

# INVITATION TO BID

ITB No. 4261

## ARGO DAM AND GEDDES DAM COATING AND MISCELLANEOUS REPAIRS

File No. 13001



Due Date: February 7, 2013 (Thursday) by 10:00 AM

Issued By:

City of Ann Arbor  
Procurement Unit  
301 E. Huron Street  
Ann Arbor, MI 48104

# TABLE OF CONTENTS

<u>Section</u>	<u>Pages</u>
Table of Contents.....	TC-1 to 2
Advertisement .....	AD-1 to 2
Notice of Pre-Bid Conference.....	NP-1
Instructions to Bidders.....	IB-1 to 5
Contract Compliance Forms.....	AFF-1 to 3
Living Wage Forms .....	AFF-4 to 5
Invitation to Bid.....	ITB-1 to 3
Bid Forms.....	BF-1 to 6
Contract.....	C-1 to 4
Bond Forms.....	B-1 to 2
General Conditions.....	GC-1 to 20
Standard Specifications.....	SS-1

## Detailed Specifications

01000	General Requirements
01210	Allowances
01330	Submittal Procedures
01370	Lead Based Paint Removal
01770	Closeout Procedures
02010	Site General Provisions
02300	Earthwork
03110	Concrete Work
03800	Concrete Jacking
05050	Miscellaneous Metals
09900	Painting

Appendix	Lead Paint Test Results
----------	-------------------------

## Drawings

G-001	COVER SHEET
G-002	GENERAL NOTES AND SITE DETAILS
1C-101	ARGO DAM EXISTING CONDITIONS/SITE PROTECTION
1C-102	ARGO DAM SITE WORK
1M-401	ARGO DAM SPILLWAY REPAIRS I
1M-402	ARGO DAM SPILLWAY REPAIRS II
1M-501	ARGO DAM REPAIR DETAILS
2C-101	GEDDES DAM EXISTING CONDITIONS/SITE PROTECTION
2C-102	GEDDES DAM SITE WORK
2M-401	GEDDES DAM SPILLWAY REPAIRS I
2M-402	GEDDES DAM SPILLWAY REPAIRS II
2M-501	GEDDES DAM REPAIR DETAILS

ADVERTISEMENT  
FOR THE  
ARGO DAM AND GEDDES DAM  
COATING AND MISCELLANEOUS REPAIRS  
CITY OF ANN ARBOR

ITB NO. 4261

Sealed Bids will be received by the City of Ann Arbor Procurement Unit, 301 East Huron Street, Fifth Floor, Larcom City Hall, on or before February 7, 2013 (Thursday) by 10:00 AM for the construction of Argo Dam and Geddes Dam – Coating and Miscellaneous Repairs. Bids will be publically opened and read aloud at this time.

A pre-bid conference will be held January 17, 2013 (Thursday) at 10:00 AM at the Water Treatment Plant located at 919 Sunset Road, Ann Arbor, Michigan 48103, followed by a site visit. Attendance is highly recommended.

Work to be done includes: repair and repainting of gear housings, lift equipment, tainter gate structure, and other metals; repair and modification of steel barrier and miscellaneous site work.

Bid documents, plans, specifications, and addenda shall be downloaded by vendors at either of the following websites: Michigan Inter-governmental Trade Network (MITN) [www.mitn.info](http://www.mitn.info) or City of Ann Arbor Purchasing website: [www.A2gov.org](http://www.A2gov.org). It is the vendor's responsibility to verify they have obtained all information before submitting a bid.

Each Bid shall be accompanied by a certified check, or Bid Bond by a recognized surety, in the amount of 5% of the total of the bid price. A Bid, once submitted, becomes the property of the City. In the sole discretion of the City, the City reserves the right to allow a bidder to reclaim submitted documents provided the documents are requested and retrieved no later than 48 hours prior to the scheduled bid opening.

The successful Bidder will be required to furnish satisfactory performance and labor and material bonds in the amount of 100% of the bid price and satisfactory insurance coverage.

Precondition for entering into a Contract with the City of Ann Arbor is compliance with Chapter 112 of Title IX of the Code of the City of Ann Arbor. The successful Bidder may also be required to comply with Chapter 23 of Title I of the Code of the City of Ann Arbor. Further information is outlined in the Contract Documents.

After the time of opening, no Bid may be withdrawn for a period of 90 days. The City reserves the right to accept any Bid, to reject any or all Bids, to waive irregularities and/or informalities in any Bid, and to make the award in any manner the City believes to be in its best interest.

Technical questions regarding this project may be submitted in writing to the Consulting Engineer, Stantec Consulting, Attn: Paul Malocha, PE via email at [paul.malocha@stantec.com](mailto:paul.malocha@stantec.com). Questions by telephone call are prohibited. Questions directed to the Owner are prohibited. The deadline for questions shall be seven (7) calendar days before bids are due. Questions will not be received after this date.

Any further information on bid documents may be obtained from the Procurement Office, (734) 794-6576.

CITY OF ANN ARBOR PROCUREMENT UNIT

## **NOTICE OF PRE-BID CONFERENCE**

A pre-bid conference for this project will be held on January 17, 2013 (Thursday) at 10:00 AM at the City of Ann Arbor Water Treatment Plant located at 919 Sunset Road, Ann Arbor, Michigan 48103. A site visit will follow the pre-bid conference to allow potential bidders the opportunity to view the project sites.

Attendance at this conference is highly recommended. Administrative and technical questions regarding this project will be answered at this time. The pre-bid conference is for information only. Any answers furnished will not be official until verified in writing by the Financial Service Area, Procurement Unit. Answers that change or substantially clarify the bid will be affirmed in an addendum.

## **INSTRUCTIONS TO BIDDERS**

### **General**

Work to be done under this Contract is generally described through the detailed specifications and must be completed fully in accordance with the contract documents. All work to be done under this Contract is located in or near the City of Ann Arbor.

The City shall make available to all prospective Bidders, prior to receipt of the Bids, access to the area in which the work is to be performed. Advance notice should be given to the Administering Service Area/Unit in cases where access to the site must be arranged by the City.

Any Bid which does not conform fully to these instructions may be rejected.

### **Preparation of Bids**

Bids should be prepared providing a straight-forward, concise description of the Bidder's ability to meet the requirements of the ITB. Bids shall be written in ink or typewritten. No erasures are permitted. Mistakes may be crossed out and corrected and must be initialed and dated in ink by the person signing the Bid.

Bids must be submitted on Page Numbers ITB 1-3 and on the "Bid Forms" provided with each blank properly filled in. If forms are not fully completed it may disqualify the bid.

Each person signing the Bid certifies that he/she is the person in the Bidder's firm/organization responsible for the decision as to the fees being offered in the Bid and has not and will not participated in any action contrary to the terms of this provision.

### **Questions or Clarification on ITB Specifications**

All questions regarding this ITB shall be submitted via email. Emailed questions and inquires will be accepted from any and all prospective Bidders in accordance with the terms and conditions of the ITB.

All questions shall be submitted by January 31, 2013 (Thursday) and should be addressed as follows:

Specification/Scope of Work questions emailed to [paul.malocha@stantec.com](mailto:paul.malocha@stantec.com)

Bid Process and HR Compliance questions emailed to [Lnewton@a2gov.org](mailto:Lnewton@a2gov.org).

### **Addenda**

If it becomes necessary to revise any part of the ITB, notice of the Addendum will be posted to Michigan Inter-governmental Trade Network (MITN) [www.mitn.info](http://www.mitn.info) and/or City of Ann Arbor web site [www.A2gov.org](http://www.A2gov.org) for all parties to download.

Each Bidder must in its Bid, to avoid any miscommunications, acknowledge all addenda which it has received, but the failure of a Bidder to receive, or acknowledge receipt of; any addenda shall not relieve the Bidder of the responsibility for complying with the terms thereof.

The City will not be bound by oral responses to inquiries or written responses other than written addenda.

## **Bid Submission**

All Bids are due and must be delivered to the City of Ann Arbor Procurement Unit on or before February 7, 2012 (Thursday) by 10:00 AM. Bids submitted late or via oral, telephonic, telegraphic, electronic mail or facsimile **will not** be considered or accepted.

Each Bidder must submit one (1) original Bid and two (2) Bid copies in a sealed envelope clearly marked: **ITB No. 4261 – Argo Dam and Geddes Dam – Coating and Miscellaneous Repairs.**

### **Bids must be addressed and delivered to:**

City of Ann Arbor  
Procurement Unit, 5<sup>th</sup> Floor  
301 East Huron Street  
P.O. Box 8647  
Ann Arbor, MI 48107

All Bids received on or before the Due Date will be publicly opened and recorded immediately. No immediate decisions are rendered.

Hand delivered Bids should be date/time stamped/signed by the Procurement Unit at the address above in order to be considered. Normal business hours are 9:00 a.m. to 3:00 p.m. Monday through Friday. The City will not be liable to any Bidder for any unforeseen circumstances, delivery or postal delays. Postmarking to the Due Date will not substitute for receipt of the Bid. Each Bidder is responsible for submission of their Bid.

Additional time will not be granted to a single Bidder; however, additional time may be granted to all Bidders when the City determines that circumstances warrant it.

## **Award**

The City intends to award a Contract(s) to the lowest responsible Bidder(s). On multi-divisional contracts, separate divisions may be awarded to separate Bidders. The City may also utilize alternatives offered in the Bid Forms, if any, to determine the lowest responsible Bidder on each division, and award multiple divisions to a single Bidder, so that the lowest total cost is achieved for the City. For unit price bids, the contract will be awarded based upon the unit prices and the lump sum prices stated by the bidder for the work items specified in the bid documents, with consideration given to any alternates selected by the City. If the City determines that the unit price for any item is materially different for the work item bid than either other bidders or the general market, the City, in its sole discretion, in addition to any other right it may have, may reject the bid as not responsible or non-conforming.



The acceptability of major subcontractors will be considered in determining if a Bidder is responsible. In comparing Bids, the City will give consideration to alternate Bids for items listed in the bid forms.

## **Qualifications**

**The City will evaluate Proposals based on cost as well as experience. Contractors that have not included the required list of similar work experience and associated references in Section 5 of the Bid Form may have their bid rejected.**

As part of the proposal, Bidders shall provide documentation that the Bidder's company has at least 5 years of experience performing construction on dams and waterfront structures. Bidders shall also submit the attached form, "Section 5 – References," which identifies a minimum of three projects completed in the past five years on dams and waterfront structures, including construction cost, contractor and subcontractor information, that demonstrate similar work experience and complexity to that included within these contract documents.

All key staff and subcontractors are subject to the approval by the City.

## **Official Documents**

The City of Ann Arbor shall accept no alternates to the bid documents made by the Bidder unless those alternatives are set forth in the "Alternate" section of Bid form.

The City of Ann Arbor officially distributes bid documents from the Procurement Unit or through the Michigan Intergovernmental Trade Network (MITN). Copies of the bid documents obtained from any other source are not Official copies. Addenda and other bid information will only be posted to these official distribution sites. If you obtained City of Ann Arbor Bid documents from other sources, it is recommended that you register on [www.MITN.info](http://www.MITN.info) and obtain an official Bid.

## **Bid Security**

Each bid must be accompanied by a certified check, or Bid Bond by a surety licensed and authorized to do business within the State of Michigan, in the amount of 5% of the total of the bid price.

## **Withdrawal of Bids**

After the time of opening, no Bid may be withdrawn for the period of 90 days specified in the Advertisement.

## **Contract Time**

Time is of the essence in the performance of the work under this Contract. The available time for work under this Contract is indicated on page C-1, Article III of the Contract. If these time requirements can not be met, the Bidder must stipulate on Bid Form Section 3 -

Time Alternate its schedule for performance of the work. Consideration will be given to time in evaluating bids.

## **Liquidated Damages**

A liquidated damages clause, as given on page C-2, Article III of the Contract, provides that the Contractor shall pay the City as liquidated damages, and not as a penalty, a sum certain per day for each and every day that the Contractor may be in default of completion of the specified work, within the time(s) stated in the Contract, or written extensions.

Liquidated damages clauses, as given in the General Conditions, provide further that the City shall be entitled to impose and recover liquidated damages for breach of the obligations under Chapter 112 of the City Code.

The liquidated damages are for the non-quantifiable aspects of any of the previously identified events and do not cover actual damages that can be shown or quantified nor are they intended to preclude recovery of actual damages in addition to the recovery of liquidated damages.

## **Human Rights Information**

Section 5, beginning at page GC-3, outlines the requirements for fair employment practices under City of Ann Arbor Contracts. To establish compliance with this Ordinance, the Bidder should complete and return with its bid completed copies of the Human Rights Division Contract Compliance Forms or an acceptable equivalent. In the event Human Rights forms are not submitted with bid, the vendor will have 24 hours to provide once requested by the City.

## **Wage Requirements**

Section 4, beginning at page GC-2, outlines the requirements for payment of prevailing wages or of a "living wage" to employees providing service to the City under this contract. The successful bidder must comply with all applicable requirements and provide documentary proof of compliance when requested.

## **Major Subcontractors**

The Bidder shall identify each major subcontractor it expects to engage for this Contract if the work to be subcontracted is 15% or more of the bid sum or over \$50,000, whichever is less. The Bidder also shall identify the work to be subcontracted to each major subcontractor.

## **Debarment**

Submission of a Bid in response to this ITB is certification that the Bidder is not currently debarred, suspended, proposed for debarment, and declared ineligible or voluntarily excluded from participation in this transaction by any State or Federal departments or agency. Submission is also agreement that the City will be notified of any changes in this status.

## **Disclosures**

After bids are opened, all information in a submitter's bid is subjected to disclosure under the provisions of Michigan Public Act No. 442 of 1976, as amended (MCL 15.231 et seq.) known as the "Freedom of Information Act." The Freedom of Information Act also provides for the complete disclosure of contracts and attachments thereto except where specifically exempted.

## **Bid Protest**

All Bid protests must be in writing and filed with the Purchasing Agent within five (5) business days of the award action. The vendor must clearly state the reasons for the protest. If a vendor contacts a City Service Area/Unit and indicates a desire to protest an award, the Service Area/Unit shall refer the vendor to the Purchasing Agent. The Purchasing Agent will provide the vendor with the appropriate instructions for filing the protest. The protest shall be reviewed by the City Administrator or designee whose decision shall be final.

## **Reservation of Rights**

The City of Ann Arbor reserves the right to accept any bid or alternative bid proposed in whole or in part, to reject any or all bids or alternatives bids in whole or in part and to waive irregularity and/or informalities in any bid and to make the award in any manner deemed in the best interest of the City.

## CONTRACT COMPLIANCE FORMS

### City of Ann Arbor Procurement Office INSTRUCTIONS FOR CONTRACTORS

#### For Completing CONTRACT COMPLIANCE FORM

##### City Policy

The “non discrimination in contracts” provision of the City Code, (Chapter 112, Section 9:161) requires contractors/vendors/grantees doing business with the City not to discriminate on the basis of actual or perceived race, color, religion, national origin, sex, age, condition of pregnancy, marital status, physical or mental limitations, source of income, family responsibilities, educational association, sexual orientation, gender identity or HIV status against any of their employees, any City employee working with them, or any applicant for employment. It also requires that the contractors/vendors/grantees include a similar provision in all subcontracts that they execute for City work or programs.

This Ordinance further requires that each prospective contractor/vendor submit employment data to the City showing current total employee breakdown by occupation, race and gender. This allows the Human Rights Office to determine whether or not the contractor/vendor has a workforce that is reflective of the availability of women and under-represented minorities within the contractor’s labor recruitment area (the area where they can reasonably be expected to recruit employees). *This data is provided to the City on the Human Rights Contract Compliance Forms (attached).*

##### To complete the form:

1) **If a company has more than one location, then that company must complete 2 versions of the form.**

- **Form #1** should contain the employment data for the **entire corporation.**
- **Form #2** should contain the employment data for those employees:
  - who will be working on-site;
  - in the office responsible for completing the contract; or,
  - in the case of non-profit grantees, those employees working on the project funded by the City grant(s).

2) If the company has only one location, fill out Form #1 only.

3) Complete all data in the upper section of the form including the name of the person who completes the form and the name of the company/organization’s president.

4) Complete the Employment Data in the remainder of the form. Please be sure to complete all columns including the Total Columns on the far right side of the form, and the Total row and Previous Year Total row at the bottom of the form.

5) Return the completed form(s) to your contact in the City Department for whom you will be conducting the work.

##### **For assistance in completing the form, contact:**

Procurement Office of the City of Ann Arbor  
(734) 794-6576

If a contractor is determined to be out of compliance, the Procurement Office will work with them to assist them in coming into compliance.

