the surface of the ground. All damages to property, existing structures, trees and shrubs will be remedied by the Contractor by repairing, restoring or replacing the same to its prior condition as incidental to the work, and no extra compensation will be allowed.
- H. **Protection and Preservation of Land Monuments and Property Line Marks:** The Contractor shall protect carefully from disturbance or damage, all land monuments and iron pins or other markers which establish property or street lines, provided that where such monuments or marker must, of necessity, be disturbed or removed in the performance of the contract, the Contractor shall first give ample notice to the Engineer, so that he may witness or reference in such monuments or markers. Should the Contractor disturb, remove or damage any established land monument or property or street line mark without first giving the Engineer ample notice, the Engineer may, at his option, deduct the cost of reestablishing such monuments or markers from any monies due or to become due the Contractor.
- I. **Safeguards:** The Contractor shall at all times take every precaution to safeguard both employees and the public from hazards incidental to the work, and shall comply with all applicable provision of Federal, state and Municipal Safety Laws and Codes. When required, safeguards shall include watchmen, traffic signalmen, railing, barricades and lights employed in such a manner as to afford maximum safety.
- J. **Use of Premises:** The Contractor shall confine his apparatus, the storage of materials, and the operation of his workers to limits indicated by law, ordinance, permits, or direction of the City, and shall not unreasonably encumber the premises or streets with his equipment or materials. The Contractor shall ensure that the site is maintained in a safe condition and kept orderly and clean and all combustible rubbish shall be promptly removed from the site. He shall further make every effort to maintain uncongested vehicular and pedestrian access to the site and all adjacent areas at all times. Whenever it becomes necessary to close off a street, permission of the City Engineer must be obtained. The Police Department, Fire Department, City Engineer, and local residents shall be notified forty-eight (48) hours in advance of each closing by the Contractor. The Contractor shall not erect any sign on the site without the City's prior written consent.
- K. **Cleanup of Temporary Storage Site:** At the completion of the work, the Contractor shall remove all rubbish, tools, equipment, temporary work and surplus materials from the temporary storage site and adjacent premises. If the Contractor does not attend to such cleaning as above stipulated when so requested by the City, the City may cause such cleaning to be done by others and charge the cost thereof to the Contractor. No portion of the work can be abandoned before the cleanup is completed, nor shall final payment be made prior to complete cleanup and acceptance by the City Manager.
- L. **Water for Construction Use:** If the Contractor intends to use water from the City system, he shall make application to the City Water Department, and pay all charges that may be imposed by the Water Department. Adequate precaution shall be taken by

the Contractor against freezing or waste of water. All use of any of the City fire hydrants shall be done in accordance with the requirements of the city Water Department, and every effort will be made by the Contractor to use these hydrants in such a manner as not to interfere with the operation of the City Fire Department. The cost, charges and fees for any such water usage shall be borne by the Contractor.

III. **INSPECTION:**

The City and its employees, agents or representatives shall at all times have access to the work whenever it is in preparation or in progress, and the Contractor shall provide proper facilities for such access and inspection.

The City shall have the right to reject materials and workmanship which are defective or do not comply with contract documents. Rejected workmanship shall be satisfactorily corrected and rejected materials shall be removed from the premises without charge to the City. If the Contractor fails to correct such defective work or remove rejected materials within a reasonable time, the City may remove them and charge the expense to the Contractor.

IV. **PAYMENT:**

A. **Partial Payments:** The City shall make partial payments as the work progresses, as follows:

Upon itemized application by the Contractor and reasonable opportunity for inspection by the City, the City shall make monthly payments to the Contractor based on ninety percent (90%) of the value of the labor and materials incorporated in the work up to the first day of the month less the aggregate of all previous payments, provided that the aggregate of all monthly payments shall not exceed ninety percent (90%) of the contract price.

After the work is 50% in place, additional retainage shall not be withheld unless the City determines, in its sole reasonable discretion, that the Contractor is not making satisfactory progress, or for other specific cause relating to the Contractor's performance under the Contract. If the City so determines, the City may retain not more than 10% of the dollar value of work more than 50% in place. In no case shall the aggregate of all monthly payments exceed 95% of the dollar value of the work.

B. **Final Payment:** Upon completion and acceptance by the City of all work required hereunder, and after the Contractor shall have furnished the City with release of all claims against the City which arise or may arise under and by virtue of this contract, then the City shall pay the balance due under this contract.

Payments otherwise due may be withheld by the City on account of defective work not remedied, rejected work, claims filed, or reasonable evidence indicating probable filing of claims, failure of Contractor to make payments properly to sub-contractors, or for material or labor, or a reasonable doubt that the contract can be completed for the balance then unpaid. If the same are not remedied upon written notice, the City may do so at the Contractor's expense and deduct any sums expended from payments otherwise due.

- C. **Deductions.** Pursuant to charter section 2.15, the City may deduct from the amount due to the Contractor any invoices, judgments, or taxes currently owed by the Contractor to the City that are delinquent.
- D. **Acceptance as Release:** Contractor's acceptance of final payment shall be a release to the City of any and all claims of any nature Contractor may assert against City arising out of or relating to this work.

V. **CHANGES TO THIS CONTRACT:**

- A. **Change Orders:** The City shall have the authority to order changes in the work through additions, deletions, or substitutions. Modifications, deletions or additions that change the scope of the work as designated by the contract plans, and extensions of time to complete the contract, shall be covered by a written order signed by the authorized representatives of the Contractor and the City. The change order shall include any change to the contract sum which shall be adjusted in accordance with unit prices and/or lump sum prices as bid.
- B. **Extra Work:** Being defined as work for which unit prices are not listed. Compensation for such extra work shall be included in any change order and shall be based on the actual cost to the Contractor for labor, materials and equipment plus fifteen (15%) percent. The Contractor shall perform such extra work as may be ordered by the City Manager. Any extra work required in an emergency to protect life and property shall be performed by the Contractor as is necessary. The City shall be notified within 48 hours of start of any extra work, for which the Contractor shall keep a strict account of actual cost, and a written work order shall be made out as soon as practical to do so. "Extra work" submitted after the 48-hour limitation will not be reimbursed by the City.
- C. **Delays:** Time is of the essence of this contract. Delays shall be separated into two (2) classifications as determined by the City Manager. The classifications are as follows:
  - 1. delays for which the Contractor is responsible, and
  - 2. delays caused by Acts of God, riots, strikes, shortages of materials which could not be avoided by reasonable foresight, national emergencies which might create delays, public utility delays, etc.

No extensions of time will be given for delays as in classification (1) above for which the Contractor is responsible.

Delays falling into classification (2) above shall in no way affect the validity of the Contract, but the time limitation of the Contract shall be extended by the same amount of time as such delay may cause to be lost. The Contractor must notify the City in writing within 48 hours of the start of any delays falling into this classification.

- D. **Liquidated Damages:** Should the work under these specifications not be finished within the time specified for any reason other than delays in classification C(2) above, it is agreed that there may be deducted by the City from the final payment to the Contractor a sum computed at the rate of FOUR HUNDRED DOLLARS (\$400.00)

PER CALENDAR DAY per day, beginning the day following the scheduled date of completion and continuing until the date of final acceptance of the work.

It is understood that the above deduction of FOUR HUNDRED DOLLARS (\$400.00) PER CALENDAR DAY per day is not a penalty, but money due, to be treated as liquidated damages to reimburse the City for the extra costs due to the delay in the completion of the work.

VI. **VOIDABLE AND RESCINDABLE FOR FAILURE TO DISCLOSE CITY EMPLOYEE AS PARTY TO CONTRACT.**

This contract or agreement shall be voidable or rescindable at the discretion of the City at any time if a City employee who is a party to this contract or agreement or has a financial interest in this contract or agreement fails to disclose his or her interest as required by the City of Jackson Code of Ordinances (“the Code”). This contract or agreement is also voidable or rescindable at the discretion of the City at any time if a lobbyist for the Contractor (as defined in Section 2-555 of the Code), or an agent of the Contractor, offers a gift, gratuity, honoraria or payment that is prohibited by the Code to a City employee, the Mayor, an Elected Official, an Appointed Official, or a member of a board or commission of the City.

VII. **TERMINATION BY THE CITY:**

Should the Contractor, at any time, refuse or fail to prosecute the work with promptness and diligence, or in accordance with the contract documents, the City may, at its sole discretion, terminate the contractor's right to proceed with the work by written notice to the Contractor. In such event, the City may enter upon the premises and for the purpose of completing the work included under the contract, take possession of all suitable materials thereon and finish the work by whatever method it deems expedient. In such case the Contractor shall not be entitled to receive any further payment until the work is finished. If the unpaid balance of the contract price exceeds the expense of finishing work, including compensation for additional managerial and administrative services, such excess shall be paid to the Contractor. If such expense shall exceed the unpaid balance, the Contractor and his sureties shall be liable for and shall pay the difference to the City.

VIII. **SECURITY:**

A. **Bonds:** If the awarded contract is \$50,000 or greater, the following bond requirements will apply:

Contractor shall, within ten (10) days of notice of award, provide City at Contractor's expense with three bonds using the forms attached hereto (B-1 through B-7):

- (1) A performance bond executed to the City, to be in an amount of one hundred percent (100%) of the full contract price to be conditioned on the faithful performance of the contract and to include the protection of the City from all liens and damages arising out of the work;
- (2) A Labor and Material Payment Bond to be executed to the People of the State of Michigan and the City of Jackson, to be in the amount of one hundred percent (100%) of the full contract price, and to be conditioned on the payment

of all labor and materials used in the work and for the protection of the City from all liens and damages arising therefrom, as required by Act 213 of the Public Acts of Michigan of 1963, as amended; and

- (3) A Maintenance and Guarantee Bond in a minimum amount of twenty five percent (25%) of the contract price.

All bonds shall be signed by the contractor and a surety company licensed to do business in the State of Michigan with sureties acceptable to the City. Said bonds shall be payable to the City of Jackson and filed in the office of the City Clerk prior to the commencement of any Work.

- B. **Insurance:** The Contractor will be required to show evidence of automobile and commercial general liability insurance, worker's compensation insurance and professional liability insurance (where applicable), which is acceptable to the City. The commercial general liability insurance policies shall name the City, its agents, representatives, officers and employees as additional insureds to protect their interests. Both bodily injury and property damage insurance must be on an occurrence basis; and said policies shall provide that the coverage afforded thereby shall be primary coverage to the full limits of liability stated in the declarations, and if said City, agents, representatives, officers or employees have other insurance against the loss covered by said policies, that other insurance shall be excess insurance only. The Contractor shall secure and maintain during the progress of the work such insurance from financially responsible insurance companies having an AM Best rating of A- or better, licensed in the State of Michigan, and approved by the City, that will protect the Contractor, its sub-contractors, and the City from claims for bodily injury, death, or property damage which may arise from performance of the contract. The Contractor shall at the time of execution of the contract file with the City certificate(s) of insurance, which shall cover all of the insurance as required herein. The certificates shall reference the project or contract to which they apply. Upon request by the City, the Contractor shall submit all insurance policies for review. Contractor shall also cause each subcontractor employed by Contractor to purchase and maintain insurance of the types specified below, unless otherwise agreed to by the City in writing. When requested by Owner, Contractor shall furnish copies of certificates of insurance evidencing coverage for each subcontractor. The amounts and types of such insurance shall be not less than the following:

1. Minimum required limits of liability:

- (A) For jobs with an estimated contract cost of less than \$50,000

- (1) Comprehensive Commercial General Liability, limits of at least:

- |    |   |           |
|----|---|-----------|
| a. | Bodily Injury, each occurrence                          | \$300,000 |
| b. | Bodily Injury, each aggregate                           | \$500,000 |
| c. | Property Damage, each occurrence                        | \$100,000 |
| d. | Property Damage, aggregate                              | \$100,000 |
|    | (or in the alternative to a, b, c, d)                   |           |
| e. | Bodily Injury and Property Damage Combined Single Limit |           |
|    | each occurrence   | \$500,000 |

and aggregate \$500,000

(2) Automobile Liability Limits of at least:

- a. Bodily Injury, each person \$300,000
- b. Bodily Injury, each occurrence \$500,000
- c. Property Damage, each occurrence \$100,000  
(or in the alternative to a, b, c)
- d. Bodily Injury and Property Damage Combined Single Limit each occurrence \$500,000

(B) For jobs with an estimated contract cost of \$50,000 or greater and smaller jobs deemed to be dangerous in nature which shall include, but not necessarily limited to, demolition, blasting, excavating and tunneling or other underground work.