**CITY OF ANN ARBOR HUMAN RIGHTS OFFICE  
CONTRACT COMPLIANCE FORM**

**Form #1**

*Entire Organization (Totals for All Locations where applicable)*

Name of Company/Organization \_\_\_\_\_ Date Form Completed \_\_\_\_\_

Name and Title of Person Completing this Form \_\_\_\_\_ Name of President \_\_\_\_\_

Address \_\_\_\_\_ County \_\_\_\_\_ Phone # \_\_\_\_\_  
(Street address) (City) (State) (Zip) (Area Code)

Fax# \_\_\_\_\_ Email Address \_\_\_\_\_  
(Area Code)

**EMPLOYMENT DATA**

Job Categories	Number of Employees (Report employees in only one category)												TOTAL COLUMNS A-L
	Male						Female						
	White	Black or African American	Asian	Hispanic or Latino	Native Hawaiian or Other Pacific Islander	American Indian or Alaska Native	White	Black or African American	Asian	Hispanic Latino	or Native Hawaiian or Other Pacific Islander	American Indian or Alaskan Native	
	A	B	C	D	E	F	G	H	I	J	K	L	
Exec/Sr. Level Officials													
Supervisors													
Professionals													
Technicians													
Sales													
Admin. Support													
Craftspeople													
Operatives													
Service Workers													
Laborers/Helper													
Apprentices													
Other													
<b>TOTAL</b>													
<b>PREVIOUS YEAR TOTAL</b>													

**CITY OF ANN ARBOR HUMAN RIGHTS OFFICE  
CONTRACT COMPLIANCE FORM**

Form #2

*Local Office (Only those employees that will do local or on-site work, if applicable)*

Name of Company/Organization \_\_\_\_\_ Date Form Completed \_\_\_\_\_

Name and Title of Person Completing this Form \_\_\_\_\_ Name of President \_\_\_\_\_

Address \_\_\_\_\_ County \_\_\_\_\_ Phone # \_\_\_\_\_  
 (Street address) (City) (State) (Zip) (Area Code)

Fax# \_\_\_\_\_ Email Address \_\_\_\_\_  
 (Area Code)

**EMPLOYMENT DATA**

Job Categories	Number of Employees (Report employees in only one category)												TOTAL COLUMNS A-L
	Male						Female						
	White	Black or African American	Asian	Hispanic or Latino	Native Hawaiian or Other Pacific Islander	American Indian or Alaska Native	White	Black or African American	Asian	Hispanic or Latino	Native Hawaiian or Other Pacific Islander	American Indian or Alaskan Native	
A	B	C	D	E	F	G	H	I	J	K	L		
Exec/Sr. Level Officials													
Supervisors													
Professionals													
Technicians													
Sales													
Admin. Support													
Craftspeople													
Operatives													
Service Workers													
Laborers/Helper													
Apprentices													
Other													
<b>TOTAL</b>													
<b>PREVIOUS YEAR TOTAL</b>													

CITY OF ANN ARBOR  
LIVING WAGE ORDINANCE  
DECLARATION OF COMPLIANCE

The Ann Arbor Living Wage Ordinance (Section 1:811-1:821 of Chapter 23 of Title I of the Code) requires that employers providing services to the City or recipients of grants for financial assistance (in amounts greater than \$10,000 in a twelve-month period of time) pay their employees who are working on the City project or grant, a minimum level of compensation known as the Living Wage. This wage must be paid to the employees for the length of the contract/project.

*Companies employing fewer than 5 persons and non-profits employing fewer than 10 persons are exempt from the Ordinance. If this exemption applies to your firm, please check below:*

\_\_\_\_\_ This **company** is exempt due to the fact that we employ or contract with fewer than 5 individuals.

\_\_\_\_\_ This **non-profit agency** is exempt due to the fact that we employ or contract with fewer than 10 employees.

The Ordinance requires that all contractors/vendors and/or grantees agree to the following terms:

a) To pay each of its employees performing work on any covered contract or grant with the City, no less than the living wage, which is defined as \$12.17/hour when health care is provided, or no less than \$13.57/hour for those employers that do *not* provide health care. It is understood that the Living Wage will be adjusted each year on April 30, and covered employers will be required to pay the adjusted amount thereafter. The rates stated above include any adjustment for 2012.

b) Please check the boxes below which apply to your workforce:

Employees who are assigned to *any covered* City project or grant will be paid at or above the applicable living wage without health benefits Yes \_\_\_\_\_ No \_\_\_\_\_

**OR**

Employees who are assigned to *any covered* City project or grant will be paid at or above the applicable living wage with health benefits Yes \_\_\_\_\_ No \_\_\_\_\_

c) To post a notice approved by the City regarding the Living Wage Ordinance in every work place or other location in which employees or other persons contracting for employment are working.

d) To provide the City payroll records or other documentation as requested; and,

e) To permit access to work sites to City representatives for the purposes of monitoring compliance, investigating complaints or non-compliance.

The undersigned authorized representative hereby obligates the contractor/vendor or grantee to the above stated conditions under penalty of perjury and violation of the Ordinance.

\_\_\_\_\_  
Company Name

\_\_\_\_\_  
Address City State Zip

\_\_\_\_\_  
Signature of Authorized Representative

\_\_\_\_\_  
Phone (area code)

\_\_\_\_\_  
Type or Print Name and Title

\_\_\_\_\_  
Email address

\_\_\_\_\_  
Date signed

**Questions about this form? Please contact:**

Procurement Office City of Ann Arbor

Phone: 734/794-6576

LW-2

**CITY OF ANN ARBOR  
LIVING WAGE ORDINANCE**

**RATE EFFECTIVE MAY 1, 2012 - ENDING APRIL 30, 2013**

**\$12.17 per hour**

If the employer provides health care benefits\*

**\$13.57 per hour**

If the employer does **NOT** provide health care benefits\*

Employers providing services to or for the City of Ann Arbor or recipients of grants or financial assistance from the City of Ann Arbor for a value of more than \$10,000 in a twelve-month period of time must pay those employees performing work on a City of Ann Arbor contract or grant, the above living wage.

**ENFORCEMENT**

**The City of Ann Arbor may recover back wages either administratively or through court action for the employees that have been underpaid in violation of the law. Persons denied payment of the living wage have the right to bring a civil action for damages in addition to any action taken by the City.**

Violation of this Ordinance is punishable by fines of not more than \$500/violation plus costs, with each day being considered a separate violation. Additionally, the City of Ann Arbor has the right to modify, terminate, cancel or suspend a contract in the event of a violation of the Ordinance.

\* Health Care benefits include those paid for by the employer or making an employer contribution toward the purchase of health care. The employee contribution must not exceed \$.50 an hour for an average work week; and the employer cost or contribution must equal no less than \$1/hr for the average work week.

For Additional Information or to File a Complaint Contact:

Linda Newton, Procurement Officer  
734/794-6576 or [Lnewton@a2gov.org](mailto:Lnewton@a2gov.org).

**The Law Requires Employers to Display This Poster Where Employees  
Can Readily See It.**



## INVITATION TO BID

City of Ann Arbor  
Guy C. Larcom Municipal Building  
Ann Arbor, Michigan 48107

Ladies and Gentlemen:

The undersigned, as Bidder, declares that this Bid is made in good faith, without fraud or collusion with any person or persons bidding on the same Contract; that this Bidder has carefully read and examined the bid documents, including Advertisement, Human Rights Division Contract Compliance Forms, Notice of Pre-Bid Conference, Instructions to Bidders, Bid, Bid Forms, Contract, Bond Forms, General Conditions, Standard Specifications, Detailed Specifications, all Addenda, and the Plans and understands them. The Bidder declares that it conducted a full investigation at the site and of the work proposed and is fully informed as to the nature of the work and the conditions relating to the work's performance. The Bidder also declares that it has extensive experience in successfully completing projects similar to this one.

The Bidder acknowledges that it has not received or relied upon any representations or warrants of any nature whatsoever from the City of Ann Arbor, its agents or employees, and that this Bid is based solely upon the Bidder's own independent business judgment.

The undersigned proposes to perform all work shown on the plans or described in the bid documents, including any addenda issued, and to furnish all necessary machinery, tools, apparatus, and other means of construction to do all the work, furnish all the materials, and complete the work in strict accordance with all terms of the Contract of which this Bid is one part.

In accordance with these bid documents, and Addenda numbered \_\_\_\_\_, the undersigned, as Bidder, proposes to perform at the sites in and/or around Ann Arbor, Michigan, all the work included herein for the amounts set forth in the Bid Forms.

The Bidder declares that it has become fully familiar with the liquidated damage clauses for completion times and for compliance with City Code Chapter 112, understands and agrees that the liquidated damages are for the non-quantifiable aspects of non-compliance and do not cover actual damages that may be shown and agrees that if awarded the Contract, all liquidated damage clauses form part of the Contract.

The Bidder declares that it has become fully familiar with the provisions of Chapter 14, Section 1:319 (Prevailing wages) and Chapter 23 (Living Wage) of the Code of the City of Ann Arbor and that it understands and agrees to comply, to the extent applicable to employees providing services to the City under this Contract, with the wage and reporting

requirements stated in the City Code provisions cited. Bidder further agrees that the cited provisions of Chapter 14 and Chapter 23 form a part of this Contract.

The Bidder encloses a certified check or Bid Bond in the amount of 5% of the total of the Bid Price. The Bidder agrees both to contract for the work and to furnish the necessary Bonds and insurance documentation within 10 days after being notified of the acceptance of the Bid.

If this Bid is accepted by the City and the Bidder fails to contract and furnish the required Bonds and insurance documentation within 10 days after being notified of the acceptance of this Bid, then the Bidder shall be considered to have abandoned the Contract and the certified check or Bid Bond accompanying this Bid shall become due and payable to the City.

If the Bidder enters into the Contract in accordance with this Bid, or if this Bid is rejected, then the accompanying check or Bid Bond shall be returned to the Bidder.

In submitting this Bid, it is understood that the right is reserved by the City to accept any Bid, to reject any or all Bids, to waive irregularities and/or informalities in any Bid, and to make the award in any manner the City believes to be in its best interest.

SIGNED THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 201\_\_.

\_\_\_\_\_  
Bidder's Name

\_\_\_\_\_  
Authorized Signature of Bidder

\_\_\_\_\_  
Official Address

\_\_\_\_\_  
(Print Name of Signer Above)

\_\_\_\_\_  
Telephone Number

\_\_\_\_\_  
Email Address for Award Notice

## LEGAL STATUS OF BIDDER

(The Bidder shall fill out the appropriate form and strike out the other two.)

Bidder declares that it is:

\* A corporation organized and doing business under the laws of the state of \_\_\_\_\_, for whom \_\_\_\_\_, bearing the office title of \_\_\_\_\_, whose signature is affixed to this Bid, is authorized to execute contracts.

\* A partnership, list all members and the street and mailing address of each:

Also identify the County and State where partnership papers are filed:

County of \_\_\_\_\_, State of \_\_\_\_\_

\* An individual, whose signature with address, is affixed to this Bid: \_\_\_\_\_  
(initial here)

## BID FORM

### Section 1 – Schedule of Prices

Project: Argo Dam and Geddes Dam – Coating and Miscellaneous Repairs  
ITB No.: 4261  
File No. 13001

Bidder's Name: \_\_\_\_\_

#### Notes:

1. All bidders shall provide a Unit Price and Total Price for all bid items specified.
2. Quantities included in the bid table represent estimated quantities for different work. The CONTRACTOR shall be compensated for the actual number of items completed using the unit prices provided.
3. The City, at its sole discretion, may elect to delete any portion of the work delineated below, with no change to the unit prices provided. Work shall be determined based upon the availability of funds.
4. Any item not provided in the following list shall be considered incidental.
5. Contract shall be awarded based on the base bid or any combination of the base bid and alternate bid areas in any manner the City believes to be in its best interest.

#### **Bid Items**

The Bidder agrees to complete the Project and all related work, as specified and shown on the drawings, for the following unit prices.

<b>ARGO DAM – BASE BID</b>					
<b>Item No.</b>	<b>Item Description</b>	<b>Qty</b>	<b>Unit</b>	<b>Unit Price</b>	<b>Total Price</b>
1.	General Conditions, Insurance, Bonds	1	LS	\$	\$
2.	Mobilization	1	LS	\$	\$
3.	Metal Repairs, Modifications and Painting	1	LS	\$	\$
4.	Relocate Barrier Fence Panels	360	LF	\$	\$
5.	Miscellaneous Concrete Repairs	1	LS	\$	\$
6.	Riprap – MDOT Heavy	50	CY	\$	\$
7.	Demobilization and Final Restoration	1	LS	\$	\$

<b>GEDDES DAM – BASE BID</b>					
<b>Item No.</b>	<b>Item Description</b>	<b>Qty</b>	<b>Unit</b>	<b>Unit Price</b>	<b>Total Price</b>
8.	General Conditions, Insurance, Bonds	1	LS	\$	\$
9.	Mobilization	1	LS	\$	\$
10.	Metal Repairs, Modifications and Painting	1	LS	\$	\$
11.	Inspection Access	1	LS	\$	\$
12.	Miscellaneous Concrete Repairs	1	LS	\$	\$
13.	23A Gravel Driveway CIP	210	TN	\$	\$
14.	Riprap – MDOT Heavy	5	CY	\$	\$
15.	Demobilization and Final Restoration	1	LS	\$	\$
<b>ALLOWANCE – BASE BID</b>					
16.	Allowance – Misc. Repairs on Steel Structures and Components.	1	LS	\$ 25,000	\$ 25,000
<b>TOTAL BASE BID (Items 1-16)</b>					

\_\_\_\_\_ Dollars (\$\_\_\_\_\_)

(Amount shall be shown in both words and figures. In case of a discrepancy, the amount shown in words shall govern.)

<b>GEDDES DAM – BID ALTERNATE</b>					
<b>Item No.</b>	<b>Item Description</b>	<b>Qty</b>	<b>Unit</b>	<b>Unit Price</b>	<b>Total Price</b>
17.	Tainter Gate Repairs	1	LS	\$	\$

\_\_\_\_\_ Dollars (\$\_\_\_\_\_)

(Amount shall be shown in both words and figures. In case of a discrepancy, the amount shown in words shall govern.)

## BID FORM

### Section 2 - Material and Equipment Alternates

The Base Bid proposal price shall include materials and equipment selected from the designated items and manufacturers listed in the bidding documents. This is done to establish uniformity in bidding and to establish standards of quality for the items named.

If the Contractor wishes to quote alternate items for consideration by the City, it may do so under this Section. A complete description of the item and the proposed price differential must be provided. Unless approved at the time of award, substitutions where items are specifically named will be considered only as a negotiated change in Contract Sum.

<u>Item Number</u>	<u>Description</u>	<u>Add/Deduct Amount</u>
--------------------	--------------------	--------------------------

If the Bidder does not suggest any material or equipment alternate, the Bidder **MUST** complete the following statement:

For the work outlined in this request for bid, the bidder does NOT propose any material or equipment alternate under the Contract.

Signature of Authorized Representative of Bidder \_\_\_\_\_

## BID FORM

### Section 3 - Time Alternate

If the Bidder takes exception to the time stipulated in Article III of the Contract, Time of Completion, page C-1, it is requested to stipulate below its proposed time for performance of the work. Consideration will be given to time in evaluating bids.

If the Bidder does not suggest any time alternate, the Bidder **MUST** complete the following statement:

For the work outlined in this request for bid, the bidder does NOT propose any time alternate under the Contract.

Signature of Authorized Representative of Bidder \_\_\_\_\_

BID FORM

Section 4 - Major Subcontractors

For purposes of this Contract, a Subcontractor is anyone (other than the Contractor) who performs work (other than or in addition to the furnishing of materials, plans or equipment) at or about the construction site, directly or indirectly for or on behalf of the Contractor (and whether or not in privity of Contract with the Contractor), but shall not include any individual who furnishes merely the individual's own personal labor or services.

For the work outlined in these documents the Bidder expects to engage the following major subcontractors to perform the work identified:

<u>Subcontractor (Name and Address)</u>	<u>Work</u>	<u>Amount</u>
	Painting	
	Metal Fabrications	
	Concrete	

If the Bidder does not expect to engage any major subcontractor, the Bidder **MUST** complete the following statement:

For the work outlined in this request for bid, the bidder does NOT expect to engage any major subcontractor to perform work under the Contract.

Signature of Authorized Representative of Bidder \_\_\_\_\_







## CONTRACT

THIS AGREEMENT is made on the \_\_\_\_\_ day of \_\_\_\_\_, 2012, between the CITY OF ANN ARBOR, a Michigan Municipal Corporation, 310 East Huron Street, Ann Arbor, Michigan 48104 (“City”) and \_\_\_\_\_ (“Contractor”)

(An individual/partnership/corporation, include state of incorporation)

(Address)

Based upon the mutual promises below, the Contractor and the City agree as follows:

### ARTICLE I - Scope of Work

The Contractor agrees to furnish all of the materials, equipment and labor necessary; and to abide by all the duties and responsibilities applicable to it for the project titled “Argo Dam and Geddes Dam – Coating and Miscellaneous Repairs” in accordance with the requirements and provisions of the following documents, including all written modifications incorporated into any of the documents, which are incorporated as part of this Contract:

Human Rights Division Contract  
Living Wage Declaration of  
Compliance Forms  
(if applicable)  
Bid Forms  
Proposal  
Contract and Exhibits  
Bonds

General Conditions  
Standard Specifications  
Detailed Specifications  
Plans  
Addenda

### ARTICLE II - Definitions

Administering Service Area/Unit means Public Services Area.

Supervising Professional or Owner means Senior Utilities Engineer or other persons acting under the authorization of the Administrator/Manager of the Administering Service Area/Unit.

Engineer or Owner’s Representative means Consulting Professional acting under the authorization of the Supervising Professional/Owner.

Project means, Argo Dam and Geddes Dam – Coating and Miscellaneous Repairs, Bid No. ITB-  
\_\_\_\_\_

### ARTICLE III - Time of Completion

- (A) The work to be completed under this Contract shall begin immediately after the Contractor’s receipt of a fully executed Contract.
- (B) The entire work for this Contract shall be completed within five (5) consecutive months. Shorter completion times for certain portions of the work may be specified

in the Detailed Specifications. Liquidated damages shall also apply to these intermediate milestones based on the amounts listed in the Detailed Specifications.

- (C) Failure to complete all the work within the time specified above, including any extension granted in writing by the Supervising Professional, shall obligate the Contractor to pay the City, as liquidated damages and not as a penalty, an amount equal to \$500.00 for each calendar day of delay in the completion of all the work. If any liquidated damages are unpaid by the Contractor, the City shall be entitled to deduct these unpaid liquidated damages from the monies due the Contractor.

As an independent requirement, where the Detailed Specifications or Plans identify certain portions of the work to be completed within a shorter period of time and the Contractor fails to complete each portion within the shorter period specified for each portion, including any extension granted in writing by the Project Supervisor, the City is entitled to deduct from the monies due the Contractor, as liquidated damages and not as a penalty, the amount equal to that identified in Specification Section 01140, Table 1 for each portion or Phase of the work not timely completed for each calendar day of delay in completion of each portion of the work.

The liquidated damages are for the non-quantifiable aspects of any of the previously identified events and do not cover actual damages that can be shown or quantified nor are they intended to preclude recovery of actual damages in addition to the recovery of liquidated damages.

Liquidated damages under this section are in addition to any liquidated damages due under Section 5 of the General Conditions.

#### ARTICLE IV - The Contract Sum

- (A) The City shall pay to the Contractor for the performance of the Contract, the unit prices as given in the Bid Forms for the estimated bid total of:

\_\_\_\_\_ Dollars (\$\_\_\_\_\_)

- (B) The amount paid shall be equitably adjusted to cover changes in the work ordered by the Supervising Professional but not required by the Contract Documents. Increases or decreases shall be determined only by written agreement between the City and Contractor.

## ARTICLE V - Assignment

This Contract may not be assigned or subcontracted without the written consent of the City.

## ARTICLE VI - Choice of Law

This Contract shall be construed, governed, and enforced in accordance with the laws of the State of Michigan. By executing this agreement, the Contractor and the City agree to venue in a court of appropriate jurisdiction sitting within Washtenaw County for purposes of any action arising under this Contract.

Whenever possible, each provision of the Contract will be interpreted in a manner as to be effective and valid under applicable law. The prohibition or invalidity, under applicable law, of any provision will not invalidate the remainder of the Contract.

## ARTICLE VII - Relationship of the Parties

The parties of the Contract agree that it is not a Contract of employment but is a Contract to accomplish a specific result. Contractor is an independent Contractor performing services for the City. Nothing contained in this Contract shall be deemed to constitute any other relationship between the City and the Contractor.

Contractor certifies that it has no personal or financial interest in the project other than the compensation it is to receive under the Contract. Contractor certifies that it is not, and shall not become, overdue or in default to the City for any Contract, debt, or any other obligation to the City including real or personal property taxes. City shall have the right to set off any such debt against compensation awarded for services under this agreement.

## ARTICLE VIII - Notice

All notices given under this Contract shall be in writing, and shall be by personal delivery or by certified mail with return receipt requested to the parties at their respective addresses as specified in the Contract Documents or other address the Contractor may specify in writing.

## ARTICLE IX - Indemnification

To the fullest extent permitted by law, for any loss not covered by insurance under this Contract, Contractor shall indemnify, defend and hold harmless the City, its officers, employees and agents harmless from all suits, claims, judgments and expenses including attorney's fees resulting or alleged to result, in whole or in part, from any act or omission, which is in any way connected or associated with this Contract, by the Contractor or anyone acting on the Contractor's behalf under this Contract. Contractor shall not be responsible to indemnify the City for losses or damages caused by or resulting from the City's sole negligence.

## ARTICLE X - Entire Agreement

This Contract represents the entire understanding between the City and the Contractor and it supersedes all prior representations or agreements whether written or oral. Neither party has relied on any prior representations in entering into this Contract. This Contract may be altered, amended or

modified only by written amendment signed by the City and the Contractor.

**FOR CONTRACTOR**

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

**FOR THE CITY OF ANN ARBOR**

By \_\_\_\_\_  
John Hieftje, Mayor

By \_\_\_\_\_  
Jacqueline Beaudry, City Clerk

**Approved as to substance**

By \_\_\_\_\_  
Steven D. Powers, City Administrator

By \_\_\_\_\_  
Craig Hupy, Public Services  
Area Administrator

**Approved as to form and content**

\_\_\_\_\_  
Stephen K. Postema, City Attorney

PERFORMANCE BOND

- (1) \_\_\_\_\_ (referred to as "Principal"), and \_\_\_\_\_, a corporation duly authorized to do business in the State of Michigan (referred to as "Surety"), are bound to the City of Ann Arbor, Michigan (referred to as "City"), for
- \$ \_\_\_\_\_, the payment of which Principal and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, by this bond.
- (2) The Principal has entered a written Contract with the City dated \_\_\_\_\_, 2012, for: \_\_\_\_\_ and this bond is given for that Contract in compliance with Act No. 213 of the Michigan Public Acts of 1963, as amended, being MCL 129.201 et seq.
- (3) Whenever the Principal is declared by the City to be in default under the Contract, the Surety may promptly remedy the default or shall promptly:
- (a) complete the Contract in accordance with its terms and conditions; or
  - (b) obtain a bid or bids for submission to the City for completing the Contract in accordance with its terms and conditions, and upon determination by Surety of the lowest responsible bidder, arrange for a Contract between such bidder and the City, and make available, as work progresses, sufficient funds to pay the cost of completion less the balance of the Contract price; but not exceeding, including other costs and damages for which Surety may be liable hereunder, the amount set forth in paragraph 1.
- (4) Surety shall have no obligation to the City if the Principal fully and promptly performs under the Contract.
- (5) Surety agrees that no change, extension of time, alteration or addition to the terms of the Contract or to the work to be performed thereunder, or the specifications accompanying it shall in any way affect its obligations on this bond, and waives notice of any such change, extension of time, alteration or addition to the terms of the Contract or to the work, or to the specifications.

**SIGNED AND SEALED** this \_\_\_\_\_ day of \_\_\_\_\_, 2012.

\_\_\_\_\_  
 (Name of Surety Company)

By \_\_\_\_\_  
 (Signature)

Its \_\_\_\_\_  
 (Title of Office)

\_\_\_\_\_  
 (Name of Principal)

By \_\_\_\_\_  
 (Signature)

Its \_\_\_\_\_  
 (Title of Office)

Approved as to form:

Name and address of agent:

\_\_\_\_\_  
 Stephen K. Postema, City Attorney

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

LABOR AND MATERIAL BOND

- (1) \_\_\_\_\_  
of \_\_\_\_\_ (referred to as "Principal"), and \_\_\_\_\_, a corporation duly authorized to do business in the State of Michigan, (referred to as "Surety"), are bound to the City of Ann Arbor, Michigan (referred to as "City"), for the use and benefit of claimants as defined in Act 213 of Michigan Public Acts of 1963, as amended, being MCL 129.201 et seq., in the amount of \$ \_\_\_\_\_, for the payment of which Principal and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, by this bond.
- (2) The Principal has entered a written Contract with the City, dated \_\_\_\_\_, 2012, for \_\_\_\_\_  
\_\_\_\_\_; and this bond is given for that Contract in compliance with Act No. 213 of the Michigan Public Acts of 1963 as amended;
- (3) If the Principal fails to promptly and fully repay claimants for labor and material reasonably required under the Contract, the Surety shall pay those claimants.
- (4) Surety's obligations shall not exceed the amount stated in paragraph 1, and Surety shall have no obligation if the Principal promptly and fully pays the claimants.

**SIGNED AND SEALED** this \_\_\_\_\_ day of \_\_\_\_\_, 2012.

\_\_\_\_\_  
(Name of Surety Company)  
By \_\_\_\_\_  
(Signature)  
Its \_\_\_\_\_  
(Title of Office)

\_\_\_\_\_  
(Name of Principal)  
By \_\_\_\_\_  
(Signature)  
Its \_\_\_\_\_  
(Title of Office)

Approved as to form:

Name and address of agent:

\_\_\_\_\_  
Stephen K. Postema, City Attorney

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



## **GENERAL CONDITIONS**

### **Section 1 - Execution, Correlation and Intent of Documents**

The contract documents shall be signed in 2 copies by the City and the Contractor.

The contract documents are complementary and what is called for by any one shall be binding. The intention of the documents is to include all labor and materials, equipment and transportation necessary for the proper execution of the work. Materials or work described in words which so applied have a well-known technical or trade meaning have the meaning of those recognized standards.

In case of a conflict among the contract documents listed below in any requirement(s), the requirement(s) of the document listed first shall prevail over any conflicting requirement(s) of a document listed later.

(1) Addenda in reverse chronological order; (2) Detailed Specifications; (3) Standard Specifications; (4) Plans; (5) General Conditions; (6) Contract; (7) Bid Forms; (8) Bond Forms; (9) Bid.

### **Section 2 - Order of Completion**

The Contractor shall submit with each invoice, and at other times reasonably requested by the Supervising Professional, schedules showing the order in which the Contractor proposes to carry on the work. They shall include the dates at which the Contractor will start the several parts of the work, the estimated dates of completion of the several parts, and important milestones within the several parts.

### **Section 3 - Familiarity with Work**

The Bidder or its representative shall make personal investigations of the site of the work and of existing structures and shall determine to its own satisfaction the conditions to be encountered, the nature of the ground, the difficulties involved, and all other factors affecting the work proposed under this Contract. The Bidder to whom this Contract is awarded will not be entitled to any additional compensation unless conditions are clearly different from those which could reasonably have been anticipated by a person making diligent and thorough investigation of the site.

The Bidder shall immediately notify the City upon discovery, and in every case prior to submitting its Bid, of every error or omission in the bidding documents that would be identified by a reasonably competent, diligent Bidder. In no case will a Bidder be allowed the benefit of extra compensation or time to complete the work under this Contract for extra expenses or time spent as a result of the error or omission.

## Section 4 - Wage Requirements

Under this Contract, the Contractor shall conform to Chapter 14 of Title I of the Code of the City of Ann Arbor as amended; which in part states "...that all craftsmen, mechanics and laborers employed directly on the site in connection with said improvements, including said employees of subcontractors, shall receive the prevailing wage for the corresponding classes of craftsmen, mechanics and laborers, as determined by statistics for the Ann Arbor area compiled by the United States Department of Labor. At the request of the City, any contractor or subcontractor shall provide satisfactory proof of compliance with the contract provisions required by the Section."

Where the Contract and the Ann Arbor City Ordinance are silent as to definitions of terms required in determining contract compliance with regard to prevailing wages, the definitions provided in the Davis-Bacon Act as amended (40 U.S.C. 278-a to 276-a-7) for the terms shall be used.

Further, to the extent that any employees of the Contractor providing services under this contract are not part of the class of craftsmen, mechanics and laborers who receive a prevailing wage in conformance with Section 1:319 of Chapter 14 of Title I of the Code of the City of Ann Arbor, the Contractor agrees to conform to Chapter 23 of Title I of the Code of the City of Ann Arbor, as amended, which in part states:

### **1:814. Applicability.**

- (1) This Chapter shall apply to any person that is a contractor/vendor or grantee as defined in Section 1:813 that employs or contracts with five (5) or more individuals; provided, however, that this Chapter shall not apply to a non-profit contractor/vendor or non-profit grantee unless it employs or contracts with ten (10) or more individuals.
- (2) This Chapter shall apply to any grant, contract, or subcontract or other form of financial assistance awarded to or entered into with a contractor/vendor or grantee after the effective date of this Chapter and to the extension or renewal after the effective date of this Chapter of any grant, contract, or subcontract or other form of financial assistance with a contractor/vendor or grantee.

### **1:815. Living Wages Required.**

- (1) Every contractor/vendor or grantee, as defined in Section 1:813, shall pay its covered employees a living wage as established in this Section.
  - (a) For a covered employer that provides employee health care to its employees, the living wage shall be \$9.42 an hour, or the adjusted amount hereafter established under Section 1:815(3).
  - (b) For a covered employer that does not provide health care to its employees, the living wage shall be \$10.91 a hour, or the adjusted amount hereafter established under Section 1:815(3).

- (2) In order to qualify to pay the living wage rate for covered employers providing employee health care under subsection 1:815(1)(a), a covered employer shall furnish proof of said health care coverage and payment therefor to the City Administrator or his/her designee.
- (3) The amount of the living wage established in this Section shall be adjusted upward no later than April 30, 2002, and every year thereafter by a percentage equal to the percentage increase, if any, in the federal poverty guidelines as published by the United States Department of Health and Human Services for the years 2001 and 2002. Subsequent annual adjustments shall be based upon the percentage increase, if any, in the United States Department of Health and Human Services poverty guidelines when comparing the prior calendar year's poverty guidelines to the present calendar year's guidelines. The applicable percentage amount will be converted to an amount in cents by multiplying the existing wage under Section 1.815(1)(b) by said percentage, rounding upward to the next cent, and adding this amount of cents to the existing living wage levels established under Sections 1:815(1)(a) and 1:815(1)(b). Prior to April 1 of each calendar year, the City will notify any covered employer of this adjustment by posting a written notice in a prominent place in City Hall, and, in the case of a covered employer that has provided an address of record to the City, by a written letter to each such covered employer.

Contractor agrees that all subcontracts entered into by the Contractor shall contain similar wage provision covering subcontractor's employees who perform work on this contract.

#### Section 5 - Non-Discrimination

The Contractor agrees to comply with the nondiscrimination provisions of Chapter 112 of the Ann Arbor City Code and to take affirmative action to assure that applicants are employed and that employees are treated during employment in a manner which provides equal employment opportunity and tends to eliminate any inequality based upon race, national origin or sex. The Contractor agrees to comply with the provisions of Section 9:161 of Chapter 112 of the Ann Arbor City Code and in particular the following excerpts:

#### 9:161 NONDISCRIMINATION BY CITY CONTRACTORS

- (1) All contractors proposing to do business with the City of Ann Arbor shall satisfy the nondiscrimination administrative policy adopted by the City Administrator in accordance with the guidelines of this section. All contractors shall receive approval from the Director prior to entering into a contract with the City, unless specifically exempted by administrative policy. All City contractors shall take affirmative action to insure that applicants are employed and that employees are treated during employment in a manner which provides equal employment opportunity and tends to eliminate inequality based upon race, national origin or sex.
- (2) Each prospective contractor shall submit to the City data showing current total employment by occupational category, sex and minority group. If, after verifying this data, the Director concludes that it indicates total minority and female employment commensurate with their availability within the contractor's labor recruitment area, i.e., the area from which the contractor can reasonably be expected to recruit, said contractor shall be accepted by the Director as having fulfilled affirmative action requirements for a period of one year at which time the Director shall conduct another review. Other contractors shall develop an

affirmative action program in conjunction with the Director. Said program shall include specific goals and timetables for the hiring and promotion of minorities and females. Said

goals shall reflect the availability of minorities and females within the contractor's labor recruitment area. In the case of construction contractors, the Director shall use for employment verification the labor recruitment area of the Ann Arbor-Ypsilanti standard metropolitan statistical area. Construction contractors determined to be in compliance shall be accepted by the Director as having fulfilled affirmative action requirements for a period of six (6) months at which time the Director shall conduct another review.