(1) Comprehensive Commercial General Liability of at least:

- a. Bodily Injury, each occurrence \$1,000,000
- b. Bodily Injury, aggregate \$1,000,000
- c. Property Damage, each occurrence \$500,000
- d. Property Damage, aggregate \$500,000  
(or in the alternative to a, b, c, d)
- e. Bodily Injury and Property Damage Combined Single Limit  
each occurrence \$1,000,000  
and aggregate \$1,000,000

(2) Automotive Liability and Property Damage Insurance with limits of at least:

- a. Bodily Injury, each person \$1,000,000
- b. Bodily Injury, each occurrence \$1,000,000
- c. Property Damage, each occurrence \$1,000,000  
(or in the alternative to a, b, c)
- d. Bodily Injury and Property Damage Combined Single Limit  
each occurrence \$1,000,000

NOTE: To comply with the required limits of liability, each insurance may be placed in more than one policy, including an excess umbrella type policy.

2. Worker's Compensation and Employer's Liability Insurance as required by the State of Michigan for all Contractor's employees and those of its sub-contractors engaged in work under this contract. If Contractor is a sole proprietorship and as such is not eligible for Worker's Compensation Coverage, Contractor must submit proof of same, satisfactory to the City. **If Contractor is otherwise not obligated to carry Worker's Compensation Coverage, Contractor must submit documentation from the Michigan Department of Labor (Form WC-337 or its equivalent); and**

3. **If the contract requires any work procedures involving explosives, blasting, demolition, excavating, trenching, tunneling, underground work, or other dangerous activity as determined by the City, the property damage liability coverage shall include standard explosion, collapse and underground coverage (XCU) for property damage and bodily injury liability coverage with limits of \$1,000,000 each occurrence and \$1,000,000 aggregate; additionally, Contractor shall provide third party pollution liability insurance coverage with minimum limits of \$1,000,000 per occurrence and \$1,000,000 aggregate. The insurance shall name the City and its officers, employees, agents and representatives as an additional insured party.**
4. Each policy shall provide for thirty (30) days written notice of cancellation, expiration, termination, or change of policy to the City. The Contractor shall submit evidence of the coverage, to the City for review and approval. The City will, in writing, identify the policies and indicate its approval or disapproval. New policies shall be provided to the City in place of all policies disapproved. Insurances which expire before Contractor's work is accepted by the City shall be renewed and evidence of such renewal shall be submitted to the City for approval.
5. The Contractor shall advise all insurance companies to familiarize themselves with all of the conditions and provisions of the contract, and insurance companies shall waive the right to special notification for any change or modification of the contract, extension of time, decreased or increased work, cancellation or of any other act or acts by the City or its authorized employees or agents pertaining to the contract. Failure to so notify the aforesaid insurance companies of such changes shall in no way relieve the insurance companies of its obligation under the contract.
6. Nothing contained in these insurance requirements is to be construed as limiting the extent of the Contractor's responsibility for payment of damages resulting from its operations under this contract.
7. If the contract involves new construction, Contractor shall purchase and maintain an Owner's and Contractor's Protective Liability insurance policy and property insurance upon the Work at the site in the amount of the full replacement cost thereof. The insurance shall include the interests of the City, Contractor, Subcontractors, and if applicable, Engineer, Engineer's Consultant, each of whom is deemed to have an insurable interest and shall be listed as an insured or additional insured;

Be written on a Builder's Risk "all-risk" or open peril or special causes of loss policy form that shall at least include insurance for physical loss and damage to the Work, temporary buildings, falsework, and Work in transit and shall insure against at least the following perils: fire, lightning, extended coverage, theft, vandalism and malicious mischief, earthquake, collapse, debris removal, demolition occasioned by enforcement of Laws and Regulations, water damage, and such other perils or causes of loss as may be specifically required by supplementary conditions. The form of policy for this coverage shall be Completed Value.

Include expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects);

Cover materials and equipment in transit for incorporation in the Work or stored at the site or at another location that was agreed to in writing by City prior to being incorporated in the Work; and,

Be maintained in effect until payment is made unless otherwise agreed to in writing by City and Contractor with 30 days written notice to each other additional insured to whom a certificate of insurance has been issued.

The policies of insurance required to be purchased and maintained by Contractor in accordance with this paragraph must be approved by City prior to commencement of construction.

- C. **Indemnification:** To the fullest extent allowed by law, the Contractor shall indemnify, defend, and save the City of Jackson, its agents, servants, officials, officers, employees, or representatives (hereinafter "the Indemnitees"), harmless from and against all costs, losses, claims, demands, suits, actions, payments, judgments, or expenses, legal expenses including attorneys' fees, or otherwise, which may occur, arise, or alleged to have occurred or arose from personal injuries, property damage, bodily injury, including death, or otherwise, brought or recovered against the Indemnitees by reason of any act or omission, without limitation or exception, of the Indemnitees, the Contractor, its agents, contractors, subcontractors, servants, employees, or representatives, in the course of, or arising out of, the performance, execution or guarding of all work or services relating to this contract. However, this provision does not indemnify, for the negligence of the Indemnitees, in those situations described in Act 165 of the Public Acts of Michigan of 1966, as amended.
- D. **Liens:** Neither the final payment nor the remaining retained percentage shall become due until the Contractor submits to the City (1) an affidavit that all payrolls, bills for materials and equipment, and other indebtedness connected with the Work for which the City or its property might in any way be responsible, have been paid or otherwise satisfied, (2) consent of surety, if any, to final payment and (3), if required by the City, other data establishing payment or satisfaction of all such obligations, such as receipts, releases and waivers of liens arising out of the Contract, to the extent and in such form as may be designated by the City. If any lien or claim remains unsatisfied after all payments are made, the Contractor shall refund to the City all moneys that the latter may be compelled to pay in discharging such lien or claim, including all costs and reasonable attorneys' fees.
- E. **Guarantee:** The Contractor shall guarantee all materials and work performed under this Contract for the period of TWO year from the date final payment is made. The contractor shall promptly make any corrections made necessary for reason of faulty materials or workmanship, including corrections of damage to other City property resulting thereby, without cost to the City.

If the award of contract is \$50,000 or greater, the contractor shall provide a **Maintenance and Guarantee Bond** for a minimum of 25 percent of the total value of

the contract price. The Maintenance and Guarantee Bonds shall guarantee the maintenance of all work under this contract for a period of TWO year from the date of final payment. All bonds shall be signed by the contractor with a surety company licensed to do business in the State of Michigan which is acceptable to the City. Said bond shall be payable to the City of Jackson and filed in the office of the City Clerk.

IX. **ARBITRATION:**

- A. **General:** At the City's option, all claims, disputes or questions arising out of or relating to these contract documents may be referred to arbitration for decision and award.
- B. **Selection:** If the City elects to utilize arbitration, the parties may agree on one arbitrator; otherwise a list of three (3) names shall be requested from the American Arbitration Association. Each party shall eliminate one (1) name from the list. After elimination, the one (1) name remaining, shall be the arbitrator who shall determine the dispute and/or award. If both parties eliminate the same name, then the remaining list of two (2) names shall be sent to the American Arbitration Association with a request to have them decide which arbitrator shall hear the case. Certified copies of the findings and/or award shall be filed with the City and the Contractor.
- C. **Compensation:** The arbitrator shall make such rules as he or she shall determine equitable to govern the conduct of the investigation and determination of the award. The arbitrator shall fix the amount of the cost of the proceedings, including his or her fair and reasonable compensation and shall determine how the total cost shall be borne. All proceedings shall be pursuant to the American Arbitrator's Association rules.
- D. **Work to Continue:** The Contractor will carry on the work during the time any arbitration is proceeding, unless agreed in writing by both parties that other arrangements shall be made.

X. **MISCELLANEOUS:**

- A. **Subcontracts:** The Contractor agrees to be fully responsible to the City for the acts or omissions of his subcontractors and any one employed directly or indirectly by him or them and this contract obligation shall be in addition to the liability imposed by law upon the Contractor.
- B. **Taxes:** The Contractor shall include and be deemed to have included in his bid and contract price all Michigan sales and use taxes currently imposed by legislative enactment and as administered by the Michigan Department of Treasury on the bid date.

If the Contractor is not required to pay or bear the burden, or obtains a refund or drawback in the whole or in part of any Michigan sales or use tax, interest or penalty thereon, which was required to be and was deemed to have been included in the bid and contract price, the contract price shall be reduced by the amount thereof and the amount of such reduction, whether as a refund or otherwise, shall insure solely to the benefit of the City of Jackson.

- C. **Assignments:** The Contractor shall not assign this contract nor any monies to become due thereunder without the prior written consent of the City.
- D. **Social Security:** The Contractor shall pay the contributions measured by wages of his employees required by the Social Security Act and/or the Public Acts of the State of Michigan, and shall accept exclusive liability for said contributions both on account of employees carried directly on his payrolls and for those of his sub-contractors. The Contractor shall further indemnify and hold harmless the City on account of any contributions measured by the wages of employees of the Contractor or any sub-contractor which may be assessed against the City under authority of said Act of State Law of Michigan.
- E. **Patents:** The Contractor shall defend all suits or claims and shall save the City harmless for liability of any nature or kind, including costs and expenses for or on account of any patented invention, article, or appliance, manufactured or used in the performance of this contract.
- F. **Testing and Laboratory Service:** All field and laboratory inspection and testing of materials prior to use will be provided for the City under a separate contract or arrangement. The manner and extent of such service, and the selection of the testing agencies, shall be established by the City.

Whenever such prior testing of materials shall indicate that such material does not meet specifications, the Contractor may, at his own expense, make appropriate tests to prove otherwise. Final decision on acceptance or rejection of these materials shall be made by the City.

- G. **Interpretation of Contract Documents:** If any doubt exists in the mind of the Contractor as to the correct meaning of any part of the drawings, specifications, or contract documents, he may submit a written request to the City for any interpretation of the intended meaning, and in so doing he must assume the responsibility for its delivery to the City.

In case of any discrepancy in the contract documents, the matter shall be immediately submitted to the City, without whose decision, said discrepancy shall not be adjusted by the Contractor, save only at his own risk and expense.

- H. **Access:** The Contractor shall provide the City, the Department of Labor, or any authorized representative thereof; with access to any books, documents, papers, and records of the Contractor which are pertinent to this project for the purpose of making audit, examination, excerpts and transcriptions.
- I. **Payment for Idled Persons and Equipment:** In the event that machinery or equipment is idle due to failure of the City to properly provide for the Contractor to proceed with the work in accordance with the contract, or due to a delay caused by a public utility, payment may be allowed in accordance with Section 109.05 of the MDOT Standard Specifications for Highway Construction. If, in the opinion of the Engineer, there are other operations which could be undertaken by the Contractor should he claim idle time, the Contractor shall immediately proceed with such work and no idle time compensation will be approved.

J. **Measurement and Payment.** In the event the contract involves unit bid pricing, such pricing shall govern over total dollar amounts. Quantities of work completed under the contract shall be determined by the city using the standards or methods of measurement provided in the Specifications, Special Provisions, Supplemental Specifications, or any other provision contained in the contract documents. Every attempt shall be made to measure quantity of work as fairly and accurately as possible; however, in the event of a discrepancy or dispute between the Contractor and the City, the City reserves the right to make final determination of the quantities of work completed in order to calculate the total cost of the work (Total contract amount).

K. **Coordination of Plans and Specifications:** In case of discrepancy, figured dimensions shall govern over scaled dimensions and the parts of the contract will prevail over all other parts in the following order.

1. Special Provisions/Conditions
2. Supplemental/Technical Specifications
3. Project Plans and Drawings
4. General Conditions

The Contractor shall not take advantage of any apparent error or omission in the plans, specifications, or other contract documents and if any inconsistency, omission, or conflict is discovered in the plans, specifications, or other contract documents, the Contractor shall (i) provide the better quality or greater quantity of work, or (ii) comply with the more stringent requirements, either or both in accordance with the City's interpretation as to the true intent. If in any place the meaning of the plans, specification, or other contract documents is obscured or uncertain or in dispute, the Contractor shall immediately consult with the City for the City's interpretation as to the true intent.

L. **Fines and Penalties.** Any fines, penalties or other monetary sanctions from any federal or state authority against the City that are a result of the actions or failure to act of the Contractor will be deducted from any payment that is due to the Contractor. If the fine, penalty or other monetary sanction is levied after Contractor receives payment, Contractor shall reimburse the City within 10 days of written notice for all such fines, penalties or monetary sanctions.

M. **Withholding.** Contractor must require that its employees comply with the City of Jackson rules for withholding of income tax for work performed in the City of Jackson. In addition, all contracts between the Contractor and any subcontractors must contain a provision requiring the subcontractor to comply with the City of Jackson rules for withholding of income tax for work performed in the City of Jackson. Copies of such contract language must be provided to the City prior to commencement of work by the subcontractor.