- (3) In hiring for construction projects, contractors shall make good faith efforts to employ local persons, so as to enhance the local economy.
- (4) All contracts shall include provisions through which the contractor agrees, in addition to any other applicable Federal or State labor laws:
  - (a) To set goals, in conference with the Human Resources Director, for each job category or division of the work force used in the completion of the City work;
  - (b) To provide periodic reports concerning the progress the contractor has made in meeting the affirmative action goals it has agreed to;
  - (c) To permit the Director access to all books, records and accounts pertaining to its employment practices for the purpose of determining compliance with the affirmative action requirements.
- (5) The Director shall monitor the compliance of each contractor with the nondiscrimination provisions of each contract. The Director shall develop procedures and regulations consistent with the administrative policy adopted by the City Administrator for notice and enforcement of non-compliance. Such procedures and regulations shall include a provision for the posting of contractors not in compliance.
- (6) All City contracts shall provide further that breach of the obligation not to discriminate shall be a material breach of the contract for which the City shall be entitled, at its option, to do any or all of the following:
  - (a) To cancel, terminate, or suspend the contract in whole or part and/or refuse to make any required periodic payments under the contract;
  - (b) Declare the contractor ineligible for the award of any future contracts with the City for a specified length of time;
  - (c) To recover liquidated damages of a specified sum, said sum to be that percentage of the labor expenditure for the time period involved which would have accrued to minority group members had the affirmative action not been breached;

(d) Impose for each day of non-compliance, liquidated damages of a specified sum, based upon the following schedule:

<u>Contract Amount</u>	<u>Assessed Damages Per Day of Non-Compliance</u>
\$ 10,000 - 24,999	\$ 25.00
25,000 - 99,999	50.00
100,000 - 199,999	100.00
200,000 - 499,999	150.00
500,000 - 1,499,999	200.00
1,500,000 - 2,999,999	250.00
3,000,000 - 4,999,999	300.00
5,000,000 - and above	500.00

(e) In addition the contractor shall be liable for any costs or expenses incurred by the City of Ann Arbor in obtaining from other sources the work and services to be rendered or performed or the goods or properties to be furnished or delivered to the City under this contract.

#### Section 6 - Materials, Appliances, Employees

Unless otherwise stipulated, the Contractor shall provide and pay for all materials, labor, water, tools, equipment, light, power, transportation, and other facilities necessary or used for the execution and completion of the work. Unless otherwise specified, all materials incorporated in the permanent work shall be new, and both workmanship and materials shall be of the highest quality. The Contractor shall, if required, furnish satisfactory evidence as to the kind and quality of materials.

The Contractor shall at all times enforce strict discipline and good order among its employees, and shall seek to avoid employing on the work any unfit person or anyone not skilled in the work assigned.

Adequate sanitary facilities shall be provided by the Contractor.

#### Section 7 - Qualifications for Employment

The Contractor shall employ competent laborers and mechanics for the work under this Contract. For work performed under this Contract, employment preference shall be given to qualified local residents.

#### Section 8 - Royalties and Patents

The Contractor shall pay all royalties and license fees. It shall defend all suits or claims for infringements of any patent rights and shall hold the City harmless from loss on account of infringement except that the City shall be responsible for all infringement loss when a particular process or the product of a particular manufacturer or manufacturers is specified, unless the City has notified the Contractor prior to the signing of the Contract that the particular process or product is patented or is believed to be patented.

## Section 9 - Permits and Regulations

The Contractor must secure and pay for all permits, permit or plan review fees and licenses necessary for the prosecution of the work. These include but are not limited to City building permits, right-of-way permits, lane closure permits, right-of-way occupancy permits, and the like. The City shall secure and pay for easements shown on the plans unless otherwise specified.

The Contractor shall give all notices and comply with all laws, ordinances, rules and regulations bearing on the conduct of the work as drawn and specified. If the Contractor observes that the contract documents are at variance with those requirements, it shall promptly notify the Supervising Professional in writing, and any necessary changes shall be adjusted as provided in the Contract for changes in the work.

## Section 10 - Protection of the Public and of Work and Property

The Contractor is responsible for the means, methods, sequences, techniques and procedures of construction and safety programs associated with the work contemplated by this contract. The Contractor, its agents or sub-contractors, shall comply with the "General Rules and Regulations for the Construction Industry" as published by the Construction Safety Commission of the State of Michigan and to all other local, State and National laws, ordinances, rules and regulations pertaining to safety of persons and property.

The Contractor shall take all necessary and reasonable precautions to protect the safety of the public. It shall continuously maintain adequate protection of all work from damage, and shall take all necessary and reasonable precautions to adequately protect all public and private property from injury or loss arising in connection with this Contract. It shall make good any damage, injury or loss to its work and to public and private property resulting from lack of reasonable protective precautions, except as may be due to errors in the contract documents, or caused by agents or employees of the City. The Contractor shall obtain and maintain sufficient insurance to cover damage to any City property at the site by any cause.

In an emergency affecting the safety of life, or the work, or of adjoining property, the Contractor is, without special instructions or authorization from the Supervising Professional, permitted to act at its discretion to prevent the threatened loss or injury. It shall also so act, without appeal, if authorized or instructed by the Supervising Professional.

Any compensation claimed by the Contractor for emergency work shall be determined by agreement or in accordance with the terms of Claims for Extra Cost - Section 15.

## Section 11 - Inspection of Work

The City shall provide sufficient competent personnel for the inspection of the work.

The Supervising Professional shall at all times have access to the work whenever it is in preparation or progress, and the Contractor shall provide proper facilities for access and for inspection.

If the specifications, the Supervising Professional's instructions, laws, ordinances, or any public authority require any work to be specially tested or approved, the Contractor shall give the Supervising Professional timely notice of its readiness for inspection, and if the inspection is by an authority other than the Supervising Professional, of the date fixed for the inspection. Inspections by

the Supervising Professional shall be made promptly, and where practicable at the source of supply. If any work should be covered up without approval or consent of the Supervising Professional, it must, if required by the Supervising Professional, be uncovered for examination and properly restored at the Contractor's expense.

Re-examination of any work may be ordered by the Supervising Professional, and, if so ordered, the work must be uncovered by the Contractor. If the work is found to be in accordance with the contract documents, the City shall pay the cost of re-examination and replacement. If the work is not in accordance with the contract documents, the Contractor shall pay the cost.

#### Section 12 - Superintendence

The Contractor shall keep on the work site, during its progress, a competent superintendent and any necessary assistants, all satisfactory to the Supervising Professional. The superintendent will be responsible to perform all on-site project management for the Contractor. The superintendent shall be experienced in the work required for this Contract. The superintendent shall represent the Contractor and all direction given to the superintendent shall be binding as if given to the Contractor. Important directions shall immediately be confirmed in writing to the Contractor. Other directions will be confirmed on written request. The Contractor shall give efficient superintendence to the work, using its best skill and attention.

#### Section 13 - Changes in the Work

The City may make changes to the quantities of work within the general scope of the Contract at any time by a written order and without notice to the sureties. If the changes add to or deduct from the extent of the work, the Contract Sum shall be adjusted accordingly. All the changes shall be executed under the conditions of the original Contract except that any claim for extension of time caused by the change shall be adjusted at the time of ordering the change.

In giving instructions, the Supervising Professional shall have authority to make minor changes in the work not involving extra cost and not inconsistent with the purposes of the work, but otherwise, except in an emergency endangering life or property, no extra work or change shall be made unless in pursuance of a written order by the Supervising Professional, and no claim for an addition to the Contract Sum shall be valid unless the additional work was ordered in writing.

The Contractor shall proceed with the work as changed and the value of the work shall be determined as provided in Claims for Extra Cost - Section 15.

#### Section 14 - Extension of Time

Extension of time stipulated in the Contract for completion of the work will be made if and as the Supervising Professional may deem proper under any of the following circumstances:

- (1) When work under an extra work order is added to the work under this Contract;
- (2) When the work is suspended as provided in Section 20;
- (3) When the work of the Contractor is delayed on account of conditions which could not have been foreseen, or which were beyond the control of the Contractor, and which were not the result of its fault or negligence;

- (4) Delays in the progress of the work caused by any act or neglect of the City or of its employees or by other Contractors employed by the City;
- (5) Delay due to an act of Government;
- (6) Delay by the Supervising Professional in the furnishing of plans and necessary information;
- (7) Other cause which in the opinion of the Supervising Professional entitles the Contractor to an extension of time.

The Contractor shall notify the Supervising Professional within 7 days of an occurrence or conditions which, in the Contractor's opinion, entitle it to an extension of time. The notice shall be in writing and submitted in ample time to permit full investigation and evaluation of the Contractor's claim. The Supervising Professional shall acknowledge receipt of the Contractor's notice within 7 days of its receipt. Failure to timely provide the written notice shall constitute a waiver by the Contractor of any claim.

In situations where an extension of time in contract completion is appropriate under this or any other section of the contract, the Contractor understands and agrees that the only available adjustment for events that cause any delays in contract completion shall be extension of the required time for contract completion and that there shall be no adjustments in the money due the Contractor on account of the delay.

#### Section 15 - Claims for Extra Cost

If the Contractor claims that any instructions by drawings or other media issued after the date of the Contract involved extra cost under this Contract, it shall give the Supervising Professional written notice within 7 days after the receipt of the instructions, and in any event before proceeding to execute the work, except in emergency endangering life or property. The procedure shall then be as provided for Changes in the Work-Section 13. No claim shall be valid unless so made.

If the Supervising Professional orders, in writing, the performance of any work not covered by the contract documents, and for which no item of work is provided in the Contract, and for which no unit price or lump sum basis can be agreed upon, then the extra work shall be done on a Cost-Plus-Percentage basis of payment as follows:

- (1) The Contractor shall be reimbursed for all reasonable costs incurred in doing the work, and shall receive an additional payment of 15% of all the reasonable costs to cover both its indirect overhead costs and profit;
- (2) The term "Cost" shall cover all payroll charges for employees and supervision required under the specific order, together with all worker's compensation, Social Security, pension and retirement allowances and social insurance, or other regular payroll charges on same; the cost of all material and supplies required of either temporary or permanent character; rental of all power-driven equipment at agreed upon rates, together with cost of fuel and supply charges for the equipment; and any costs incurred by the Contractor as a direct result of executing the order, if approved by the Supervising Professional;



- (3) If the extra is performed under subcontract, the subcontractor shall be allowed to compute its charges as described above. The Contractor shall be permitted to add an additional charge of 5% percent to that of the subcontractor for the Contractor's supervision and contractual responsibility;
- (4) The quantities and items of work done each day shall be submitted to the Supervising Professional in a satisfactory form on the succeeding day, and shall be approved by the Supervising Professional and the Contractor or adjusted at once;
- (5) Payments of all charges for work under this Section in any one month shall be made along with normal progress payments. Retainage shall be in accordance with Progress Payments-Section 16.

No additional compensation will be provided for additional equipment, materials, personnel, overtime or special charges required to perform the work within the time requirements of the Contract.

When extra work is required and no suitable price for machinery and equipment can be determined in accordance with this Section, the hourly rate paid shall be 1/40 of the basic weekly rate listed in the Rental Rate Blue Book published by Dataquest Incorporated and applicable to the time period the equipment was first used for the extra work. The hourly rate will be deemed to include all costs of operation such as bucket or blade, fuel, maintenance, "regional factors", insurance, taxes, and the like, but not the costs of the operator.

#### Section 16 - Progress Payments

The Contractor shall submit each month, or at longer intervals, if it so desires, an invoice covering work performed for which it believes payment, under the Contract terms, is due. The submission shall be to the City's Finance Department - Accounting Division. The Supervising Professional will, within 10 days following submission of the invoice, prepare a certificate for payment for the work in an amount to be determined by the Supervising Professional as fairly representing the acceptable work performed during the period covered by the Contractor's invoice. To insure the proper performance of this Contract, the City will retain a percentage of the estimate in accordance with Act 524, Public Acts of 1980. The City will then, following the receipt of the Supervising Professional's Certificate, make payment to the Contractor as soon as feasible, which is anticipated will be within 15 days.

An allowance may be made in progress payments if substantial quantities of permanent material have been delivered to the site but not incorporated in the completed work if the Contractor, in the opinion of the Supervising Professional, is diligently pursuing the work under this Contract. Such materials shall be properly stored and adequately protected. Allowance in the estimate shall be at the invoice price value of the items. Notwithstanding any payment of any allowance, all risk of loss due to vandalism or any damages to the stored materials remains with the Contractor.

In the case of Contracts which include only the Furnishing and Delivering of Equipment, the payments shall be; 60% of the Contract Sum upon the delivery of all equipment to be furnished, or in the case of delivery of a usable portion of the equipment in advance of the total equipment delivery, 60% of the estimated value of the portion of the equipment may be paid upon its delivery in advance of the time of the remainder of the equipment to be furnished; 30% of the Contract Sum

upon completion of erection of all equipment furnished, but not later than 60 days after the date of delivery of all of the equipment to be furnished; and payment of the final 10% on final completion of erection, testing and acceptance of all the equipment to be furnished; but not later than 180 days after the date of delivery of all of the equipment to be furnished, unless testing has been completed and shows the equipment to be unacceptable.

With each invoice for periodic payment, the Contractor shall enclose a Contractor's Declaration - Section 43, and an updated project schedule per Order of Completion - Section 2.

#### Section 17 - Deductions for Uncorrected Work

If the Supervising Professional decides it is inexpedient to correct work that has been damaged or that was not done in accordance with the Contract, an equitable deduction from the Contract price shall be made.

#### Section 18 - Correction of Work Before Final Payment

The Contractor shall promptly remove from the premises all materials condemned by the Supervising Professional as failing to meet Contract requirements, whether incorporated in the work or not, and the Contractor shall promptly replace and re-execute the work in accordance with the Contract and without expense to the City and shall bear the expense of making good all work of other contractors destroyed or damaged by the removal or replacement.

If the Contractor does not remove the condemned work and materials within 10 days after written notice, the City may remove them and, if the removed material has value, may store the material at the expense of the Contractor. If the Contractor does not pay the expense of the removal within 10 days thereafter, the City may, upon 10 days written notice, sell the removed materials at auction or private sale and shall pay to the Contractor the net proceeds, after deducting all costs and expenses that should have been borne by the Contractor. If the removed material has no value, the Contractor must pay the City the expenses for disposal within 10 days of invoice for the disposal costs.

The inspection or lack of inspection of any material or work pertaining to this Contract shall not relieve the Contractor of its obligation to fulfill this Contract and defective work shall be made good. Unsuitable materials may be rejected by the Supervising Professional notwithstanding that the work and materials have been previously overlooked by the Supervising Professional and accepted or estimated for payment or paid for. If the work or any part shall be found defective at any time before the final acceptance of the whole work, the Contractor shall forthwith make good the defect in a manner satisfactory to the Supervising Professional. The judgment and the decision of the Supervising Professional as to whether the materials supplied and the work done under this Contract comply with the requirements of the Contract shall be conclusive and final.

#### Section 19 - Acceptance and Final Payment

Upon receipt of written notice that the work is ready for final inspection and acceptance, the Supervising Professional will promptly make the inspection. When the Supervising Professional finds the work acceptable under the Contract and the Contract fully performed, the Supervising Professional will promptly sign and issue a final certificate stating that the work required by this Contract has been completed and is accepted by the City under the terms and conditions of the Contract. The entire balance found to be due the Contractor, including the retained percentage, shall be paid to the Contractor by the City within 30 days after the date of the final certificate.

Before issuance of final certificates, the Contractor shall file with the City:

- (1) The consent of the surety to payment of the final estimate;
- (2) The Contractor's Affidavit in the form required by Section 44.

In case the Affidavit or consent is not furnished, the City may retain out of any amount due the Contractor, sums sufficient to cover all lienable claims.

The making and acceptance of the final payment shall constitute a waiver of all claims by the City except those arising from:

- (1) unsettled liens;
- (2) faulty work appearing within 12 months after final payment;
- (3) hidden defects in meeting the requirements of the plans and specifications;
- (4) manufacturer's guarantees.

It shall also constitute a waiver of all claims by the Contractor, except those previously made and still unsettled.

#### Section 20 - Suspension of Work

The City may at any time suspend the work, or any part by giving 5 days notice to the Contractor in writing. The work shall be resumed by the Contractor within 10 days after the date fixed in the written notice from the City to the Contractor to do so. The City shall reimburse the Contractor for expense incurred by the Contractor in connection with the work under this Contract as a result of the suspension.

If the work, or any part, shall be stopped by the notice in writing, and if the City does not give notice in writing to the Contractor to resume work at a date within 90 days of the date fixed in the written notice to suspend, then the Contractor may abandon that portion of the work suspended and will be entitled to the estimates and payments for all work done on the portions abandoned, if any, plus 10% of the value of the work abandoned, to compensate for loss of overhead, plant expense, and anticipated profit.

#### Section 21 - Delays and The City's Right to Terminate Contract

If the Contractor refuses or fails to prosecute the work, or any separate part of it, with the diligence required to insure completion, ready for operation, within the allowable number of consecutive calendar days specified plus extensions, or fails to complete the work within the required time, the City may, by written notice to the Contractor, terminate its right to proceed with the work or any part of the work as to which there has been delay. After providing the notice the City may take over the work and prosecute it to completion, by contract or otherwise, and the Contractor and its sureties shall be liable to the City for any excess cost to the City. If the Contractor's right to proceed is terminated, the City may take possession of and utilize in completing the work, any materials, appliances and plant as may be on the site of the work and useful for completing the work. The right of the Contractor to proceed shall not be terminated or the Contractor charged with liquidated damages where an extension of time is granted under Extension of Time - Section 14.

If the Contractor is adjudged a bankrupt, or if it makes a general assignment for the benefit of creditors, or if a receiver is appointed on account of its insolvency, or if it persistently or repeatedly refuses or fails except in cases for which extension of time is provided, to supply enough properly skilled workers or proper materials, or if it fails to make prompt payments to subcontractors or for material or labor, or persistently disregards laws, ordinances or the instructions of the Supervising Professional, or otherwise is guilty of a substantial violation of any provision of the Contract, then the City, upon the certificate of the Supervising Professional that sufficient cause exists to justify such action, may, without prejudice to any other right or remedy and after giving the Contractor 3 days written notice, terminate this Contract. The City may then take possession of the premises and of all materials, tools and appliances thereon and without prejudice to any other remedy it may have, make good the deficiencies or finish the work by whatever method it may deem expedient, and deduct the cost from the payment due the Contractor. The Contractor shall not be entitled to receive any further payment until the work is finished. If the expense of finishing the work, including compensation for additional managerial and administrative services exceeds the unpaid balance of the Contract Sum, the Contractor and its surety are liable to the City for any excess cost incurred. The expense incurred by the City, and the damage incurred through the Contractor's default, shall be certified by the Supervising Professional.

#### Section 22 - Contractor's Right to Terminate Contract

If the work should be stopped under an order of any court, or other public authority, for a period of 3 months, through no act or fault of the Contractor or of anyone employed by it, then the Contractor may, upon 7 days written notice to the City, terminate this Contract and recover from the City payment for all acceptable work executed plus reasonable profit.

#### Section 23 - City's Right To Do Work

If the Contractor should neglect to prosecute the work properly or fail to perform any provision of this Contract, the City, 3 days after giving written notice to the Contractor and its surety may, without prejudice to any other remedy the City may have, make good the deficiencies and may deduct the cost from the payment due to the Contractor.

#### Section 24 - Removal of Equipment and Supplies

In case of termination of this Contract before completion, from any or no cause, the Contractor, if notified to do so by the City, shall promptly remove any part or all of its equipment and supplies from the property of the City, failing which the City shall have the right to remove the equipment and supplies at the expense of the Contractor.

The removed equipment and supplies may be stored by the City and, if all costs of removal and storage are not paid by the Contractor within 10 days of invoicing, the City upon 10 days written notice may sell the equipment and supplies at auction or private sale, and shall pay the Contractor the net proceeds after deducting all costs and expenses that should have been borne by the Contractor and after deducting all amounts claimed due by any lien holder of the equipment or supplies.

#### Section 25 - Responsibility for Work and Warranties

The Contractor assumes full responsibility for any and all materials and equipment used in the construction of the work and may not make claims against the City for damages to materials and

equipment from any cause except negligence or willful act of the City. Until its final acceptance, the Contractor shall be responsible for damage to or destruction of the project (except for any part covered by Partial Completion and Acceptance - Section 26). The Contractor shall make good all work damaged or destroyed before acceptance. All risk of loss remains with the Contractor until final acceptance of the work (Section 19) or partial acceptance (Section 26). The Contractor is advised to investigate obtaining its own builders risk insurance.

The Contractor shall guarantee the quality of the work for a period of one year. The Contractor shall also unconditionally guarantee the quality of all equipment and materials that are furnished and installed under the contract for a period of one year. At the end of one year after the Contractor's receipt of final payment, the complete work, including equipment and materials furnished and installed under the contract, shall be inspected by the Contractor and the Supervising Professional. Any defects shall be corrected by the Contractor at its expense as soon as practicable but in all cases within 60 days. Any defects that are identified prior to the end of one year shall also be inspected by the Contractor and the Supervising Professional and shall be corrected by the Contractor at its expense as soon as practicable but in all cases within 60 days.

The Contractor shall assign all manufacturer or material supplier warranties to the City prior to final payment. The assignment shall not relieve the Contractor of its obligations under this paragraph to correct defects.

#### Section 26 - Partial Completion and Acceptance

If at any time prior to the issuance of the final certificate referred to in Acceptance and Final Payment - Section 19, any portion of the permanent construction has been satisfactorily completed, and if the Supervising Professional determines that portion of the permanent construction is not required for the operations of the Contractor but is needed by the City, the Supervising Professional shall issue to the Contractor a certificate of partial completion, and immediately the City may take over and use the portion of the permanent construction described in the certificate, and exclude the Contractor from that portion.

The issuance of a certificate of partial completion shall not constitute an extension of the Contractor's time to complete the portion of the permanent construction to which it relates if the Contractor has failed to complete it in accordance with the terms of this Contract. The issuance of the certificate shall not release the Contractor or its sureties from any obligations under this Contract including bonds.

If prior use increases the cost of, or delays the work, the Contractor shall be entitled to extra compensation, or extension of time, or both, as the Supervising Professional may determine.

#### Section 27 - Payments Withheld Prior to Final Acceptance of Work

The City may withhold or, on account of subsequently discovered evidence, nullify the whole or part of any certificate to the extent reasonably appropriate to protect the City from loss on account of:

- (1) Defective work not remedied;
- (2) Claims filed or reasonable evidence indicating probable filing of claims by other parties against the Contractor;

- (3) Failure of the Contractor to make payments properly to subcontractors or for material or labor;
- (4) Damage to another Contractor.

When the above grounds are removed or the Contractor provides a Surety Bond satisfactory to the City which will protect the City in the amount withheld, payment shall be made for amounts withheld under this section.

#### Section 28 - Contractor's Insurance

A. The Contractor shall procure and maintain during the life of this Contract, including the guarantee period and during any warranty work, such insurance policies, including those set forth below, as will protect itself from all claims for bodily injuries, death or property damage which may arise under this Contract; whether the acts were made by the Contractor or by any subcontractor or anyone employed by them directly or indirectly. The following insurance policies are required:

- 1. Worker's Compensation Insurance in accordance with all applicable state and federal statutes. Further, Employers Liability Coverage shall be obtained in the following minimum amounts:

- Bodily Injury by Accident - \$500,000 each accident
- Bodily Injury by Disease - \$500,000 each employee
- Bodily Injury by Disease - \$500,000 each policy limit

- 2. Commercial General Liability Insurance equivalent to, as a minimum, Insurance Services Office form CG 00 01 07 98. The City of Ann Arbor shall be named as an additional insured. There shall be no added exclusions or limiting endorsements including, but not limited to: Products and Completed Operations, Explosion, Collapse and Underground coverage or Pollution. Further, the following minimum limits of liability are required:

- \$1,000,000 Each occurrence as respect Bodily Injury Liability or Property Damage Liability, or both combined.

- \$2,000,000 Per Job General Aggregate

- \$1,000,000 Personal and Advertising Injury

- \$2,000,000 Products and Completed Operations Aggregate

- 3. Motor Vehicle Liability Insurance, including Michigan No-Fault Coverages, equivalent to, as a minimum, Insurance Services Office form CA 00 01 07 97. The City of Ann Arbor shall be named as an additional insured. There shall be no added exclusions or limiting endorsements. Coverage shall include all owned vehicles, all non-owned vehicles and all hired vehicles. Further, the limits of liability shall be \$1,000,000 for each occurrence as respects Bodily Injury Liability or Property Damage Liability, or both combined.

4. Umbrella/Excess Liability Insurance shall be provided to apply excess of the Commercial General Liability, Employers Liability and the Motor Vehicle coverage enumerated above, for each occurrence and for aggregate in the amount of \$1,000,000.
- B. Insurance required under Section A.2 and A.3 of this Contract shall be considered primary as respects any other valid or collectible insurance that the City may possess, including any self-insured retentions the City may have; and any other insurance the City does possess shall be considered excess insurance only and shall not be required to contribute with this insurance. Further, the Contractor agrees to waive any right of recovery by its insurer against the City.
  - C. In the case of all Contracts involving on-site work, the Contractor shall provide to the City before the commencement of any work under this Contract documentation demonstrating it has obtained the above mentioned policies. Documentation must provide and demonstrate an unconditional 30 day written notice of cancellation in favor of the City of Ann Arbor. Further, the documentation must explicitly state the following: (a) the policy number; name of insurance company; name and address of the agent or authorized representative; name and address of insured; project name; policy expiration date; and specific coverage amounts; (b) any deductibles or self-insured retentions which shall be approved by the City, in its sole discretion; (c) that the policy conforms to the requirements specified. An original certificate of insurance may be provided as an initial indication of the required insurance, provided that no later than 21 calendar days after commencement of any work the Contractor supplies a copy of the endorsements required on the policies. Upon request, the Contractor shall provide within 30 days a copy of the policy(ies) to the City. If any of the above coverages expire by their terms during the term of this Contract, the Contractor shall deliver proof of renewal and/or new policies to the Administering Service Area/Unit at least ten days prior to the expiration date.
  - D. Any Insurance provider of Contractor shall be admitted and authorized to do business in the State of Michigan and shall carry and maintain a minimum rating assigned by A.M. Best & Company's Key Rating Guide of "A-" Overall and a minimum Financial Size Category of "V". Insurance policies and certificates issued by non-admitted insurance companies are not acceptable unless approved in writing by the City.

#### Section 29 - Surety Bonds

Bonds will be required from the successful bidder as follows:

- (1) A Performance Bond to the City of Ann Arbor for the amount of the bid(s) accepted;
- (2) A Labor and Material Bond to the City of Ann Arbor for the amount of the bid(s) accepted.

Bonds shall be executed on forms supplied by the City in a manner and by a Surety Company satisfactory to the City Attorney.

### Section 30 - Damage Claims

The Contractor shall be held responsible for all damages to property of the City or others, caused by or resulting from the negligence of the Contractor, its employees, or agents during the progress of or connected with the prosecution of the work, whether within the limits of the work or elsewhere. The Contractor must restore all property injured including sidewalks, curbing, sodding, pipes, conduit, sewers or other public or private property to not less than its original condition with new work.

### Section 31 - Refusal to Obey Instructions

If the Contractor refuses to obey the instructions of the Supervising Professional, the Supervising Professional shall withdraw inspection from the work, and no payments will be made for work performed thereafter nor may work be performed thereafter until the Supervising Professional shall have again authorized the work to proceed.

### Section 32 - Assignment

Neither party to the Contract shall assign the Contract without the written consent of the other. The Contractor may assign any monies due to it to a third party acceptable to the City.

### Section 33 - Rights of Various Interests

Whenever work being done by the City's forces or by other contractors is contiguous to work covered by this Contract, the respective rights of the various interests involved shall be established by the Supervising Professional, to secure the completion of the various portions of the work in general harmony.

The Contractor is responsible to coordinate all aspects of the work, including coordination of, and with, utility companies and other contractors whose work impacts this project.

### Section 34 - Subcontracts

The Contractor shall not award any work to any subcontractor without prior written approval of the City. The approval will not be given until the Contractor submits to the City a written statement concerning the proposed award to the subcontractor. The statement shall contain all information the City may require.

The Contractor shall be as fully responsible to the City for the acts and omissions of its subcontractors, and of persons either directly or indirectly employed by them, as it is for the acts and omissions of persons directly employed by it.

The Contractor shall cause appropriate provisions to be inserted in all subcontracts relative to the work to bind subcontractors to the Contractor by the terms of the General Conditions and all other contract documents applicable to the work of the subcontractors and to give the Contractor the same power to terminate any subcontract that the City may exercise over the Contractor under any provision of the contract documents.

Nothing contained in the contract documents shall create any contractual relation between any subcontractor and the City.



### Section 35 - Supervising Professional's Status

The Supervising Professional has the right to inspect any or all work. The Supervising Professional has authority to stop the work whenever stoppage may be appropriate to insure the proper execution of the Contract. The Supervising Professional has the authority to reject all work and materials which do not conform to the Contract and to decide questions which arise in the execution of the work.

The Supervising Professional shall make all measurements and determinations of quantities. Those measurements and determinations are final and conclusive between the parties.

### Section 36 - Supervising Professional's Decisions

The Supervising Professional shall, within a reasonable time after their presentation to the Supervising Professional, make decisions in writing on all claims of the City or the Contractor and on all other matters relating to the execution and progress of the work or the interpretation of the contract documents.

### Section 37 - Storing Materials and Supplies

Materials and supplies may be stored at the site of the work at locations agreeable to the City unless specific exception is listed elsewhere in these documents. Ample way for foot traffic and drainage must be provided, and gutters must, at all times, be kept free from obstruction. Traffic on streets shall be interfered with as little as possible. The Contractor may not enter or occupy with agents, employees, tools, or material any private property without first obtaining written permission from its owner. A copy of the permission shall be furnished to the Supervising Professional.

### Section 38 - Lands for Work

The Contractor shall provide, at its own expense and without liability to the City, any additional land and access that may be required for temporary construction facilities or for storage of materials.

### Section 39 - Cleaning Up

The Contractor shall, as directed by the Supervising Professional, remove at its own expense from the City's property and from all public and private property all temporary structures, rubbish and waste materials resulting from its operations unless otherwise specifically approved, in writing, by the Supervising Professional.

### Section 40 - Salvage

The Supervising Professional may designate for salvage any materials from existing structures or underground services. Materials so designated remain City property and shall be transported or stored at a location as the Supervising Professional may direct.

### Section 41 - Night, Saturday or Sunday Work

No night or Sunday work (without prior written City approval) will be permitted except in the case of an emergency and then only to the extent absolutely necessary. The City may allow night work

which, in the opinion of the Supervising Professional, can be satisfactorily performed at night. Night work is any work between 8:00 p.m. and 7:00 a.m. No Saturday work will be permitted unless the Contractor gives the Supervising Professional at least 48 hours but not more than 5 days notice of the Contractor's intention to work the upcoming Saturday.

#### Section 42 - Sales Taxes

Under State law the City is exempt from the assessment of State Sales Tax on its direct purchases. Contractors who acquire materials, equipment, supplies, etc. for incorporation in City projects are not likewise exempt. State Law shall prevail. The Bidder shall familiarize itself with the State Law and prepare its Bid accordingly. No extra payment will be allowed under this Contract for failure of the Contractor to make proper allowance in this bid for taxes it must pay.

**CONTRACTOR'S DECLARATION**

I hereby declare that I have not, during the period \_\_\_\_\_, 20\_\_\_, to \_\_\_\_\_, 20\_\_\_, performed any work, furnished any materials, sustained any loss, damage or delay, or otherwise done anything in addition to the regular items (or executed change orders) set forth in the Contract titled Argo Dam and Geddes Dam – Coating and Miscellaneous Repairs , for which I shall ask, demand, sue for, or claim compensation or extension of time from the City, except as I hereby make claim for additional compensation or extension of time as set forth on the attached itemized statement. I further declare that I have paid all payroll obligations related to this Contract that have become due during the above period and that all invoices related to this Contract received more than 30 days prior to this declaration have been paid in full except as listed below.

There is/is not (Contractor please circle one and strike one as appropriate) an itemized statement attached regarding a request for additional compensation or extension of time.

\_\_\_\_\_  
Contractor

\_\_\_\_\_  
Date

By \_\_\_\_\_  
(Signature)

Its \_\_\_\_\_  
(Title of Office)

Past due invoices, if any, are listed below.



## **STANDARD SPECIFICATIONS**

All work under this contract shall be performed in accordance with the Public Services Department Standard Specifications in effect at the date of availability of the contract documents stipulated in the Advertisement. All work under this Contract which is not included in these Standard Specifications, or which is performed using modifications to these Standard Specifications, shall be performed in accordance with the Detailed Specifications included in these contract documents.

A copy of the Public Services Department Standard Specifications may be purchased from the Engineering Division, (Fourth Floor, City Hall, Ann Arbor, Michigan), for \$35.00 per copy. In addition, a copy of these Standard Specifications is available for public viewing at the Engineering Division office, for review Monday through Friday between the hours of 8:30 a.m. and 4:00 p.m. Copies of the Standard Specifications can also be downloaded from the web link:

[http://www.a2gov.org/government/publicservices/project\\_management/privatedev/pages/standardspecificationsbook.aspx](http://www.a2gov.org/government/publicservices/project_management/privatedev/pages/standardspecificationsbook.aspx).