N. **Entire Agreement.** This Agreement constitutes the entire understanding of the parties and supersedes all prior and contemporaneous agreements, negotiations and representations of any kind, both written and oral, with respect to the subject matter of this Agreement. This Agreement supersedes any agreements submitted by the Contractor, and in the event of conflicting provisions, the provisions of this Agreement

as drafted by the City shall control even if an agreement, specification or proposal submitted by the Contractor was executed contemporaneously with this Agreement and even if the agreement, specification or proposal submitted by the Contractor claims to supersede this Agreement.

**PERFORMANCE BOND**

KNOW ALL MEN BY THESE PRESENTS, that we,  
\_\_\_\_\_  
\_\_\_\_\_  
Contractor, as Principal, and

\_\_\_\_\_,  
as Surety, are held and firmly bound unto THE CITY OF JACKSON, MICHIGAN, 161 West Michigan Avenue, Jackson, Michigan 49201, Owner, in the sum of ( ) to be paid to the Owner for which payment well and truly be made we jointly and severally bind ourselves, our heirs, executors, administrators, and assigned firmly by these presents.

THE CONDITION OF THE ABOVE OBLIGATIONS ARE such that,

WHEREAS, the said \_\_\_\_\_ (CONTRACTOR) did, on the \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_, enter into a certain contract with the said Owner for the \_\_\_\_\_ in accordance with drawings, specifications, conditions and stipulations prepared by \_\_\_\_\_,

which said contract, drawings, specifications, conditions and stipulations are by reference made a part hereof as if fully set out herein, and is hereinafter referred to as the Contract.

NOW, THEREFORE, the condition of the foregoing obligation is such that, if the said Contractor shall save harmless the said Owner from all public liability and damages of every description in connection with the Contract, shall well and faithfully in all things fulfill the Contract according to all the drawings, specifications, conditions and stipulations therein contained in all respects, and shall save and hold harmless the said Owner from and against all liens and claims of every description in connection with the Contract, then this obligation shall be void and of no effect; but otherwise, it shall remain in full force and virtue;

B-1

AND PROVIDED, that any alterations which may be made in the terms of said Contract, or in the work be done under it, or in the event that the said Owner shall grant any extension of time for the performance of said contract or otherwise modify any elements of the Contract, or any forbearance on the part of either party to the other shall not in any way release the Principal and Surety, or either of them, their heirs, executors, administrators, successors or assigns, from any liability hereunder, notice to the Surety of any such alterations, modifications, extension or forbearance being hereby waived.

WITNESS our hands and seals this \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_.

WITNESS:

\_\_\_\_\_  
Principal  
\_\_\_\_\_  
By  
Title \_\_\_\_\_

WITNESS:

\_\_\_\_\_  
Surety  
\_\_\_\_\_  
By  
Attorney-in-fact

ATTACH POWER OF ATTORNEY

B-2

BOND NO. \_\_\_\_\_

**LABOR AND MATERIAL PAYMENT BOND**

KNOW ALL MEN BY THESE PRESENTS, that we,

\_\_\_\_\_, Contractor, hereinafter called Principal, and  
\_\_\_\_\_ hereinafter

called the Surety, are held and firmly bound unto THE CITY OF JACKSON, MICHIGAN, 161 West Michigan Avenue, Jackson, Michigan 49201, hereinafter called the Owner, and the State of Michigan in the sum of \_\_\_\_\_ to the payment whereof, well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

Sealed with our seals and dated this \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_.

WHEREAS, the above named Principal has entered into a certain contract with THE CITY OF JACKSON, MICHIGAN, 161 West Michigan Avenue, Jackson, Michigan 49201, Owner, dated the \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_ for \_\_\_\_\_ which contract and the specifications for said work shall be deemed a part hereof as fully as if set out herein and is hereinafter referred to as the Contract.

AND WHEREAS, this bond is given in compliance with and subject to the provisions and conditions of Public Act No. 213 of the Public Acts of Michigan of 1963, as amended.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH that if the above named Principal, legal representatives, or successors shall pay or cause to be paid to all subcontractors, persons, firms and corporations as the same may become due and payable, all indebtedness which may arise from said Principal to a subcontractor or any party performing labor or materials furnished in connection with the Contract, construction, and work herein referred to, then this obligation shall be void; otherwise to remain in full force and effect.

B-3

AND PROVIDED, that any changes, alterations, or modifications which may be made in the terms of said Contract, or in the work to be done under it, or in the event that the said Owner shall grant any extension of time for the performance of said contract or otherwise modify any elements of the Contract, or any forbearance on the part of either party to the other shall not in any way release in Principal and Surety, or either of them, their heirs, executors, administrators, successors or assigns, from any liability hereunder, notice to the Surety of any such changes, alterations, modifications, extensions or forbearance being hereby waived.

IN WITNESS THEREOF, the parties hereto have caused this instrument to be executed by their respective authorized officers this \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_.

WITNESS:

\_\_\_\_\_  
Principal  
\_\_\_\_\_  
By  
\_\_\_\_\_  
Title

WITNESS:

\_\_\_\_\_  
Surety  
\_\_\_\_\_  
By  
Attorney-in-fact

ATTACH POWER OF ATTORNEY

B-4

BOND NO.

**MAINTENANCE AND GUARANTEE BOND**

KNOW ALL MEN BY THESE PRESENTS, that \_\_\_\_\_, Contractor, as Principal, and \_\_\_\_\_, as Surety, are held and firmly bound unto THE CITY OF JACKSON, MICHIGAN, 161 West Michigan Avenue, Jackson, Michigan 49201, Owner, in the sum \_\_\_\_\_ Dollars (\$\_\_\_\_\_ ) to be paid to said Owner, its legal representatives and assigns, for which payment well and truly be made, we bind ourselves, our heirs, executors, administrators, successors and assigns, and each and every one of them jointly, firmly by these presents.

Sealed with our seals and dated this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_.

WHEREAS, the above named Principal has entered into a certain contract with THE CITY OF JACKSON, MICHIGAN, 161 West Michigan Avenue, Jackson, Michigan 49201, Owner, dated the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_, wherein the said Principal covenanted and agreed as follows, to-wit:\_\_\_\_\_

\_\_\_\_\_  
and

WHEREAS, said contract was awarded upon the express condition that the said Principal would furnish a \_\_\_\_\_ (\_\_\_\_\_) year (s) Maintenance and Guarantee Bond.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH that by and under said Contract, the above named Principal has agreed with the said Owner that for a period of \_\_\_\_\_ (\_\_\_\_\_) years(s) from the date of final payment, to keep in good order and repair any defect in all the work done under said contract either by the Principal or his subcontractors, or his material suppliers, that may develop during said period due to improper materials, defective equipment, workmanship or arrangements, and any other work affected in making good such imperfections, shall also be made good all without the consent or approval of the Principal after the final acceptance of the work, and that whenever directed to do so by the Owner, by notice served in writing, either personally or by mail, on the Principal at the address appearing in the contract documents or upon said Principal's legal representatives, or successors, or on the Surety at the address appearing below,

WILL PROCEED at once to make sure repairs as directed by said Owner; and in case of failure to do so within one week from the date of service of such notice, or within reasonable time not less than one week, as shall be fixed in said notice, then the said Owner shall have the right to purchase such materials and employ such labor and equipment as may be necessary for the purpose, and to undertake, do and make such repairs, and charge the expense thereof to, and receive same from said Principal or Surety. If any repair is necessary to be made at once to protect life and property, then and in that case, the said Owner may take immediate steps to repair or barricade such defects without notice to the Principal or Surety. In such accounting the said Owner shall not be held to obtain the lowest figures for the doing of the work, or any part thereof, but all sums actually paid therefore shall be charged to the Principal or Surety. In this connection the judgement of said Owner is final and conclusive. If the said Principal for a period of \_\_\_\_\_ (\_\_\_\_\_) year(s) from date of final payment shall keep said work so constructed under said contract in good order and repair, excepting only such part or parts of said work which may have been disturbed without the consent or approval of said Principal after the final acceptance of the same, and shall whenever notice is given as hereinbefore specified, at once proceed to make repair as in said notice directed, or shall reimburse said Owner for any expense incurred by making such repairs, should the Principal or Surety fail to do so as hereinbefore specified, and shall fully indemnify, defend and save harmless the said Owner from all suits and actions for damages of every name and description brought or claimed against it for on account of any injury or damage to person or property received or sustained by any party or parties, by or from any of the acts or omissions or through negligence of said Principal, servants, agents, or employees in the prosecution of the work included in said contract, and from any and all claims arising under the Workers' Compensation act, so-called, of the State of Michigan, then the above obligation shall be void, otherwise to remain in full force and effect.

IN WITNESS THEREOF, the parties hereto have caused this instrument to be executed by their respective authorized officers, this \_\_\_\_\_ day of \_\_\_\_\_, 20 \_\_\_\_\_.

WITNESS:

\_\_\_\_\_  
Principal  
\_\_\_\_\_  
By  
\_\_\_\_\_  
Title  
\_\_\_\_\_

WITNESS:

\_\_\_\_\_  
Surety  
\_\_\_\_\_  
By  
\_\_\_\_\_  
Attorney-in-fact

## ATTACH POWER OF ATTORNEY

B-7

## INDEX of SPECIAL PROVISIONS

MDOT Standard Specifications and Supplementary Conditions .....	SP 1 of 33
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# MDOT STANDARD SPECIFICATIONS AND SUPPLEMENTARY CONDITIONS

Jackson: JHD

1 of 1

10-11-13

The Michigan Department of Transportation 2012 Standard Specifications for Construction (referenced herein as the "MDOT Standard Specifications for Construction") are hereby incorporated by reference and shall be deemed to be a part of these contract documents as though herein written in its entirety. The MDOT Standard Specifications for Construction shall be changed and supplemented by the Supplemental Specifications, Special Provisions and errata included in these contract documents. MDOT Standard Specifications for Construction are available for review and download from the MDOT website.

Unless otherwise omitted, changed or supplemented, the Division 1 "General Provisions" of the MDOT Standard Specifications for Construction shall be incorporated into the City's General Conditions for this contract (pp. G-1 through G-13). In the event of any inconsistency, discrepancy or conflict between the aforementioned MDOT General Provisions and other contract documents including, but not necessarily limited to, pp. G-1 through G-13, said other contract documents shall govern.

Throughout the specifications, the term "Engineer" shall mean the City Engineer of the City of Jackson or his designee.

The MDOT Standard Specifications for Construction, Division 1 "General Provisions" shall be changed and supplemented as follows:

Section 102 Proposal Submission, Award and Execution of Contract  
(This section shall be omitted in its entirety)

Section 104.09 Lines, Grades, and Elevations  
(This section shall be omitted in its entirety.)

Section 104.10 Claim for Extra Compensation or Time Extension  
(This section shall be omitted in its entirety.)

Section 104.11 Work Zone Safety and Mobility  
(This section shall be omitted in its entirety.)

Section 107.10 Indemnification, Damage Liability and Insurance, paragraphs A through D  
(This section shall be omitted in its entirety)

Section 109.04 Progress and Partial Payments  
(This section shall be omitted in its entirety)

## PROGRESS CLAUSE

Jackson: JHD/TRW

1 of 1

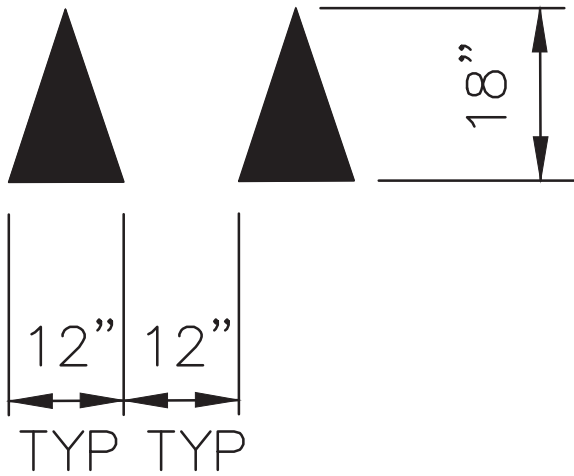
10-08-11

It is expected that this contract will be awarded at the September 8, 2020 City Council meeting, after which a Notification of Award will be provided by the City to the approved bidder. Within ten (10) days of Notification of Award, the approved bidder must provide certificates of insurance evidencing insurance coverage as required by the Contract. The successful bidder will also be required to sign a contract in three counterparts. A Notice to Proceed will then be provided to the Contractor by the City.

All work required under this contract shall be completed by October 23, 2020. Any proposed extensions to the Contract will be evaluated according to section 108 of the MDOT Standard Specifications for Construction.

The approved bidder(s) for the work covered by this proposal will be required to participate in a pre-construction meeting with the City of Jackson to work out a detailed progress schedule. The schedule for this meeting will be set within one (1) week after the Contract Award.

The Progress Schedule shall include, as a minimum, the controlling work items for the completion of the project and the planned dates (or work day for a work day project) that these work items will be controlling operations. When specified in the bidding proposal, the date the project is to be opened to traffic as well as the final project completion date shall also be included in the project schedule.