## DETAILED SPECIFICATIONS

## SECTION 01000

### GENERAL REQUIREMENTS

#### **PART 1 - GENERAL**

##### **1.01 DESCRIPTION OF WORK**

- A. Work under this Contract consists of repairs at Argo Dam and Geddes Dam, and shall include but not be limited to the following: repair of damaged metal on gate gear housings; painting of gear housings and shafts; repair of railing posts; repair of subsidence at abutments; replacement of trunnion pin covers; assist with inspection of tainter gates; repair of tainter gate bracing, painting and all related work.
- B. Contract Drawings are included which give specific locations for all work under this Contract. Drawings depict the general form of items for painting. The CONTRACTOR shall be responsible for painting all surfaces and appurtenances of equipment as designated, whether or not specifically named on the Drawings.
- C. It is the intent of these Contract Documents that the CONTRACTOR provide a complete and finished product. Items shown on the Drawings and Specifications not specifically connected to a heading in the Bid Form are to be considered as incidental to the work.

##### **1.02 EXISTING FACILITIES ACCESS**

- A. The CONTRACTOR shall be responsible for maintaining safe access for the public to the existing park areas beyond the work zones.
- B. Access to the parks shall not be temporarily disrupted without coordination with and prior approval of the OWNER.
- C. Prior to commencing work, the CONTRACTOR shall submit to the OWNER a plan for bringing construction traffic to and from the site.

##### **1.03 CONSTRUCTION WATER**

- A. Water for construction is not available from the OWNER and may not be obtained from the existing facilities. The CONTRACTOR shall be responsible for providing all construction water required for the project.

##### **1.04 CONSTRUCTION POWER**

- A. 110V single phase power is available at both sites for use. The CONTRACTOR will be responsible for providing all connections. If additional power is needed, a temporary metered connection or portable generators shall be provided by the CONTRACTOR at his own expense.

##### **1.05 NOTIFICATION OF UTILITIES**

- A. The CONTRACTOR shall notify all utilities prior to any excavation.
- B. MISS DIG – Utility providers are members of a utility communication system called "MISS DIG" that provides service to participating utilities. The CONTRACTORS shall contact "MISS DIG" not less than 72 hours before starting construction for assistance in locating utilities or for any work to be done on utilities. The toll free phone number is (800) 482-7171.

ARGO DAM AND GEDDES DAM: COATING AND MISCELLANEOUS REPAIRS

## **1.06 WORK SCHEDULE**

- A. The CONTRACTOR shall provide a work schedule. The schedule shall be complete and shall show in detail the manner in which he proposes to complete the work under this Contract and approximate monthly billing of the Contract. The purpose of the schedule is to assist the OWNER in notifying the public of inconveniences and to anticipate cash-flow on the job, and to determine if the CONTRACTOR is reasonably proceeding with the work to assure completion within the specified time.
- B. Work hours shall be restricted to Monday through Friday, 7AM to 7PM. Work shall not be conducted on City holidays. Exceptions to work hour limits shall be only by written permission of the OWNER.

## **1.07 CONSTRUCTION SEQUENCE**

- A. The CONTRACTOR shall coordinate and schedule his work with the OWNER when his operation may affect access to existing facilities or interfere with dam operations.
  - 1. The CONTRACTOR shall coordinate his operations with the canoe liveries. The CONTRACTOR's operations shall not interfere with livery operations including public passage, canoe storage, launching or other activities.
- B. Prior to commencing the work, the CONTRACTOR shall provide the ENGINEER a detailed schedule of the proposed work. The schedule shall include a list of tasks required to complete the work; their relevancy to each other; expected duration; and completion dates.
- C. The CONTRACTOR is responsible for presenting a sequence with schedule to the OWNER/ENGINEER for review. All proposed improvements shall be constructed only in accordance with an approved schedule.
- D. The OWNER will operate all gates. The CONTRACTOR and OWNER both will lock out gates as required for safety. Only one (1) gate at a time will be available for lock out.

## **1.08 TRAFFIC MAINTENANCE**

- A. At Argo, the CONTRACTOR shall be responsible for path barricades, relevant signage and all detours for the duration of the work.
- B. Because the availability of roads and streets is critical for the traveling public, the CONTRACTOR shall not close a road to traffic at any time. Through and local traffic shall always be maintained by the use of 2-lane construction techniques and by the use of temporary roadways and flaggers.
- C. The CONTRACTOR shall provide all required Type II and Type III barricades, flashers, flashing arrows, flaggers, and all signing required to properly and safely maintain traffic flow through the construction area in accordance with the Michigan Manual of Uniform Traffic Control Devices. The CONTRACTOR shall provide as many signs and barricades as required by the ENGINEER to protect and maintain traffic through this area at all times. The CONTRACTOR shall add any additional devices required by the ENGINEER to provide a smooth flow of traffic.
- D. In the event of the CONTRACTOR's failure to comply with these provisions, the OWNER may with or without notice, cause the same to be done; and will deduct the cost of such work from any money due or to become due the CONTRACTOR under this Contract, but the performance of



such work by the OWNER or at the OWNER's insistence, shall serve in no way to release the CONTRACTOR from their general or particular liability for the safety of the Public or the work.

- E. Access to fire hydrants and water valves shall always be maintained. The CONTRACTOR's truck and equipment operations on public streets shall be governed by City or County regulations as applicable, and all other local traffic ordinances, and regulations of the Fire and Police Departments.
- F. Payment for traffic maintenance, the furnishing of flaggers, barricades, signs, flashers and maintenance of these shall be incidental to the Contract.

#### **1.09 CONSTRUCTION PERMITS**

- A. The CONTRACTOR will be required to follow the requirements established by all permits necessary for the construction of this project. The following is a list of permits that must be obtained prior to the beginning of construction.
  - 1. Soil Erosion and Sedimentation Control Permit, as part of Public Act 451 (1994), Part 91.
  - 2. MDEQ Joint Permit (obtained by the OWNER).
- B. The Soil Erosion and Sedimentation Control permit shall be issued by the City of Ann Arbor. The CONTRACTOR will be required to adhere to all requirements of the permit. The CONTRACTOR shall have an SESC-certified inspector assigned to the project to complete all required inspections and reports. An electronic copy of all inspections shall be provided to the OWNER.
- C. The Michigan Department of Environmental Quality (MDEQ) Joint Permit will be applied for and obtained by the OWNER through the MDEQ. The CONTRACTOR shall obtain a copy of this permit from the OWNER prior to construction.

#### **1.10 MATERIAL TESTING**

- A. The CONTRACTOR shall provide and pay for the service of an independent testing laboratory, approved by the ENGINEER, to provide all painting, material and compaction testing. The type and minimum frequency of testing shall be as follows:
  - 1. Soils.
    - Sieve analysis from certified pit. (each source)
    - Modified proctor
    - Compaction testing for all fill materials – the greater of once every 1500 SF or two (2) per location, each 8-inch lift.
  - 2. Paint
    - Paint thickness. For details, see Section 09900 Painting of these Specifications.
    - Surface preparation.
    - Environmental conditions for painting (humidity dew point, ambient temperature, material temperature, etc.)
- B. The CONTRACTOR shall notify the OWNER and ENGINEER of all previous test results at least 48 hours in advance of all new materials to be used. Any area failing tests shall be corrected and retested at the CONTRACTOR's expense.

---

ARGO DAM AND GEDDES DAM: COATING AND MISCELLANEOUS REPAIRS

- C. CONTRACTOR shall furnish copies of all test reports to the OWNER and ENGINEER.
- D. Pre-approved companies for concrete and soils testing shall be: CTI & Associates; Testing Engineers & Consultants, Inc. (TEC); Soils and Materials Engineers, Inc. (SME); Haengel & Associates Engineering, Inc. (HAE); or Professional Service Industries, Inc. (PSI).
- E. Pre-approved companies for paint testing shall be: Dixon Engineering, Inc. and Nelson Tank Engineering & Consulting, Inc. (NTEC).

#### **1.11 DUST AND MUD CONTROL**

- A. All haul roads, detour roads, and other public and private roads, driveways and parking lots used by the CONTRACTOR must be maintained in a dust free condition during the life of this Contract. The control of the dust shall be accomplished by the application of dust control materials and methods of application as approved and as directed by the ENGINEER. Such dust control materials shall be applied as often as is necessary to control the dust.
- B. Cost of providing dust control shall be included as part of traffic maintenance.
- C. Should the CONTRACTOR be negligent in providing dust control, the OWNER may, with or without notice, cause the same to be done and deduct the cost of such work from any monies due or to become due the CONTRACTOR under this Contract, but the performance of such work by the OWNER, or by the OWNER's direction, shall service in no way to release the CONTRACTOR from liability for dust control.

#### **1.12 DIGITAL PHOTOGRAPHIC RECORD**

- A. The CONTRACTOR shall furnish to the OWNER a digital photographic record for all areas proposed for improvement and all access ways to the work area. Areas to be photographed consist of the land area depicted by the General Site Plan of the project and shall include: Argo Dam pedestrian bridge and both shores within 50 feet of the west abutment and within 100 feet of the east abutment; Geddes Dam parking area between the overpass to the east, and start of pedestrian trail to the west, north of the dam to the embankment access drive, south to the railroad fence, and both Old Dixboro Rd. bridges over the tailrace. In general, the CONTRACTOR shall include parking lots, access paths for construction traffic, storage and staging areas and other areas that may be impacted by his activities.
- B. The photographs shall be stored on a CD or DVD of such quality to accurately show the existing conditions. The record shall be produced one (1) week prior to the placement of materials or equipment in the construction area.
- C. The record shall include overview photos of each entire area; and detailed photos of key features, including railings, decking, pavements, structures, utilities, equipment, etc. Particular attention shall be given to the gear housings, bearing blocks and other items designated for repairs and coating. The photographs shall be ordered in sequential sets as follows: photograph of a sign board identifying each separate area; overview photo or photos of that area; and detailed views relevant only to that particular area. The overview photographs should enable to viewer to identify both the area in question and the particular items that are shown in detail in the photographs immediately following.
- D. The photographs must be recorded while the visibility is clear and at no time will it be allowed during periods of ground cover.

- E. The photographic record shall include date, time, and location at appropriate intervals. The location shall be easily referenced to the Contract Drawings.

### 1.13 PROJECT PROGRESS MEETING

- A. It shall be the responsibility of the CONTRACTOR to have a representative, including key subcontractors, present at each meeting. The CONTRACTOR shall be available for meetings shall be held at least twice a month as necessary.

### 1.14 METHOD OF MEASUREMENT AND BASIS OF PAYMENT

#### A. GENERAL

The method of measurement and the basis of payment for each item in the Proposal will be as specified in the schedule attached. The items are generally grouped by the section of the Specifications under which the particular unit of work is detailed. There will be no payment allowed for any unit of work not specifically mentioned in the Proposal as a bid item, and any such unit of work not mentioned in the Proposal, but necessary for the completion of the Project, will be considered as incidental to the construction of the Project.

#### B. MEASUREMENT

Quantities of work completed under the Contract will be measured by the ENGINEER according to the United States standard measures. When tons are specified, the unit shall be the ton of 2000 pounds. When measurements are stated in miles, stations, acres, they will be horizontal measurements unless specified otherwise. Where measurements are specified to be "in place," they will be taken along the actual surface of the completed item to obtain lineal, area, or volume measurements.

#### C. PAYMENT

In each and every instance in the following Measurement and Payment Schedule, where a Basis of Payment is specified, it shall be understood to be prefaced by the following statement, "**The contract unit price bid in the Proposal will be payment in full for all labor, materials, and equipment necessary to do the following according to the Plans and Specifications.**" Payment shall be made on the basis of the actual quantity of the item completed and accepted at the unit price for such item named in the Proposal.

**BID ITEMS – BASE BID  
(ITEMS APPLY SEPARATELY TO EACH LOCATION SPECIFIED IN THE BID FORM)**

<u>ITEM IN PROPOSAL</u>	<u>METHOD OF MEASUREMENT</u>	<u>BASIS OF PAYMENT</u>
General Conditions, Insurance, Bonds Mobilization	By the unit lump sum (LS)	The complete cost of insurance, bonds, permits and mobilization for the project and other requirements of General Conditions. Includes offices, stores, conveniences, and other temporary facilities, soil erosion and site preparation, and whatever means the CONTRACTOR deems necessary for accessing the work, organizing the project, coordination with OWNER, ENGINEER, third parties and sub-contractors, obtaining all permits, permit inspection fees, permit requirements, Shop Drawings, paperwork, bringing equipment to the site as required, management of job, and all related work. Any costs assumed to be above and beyond the value of this pay item shall be incidental to other pay items in the Contract. The maximum amount of this item shall be 5% of the total for each dam.
Metal Repairs, Modifications and Painting	By the unit lump sum (LS)	Disassemble, remove, refurbish, modify, provide new, paint, testing, and reinstall steel fabrications and components including: gear housings; chain guards; bearing blocks; base-plates; gate limit stops; trunnion pin covers; steel barriers; side-seal cover plates and all other items shown on the Drawings. Includes requirements of lead based paint removal, containment of blast media, and all related work.
Relocate Barrier Fence Panels	By the lineal foot (LF)	Remove and re-install fence panels on existing steel barrier. Includes minor repairs of panel units and all related work.
Miscellaneous Concrete Repairs	By the unit lump sum (LS)	Concrete repairs, including repair of deck and walls as called out; concreting or grouting voids under sidewalks and stairways and all related work.

ARGO DAM AND GEDDES DAM: COATING AND MISCELLANEOUS REPAIRS

<u>ITEM IN PROPOSAL</u>	<u>METHOD OF MEASUREMENT</u>	<u>BASIS OF PAYMENT</u>
Riprap – MDOT Heavy	By the unit cubic yard (CY)	Delivery and placement, including load tickets and ENGINEER's field verification of quantity in place.
Site Improvements	By the unit lump sum (LS)	Paint control building doors, reseal control building roof, and all related work; for Argo Dam: construct pathway, jetty and log barrier and all related work.
Demobilization and Final Restoration	By the unit lump sum (LS)	Removal of equipment from the site, restoration, and return of all OWNER facilities to full use. Establishment of restoration.
Inspection Access	By the unit lump sum (LS)	Provide access for the OWNER and ENGINEER to inspect both sides of four (4) tainter gates at Geddes Dam. Includes scaffolding, ladders, boat access, or other means of access for inspection and all related work.
23A Gravel Driveway CIP	By the unit ton (TN)	Delivery and placement, including load tickets and ENGINEER's field verification of quantity in place.
Allowance – Misc. Repairs	By the unit lump sum allowance (LS)	Allowance is to be used for repairs as determined necessary by the OWNER. This excludes work called out under other Bid Items.

**BID ITEM – ALTERNATE**

Tainter Gate Repairs	By the unit lump (LS)	Disassemble, remove, refurbish, modify, provide new, paint, testing, and reinstall steel fabrications and components including: tainter gate support structure and all other items shown on the Drawings. Includes requirements of lead based paint removal, containment of blast media, and all related work.
----------------------	-----------------------	--

END OF SECTION

ARGO DAM AND GEDDES DAM: COATING AND MISCELLANEOUS REPAIRS

## **SECTION 01210**

### **ALLOWANCES**

#### **PART 1 - GENERAL**

##### **1.1 SECTION INCLUDES**

- A. Cash Allowances

##### **1.2 DEFINITIONS**

- A. Cash Allowance: A monetary sum that includes, as part of the contract price, the associated costs and requirements to complete the specified allowance.

##### **1.3 SUBMITTALS**

- A. Submit detailed invoices to indicate the work performed or delivery slips to indicate actual quantities of materials delivered to the site for use in fulfillment of each allowance.

##### **1.4 OWNER'S INSTRUCTIONS**

- A. At the earliest feasible date after contract award the Contractor shall notify all utility companies and begin coordination efforts in order to avoid delay in performance of the work.
- B. Use allowances only as directed for Owner's purposes, and only by Change Orders which designate amounts to be charged to the allowance.
- C. If the actual price for the specified allowance is more or less than the stated allowance, the contract price shall be adjusted accordingly by Change Order. The adjustment in contract price shall be made in accordance with the General Conditions.
- D. At project closeout, any amounts remaining in allowances will be credited to Owner by Change Order.

#### **PART 2 - PRODUCTS**

NOT USED

#### **PART 3 - EXECUTION**

##### **3.1 PREPARATION**

- A. Coordinate materials and their installation for each allowance with related materials and installations to ensure that each allowance item is completely integrated and interfaced with related construction activities.