# YIELD TRIANGLE LAYOUT DETAIL

MICHIGAN  
DEPARTMENT OF TRANSPORTATION  
SUPPLEMENTAL SPECIFICATION  
FOR  
**ERRATA TO THE 2012 STANDARD SPECIFICATIONS**

1 of 30

03-04-19

Page	Subsection	Errata
N/A	N/A	In the very beginning of the book on the page where we list the MDOT publications included by reference delete the following manual. "Work Zone Safety and Mobility Manual"
N/A*	N/A	In the very beginning of the book on the page where we list the MDOT publications included by reference replace the Field Manual of Soil Engineering (out of Print) with the following manual. "Geotechnical Manual"
3	101.02	Modify the abbreviation reading "AIS" to read "AISI".
4*	101.02	Delete the following abbreviations and the long forms MDELEG MDNRE Add the following abbreviations and the long forms MDNR Michigan Department of Natural Resources <b>MDEGLE Michigan Department of Environmental Great Lakes, and Energy</b> MDLARA Michigan Department of Licensing and Regulatory Affairs NESC National Electrical Safety Code
27	103.02.B.2	Change the last sentence of the first paragraph to read "For decreases below 75 percent, the maximum allowable payment for work performed, including any adjustment, will not exceed an amount equal to 75 percent of the original contract quantity times the contract unit price."
34	104.05	The first sentence of this subsection should read "If the Contractor performs unauthorized work (work performed without the inspections required by the contract, extra work performed without Department approval, work performed contrary to the inspectors direction, or work performed while under suspension by the inspector), the Engineer may reject the unauthorized work."
46	104.12	Add the following to the end of the first paragraph "The use of right-of-way in wetlands and floodplains, or the crossing of water courses by construction equipment is prohibited."
53	105.09	Add the following to the end of the second paragraph "Any specifically produced material not purchased by the Department, will remain the

Page	Subsection	Errata		
		Contractors and must be removed from the project prior to final acceptance."		
56	107.02.B.2	This sentence should read "U.S.Army Corps of Engineers' Section 404, Dredge and Fill; and Section 10, Navigable Waterway."		
56*	107.02.B	Add the subsection reading as follows: "3. U.S. Coast Guard Section 9, Navigable Waterway."  Change "MDNRE" to "MDEGLE" in this subsection.		
64	107.12	Change the first sentence of the first paragraph to read: "For protection of underground utilities and in accordance with 2013 PA 174, the Contractor must notify Miss Dig at least 3 work days, excluding Saturdays, Sundays and holidays, before beginning each excavation in areas where public utilities have not been previously located."		
65*	107.15.A	Change "MDNRE" to "MDEGLE" in four instances in this subsection.		
66	107.15.A.3	Add the following to the end of the paragraph "Note that a burn permit from the MDNR is required for any open burning whenever the ground is not snow covered. Any individuals that allow a fire to escape will be in violation of the Natural Resources and Environmental Protection Act and will be required to reimburse the costs of suppressing the wild fire."		
67*	107.16	The third sentence should read "In State Forests, the Contractor must contact the local Unit Manager, Forest Management Division, MDNR, regarding the work to be performed within or adjacent to the forest land."  Delete the last sentence of the first paragraph of this subsection.		
80	108.08.F	Delete the second paragraph in its entirety.		
80	108.08.G	Add the following new subsection: "G. The Contractor may propose and the Engineer may approve another equitable method, supported by an acceptable rationale to determine time extensions for any of the excusable delays listed in subsection 108.08.		
83	108.10.C	Change the last sentence of the first paragraph to read: "The liquidated damages may contain one or more components of damages added together."		
83	108.10.C.1	In Table 108-1 delete the last row of the table and replace it with the following: <table border="1" style="margin-left: 40px;"> <tr> <td style="width: 60%;">≥50,000,000</td> <td style="width: 40%;">4,500</td> </tr> </table>	≥50,000,000	4,500
≥50,000,000	4,500			
102	109.05.E.1	Change the second sentence of the third paragraph to read: "Provide the content specified in subsection 109.05.D.11 for the applicable items in this statement and as follows:"		

Page	Subsection	Errata
107	150.04	Change the following pay item reading "Mobilization, Max ___" to read "Mobilization, Max (dollar)" at nine locations throughout the subsection.
112	201.03.A.3.b	Change "MDNRE" to "MDNR" in three instances in this subsection.
123	204.04	Change the following pay item reading "Structures, Rem" to read "Structures, Rem (Structure No.)"
123	204.04	Change the following pay item reading "Concrete Barrier, Rem" to read "Conc Barrier, Rem"
150*	208.01	Change "MDNRE" to "MDEGLE" in this subsection.
180	308.03.A	Change the first sentence of the second paragraph to read: "Do not operate equipment required to place backfill directly on geotextile products."
185	401.03.A	Change the first sentence of the second paragraph to read: Where unstable soil conditions, or obstructions other than rock, require excavation of the trench below the elevation detailed on the plans; undercut, backfill, and compact the trench as directed by the Engineer.
188	401.03.H	Change the second sentence of the paragraph to read "Jack steel pipes in place in accordance with subsection 401.03.G".
189	401.03.N	Add the following sentence to the end of the first paragraph "Where possible, maintain the stream flow thru a temporary channel or temporary culvert."  The second sentence of the second paragraph should read "Direct water from the dewatering operations through a filter bag before discharging to an existing drainage facility."
189	401.04	Change the fourth pay item from the end of the list to read as follows: "Culv, Reinf Conc Ellip, (shape) CI __, (rise) inch x (span) inch".
190	401.04	Change the fourth pay item from the end of the list to read as follows: "Steel Casing Pipe, __ inch, Tr Det __."
195	402.03.C	Change the third sentence of the first paragraph to read as follows: "Wrap pipe joints, with a diameter greater than 24 inches, using geotextile blanket."
200	402.04	Change the third pay item from the top of the list to read as follows: "Sewer, CI __, __ inch, Jacked in Place"
200	402.04.A	Change the last sentence of the subsection to read as follows: "The unit price for <b>Sewer</b> and <b>Sewer, Reinf Conc, Ellip</b> includes the cost of excavation, backfill, geotextile blanket and mandrel testing."

Page	Subsection	Errata
201*	402.04.H	Change the last sentence of the first paragraph to read "The Department will not make an adjustment in the pay items of <b>Minor Traf Devices</b> or <b>Traf Regulator Control.</b> "
208	403.04.D.3	Change the sentence to read: "Removing and replacing pavement adjacent to the adjusted cover per Standard Plan R-37 Series."
218	406.03.A.2	Change the first sentence of the first paragraph to read: "Design precast box culverts less than 10 feet in span length measured along the centerline of the roadway in accordance with current AASHTO LRFD Bridge Design Specifications and ASTM C 1577."  Add the following sentence to the end of the first paragraph: "Design precast box culverts greater than or equal to 10 feet in span length measured along the centerline of the roadway for HL-93 Modified live load."
219	406.03.B	Change the first sentence of the first paragraph to read: "Submit shop drawings for culverts greater than or equal to 10 feet in span length measured along the centerline of the roadway to the Engineer, for review and approval in accordance with subsection 104.02."
219	406.03.C.1	Change the second sentence of the first paragraph to read: "Before manufacture, perform load ratings on precast three-sided, arch or box culverts greater than or equal to 10 feet in span length measured along the centerline of the roadway, in accordance with the AASHTO Manual of Bridge Evaluation, Section 6, Part A, the Michigan Bridge Analysis Guide current at the time load rating is performed, and the Michigan Structure Inventory and Appraisal Guide."
223	406.03.G	Add the following after the first sentence of the second paragraph: "Where possible, maintain the stream flow thru the existing channel, temporary channel, or temporary culvert."
224	406.03.G	Replace the fifth paragraph of this subsection with the following: "The Contractor may use cast-in-place wing walls, headwalls, and aprons, as alternatives to precast wing walls, headwalls, and aprons. Attach cast-in-place wing walls or headwalls as shown on the shop drawings."
225	406.03.G.2	Change the third sentence of the first paragraph to read: "Before placing the open-graded aggregate 34R, compact the coarse aggregate 6A using at least three passes of a vibrating plate compactor."
226	406.03.G.2	Change the first sentence of the second paragraph of this subsection to read:

Page	Subsection	Errata
		"Fill the space between the box culvert joints during placement of box sections with closed-cell rubber extrusion type gaskets in accordance with ASTM C 990."
226	406.04.A.9	Change the sentence to read: "Providing plan modifications including design, additional plan quantities and pay items to accommodate any changes to the precast units as shown on the plans."
226*	406.04.A	Add the following paragraph after the last paragraph of the subsection: "The substructure design is specific to the three-sided or arch culvert detailed on the plans. The Contractor must use approved MDOT service vendors qualified in Hydraulics, Geotechnical Engineering Services, and Short and Medium Span Bridges to perform the required design and plan modifications, as directed by the Engineer, if the Contractor selects a culvert shape different than shown on the plans."
227	406.04.B	Add the following new item in the list of items in this subsection: 2. Headwalls, wingwalls, aprons, and curtain walls, precast or cast-in-place;  Renumber the exist items 2 through 4 in this list to read 3 through 5.  Delete existing item numbered 5 and replace with the following: 6. Inserts for bars and connection hardware; and  Renumber the existing item 6 in this list to read 7.
227	406.04.B	Delete the first and second paragraphs following the list of items in this subsection and replace with the following: "The Department will pay separately for cast-in-place concrete, other than for culvert segments, wing walls, and headwalls; excavation; protective coating; providing and placing backfill material; by plan quantity in accordance with subsection 109.01.A."
239	501.03.C.6	The first sentence of this subsection should read "Except as specified in subsection 501.03.C.4, removing HMA surface applies to removing HMA overlying a material designated for removal or that is required to remain in place."
247	501.03.O	Change footnote e in Table 501-5 to read: "Flushing severe enough to significantly affect surface friction (Friction Number <35)."
249	501.04.H	The first sentence of this subsection should read "The Engineer will measure, and the Department will pay for removing HMA surface, no greater than 12 inches thick, overlying a material designated for removal or that is required to remain in place, as <b>HMA Surface, Rem.</b> "

Page	Subsection	Errata
		The second paragraph of this subsection should read "The Engineer will measure, and the Department will pay for removing HMA surface, greater than 12 inches thick, overlying a material designated for removal or that is required to remain in place, as <b>Pavt, Rem</b> in accordance with subsection 204.04."
257	503.03.E	Delete this subsection in its entirety.
265	504.03.E.3	Delete this subsection in its entirety.
269	504.04.A	This subsection should read "The unit prices for <b>Micro-Surface</b> , regardless of the type required, include cleaning existing pavement; applying a bond coat; temporary pavement markings; stationing; corrective action; and traffic control to complete corrective action."
299	601.04	In table 601-2 delete the row for Grade P-NC concrete in its entirety.
300	601.04	In table 601-2, the first sentence of footnote b. should read: "Use coarse aggregate 6A, 6AA or 6AAA for Grades P1, P2 and M."  In table 601-2, footnote c. should read: "The mix design basis for bulk volume (dry, loose) of course aggregate per unit volume of concrete is 72% for Grade P1; 74% for Grade P2."
308	602.03.F	Note c. in Table 602-1 should read "Refer to Section D6 of the Materials Quality Assurance Procedures Manual for inspection procedure."
320	602.04.C.3	The last paragraph in this subsection should read "If the Engineer approves a substitution of a higher concrete grade for a lesser grade (e.g., P1 for P2), the Department will pay for the higher grade of concrete using the original bid and pay items of the lesser grade."
327	603.02	Change the second material in the list to read: "Concrete, Grade P-NC.....603"  Change the third material in the list to read: "Base Course Aggregate, 4G, 21AA, 22A.....902"
334	603.03.B.10	Change the last sentence of the second paragraph to read "Apply the required curing compound in two coats, at a rate of at least 1 gallon per 25 square yards for each coat."
342	603.04.G.3	Change "D1" to "W" in two instances in this subsection.
351	701.04	Replace Tables 701-1A and 701-1B with the Table 701-1 below.
362*	704.03.C	Change the last sentence in the first paragraph of this subsection to read: "The Engineer will consider approval after receiving applicable MDEGLE permits for the alternate method."

<b>Page</b>	<b>Subsection</b>	<b>Errata</b>
372	705.03.C.1	Add the following sentence after the first paragraph of this subsection: "Do not drive piles within a radius of 25 feet of newly placed concrete until the concrete attains at least 75 percent of its specified minimum strength."
374	705.03.C.2.c	Change the last sentence of the second paragraph to read "Drive test piles to the minimum pile length or practical refusal, whichever is greater".
379	705.04	Change the fifth item down the list to read: "Pile, Galv (Structure No.)"
380	705.04	Change the last item in the list to read: "Pile Driving Equipment, Furn (Structure No.)"
383	706.02	The fourth paragraph following the list of materials should read "Provide AASHTO M 270, Grade 36 steel, meeting the requirements of ASTM A 786, galvanized in accordance with section 707, for expansion joint cover plates. Provide plates at least 3/8 inch thick. Use plates with a slip resistance equal to or greater than those meeting the requirements of ASTM A 786 and must be approved by the Engineer. Provide ASTM F 593 (Type 304) stainless steel, 3/4-inch or 1/2-inch diameter, flathead countersunk screws with 3/4-inch or 1/2-inch diameter inserts for use in expansion joint cover plates."
389	706.03.D.4.b	Change the first sentence of the fourth paragraph to read "Design forms, form supports, and attachments to carry dead loads, and resultant horizontal loads due to forming of cantilever overhangs."
390	706.03.E.4	Change the fourth sentence of the first paragraph to read: "Use wire ties to secure all bar intersections for the top mat. Use wire ties to secure all bar intersections for other mats where the product of the length and width of bar intersection spacing exceeds 120 square inches."
391	706.03.E.8	Change the first sentence of the second paragraph of this subsection to read: "Patch sawed or sheared ends and visible defects in accordance with ASTM A 775."
392	706.03.E.8	Change the last sentence of the third paragraph of this subsection to read: "Coat mechanical splices after splice installation in accordance with ASTM A 775 for patching damaged epoxy coating."
394	706.03.H.1	Delete the last paragraph on page 394 and replace it with the following: "Do not cast sidewalk, curb, or barrier pours until the deck concrete attains at least the minimum specified 7-day flexural or compressive strength, and after completion of the 7-day continuous wet cure. The

Page	Subsection	Errata
		forming of succeeding portions may occur, provided the wet cure is maintained."
406*	706.03.N.1.b	Add the following to the end of the last paragraph of the subsection: "Do not discontinue wet cure nor cast succeeding portions onto the bridge deck prior to completion of the 7-day two-phase continuous wet cure. Ensure excess or ponding cure water is removed prior to casting of succeeding structure portions."
416	707.03.C.1	Change the title of the subsection from "Shop Plans to read "Shop Drawings".  Change the second sentence of this subsection to read: "Do not use design drawings in lieu of shop drawings."
426	707.03.C.17	Change the second sentence in the first paragraph of this subsection to read: "Tap oversized galvanized nuts in accordance with ASTM A 563 or AASHTO M 292 and meet Supplementary Requirement S1 of ASTM A 563 or AASHTO M 292."
430	707.03.D.7.b	Delete the first sentence of the last paragraph of this subsection.
430*	707.03.D.7.b	Change the title of the Table 707-4 to read: "Minimum Bolt Tension for ASTM F 3125 Grade A 325"
430	707.03.D.7.b	Change "104,000" to "103,000" in the last row under the column titled Minimum Bolt Tension.
431	707.03.D.7.c	Add the following sentence to the end of the first paragraph of this subsection: "If using impact wrenches, provide wrenches sufficient to tighten each bolt in approximately 10 seconds."
431*	707.03.D.7.c	Change the first sentence of the second paragraph to read: "Do not reuse ASTM F 3125 Grade A 325 bolts and nuts.."
434	707.04.A	Change the first sentence of the first paragraph of this subsection to read: "The Engineer will measure structural steel by the calculated weight of metal in the finished structure, excluding filler metal in welding, as shown on the shop drawings or working drawings."
438	708.03.A.2	Change the title of the subsection from "Shop Plans to read "Shop Drawings".  Change the first sentence to read: "Submit shop drawings in accordance with subsection 104.02."  Change the fourth sentence to read:

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		"Do not start production until the Engineer approves the shop drawings."
441*	708.03.A.11	Change the last sentence of the first paragraph to read "Cure concrete at temperatures from 70 °F to 150 °F until concrete attains the release strength shown on the shop drawings".
441	708.03.A.11	Change the fourth sentence of the fourth paragraph to read "Do not exceed a maximum concrete temperature of 150 °F during the curing cycle."
458	711.03.A	Change the first sentence in the first paragraph to read: "Shop drawings for structural steel and pipe railings are not required."
460	711.04.A	Change the second sentence of the first paragraph to read: "The unit price for <b>Bridge Barrier Railing</b> includes the cost of placing steel reinforcement, providing and placing concrete, constructing joints, and forming, finishing, curing and protecting the concrete."
461	711.04.F	The title of this subsection should read " <b>Reflective Marker, Permanent Barrier.</b> "
467	712.03.C	Add the following to the end of the third paragraph of the subsection: "Notify the Engineer of any saw cuts in the top flange. Saw cuts equal to or less than 1/32 inch deep in steel beams must be repaired by grinding, to a surface roughness no greater than 125 micro-inches per inch rms, and tapering to the original surface using a 1:10 slope. Saw cuts in excess of 1/32 inch deep in steel beams require a welded repair to be submitted to the Engineer for approval. Weld in accordance with subsection 707.03.D.8 and provide adequate notice to allow the Engineer to witness the repair work. Inspect and test all saw cut repairs (including grinding repairs) using ultrasonic testing in accordance with 707.03.D.8.c at no additional cost to the Department."
471	712.03.J	Add the following to the end of the second paragraph of the subsection: "Select adhesive anchor systems from the Qualified Products List."
471	712.03.J.1	Delete the first paragraph in this subsection and replace it with the following: "Propose complete details of drilling, cleaning, and bonding systems for anchoring reinforcement and submit for the Engineer's approval before use. The minimum embedment depth must be nine times the anchor diameter for threaded rod or bolt and twelve times the anchor diameter for reinforcing bar. Propose a drilling method that does not cut or damage existing reinforcing steel. Prepare at least three proof tests per anchor diameter and type in the same orientation in which they will be installed on the existing structure, on a separate concrete block, in the presence of the Engineer. The Engineer will proof test the proposed systems. The Engineer will base approval of the anchoring system on the following criteria:"
471	712.03.J.2	Change the third sentence of the first paragraph to read:

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		"Use a tension testing device for unconfined testing, in accordance with ASTM E 488."
473	712.03.L.2	Change the first sentence in the second paragraph of this subsection to read: "If using epoxy coated steel reinforcement, epoxy coat mechanical reinforcement splices in accordance with ASTM A 775."
473	712.03.L.3	Delete the existing first sentence in the first paragraph.
473	712.03.L.3	Change the third sentence of the first paragraph to read "Provide two test splices on the largest bar size."
473*	712.03.L.3	Change the sentence beginning "Demonstrate to the.... to read: "Demonstrate to the Engineer that splices have a tensile strength of 125 percent of the bar yield strength and high strength splices have a tensile strength of 150 percent of the bar yield strength."
488	713.02	Add the following as subsection 713.02.C: "C. <b>Structural Steel for Retrofitting and Welded Repairs.</b> Structural steel material used for retrofitting and welded repairs of primary members as defined in subsection 707.01.B must meet longitudinal Charpy V-Notch impact test requirements."
501	715.02	Add the following material reference above the two existing items: "Sealant for Perimeter of Beam Plates.....713"
508	715.03.D.1	Add the following sentence after the second paragraph of the subsection: "Apply sealant for perimeter of beam plates in accordance with subsection 713.03.F."
515	716.03.A	Delete the second paragraph of this subsection in its entirety.  Change the last sentence of the last paragraph of this subsection to read: "Provide a primer dry film thickness for the top flange between 4 mils and 10 mils."
519	716.04	Change the second sentence of the first paragraph of this subsection to read: "The unit price for <b>Field Repair of Damaged Coating (Structure No.)</b> includes the costs of making field repairs to the shop applied coating system; prime coat surfaces and exposed surfaces of bolts, nuts, and washers; and repairing stenciling."
521	717.04.B	This subsection should read "The unit price for <b>Drain Casting Assembly</b> includes the cost of providing and installing the downspout and, if necessary, the lower bracket to the drain casting."

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522	718.02	Change the section number "906" in the third material in the list to read "919."
533	718.04	Delete the following pay item from the list: Temp Casing.....Foot
533	718.04.B.2	Delete this subsection in its entirety.
533	718.04.B.3	Renumber this subsection as follows: "2. <b>Permanent Casing.</b> "
540	802.04	Change "Non reinf" in the last pay item of the list with "Nonreinf".
545*	803.04.E	Change the second sentence of the second paragraph to read: "The unit price for <b>Railing for Steps</b> includes the cost of providing, fabricating, installing, and grouting the railing."
560	807.04	Delete the following pay item from the list: Guardrail Buffered End .....Each
560	807.04.B	Change the fifth paragraph of this subsection to read: "The Engineer will measure <b>Guardrail Salv</b> and <b>Guardrail, Mult, Salv</b> along the face of the rail (one face for multiple beams), including terminals and end shoes."
567	808.04.C	Change the first paragraph of this subsection to read: "The Department will not pay separately for protective fence required in accordance with subsection 104.07."
569	809.04.A	Change the first sentence to read: "The unit price for <b>Field Office, CI</b> __ includes the cost of setup, providing access, grading, maintaining, plowing snow, and utility hook-up charges."
570	809.04.B	Delete the existing second and third sentences in the first paragraph and replace them with the following: "The unit price for <b>Field Office, Utility Fees</b> includes the cost of monthly usage fees for electricity, gas, telephone service and charges, fuel for the stove, monthly water and sanitary service."
570	809.04.B	Change the existing fourth sentence in the first paragraph to read: "The Department will reimburse the Contractor for monthly usage fees for electricity, gas, telephone, water and sanitary charges incurred by the Department."
575	810.03.K	Change the subsection to read "K. <b>Drilled Piles for Cantilever and Truss Foundations.</b> Construct drilled piles for cantilever and truss foundations in accordance with section 718."

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578	810.03.N.2	Add the following sentence after the first sentence of the second paragraph on this page: "Mark each nut and bolt to reference the required rotation."
584	810.04	Delete the last pay item in the list: Truss Fdn Anchor Bolts, Replace.....Each
585	810.04.B.1	Change the second paragraph to read: "The unit prices for <b>Fdn, Truss Sign Structure Type</b> __, __ inch Dia, <b>Cased</b> and <b>Fdn, Cantilever Sign Structure Type</b> __, __ inch Dia, <b>Cased</b> include the cost of concrete, slurry, steel reinforcement, permanent casings, anchor bolts, excavation, and disposal of excavated material."
585	810.04.B.2	Change the second sentence of the first paragraph to read: "The unit prices for <b>Fdn, Truss Sign Structure Type</b> __, __ inch Dia, <b>Uncased</b> and <b>Fdn, Cantilever Sign Structure Type</b> __, __ inch Dia, <b>Uncased</b> include the cost of concrete, slurry, steel reinforcement, temporary casings, anchor bolts, excavation, and disposal of excavated material."
596	811.03.G	Delete this subsection in its entirety.
597*	811.03.H	Rename this subsection as follows: "G. <b>Raised Pavement Marker (RPM) Removal.</b> "
597*	811.04	Change "Crosshatching" in the last pay item of the list on this page to "Cross Hatching".
598*	811.04	Delete the following pay items from the list: Pavt Mrkg, (material), 4 inch, SRSM, (color).....Foot Pavt Mrkg, (material), 4 inch, SRSM, 2 <sup>nd</sup> Application, (color).....Foot  Add the following pay items to the list: "Pavt Mrkg, Polyurea, (legend).....Each Pavt Mrkg, Polyurea, (symbol).....Each"  Change the sixth item down the list to read: "Pavt Mrkg, Polyurea, __ inch, Cross Hatching, (color)"  Change the eleventh item down the list to read: "Rem Curing Compound, for Longit Mrkg, __ inch.....Foot"
599	811.04.B	Delete this subsection in its entirety.
599	811.04	Rename the following subsections as follows: "B. <b>Call Back.</b> C. <b>Pavement Marking Removal.</b> D. <b>Material Deficiency.</b> "

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602	812.03.D	Change the first sentence to read "Provide and maintain traffic control devices meeting the requirements in the ATSSA Quality Guidelines for Work Zone Traffic Control Devices and Features."
603	812.03.D.1	The last sentence on this page should read "Lay the sign behind the guardrail, with the uprights pointing downstream from the traffic, and place the support stands and ballasts close to the guardrail."
604	812.03.D.2	The first sentence of the fourth paragraph should read "Do not use burlap or similar material to cover Department or Local Government owned signs."
604	812.03.D.5	The fifth sentence of the first paragraph should read "Do not mix drums and cones within a traffic channeling sequence."
605	812.03.D.6.b	Change the first sentence of the first paragraph to read: "The Department will allow the nighttime use of 42-inch channelizing devices, in the tangent area only, on CPM and pavement marking of any duration where the use of plastic drums restricts proposed lane widths to less than 11 feet, including shy distance."
605	812.03.D.7	Add the following sentence after the first sentence of the first paragraph: "Place a shoulder closure taper in advance of the lighted arrows placed on the shoulders."
607	812.03.D.9	Delete the second paragraph of this subsection and replace with the following: "Link sections together to fully engage the connection between sections. Maintain the barrier with end-attachments engaged and within 2 inches of the alignment shown on the plans."
608	812.03.D.10.b	Delete the second sentence of the second paragraph of this subsection beginning with "Install sand module attenuators..."
608	812.03.D.10.b	Add the following sentence after the second paragraph of this subsection: "Install impact attenuation devices as shown on the plans, as directed by the Engineer, or both."
609	812.03.D.10.e	Delete the second paragraph of this subsection.
612	812.03.D.13	Delete the third paragraph of this subsection and replace it with the following: "Perform work on signals in accordance with the contract and to the requirements of NEMA TS-5 standard for those items not identified in the contract."
613*	812.03.D.14.a.iii	Change the sentence in this subsection to read "Place a terminal end shoe, in accordance with Standard Plan R-66-Series, and of appropriate type based on existing guardrail, on both blunt guardrail ends."