##### **3.2 CASH ALLOWANCE FOR MISCELLANEOUS REPAIRS**

- A. A cash allowance of \$25,000 shall be included in the contract price for miscellaneous repairs as directed by the City. All administrative work and coordination between the Contractor and City shall be considered incidental to the Contract.

END OF SECTION

## SECTION 01330

### SUMITTAL PROCEDURES

#### **PART 1 - GENERAL**

##### **1.1 SECTION INCLUDES**

- A. Submittal Procedures
- B. Certifications
- C. Shop Drawings
- D. Product Data
- E. Samples
- F. Manufacturers' Instructions
- G. Manufacturers' Field Reports
- H. Construction Schedule
- I. Submittal Schedule

##### **1.2 SUBMITTAL PROCEDURES**

- A. Package each submittal appropriately for shipping and handling. This shall include an index either on the transmittal or within the submittal itself. Transmit each submittal from CONTRACTOR to ENGINEER using a transmittal form. Submittals received from sources other than CONTRACTOR will be returned without action. Use separate transmittals for items from different specification sections. Number each submittal consecutively. Resubmittals should have the same number as the original, plus a letter designation for each Resubmittal (i.e. 7-A, 7-B, etc.)
- B. Indicate on the transmittal relevant information and requests for data. On the form, or separate sheet, record deviations from Contract Document requirements, including minor variations and limitations. Include CONTRACTOR's certification that information complies with Contract Document requirements. On Resubmittal, all changes shall be clearly identified for ease of review. Resubmittals shall be reviewed for the clearly identified changes only. Any changes not clearly identified will not be reviewed and original submittal shall govern.
- C. Include the following information on the label for processing and recording action taken.
  - 1. Project name.
  - 2. Date.
  - 3. Name and address of ENGINEER.
  - 4. Name and address of CONTRACTOR.

5. Name and address of subcontractor.
  6. Name and address of supplier.
  7. Name of manufacturer.
  8. Number and title of appropriate specification sections.
  9. Drawing number and detail references, as appropriate.
- D. Schedule submittals to expedite the Project, and deliver to ENGINEER at business address. Coordinate submission of related items. Coordinate related activities that require sequential activity.
  - E. Submit a schedule of shop drawing submittals.
  - F. Review and approve shop drawings, project data, and samples before submitting them.
  - G. Verify field measurements, field construction criteria, catalog numbers, and similar data. Indicate on the submission exactly what was verified.
  - H. Any markings done by CONTRACTOR shall be done in a color other than red. Red is reserved for ENGINEER's marking.
  - I. The number of copies to be submitted will be determined at the pre-construction conference. Reproducible may be submitted and will be marked and returned to CONTRACTOR. Blue or black line prints shall be submitted in sufficient quantity for distribution to ENGINEER and OWNER recipients.
  - J. Coordinate each submittal with the requirements of the Contract Documents.
  - K. Provide space for CONTRACTOR and ENGINEER review stamps.
  - L. Apply CONTRACTOR's stamp, signed or initialed certifying that review, approval, verification of products required, field dimensions, adjacent construction Work, and coordination of information, is in accordance with the requirements of the Work and Contract Documents.
  - M. Submit the number of copies that the CONTRACTOR requires, plus four copies that will be retained by the OWNER and ENGINEER.
  - N. Identify variations from Contract Documents and Product or system limitations that may be detrimental to successful performance of the completed Work.
  - O. No claim will be allowed for damages or extension of time because of delays in the work resulting from rejection of material or from revision and resubmittal of shop drawings, project data, or samples.
  - P. No extension of contract time will be authorized because of failure to transmit submittals to ENGINEER sufficiently in advance of the work to permit processing.
  - Q. ENGINEER reserves the right to withhold action on a submittal required coordination with other submittals until related submittals are received.



- R. Do not install materials or equipment which requires submittals until the submittals are returned with ENGINEER's/OWNER's stamp and initials or signature indicating approval. The OWNER shall have final approval authority.
- S. CONTRACTOR's responsibility of errors, omissions, and deviations from requirements of Contract Documents in submittals is not relieved by the ENGINEER's review.
- T. Distribute copies of reviewed submittals to concerned parties. Instruct parties to promptly report any inability to comply with requirements.
- U. Do not use Shop Drawings without an appropriate final stamp indicating action taken in connection with construction.
- V. Submittals not requested in conformance with this Specification will not be recognized or processed.
- W. Revise and resubmit as required, identify all changes made since the previous submittal.
- X. In the event that more than two re-submittals of any submittal is necessary to achieve conformance to the contract requirements, CONTRACTOR shall be charged for excess engineering. The OWNER shall deduct these charges from the CONTRACTOR's final payment. Charges will be \$115.00/hr. minimum 4 hours, for each additional submittal of an item. A tabulated record of such charges will be provided for the CONTRACTOR's review prior to the processing of the final payment.
- Y. Submit new project data and samples when the initial submittal is returned disapproved.

### **1.3 CERTIFICATIONS**

- A. When specified in individual specification sections, submit certification by the manufacturer, installation/application subcontractor, or the CONTRACTOR to ENGINEER, in quantities specified for Product Data.
- B. Indicate that the material or Product conforms to or exceeds specified requirements. Submit supporting reference data, affidavits, and certifications as appropriate.
- C. Certifications may be recent or previous test results of the material or product, but must be acceptable to ENGINEER.

### **1.4 SHOP DRAWINGS**

- A. Shop Drawings: Submit to ENGINEER for review for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents. Produce copies and distribute in accordance with Paragraph 1.2 - Submittal Procedures.
- B. Submit newly prepared information, drawn to accurate scale. Highlight, encircle, or otherwise indicate deviations from the Contract Documents. Do not reproduce Contract Documents or copy standard information as the basis of shop drawings. Standard information prepared without specific reference to the project is not considered shop drawings.
- C. Shop drawings include fabrication and installation drawings, setting diagrams, schedules, patterns, templates, and similar drawings. Include the following information:

1. Dimension.
  2. Identification of products and materials included.
  3. Compliance with specified standards.
  4. Notation of coordination requirements.
  5. Notation of dimensions established by field measurements.
- D. Nameplate data for equipment including electric motors shall be included on shop drawings. Electric motor data shall state the manufacturer, horsepower, service factor, voltage, enclosure type, oversize wiring box, etc.
- E. Shop drawings shall indicate shop painting requirements to include type of paint and manufacturer.
- F. Standard manufactured items in the form of catalog work sheets showing illustrated cuts of the items to be furnished, scale details, sizes, dimensions, quantity, and all other pertinent information should be submitted and approved in a similar manner.
- G. Measurements given on shop drawings or standard catalog sheets, as established from contract drawings and as approved by ENGINEER, shall be followed. When it is necessary to verify field measurements, they shall be checked and established by CONTRACTOR. The field measurements so established shall be followed by CONTRACTOR and by all affected trades.
- H. Indicate special utility and electrical characteristics, utility connection requirements, and location of utility outlets for service for functional equipment and appliances.

## **1.5 PRODUCT DATA**

- A. Product Data: Submit to ENGINEER for review for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents. Produce copies and distribute in accordance with Paragraph 1.2 - Submittal Procedures.
- B. Mark each copy to identify applicable products, models, options, and other data. Supplement manufacturers' standard data to provide information specific to this Project.
- C. Indicate product utility and electrical characteristics, utility connection requirements, and location of utility outlets for service for functional equipment and appliances.

## **1.6 SAMPLES**

- A. Submit full-size, fully fabricated samples cured and finished as specified and physically identical with the material or product proposed. Samples include partial sections of manufactured or fabricated components, cuts or containers or materials, color range sets, and swatches showing color, texture, and pattern.
- B. Mount, display, or package samples in the manner specified to facilitate review of qualities indicated. Prepare samples to match ENGINEER's sample. Include the following:

1. Generic description of the sample.
  2. Sample source.
  3. Product name or name of manufacturer.
  4. Compliance with recognized standards.
  5. Availability and delivery time.
- C. Submit samples for review of kind, color, pattern, and texture, for a final check of these characteristics with other elements, and for a comparison of these characteristics between the final submittal and the actual component as delivered and installed.
- D. Refer to other specifications sections for requirements for samples that illustrate workmanship, fabrication techniques, details of assembly, connections, operation, and similar construction characteristics.
- E. Preliminary Submittals: Where samples are for selection of color, pattern, texture, or similar characteristics from a range of standard choices, submit a full set of choices for the material or product.
1. Preliminary Submittals will be reviewed and returned with ENGINEER's mark indicating selection and other action.
- F. Except for samples illustrating assembly details, workmanship, fabrication techniques, connections, operation and similar characteristics, submit 3 sets; one will be returned marked with the action taken.
- G. Maintain sets of samples, as returned, at the site, for quality comparisons throughout the course of construction.
- H. Unless noncompliance with Contract Document provisions is observed the submittal may serve as the final submittal.
- I. Sample sets may be used to obtain final acceptance of the construction associated with each set.

## **1.7 MANUFACTURER'S INSTRUCTIONS**

- A. When specified in individual specification sections, submit printed instructions for delivery, storage, assembly, installation, start-up, adjusting, and finishing, to ENGINEER for delivery to OWNER in quantities specified for Product Data.
- B. Indicate special procedures, perimeter conditions requiring special attention, and special environmental criteria required for application or installation.

## **1.8 MANUFACTURER'S FIELD REPORTS**

- A. Submit reports for the OWNER.
- B. Submit report in duplicate, within 7 days of observation, to ENGINEER and OWNER for Information.

- C. Submit for information for the limited purpose of assessing conformance with information given and the design concept expressed in the Contract Documents.

## **1.9 CONSTRUCTION SCHEDULE**

### **A. Bar Chart Schedule:**

1. Prepare a fully developed, horizontal bar chart type construction schedule. Schedule shall be prepared electronically in Microsoft Project with critical path and links shown. Submit color copies of the schedule within 30 days of the date established for commencement of the work.
2. Provide a separate item bar for each significant construction activity. Provide a continuous vertical line to identify the first working day of each week. Use the same breakdown of units of the work as indicated on schedule of values.
3. Prepare schedule of sheet, or series of sheets, of stable transparency, or other reproducible media, of sufficient width to show data for entire construction period.
4. Secure time commitments for performing critical elements of the work from parties involved. Coordinate each element on schedule with other construction activities; include minor elements involved in the sequence of the work. Show each activity in proper sequence. Indicate graphically sequences necessary for completion of related portions of the work.
5. Coordinate construction schedule with schedule of values, list of subcontracts, submittal schedule, progress reports, payment requests, and other schedules.
6. Indicate completion in advance of the date established for substantial completion. Indicate substantial completion of schedule to allow time for ENGINEER's procedures necessary for certification of substantial completion

- B. Schedule Updating: Provide an updated construction schedule at each progress meeting. Color copies of the updated schedule shall be prepared for all attendees.

## **1.10 SUBMITTAL SCHEDULE**

- A. After development and acceptance of the construction schedule, prepare a complete schedule of submittals. Submit schedule within 10 days of the date required for establishment of construction schedule.
- B. Coordinate submittal schedule with the list of subcontracts, schedule of values, and the list of products as well as construction schedule.
- C. Prepare schedule in chronological order; include submittals required during the first 90 days. Provide the following information:
  1. Scheduled date for the first submittal.
  2. Related section number.
  3. Submittal category.
  4. Name of subcontractor.

5. Description of the part of the work covered.
  6. Scheduled date for Resubmittal.
  7. Scheduled date ENGINEER's final release or approval.
- D. The submittal schedule shall reflect critical path shop drawings that must be expedited.
  - E. Following response to initial submittal, print and distribute copies to ENGINEER, OWNER, subcontractors, and other parties required to comply with submittal dates indicated. Post copies in the project meeting room and field office.
  - F. When revisions are made, distribute to the same parties and post in the same locations. Delete parties from distribution when they have completed their assigned portion of the work and are no longer involved in construction activities.
  - G. Schedule Updating: Provide an updated submittal schedule at each progress meeting.

## **PART 2 - PRODUCTS**

NOT USED

## **PART 3 - EXECUTION**

### **3.1 ENGINEER'S ACTION**

- A. Except for submittals for record, information or similar purposes, where action and return is required or requested, ENGINEER will review each submittal, mark to indicate action taken, and return promptly.
  1. Compliance with specified characteristics is CONTRACTOR's responsibility.
- B. Action Stamp: ENGINEER will stamp each submittal with a uniform, self-explanatory action stamp. The stamp will be appropriately marked, as follows, to indicate the action taken:
  1. Final Unrestricted Release: Where submittals are marked "No Exceptions Taken" that part of the work covered by the submittal may proceed provided it complies with the requirements of the Contract Documents; final acceptance will depend upon the compliance.
  2. Final-But-Restricted Release: When submittals are marked "Make Corrections Noted" that part of the work covered by the submittal may proceed, provided it complies with notation or correction on the submittal and requirements of the Contract Documents; final acceptance will depend on that compliance.
  3. Returned for Resubmittal: When submittal is marked "Rejected" or "Revise and Resubmit" do not proceed with the part of the work covered by the submittal, including purchasing, fabrication, delivery, or other activity. Revise or prepare a new submittal in accordance with the notations; resubmit without delay. Repeat if necessary to obtain a different action mark.

- a. Do not permit submittals marked "Rejected" or "Revise and Resubmit" to be used at site, or elsewhere where work is in progress.
4. Additional Information Needed: When submittal is marked "Submit Specified Item" CONTRACTOR shall submit requested information.
5. Other Action: Where a submittal is primarily for information or record purposes, special processing or other activity, the submittal will be returned, marked "Acknowledge Receipt".
6. The approval of ENGINEER shall not relieve CONTRACTOR of responsibility for errors on drawings or submittals as ENGINEER's checking is intended to cover compliance with drawings and specifications and not enter into every detail of the shop work.

END OF SECTION

## SECTION 01370

### LEAD BASED PAINT REMOVAL

#### **PART 1 - GENERAL**

##### **1.1 SCOPE OF WORK**

- A. The scope of work for this project covers the supplying of all labor, tools, materials, equipment, services and appurtenances to accomplish the work described below and shown on the Drawings. The work shall be performed to the complete satisfaction of the OWNER or the ENGINEER, in accordance with the current EPA and OSHA regulations, State Labor and Industry and Department of Environmental Resources regulations (if applicable) and any other applicable state and local government.
- B. Work under this project includes but is not limited to the following:
  - 1. Demolition and removal of lead-based paint materials. For the purposes of bidding, it shall be assumed that all materials are coated with lead-based paint
  - 2. The Contractor will be responsible for the abatement and demolition of any lead-based paint materials and any other painted surfaces in the locations identified above to the extent needed to properly remove and dispose of the items.
  - 3. The Contractor will be responsible for the abatement of any other lead-based paint that is disturbed as part of any demolition work or new work included in this project.
  - 4. The Contractor will be responsible for the removal, storage, transportation, and disposal of all lead-based paint and hazardous materials generated by this work.
  - 5. Existing paint has been determined to contain lead. Available lead testing results are provided in **Appendix A**.
  - 6. Coordination of all lead-based paint abatement work with the OWNER and the CONTRACTOR.

##### **1.2 CONTROL OF WORK**

- A. All work which does not conform to the requirements of this Section will be considered unacceptable.
- B. Unacceptable work, whether the result of poor workmanship, use of defective materials, damage through carelessness, or any other cause found to exist prior to the final acceptance of the work, shall be removed immediately and replaced in an acceptable manner.
- C. If the Owner or Engineer finds the materials furnished or the work performed has resulted in an unacceptable finished product the affected work or material shall be removed and replaced or otherwise corrected by and at the expense of the Contractor.

##### **1.3 STIPULATIONS**

- A. For bidding and project execution purposes, it shall be assumed that all existing surfaces are coated with lead based paint (LBP).

- B. The procedures specified in this section are guidelines for minimum performance. The CONTRACTOR is responsible for his own methods of operations and conformance to regulatory codes, rules and guidelines. The CONTRACTOR is required to obtain all permits, licenses and approvals (if required) to perform the work, including any rights to use patented systems.

#### 1.4 QUALITY ASSURANCE

##### A. Compliance with Standards and Regulations

1. The Contractor is solely responsible for compliance with all Federal, State, and Local laws and regulations and all Industry Standard practices associated with the abatement, demolition, storage, transport, and disposal of Hazardous Wastes, as well as all general conditions, special conditions, and all other sections within the contract document.
2. Contractor shall demonstrate to the satisfaction of the Owner or Engineer that the project was completed in accordance with this Section and any applicable EPA and MDEQ standards and regulations.