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615	812.03.F	The second sentence of the second paragraph of this subsection should read: "The Contractor may use a Type R temporary pavement marking cover, per subsection 812.03.D.12 when authorized by the Engineer."
616	812.03.F.2	The last sentence of the first paragraph should read: "If the removal equipment cannot collect all removal debris, operate a self-propelled sweeper capable of continuously vacuuming up the removal debris immediately behind the removal equipment."
617	812.03.G.3	The first sentence of the second paragraph should read: "Sweep the shoulder and remove debris prior to placing traffic on the shoulder and throughout the time the shoulder is used to maintain traffic."
617	812.03.G.4.a	Delete "48 inch by 48 inch" from the first sentence of this subsection.
618*	812.03.G.7	The first sentence of the first paragraph should read: "Clean barrier reflectors, plastic drums, 42 inch channelizing devices, tubular markers, signs, barricades, and attached lights in operation on the project to ensure they meet required luminosity."
619	812.03.G.8	The second sentence of the third paragraph from the end of the subsection should read: "Illuminate traffic regulator stations at night per subsection 812.03.H."
621	812.03.I.6	Delete "48 inch by 48 inch" from the second sentence of this subsection.
622*	812.03.J	The second paragraph should read "Apply one 2-inch wide horizontal stripe of red and white conspicuity tape along at least 50 percent of each side of, and across the full width of the rear of the vehicle or equipment."
622	812.04	Change the second item down the list to read: "Traf Regulator Control"
		Change the sixth item down the list to read: "Sign Cover, Type I"
626	812.04.I	Change the reference "812.04.E" in the first sentence to "812.04.D".
628	812.04.M.4	Add the following as the first sentence of this subsection: "The Engineer will not measure a temporary barrier ending move as <b>Conc Barrier Ending, Temp, Relocated</b> if it involves work defined in subsection 812.04.M.3."
629	812.04.N.1	Change the reference "811.04.D" in the second paragraph of this subsection to read "811.04.C".
630	812.04.S	Change the first sentence to read: "The Department will not make additional payments for traffic regulating, signing, arrow boards, and lighting systems for traffic regulator stations operated at night due to a temporary PTS system failure."

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634	813.03.C.3	Change the reference "903.07.A" in the paragraph of this subsection to read "907.07.B".
638	814.03.D	Change the second sentence to read: "Place the HMA mixture on the prepared base to a thickness of at least 2 inches, and to at least 220 pounds per square yard."
646	815.04	Change the first, third and fourth pay items in the list to read: "Site Preparation, Max (dollar) ..... Lump Sum Watering and Cultivating, First Season, Min (dollar)..... Lump Sum Watering and Cultivating, Second Season, Min (dollar) ..... Lump Sum"
646	815.04.C.1	Change the following pay item reading: "Watering and Cultivating, First Season, Min. (dollar)" to read "Watering and Cultivating, First Season, Min (dollar)" at two locations throughout the subsection.
646	815.04.C.1.b	Delete this subsection in its entirety.
646	815.04.C.1.c	Rename this subsection to read: "b. Removal and disposal of unacceptable plants."
646	815.04.C.2	Change the following pay item reading: "Watering and Cultivating, Second Season, Min. (dollar)" to read "Watering and Cultivating, Second Season, Min (dollar)" at three locations throughout the subsection.
647	815.04.C.2	Change the last paragraph of this subsection to read: "For each unacceptable plant identified, the Engineer will calculate a 50 percent reduction in the unit price for the relevant ( <b>Botanical Name</b> ) pay item, and will process a negative assessment for each unacceptable plant for that amount."
650	816.03.B	Delete the first paragraph of this subsection and replace with the following: "Conduct soil tests when called for in the contract or when directed by the Engineer. Provide soils tests results to the Engineer when testing is required. Provide and place fertilizer as indicated below and as indicated in the soils tests, if required."
650	816.03.B.1	Change the sentence to read: "For Class A fertilizer, evenly apply 176 pounds of chemical fertilizer nutrient per acre on a prepared seed bed."
650	816.03.B.2	Change the sentence to read: "For Class B fertilizer, evenly apply 120 pounds of chemical fertilizer nutrient per acre on a prepared seed bed."
650*	816.03.B.3	Change the sentence to read: "For Class C fertilizer, evenly apply 80 pounds of chemical fertilizer nutrient per acre on established turf."

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663*	819.01	<p>Delete the first paragraph in the subsection and replace it with the following:            “This work consists of providing operating electrical and lighting units; removing, salvaging, or disposing of existing electrical and lighting components; excavating, backfilling, restoring the site in accordance with section 816; and disposing of waste excavated materials. Complete this work in accordance with this section, section 820, and the contract and to the requirements of the NEC, the National Electrical Safety Code, and the MDLARA for those items not identified in the contract.”</p> <p>Change the third sentence of the second paragraph in this subsection to read:            “Contact the MDLARA for electrical service inspection and pay the applicable fees.”</p>
671	819.03.F.1	<p>Change the paragraph to read:            “Install light standard foundations as shown on the plans and the standard plans, as applicable.”</p>
673	819.03.G.4.b	<p>Change the last sentence of the first paragraph to read:            "Tighten the anchor bolts to a snug tight condition as described in the third paragraph of subsection 810.03.N.2 ensuring the lock washer is completely compressed."</p>
673	819.03.G.4.b	<p>Delete the first two sentences of the second paragraph and replace with the following:            "Tighten bolts connecting the pole to the frangible base to a snug tight condition. Snug tight is the tightness attained by a few impacts of an impact wrench, or the full effort of a person using an ordinary spud wrench. The lock washers must be fully compressed."</p>
678	819.04	<p>Change the ninth pay item in the list to read:            “DB Cable, 600V, 1/C# (size)..... Foot”</p>
678*	819.04	<p>Delete the last item in the list on this page reading:            “DB Cable, in Conduit, 600 Volt, (number) 1/C# (size) ..... Foot”</p>
679	819.04	<p>Change the first pay item in the list to read:            “DB Cable, in Conduit, 600V, 1/C# (size)..... Foot”</p>
679	819.04	<p>Change the sixth pay item in the list to read:            “Cable, P.J., 600V, 1, (size) ..... Foot”</p>
679	819.04	<p>Change the second pay item from the bottom of the list to read:            “Conc Pole, Fit Up, (type) ..... Each”</p>
680	819.04	<p>Change the first paragraph to read:            “Unless otherwise required, the unit prices for the pay items listed in this subsection include the cost of excavation, granular material, backfill,</p>

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		and disposal of waste excavated material. If the contract does not include pay items for restoring the site in kind in accordance with section 816, the Department will consider the cost of restoration included in the pay items listed in this subsection."
680	819.04.A	<p>Add the following paragraph after the first paragraph of the subsection.            "The unit prices for <b>Conduit, Rem</b> include the cost of removing the type, number, and size of conduit shown on the plans."</p> <p>Change the third paragraph of the subsection to read:            "The unit prices for <b>Conduit, (type), __ inch</b> and <b>Conduit, DB, (number), __ inch</b> include the cost of installing the type, number, and size of conduit shown on the plans, and installing marking tape."</p>
681	819.04.B	<p>Change the last paragraph of the subsection to read:            "The unit price for <b>DB Cable, in Conduit, Rem</b> includes the cost of removing all cables from the existing conduit measured per lineal foot of conduit."</p>
681	819.04.C	<p>Change the first paragraph of the subsection to read:            "The unit prices for <b>Cable, Rem</b> and <b>Cable, (type), Rem</b> include the cost of dead ending, circuit cutting, installing guying, work required to leave circuits operable, and disposing of the removed cables, wire, hardware, and other appurtenances."</p>
681	819.04.D	<p>Change the first paragraph of the subsection to read:            "The unit price for <b>Cable, Pole, (type), Disman</b> includes the cost of dismantling and off-site disposal of the following:"</p>
685	820.01.D	<p>Change the sentence to read:            "Excavate, backfill, restore the site in kind in accordance with section 816, and dispose of excess or unsuitable material;"</p>
688	820.03.C	<p>Change the seventh paragraph of this subsection to read:            "Tighten top anchor bolt nuts, snug, in accordance with the first four paragraphs of subsection 810.03.N.2, except beeswax will not be required."</p>
696	820.04	<p>Add the following pay items to the list:            "Pedestal, Pushbutton, Alum.....Each            Pedestal, Pushbutton, Rem.....Each"</p>
697	820.04.A.2	<p>Change the sentence to read:            "If the contract does not include pay items for restoring the site in kind in accordance with section 816, the Department will consider the cost of restoration included in the pay items listed in this subsection."</p>
698	820.04.B	Delete the second paragraph of this subsection found on this page.
698	820.04.C	Change " <b>Fdns</b> " to read " <b>Fdn</b> " in four instances in this subsection.

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701	820.04.J.3	Change the sentence to read: "Installing wires in the saw slots and to the handholes;"
701.	820.04.J	Add the following as a new subsection: "7. A 3/4 inch minimum flexible conduit (non-metallic and rated for underground use) from the pavement to the handhole."
706	821.01.B	Change the website address listed after the second paragraph on this page to read: <u>"<a href="http://www.ngs.noaa.gov/heightmod/GuidelinesPublications.shtml">http://www.ngs.noaa.gov/heightmod/GuidelinesPublications.shtml</a>"</u>
711	822.03.B	Change the second paragraph to read: "If corrugations are required on concrete shoulders and the method of installation is not shown on the plans or directed by the Engineer, construct corrugations by grinding, or cutting."
718*	823.03.U	<b>Change "MDNRE" to "MDEGLE" in four instances in this subsection.</b>
720	823.04	Change the pay item seventh from the bottom of the list to read: "Water Shutoff, Adj, Temp, Case ___"
730	824.03.Q	Change the third sentence of the fourth paragraph to read: "Ensure placement of monumentation in accordance with section 821."
730	824.03.Q	Change the first sentence of the last paragraph to read: "The Department will not pay for work dependent on lost or destroyed stakes until the Contractor replaces the stakes."
732	824.04	Change the first sentence of the first paragraph following the list of pay items to read: "If the Engineer determines the Contractor will perform staking as extra work, the Department will pay for staking in accordance with section 103."
733	824.04	Change the left column header in Table 824-2 to read: <b>"Percent of Original Contract Amount Earned"</b>
739	902.02	Change the last aggregate testing description to read: "Determining Specific Gravity and Absorption of Fine Aggregates.....MTM 321"
742	902.03.C.1.a	Change the sentence to read: "Coarse aggregate includes all aggregate particles greater than or retained on the 3/4-inch sieve."
742	902.03.C.2.a	Change the sentence to read: "Intermediate aggregate includes all aggregate particles passing the 3/4-inch sieve through those retained on the No. 4 sieve."

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742	902.03.C.2.b.iii	Change the sentence to read as follows: "Maximum Loss by Washing per MTM 108 of 3.0 percent".
744	902.07	Delete the fourth paragraph of the subsection and replace it with the following: "The Engineer will only allow the use of granular material produced from crushed portland cement concrete for embankment and as trench backfill for non-metallic culvert and sewer pipes without associated underdrains. However, granular material produced from crushed portland cement concrete is not permitted as swamp backfill, nor within the top 3 feet below subgrade regardless of the application.
746*	902.11	Change the Item of Work by Section Number column in Table 902-1 for the 6AA row to read: "406, 601, 602, 706, 708, 806".  Change the Item of Work by Section Number column in Table 902-1 for the 6A row to read: "206, 401, 402, 406, 601, 602, 603, 706, 806".  Change the Item of Work by Section Number column in Table 902-1 for the 34R row to read: "401, 404, 406".
751*	902.11	Replace Table 902-6 with the Table 902-6 below.
751	Table 902-7	Under the Material column in the fourth row change the "FA2" to read "2FA".
751	Table 902-7	Under the Material column in the fifth row change the "FA3" to read "3FA".
752	Table 902-8	Under the Material column in the fourth row change the "FA2" to read "2FA".
752	Table 902-8	Under the Material column in the fifth row change the "FA3" to read "3FA".
761	Table 904-2	Delete the footnote f and any other reference to footnote f from the table.
767	905.03	Change the first sentence of the first paragraph to read: "Deformed bars, must meet the requirements of ASTM A 706, ASTM A 615, or ASTM A 996 (Type R or Type A only) for Grade 60 steel bars, unless otherwise required".
767*	905.03	Change the first sentence of the second paragraph to read: "Unless otherwise specified, spiral reinforcement must meet the requirements of plain or deformed Grade 40 steel bars of ASTM A 615, ASTM A 996 (Type A), or the requirements of cold-drawn wire of ASTM A 1064".
767	905.03	Change the first sentence of the third paragraph to read: "Bar reinforcement for prestressed concrete beams must meet the requirements of ASTM A 996 (Type R) for Grade 60 steel bars, except

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		the Engineer will allow bar reinforcement that meets the requirements of ASTM A 615 or ASTM A 996 (Type A) for Grade 40 steel bars for stirrups in prestressed concrete beams”.
768	905.03.C	Change the first sentence in the subsection to read: "Epoxy coated steel reinforcement, if required, must be coated in accordance with ASTM A 775, with the following exceptions and additions."
768	905.03.C.3	Change the first sentence of this subsection to read: "Include written certification that the coated reinforcing bars were cleaned, coated, and tested in accordance with ASTM A 775 with the coating applicator."
768	905.05	Change the first sentence of the first paragraph to read: "Deformed steel bars must meet the requirements of ASTM A 706 or the requirements for Grade 40, Grade 50, or Grade 60 of ASTM A 615 or ASTM A 996 (Type R or Type A only)".
768	905.06	Delete this subsection in its entirety and replace it with the following: "Deformed wire fabric for prestressed concrete and fabric for concrete pavement reinforcement must meet the requirements of ASTM A 1064 and fabricated as required."
772*	906.07	Change the first paragraph to read: "High-strength bolt fasteners for structural joints must meet the requirements of ASTM F 3125 Grade A 325 Type 1 bolts. High-strength nuts for structural joints must meet the requirements of ASTM A 563 Grade DH or AASHTO M 292 Grade 2H. High-strength washers for structural joints must meet the requirements of ASTM F 436 Type 1 for circular, beveled, clipped circular, and clipped beveled washers."  Change the second sentence of the second paragraph of this subsection to read: "Galvanized nuts must be tapped oversize in accordance with ASTM A 563 and meet Supplementary Requirements S1, Lubricant and Rotational Capacity Test for Coated Nuts and S2, Lubricant Dye."
777*	907.03.D.2.a	Change the first sentence of the second paragraph to read: "Angle sections must be nominal 2½ inch by 2½ inch by ¼ inch."
777*	907.03.D.2.b	Change the first sentence of the first paragraph to read: "Angle section braces must be nominal 1¾ inch by 1¾ inch by ¼ inch or nominal 2 inch by 2 inch <sup>3</sup> / <sub>16</sub> inch."
782	908.04	Change the first sentence of the first paragraph of this subsection to read: "Steel castings for steel construction must meet the requirements of ASTM A 148 for Grade 60/90 carbon steel castings, as shown on the plans, unless the Engineer approves an alternate in writing."

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784*	908.09.C	<p>Change this subsection to read:</p> <p>“C. <b>Hardware.</b> Railing anchor studs must meet the requirements of ASTM A 449 Type 1. Heavy hex nuts must meet the requirements of ASTM A 563. Bolts, used as rail fasteners, must meet the requirements of ASTM F 3125 Grade A 325, Type 1. Where called for, round head bolts must meet the requirements of ASTM A 449 Type 1. The material for the railing hand hole screws must meet the requirements of ASTM A 276, Type 304. All nuts must meet the requirements of ASTM A 563 Grade DH or AASHTO M 292 Grade 2H. All flat washers must meet the requirements of ASTM F 436. Lock washers must be steel, regular, helical spring washers meeting the requirements of ANSI B18.21.1 - 1972. Bolts, nuts, washers and other hardware must be hot-dip galvanized in accordance with AASHTO M 232. Galvanized nuts must be tapped oversize in accordance with ASTM A 563, and meet Supplementary Requirements S1, Lubricant and Rotational Capacity Test for Coated Nuts, and S2, Lubricant Dye.”</p>
784	908.11.A	<p>Change the first sentence of the first paragraph to read:</p> <p>“Steel beam sections, backup elements, terminal end shoes, and special end shoes must meet the requirements of AASHTO M 180, for Class A guardrail.”</p>
785*	908.11.B	<p>Change the second paragraph to read:</p> <p>"Bolts, nuts, and round washers for guardrail, other than at bridge barrier railings, must meet the requirements of ASTM A 307 (Grade A), ASTM A 563 (Grade A with Supplementary Requirements S1 of ASTM A 563), and ASTM F 436, respectively."</p> <p>Change the third paragraph to read:</p> <p>"Washers, other than round washers, for guardrail must meet the requirements for circular washers in ASTM F 436 except that the dimensions must be as shown on the plans."</p> <p>Change the fifth paragraph to read:</p> <p>"Bolts, nuts, and washers for connections at bridge barrier railings must conform to ASTM F 3125 Grade A 325 Type 1 galvanized high-strength structural bolts with suitable nuts and hardened washers."</p>
787	908.14.B	<p>Add the following sentence to the end of the third paragraph of this subsection:</p> <p>"Exposed threaded ends of anchor bolts must be galvanized a minimum of 20 inches."</p> <p>Change the sixth paragraph in this subsection to read:</p> <p>"Provide washers meeting the requirements of ASTM F 436 for circular washers."</p>
787	908.14.B	<p>Change the second sentence of the fourth paragraph to read “After coating, the maximum limit of pitch and major diameter for bolts with a</p>

Page	Subsection	Errata
		diameter no greater than 1 inch may exceed the Class 2A limit by no greater than 0.021 inch, and by no greater than 0.031 inch for bolts greater than 1 inch in diameter”.
787*	908.14.C	Change the first paragraph to read "Provide either four or six high strength anchor bolts per the contract plans, meeting the mechanical requirements of ASTM F 1554, for Grade 105, with each standard. Anchor bolts for traffic signal strain poles must meet the requirements of subsection 908.14.B with the following exceptions and additions:"
789	909.03	Change the second sentence of the second paragraph to read: "As an alternative to the AASHTO M 36 requirements for metal pipe, the Contractor may use gasket material meeting the low temperature flexibility and elevated temperature flow test requirements of ASTM C 990, excluding the requirements for softening point, flashpoint and fire point."
793	909.06	Change the first sentence of the second paragraph of this subsection to read: "Provide Corrugated Polyvinyl Chloride Pipe (CPV) and required fittings meeting the requirements of AASHTO M 304."
793*	909.05.D	Change the second sentence of the paragraph to read "Provide a continuous welded joint to create a watertight casing that is capable of withstanding handling and installation stresses. Perform field welding by the SMAW process using E7018 electrodes."
794*	909.08.A	Change the first sentence to read: "Provide bridge deck downspouts of PE pipe meeting the requirements of ASTM F 714, PE 4710, DR 26."
804	Table 909-9	In the note area at the bottom of the table change the designation of the second note from "c." to "b."
811	910.04	Add the following sentence to the end of this subsection: "Fabricate silt fence according to subsection 916.02."
814	Table 911-1	In the 4 <sup>th</sup> row of the 5 rows in the table change the Property listed as "Total Organic Content (TOC)" to read "Total Organic Carbon (TOC)".
829*	912.08.K	Replace Table 912-10 with the Table 912-10 below.
833*	913.03.B	Change the first sentence of the first paragraph to read: "Clay brick, to construct manholes, catch basins, and similar structures, must meet the requirements of ASTM C 32, for Grade MS."
837*	914.04	Add the following as subsection 914.04.C: "C. <b>Lubricant-Adhesive for Neoprene Joint Seals.</b> The lubricant-adhesive must be a single-component moisture-curing polyurethane and aromatic hydrocarbon solvent mixture meeting ASTM D 2835, Type

Page	Subsection	Errata
		I. Ship in containers plainly marked with the lot or batch number of the material and date of manufacture. Store at temperatures between 58 and 80°F. Do not exceed 12 months shelf-life prior to use."
840	914.08	Change the first sentence of the second paragraph to read: "Straight tie bars for end-of-pour joints must consist of bars of the diameter and length shown on the plans meeting the requirements of ASTM A 615, ASTM A 706, or ASTM A 996 (Type R or Type A only)".
840*	914.09.A	Change the first sentence of the first paragraph to read: "Straight tie bars for longitudinal pavement joints must consist of bars of the diameter and length shown on the plans meeting the requirements of ASTM A 615, ASTM A 706, or ASTM A 996 (Type R or Type A only)".
840	914.09.B	Change the first sentence of the first paragraph to read: "Bent tie bars for bulkhead joints must consist of bars of the diameter and length shown on the plans."
841*	914.13	In the first sentence of this subsection change "ASTM D 1248, for Type III, Class B" to read "ASTM D 4976, Group 2, Class 4, Grade 4".
844	916.01.A	Change the first sentence to read: "Cobblestone must consist of rounded or semi-rounded rock fragments with an average dimension from 3 inches to 10 inches."
845	916.01.D.1	Change the second sentence to read: "Checkdams for ditch grades 2 percent or greater must be constructed using cobblestone or broken concrete ranging from 3 inches to 10 inches in size."
851*	917.10.B.1	Delete the paragraph and replace it with the following: "1. <b>Class A.</b> Provide and apply Class A chemical nutrient fertilizer either according to MSU Soil Testing Lab Recommendations for Phosphorus Applications to Turfgrass, except the maximum single application rate of nutrient will be 48 pounds per acre, when soil tests are required or as indicated in subsections 917.10.B.1.a and 917.10.B.1.b."
851	917.10.B.1	Add the MSU Soil Testing Lab Recommendations for Phosphorus Applications to Turfgrass, found below, after the first paragraph of this subsection.
853	917.15.B.1	Change the second sentence of the subsection to read: "The net must meet the requirements of subsection 917.15.D and be capable of reinforcing the blanket to prevent damage during shipping, handling, and installation."
857	918.01	Add the following two paragraphs following the first paragraph of this subsection: "Wall thickness and outside diameter dimensions must conform to ASTM D 1785 for smooth-wall schedule 40 and 80 PVC conduit

Page	Subsection	Errata
		material. The Department will allow no more than 3 percent deviation from the minimum wall thickness specified.
		Wall thickness range must be within 12 percent in accordance with ASTM D 3035 for smooth-wall coilable schedule 40 and 80 PE conduit.”
858	918.01.E	Delete the first three sentences of the second paragraph shown on page 858.
863	918.06.F.1	Delete the third paragraph in this subsection in its entirety and replace it with the following: "Provide smooth or deformed welded wire fabric in accordance with ASTM A 1064."
864	918.07.C	Change the first sentence of the first paragraph to read: "Provide anchor bolts, nuts, and washers meeting the requirements of subsection 908.14.A and subsection 908.14.B."
864	918.07.C	Delete the second sentence of the second paragraph.
864	918.07.C	Change the third sentence to read: "Provide anchor bolts threaded 4 inches beyond the anchor bolt projection shown on the plans."
867	918.08.C	Change the last sentence of the first paragraph on this page to read: "Galvanize bolts, nuts, washers, and lock washers as specified in subsection 908.14.B."
867	918.08.C	Change the last sentence of the subsection to read: "Provide each frangible base with manufacturer access covers as shown on the plans."
867*	918.08.D	Delete this subsection in its entirety and replace with the following: "Provide galvanized anchor bolts, studs, nuts, couplings, and washers in accordance with subsection 908.14."
879	918.10.J	Change the third sentence of the second paragraph of this subsection to read: "Provide anchor bolts and associated nuts, washers, and hardware meeting the requirements of subsection 908.14."
887	919.06	Change the second paragraph to read: "Shims must be fabricated from brass shim stock or brass strip meeting the requirements of ASTM B 36, for copper alloy UNS No. C26000, half-hard rolled temper, or fabricated from galvanized sheeting meeting the requirements of ASTM A 653, for Coating Designation G 90."
887	919.07.C	Change the sentence to read:

Page	Subsection	Errata						
		“Galvanized high-strength steel bolts, nuts, and washers for connecting arm connection flanges must meet the requirements of subsection 906.07.”						
903	921.03.D	Delete the last three sentences of the first paragraph of this subsection.						
914	921.05.D	Change the first sentence of this subsection to read: "Provide anchor bolts meeting the requirements of subsection 908.14.C, including elongation and reduction of area requirements."						
916	921.07	Change the first sentence of the first paragraph to read: "Provide LED case signs internally illuminated by LEDs and changeable message case signs internally illuminated with LED light sources."						
936	922.04.B	In the first sentence of the first paragraph change the "R-52" to "R-126".						
936	922.04.B	Add the following to the end of the first paragraph: “Hardware used to connect the end section to the barrier must meet the requirements of NCHRP 350 or MASH (Test Level 3 or higher).”						
936	922.04.B	In the first sentence of the second paragraph delete "R-52".						
936	922.04.B	Change the fourth paragraph of this subsection to read as follows: For all endings requiring impact attenuators provide a NCHRP-350 Test Level 3 or MASH Test Level 3 approved impact attenuation system, unless otherwise approved by the Engineer.						
952	Pay Item Index	Change the following pay items to read: <table border="0"> <tr> <td>“Conc Barrier, Rem .....</td> <td>123</td> <td>204”</td> </tr> <tr> <td>“Conc Pole, Fit Up, (type) .....</td> <td>679</td> <td>819”</td> </tr> </table>	“Conc Barrier, Rem .....	123	204”	“Conc Pole, Fit Up, (type) .....	679	819”
“Conc Barrier, Rem .....	123	204”						
“Conc Pole, Fit Up, (type) .....	679	819”						
953*	Pay Item Index	Delete the following pay item reading: “DB Cable, in Conduit, 600 Volt, (number) 1/C# (size) .....678 819”						
957	Pay Item Index	Delete the following pay item from the list: Guardrail Buffered End .....560 807						
960	Pay Item Index	Change the following pay item to read: “Mobilization, Max (dollar) .....107 150”						
961	Pay item Index	Delete the following pay items from the list: <table border="0"> <tr> <td>Pavt Mrkg, (material), 4 inch, SRSM, (color).....</td> <td>598.....</td> <td>811</td> </tr> <tr> <td>Pavt Mrkg, (material), 4 inch, SRSM, 2<sup>nd</sup> Application, (color).....</td> <td>598.....</td> <td>811</td> </tr> </table>	Pavt Mrkg, (material), 4 inch, SRSM, (color).....	598.....	811	Pavt Mrkg, (material), 4 inch, SRSM, 2 <sup>nd</sup> Application, (color).....	598.....	811
Pavt Mrkg, (material), 4 inch, SRSM, (color).....	598.....	811						
Pavt Mrkg, (material), 4 inch, SRSM, 2 <sup>nd</sup> Application, (color).....	598.....	811						
961	Pay Item Index	Change the following pay items in the list to read: Pavt Mrkg, Ovly Cold Plastic, 12 inch, Cross Hatching, (color) Pavt Mrkg, Polyurea, __ inch, Cross Hatching, (color)  Add the following pay items to the list:						

Page	Subsection	Errata		
		"Pavt Mrkg, Polyurea, (legend).....	598.....	811
		Pavt Mrkg, Polyurea, (symbol).....	598.....	811
		Pedestal, Pushbutton, Alum.....	696.....	820
		Pedestal, Pushbutton, Rem.....	696.....	820"
962	Pay Item Index	Change the following pay items in the list to read: "Pile Driving Equipment, Furn (Structure No.) Pile, Galv (Structure No.)"		
963	Pay Item Index	Change the following pay item to read: "Rem Curing Compound, for Longit Mrkg, __ inch .....	598	811"
964	Pay Item Index	Change the following pay item to read: "Sewer, CI __, __ inch, Jacked in Place .....	200	402"
		"Sign Cover, Type I.....	622	812"
965*	Pay Item Index	Change the following pay item in the list to read: "Steel Casing Pipe, __ inch, Tr Det __ Site Preparation, Max (dollar) .....	646	815"
966	Pay Item Index	Change the following pay item to read: "Structures, Rem (Structure No.).....	123	204"
966	Pay Item Index	Delete the following pay item form the list; Temp Casing.....	533.....	718
967*	Pay Item Index	Delete the following pay item from the list; Truss Fdn Anchor Bolts, Replace.....	584.....	810
967	Pay Item Index	Change the following pay item in the list to read: "Traf Regulator Control"		
968*	Pay item Index	Change the following pay item in the list to read: "Water Shutoff, Adj, Temp, Case __ Watering and Cultivating, First Season, Min (dollar).....	646	815
		Watering and Cultivating, Second Season, Min (dollar) .....	646	815"
993	General Index	Change "Shop Plans (see Plans and Working Drawings)" to read "Shop Drawings (see Plans and Working Drawings)".		

Table 701-1 Concrete Structure Mixtures													
		Slump (inches)				Minimum Strength of Concrete (f)							
Concrete Grade (e,h)	Section Number Reference (i)	Cement Content per cyd (b,c)		Type A, D or no Admixture	Type MR, F, or G Admixtures (g)			Flexural (psi)			Compressive (psi)		
		lb	sack		Before Admixture	After Admixture (Type MR)	After Admixture (Type F or G)	7 Day	14 Day	28 Day (Class Design Strength)	7 Day	14 Day	28 Day (Class Design Strength)
D (a)	706, 711, 712	658 (d)	7.0	0 - 3	0 - 3	0 - 6	0 - 7	625	700	725	3,200	4,000	4,500
S1	705	611	6.5	3 - 5	0 - 3	3 - 6	3 - 7	600	650	700	3,000	3,500	4,000
T	705, 706	611	6.5	3 - 7	0 - 4	3 - 7	3 - 8	550	600	650	2,600	3,000	3,500
S2 (a)	401, 705, 706, 712, 713, 801, 802, 803, 810	564	6.0	0 - 3	0 - 3	0 - 6	0 - 7	550	600	650	2,600	3,000	3,500
		526 (d)	5.6										
S3	402, 403, 803, 804, 806	517	5.5	0 - 3	0 - 3	0 - 6	0 - 7	500	550	600	2,200	2,600	3,000
		489 (d)	5.2										

a. Unless otherwise required, use Coarse Aggregate 6AA or 17A for exposed structural concrete in bridges, retaining walls, and pump stations.

b. Do not place concrete mixtures containing supplemental cementitious materials unless the local average minimum temperature for the next 10 consecutive days is forecast to be above 40 °F. Adjustments to the time required for opening to construction or vehicular traffic may be necessary. Cold weather protection may be required, as described in the quality control plan. The restriction does not apply to Grade S1 concrete in foundation piling below ground level or Grade T concrete in tremie construction.

c. Type III cement is not permitted

d. Use admixture quantities specified by the Qualified Products Lists to reduce mixing water. Admixture use is required for Grade D, Grade S2, and Grade S3, concrete with a reduced cement content. Use a water-reducing retarding admixture at the required dosage for Grade D concrete to provide the setting retardation required. When the maximum air temperature is not forecast to exceed 60 °F for the day, the Contractor may use a water-reducing admixture or a water-reducing retarding admixture. Ensure Grade D concrete in concrete diaphragms contains a water-reducing admixture, or a water-reducing retarding admixture. For night casting, the Contractor may use a water-reducing admixture in lieu of water-reducing retarding admixture, provided that the concrete can be placed and finished prior to initial set.

e. The mix design basis for bulk volume (dry, loose) of coarse aggregate per unit volume of concrete is 68% for Grade S1, and 70% for Grade D, Grade S2, Grade T, and Grade S3.

f. The Contractor may use flexural strength to determine form removal. Use compressive strength for acceptance in other situations.

g. MR = Mid-range.

h. The Engineer will allow the use of an optimized aggregate gradation as specified in section 604.

i. Section Number Reference:

401	Culverts	711	Bridge Railings	803	Concrete Sidewalk, Sidewalk Ramps, and Steps
402	Storm Sewers	712	Bridge Rehabilitation-Concrete	804	Concrete Barriers and Glare Screens
403	Drainage Structures	713	Bridge Rehabilitation-Steel	806	Bicycle Paths
705	Foundation Piling	801	Concrete Driveways	810	Permanent Traffic Signs and Supports
706	Structural Concrete Construction	802	Concrete Curb, Gutter and Dividers		

**Table 902-6  
Superpave Final Aggregate Blend Physical Requirements**

Est. Traffic (million ESAL)	Mix Type	Percent Crushed Minimum Criteria		Fine Aggregate Angularity Minimum Criteria		% Sand Equivalent Minimum Criteria		Los Angeles Abrasion % Loss Maximum Criteria		% Soft Particles Maximum Criteria (b)		% Flat and Elongated Particles Maximum Criteria (c)	
		Top & Leveling Courses	Base Course	Top & Leveling Courses	Base Course	Top & Leveling Courses	Base Course	Top & Leveling Courses	Base Course	Top & Leveling Courses	Base Course	Top & Leveling Courses	Base Course
< 0.3	LVSP	55/—	—	—	—	40	40	45	45	10	10	—	—
< 0.3	E03	55/—	—	—	—	40	40	45	45	10	10	—	—
≥0.3 -<1.0	E1	65/—	—	40	—	40	40	40	45	10	10	—	—
≥1.0 - < 3	E3	75/—	50/—	40(a)	40(a)	40	40	35	40	5	5	10	10
≥3 - <10	E10	85/80	60/—	45	40	45	45	35	40	5	5	10	10
≥10 - <30	E30	95/90	80/75	45	40	45	45	35	35	3	4.5	10	10
≥30 - <100	E50	100/10 0	95/90	45	45	50	50	35	35	3	4.5	10	10

- (a) For an E3 mixture type that enters the restricted zone as defined in Table 902-5, the minimum is 43. If these criteria are satisfied, acceptance criteria and associated incentive/disincentive or pay adjustment tied to this gradation restricted zone requirement included in contract, do not apply. Otherwise, final gradation blend must be outside of the restricted zone.
- (b) Soft particles maximum is the sum of the shale, siltstone, ochre, coal, clay-ironstone and particles that are structurally weak or are non-durable in service.
- (c) Maximum by weight with a 1 to 5 aspect ratio.

Note: "85/80" denotes that 85 percent of the coarse aggregate has one fractured face and 80 percent has at least two fractured faces.

<b>Table 912-10</b>				
<b>Minimum Retention Requirements</b>				
<b>Preservative</b>	<b>Minimum Retention, (pcf)</b>			<b>AWPA Standard</b>
	<b>Guardrail Posts</b>	<b>Sign Posts</b>	<b>Blocks</b>	
Pentachlorophenol	0.60	0.50	0.40	A6
CCA, ACZA	0.60	0.50	0.40	A11
ACQ (a)	0.60	Not Allowed	0.40	A11
CA-B (a)	0.31	Not Allowed	0.21	A11
CA-A (a)	0.31	Not Allowed	0.15	A11
Other Waterborne preservatives	AWPA Commodity Specification A, Table 3.0, Use Category 4B	Not Allowed	AWPA Commodity Specification A, Table 3.0, Use Category 4A	A11
a. Non-Metallic washers or spacers are required for timber and lumber treated with ACQ or CA placed in direct contact with aluminum. Do not use with sign posts.				

MSU Soil Testing Lab Recommendations for Phosphorus Applications to Turfgrass  
3/8/2012

		Sand based rootzone establishment	Golf greens and tees est. or mature; Kentucky bluegrass or perennial ryegrass athletic fields est. or mature; sand based rootzone mature	Lawns, golf course fairways; establishment or mature	Establishment without soil test
Bray P1, Mehlich 3 Soil Test Value (ppm): pH<7.4	Olsen Soil Test Value (ppm) pH>7.4	Recommendation (lbs. P <sub>2</sub> O <sub>5</sub> /1000 ft. <sup>2</sup> )	Recommendation (lbs. P <sub>2</sub> O <sub>5</sub> /1000 ft. <sup>2</sup> )	Recommendation (lbs. P <sub>2</sub> O <sub>5</sub> /1000 ft. <sup>2</sup> )	Recommendation (lbs. P <sub>2</sub> O <sub>5</sub> /1000 ft. <sup>2</sup> )
0	0	4.4	3.4	2.5	2.5 lbs. year (Maximum single application of 1.5 lbs.)
2	1.3	4.1	3.1	2.2	
4	2.7	3.9	2.7	1.9	
6	4	3.6	2.4	1.6	
8	5.3	3.4	2.0	1.3	
10	6.7	3.1	1.7	1.0	
12	8	2.8	1.4	0.7	
14	9.3	2.6	1.0	0.4	
16	10.7	2.3	0.7	0.1	
18	12	2.1	0.3	0.0	
20	13.3	1.8	0.0		
22	14.7	1.5			
24	16	1.3			
26	17.3	1.0			
28	18.7	0.8			
30	20	0.5			
32	21.3	0.2			
34	22.7	0.0			

Web resources: [www.turf.msu.edu](http://www.turf.msu.edu) or [www.bephosphorusmart.msu.edu](http://www.bephosphorusmart.msu.edu)