##### B. Worker Requirements

1. The Contractor shall furnish proof that each employee has had previous instruction on the hazards of lead exposure, on use and fitting of respirators, on protective dress, on use of decontamination procedures, on entry and exit from work areas, and on all aspects of work procedures and protective measures and all other requirements.
2. Submit verification, signed by an occupational health physician, that each employee has been recently examined as required by OSHA regulations. Medical examination will be required prior to entering the work area.
3. Submit names and training certificates of the superintendent and foreman who will be performing work related to this project.
4. Provide verification that the Contractor has provided the following information to the examining physician:
  - a. A copy of OSHA Standard (29 CFR 1910.1025)
  - b. A description of the affected employee's duties as they relate to the employee's exposure.
  - c. The employee's current or anticipated exposure level.
  - d. A description of any personal protective and respiratory equipment to be used.
  - e. Prior lead determination and information from previous medical examinations of the affected employee that is not otherwise available to the examining physician.



## **1.5 PLACEMENT OF WARNING SIGNS**

- A. Post warning signs in and around the work area. Locate signs at such a distance that personnel may read the sign and take necessary protective steps required before entering the work area.
- B. Inform other employers on-site of the nature of the Contractor's work and requirements pertaining to regulated areas in order to comply with OSHA regulation 29 CFR 1910.120. Such notification shall be coordinated with, and approved by the Owner.

## **PART 2 - PRODUCTS**

NOT USED

## **PART 3 - EXECUTION**

### **3.1 LEAD ABATEMENT**

- A. All demolition and abatement work to be coordinated with OWNER so as not to disrupt operation of the dams or run of river flow.
- B. The Contractor shall protect all process equipment from lead dust during abatement.
- C. The Contractor shall be responsible for the removal, storage, transportation, and dispose of all lead based paint materials.

### **3.2 REMOVAL**

- A. Removal work shall not commence until:
  - 1. Work has been coordinated with the Owner.
  - 2. Arrangements have been made for disposal of waste at an acceptable site.
  - 3. Work areas and parts of the building required to remain in use are effectively segregated.
  - 4. Tools, equipment, and material waste receptors are on hand.
  - 5. Arrangements have been made for building security.
  - 6. All preparatory steps have been taken and applicable notices posted and permits obtained (if required).

### **3.3 DAMAGES**

- A. The Contractor shall protect adjacent areas from contamination.

### **3.4 DAILY CLEANUP**

- A. A thorough cleanup of the entire area under active abatement shall occur daily during the entire abatement process

### **3.5 STORAGE OF LIQUID AND SOLID WASTE**

- A. The Contractor must make provisions for the safe storage of waste on-site prior to disposal. For safety reasons, waste storage areas must be treated as abatement areas and access restricted.

### **3.6 CONTROLLING OFFSITE DISPERSAL**

- A. Basic control measures to minimize the dispersal of lead dust and debris from the work area are:
  - 1. Control and limit access to the abatement work areas.
  - 2. Limit tracking of dust and debris.
  - 3. Implement a program of ongoing cleanup.

### **3.7 CLEANUP AND CLEARANCE TESTING**

- A. The Contractor shall perform air, wipe, water, and/or Toxicity Characteristics Leaching Procedure (TCLP) sample collection during the abatement under the supervision of the Owner or the Engineer.
- B. Final cleanup shall proceed as follows:
  - 1. The entire abatement area shall be washed down with a Tri-Sodium Phosphate (TSP) solution. To avoid recontaminating the cleaned area, this solution should be changed according to the manufacturer's recommendations. The dirty water from this operation is considered hazardous and shall be disposed of in watertight containers as required by Paragraph 2.09 below.
- C. After this phase of the final cleanup is complete, a visual inspection will be performed by the Owner or the Engineer to ensure that all visible dust and debris have been removed from the work surfaces and the work area. Any unsatisfactory results will cause the Contractor to re-clean the affected surfaces until the inspector is satisfied with the results.
- D. Clearance testing may now take place by taking wipe samples of the abated area. The clearance criterion is 200 micrograms per square foot. Clearance testing is the responsibility of the Contractor.
- E. Any areas which do not meet these criteria shall be re-cleaned and retested until the standards are met.

### **3.8 DISPOSAL OF LEAD WASTE**

- A. The lead paint chips, all wastewater from cleaning operations, all plastic used for containment, and all rags, cloths or sponges used for cleaning shall be disposed of as hazardous waste. These materials shall be removed in sealed, labeled containers at an authorized disposal site in accordance with all applicable hazardous waste regulations.
- B. The waste materials shall be handled as potentially hazardous waste in accordance with applicable sections of the Natural Resources and Environmental Protection Act, 1994 PA 451. No separate payment for disposal shall be made and the cost of this work is to be included in the work. The Contractor shall furnish to the Owner a certificate of disposal of

this material at an appropriate disposal facility, issued by the office of the receiving disposal facility.

- C. A waste manifest shall be forwarded to the Owner after the disposal.

END OF SECTION

## SECTION 01770

### CLOSEOUT PROCEDURES

#### **PART 1 - GENERAL**

##### **1.1 SECTION INCLUDES**

- A. Substantial Completion
- B. Final Inspection
- C. Request for Final Payment

##### **1.2 SUBSTANTIAL COMPLETION**

- A. Substantial completion shall be the date as certified by the ENGINEER when the construction of the Project, or a specified part thereof, is sufficiently completed, in accordance with the Contract Documents, so that the Project, or specified part, can be fully utilized for the purposes for which it was intended.
- B. Before requesting inspection for Certification of Substantial Completion, complete the following. List exceptions in the request.
  - 1. In the Application for Payment that coincides with, or first follows, the date Substantial Completion is claimed, show 100 percent completion for the portion of the work claimed as substantially complete. Include supporting documents for completion as indicated in these Contract Documents and a statement showing an accounting of changes to the contract price.
  - 2. If 100 percent completion cannot be shown, include a list of incomplete items, the value of incomplete construction, and reasons the work is not complete.
  - 3. Advise OWNER of pending insurance changeover requirements.
  - 4. Submit specific warranties, workmanship bonds, maintenance agreements, final certifications, and similar documents.
  - 5. Obtain and submit releases enabling OWNER unrestricted use of the work and access to services and utilities; include occupancy permits, operating certificate, and similar releases.
  - 6. Complete final cleanup requirements, including touch-up painting. Touch-up and otherwise repair and restore marred exposed finishes.
  - 7. Provide all required demonstration and training sessions.
- C. Inspection Procedures: On receipt of a request for inspection, ENGINEER will either proceed with inspection or advise CONTRACTOR of unfilled requirements.
  - 1. ENGINEER will prepare the Certificate of Substantial Completion following inspection, or advise CONTRACTOR of construction that must be completed or corrected before the certificate will be issued.

2. ENGINEER will repeat inspection when requested and assured that the work has been substantially completed.
3. Results of completed inspection will be for the basis of requirements for final acceptance.
4. Date of Substantial Completion will begin the warranty period unless noted otherwise.

### 1.3 FINAL ACCEPTANCE

- A. Before requesting final inspection for certification of final acceptance and final payment, complete the following. List exceptions in the request.
1. Submit the final payment request with releases and supporting documentation not previously submitted and accepted. Include certificates of insurance for products and completed operations where required.
  2. Submit an updated final statement, accounting for final additional changes to the contract price.
  3. Submit a copy of ENGINEER's final inspection list of items to be completed or corrected, stating that each item has been completed or otherwise resolved for acceptance. The list shall be endorsed and dated by the ENGINEER.
  4. Submit final meter readings for utilities, a measured record of stored fuel, and similar data as of date of Substantial Completion, or when OWNER took possession of and responsibility for corresponding elements of the work.
  5. Submit consent of surety to final payment.
  6. Submit a final liquidated damages settlement statement.
  7. Submit evidence of final, continuing insurance coverage complying with insurance requirements.
  8. Submit record drawings, maintenance manuals, damage or settlement survey, property survey, and similar final record information.
  9. Deliver tools, spare parts, extra stock, and similar items.
  10. Make final changeover of permanent locks and transmit keys to OWNER. Advise OWNER's personnel of changeover in security provisions.
  11. Complete commissioning and training of OWNER's personnel.
  12. Discontinue or change over and remove temporary facilities from the site, along with construction tools, mock-ups, and similar elements.
- B. Reinspection Procedure: ENGINEER will inspect the work upon receipt of notice that work, including inspection list items from earlier inspections, has been completed, except items whose completion has been delayed because of circumstances acceptable to the ENGINEER.

1. Upon completion of reinspection, ENGINEER will prepare a certificate of final acceptance, or advise CONTRACTOR of work that is incomplete or of obligations that have not been fulfilled but are required for final acceptance. If necessary, reinspection will be repeated.

#### **1.4 REQUEST FOR FINAL PAYMENT**

- A. Submit request for final payment in accordance with the Agreement and General Conditions.
- B. Request for final payment shall include:
  1. Documents required in the General Conditions, as may be modified by the Supplementary Conditions.
  2. Releases or Waivers of Lien Rights:
    - a. When submitting releases or waivers of Lien rights, provide release or waiver by CONTRACTOR and each Subcontractor and Supplier that provided CONTRACTOR with labor, material, or equipment.
    - b. Provide list of Subcontractors and Suppliers for which release or waiver of Lien is required.
    - c. Each release or waiver of Lien shall be signed by an authorized representative of entity submitting release or waiver to CONTRACTOR, and shall include Subcontractor's or Supplier's corporate seal if applicable.
    - d. Release or waiver of Lien may be conditional upon receipt of final payment.
  4. Consent of Surety.
  5. Documentation that all punch list items are complete.
  6. Warranties.
  7. Operation and Maintenance Manuals.
  8. Record Drawings being maintained by the CONTRACTOR.

#### **PART 2 - PRODUCTS**

NOT USED

#### **PART 3 - EXECUTION**

NOT USED

END OF SECTION

## SECTION 02010

### SITE GENERAL PROVISIONS

#### **1.00 GENERAL**

#### **1.01 DESCRIPTION**

- A. The CONTRACTOR shall furnish all labor, materials, tools and equipment necessary to provide access to and perform coating and miscellaneous repairs of Argo Dam and Geddes Dam.

#### **1.02 PROTECTION OF TREES**

- A. Trees designated for protection shall be surrounded by protective fence placed along the drip line.
- B. All other trees that might be subject to damage by the CONTRACTOR's operations shall be fenced off as required. If protective fencing cannot be installed at the drip line, trees shall be protected against damage to the bark by 2-inch thick vertical planking securely wired or tied completely around the tree trunk. Such protection shall not be removed until authorized by the OWNER.

#### **1.03 SECURITY**

- A. CONTRACTOR shall provide written documentation of his safety plan for the work.
- B. All work shall be performed in accordance with MIOSHA.
- C. The site is accessible to the public; therefore additional precautions shall be taken for securing work areas, stores and equipment.
- D. The OWNER's security requirements shall be met at both locations.
- E. Existing access gates and chains shall remain locked at all times. The CONTRACTOR shall daisy chain all closures so that the OWNER can access as required.
- F. All security precautions and measures shall be the responsibility of the CONTRACTOR.
- G. The OWNER in concert with the CONTRACTOR shall be responsible for the lock out of the radial gates at both dams. CONTRACTOR shall provide a minimum seven days advanced notice to the OWNER.
- H. Provide proper signage and barricades at both ends of the Argo pedestrian bridge notifying the public of temporary closures and construction activities. Additional signage shall be provided at Bandemere Park and at the Argo Canoe Livery/Park notifying of the closure. The bridge shall be closed only as necessary and reopened at the end of each work day.
- I. Provide safety fencing around material or equipment storage.

#### **1.04 CONSTRUCTION ACCESS**

- A. There is limited access for construction equipment and materials at both sites.

## Site General Provisions

1. Argo Dam is accessible from the Canoe Livery via the existing pedestrian walkway. The CONTRACTOR should verify clearance limits as the walkway passes under an existing train bridge and traverses a pedestrian bridge.
  2. Geddes Dam is accessible Old Dixboro Road, which traverses two bridges. Load limits of the bridges must be observed by the CONTRACTOR. The existing gravel parking lot is available for limited daily use, but shall not be a location for storage or facilities. The parking lot shall be cleared at the end of each work day.
  3. In general, both sites are adjacent to City parks and therefore are subject to frequent use by the public. The CONTRACTOR's staging areas must be clear of walkways and pathways.
- B. CONTRACTOR may elect to utilize a boat to access the downstream face of both dams. Downstream launch areas are limited.
- C. Typical and flood water elevations at both sites are indicated on the drawings. The water surface elevation of the downstream tailrace fluctuates seasonally and due to rain events. This information is being provided for consideration in developing means and methods to access the downstream face of the dam. The CONTRACTOR shall be prepared to accommodate the range of the tailwater. No guarantee is expressed or implied as to the water surface elevations.

### 1.05 WORK AREA AND STORAGE OF MATERIALS

- A. The working area shall be organized in an orderly manner with storage and tool sheds, sanitary facilities, parking areas for employees, and all other necessary facilities developed and maintained by the CONTRACTOR. The CONTRACTOR shall keep the work site and all access routes clean and dust free.
- B. CONTRACTOR shall not allow any trash, concrete or other construction debris to enter the river. Any materials that fall into the river shall be retrieved and removed by the CONTRACTOR.
- C. All materials, supplies and equipment, whether furnished by the CONTRACTOR or by the OWNER, shall be delivered, stored and handled as to prevent the inclusion of foreign materials and/or damage by water, freezing, breakage or other causes. Packaged materials shall be delivered in the original unopened containers and shall be stored until ready for use. All materials which have been stored shall meet the requirements of the Specifications at the time they are used in the project.

### 1.06 NOTIFICATION TO UTILITIES

- A. Prior to the start of any operations in the vicinity of any utilities, the CONTRACTOR shall notify the utility companies and request that they stake out the locations of the utilities in question.

### 1.07 EXISTING PUBLIC UTILITIES

- A. The CONTRACTOR shall conduct his operations so as not to damage any existing utility. The CONTRACTOR shall correct, at his own expense, any injury caused during the operations of his subcontractors or suppliers.



## **Site General Provisions**

### **1.08 SANITARY REQUIREMENTS**

- A. The CONTRACTOR shall provide adequate sanitary facilities for all persons employed on the project. The sanitary facilities shall conform in every way to the requirements of the "General Safety Rules and Regulations for the Construction Industry".
- B. The sanitary facility shall be securely fixed to the ground to prevent vandalism.
- C. The sanitary facility shall be locked by the CONTRACTOR during non-working hours.

### **1.09 WINTER CONSTRUCTION**

- A. The ENGINEER shall have permissive authority over the work which is proposed to be done during the winter months. The CONTRACTOR shall provide adequate weather protection, temporary heating and take any other measures which are necessary to insure that the work performed during the winter months is properly installed and protected against damage from freezing.

### **2.00 PRODUCTS**

Not Applicable

### **3.00 EXECUTION**

#### **3.01 CONTROL OF WATER POLLUTION AND SILTATION**

- A. General Requirements
  - 1. The CONTRACTOR shall conduct his work in a manner to comply with the Soil Erosion and Sedimentation Control Act of 1972, (MICH P.A. 347) that will not cause damaging siltation or pollution of the water in streams, rivers, lakes and reservoirs. All work of water pollution and siltation control is subject to inspection by the Michigan Department of Environmental Quality (MDEQ).
  - 2. Construction operations shall be conducted in such manner as to reduce erosion to the practicable minimum and prevent damaging siltation to streams or lakes. The area of erodible land exposed to the elements by operations shall be subject to approval of the OWNER and the duration of such exposure prior to final trimming and finishing of the areas shall be as short as practical.
  - 3. The CONTRACTOR shall conduct his work in such manner as to prevent the entry of fuels, oils, bituminous materials, chemicals, sewage or other harmful materials into streams, rivers, lakes or reservoirs.

#### **3.02 RESTORATION**

- A. All areas disturbed or damaged as a result of construction activities shall be repaired to original conditions or better.
- B. After work has been completed, the entire disturbed area at the site shall be graded to smooth, even surfaces matching the original surface.

## Site General Provisions

- C. All debris and larger stones and sticks and the like shall be removed and disposed of and the entire disturbed area made ready for the addition of top soil and seeding.
- D. After all construction has been completed, the CONTRACTOR shall spread 4 inches of approved top soil over all disturbed areas. The CONTRACTOR shall secure and deliver to the site whatever amount is required at his own expense.
- E. On slopes greater than 3:1 and all slopes on the embankment, CONTRACTOR shall utilize non-woven erosion control mats, fully anchored in place.
- F. The parking lot and gravel access drives shall be maintained free of dirt, silt and construction debris. At the completion of the project, the gravel areas shall be scarified, regraded and stone added as needed. Paved surfaces shall be cleaned weekly or at the OWNER'S request.

END OF SECTION

## **SECTION 02300**

### **EARTHWORK**

#### **PART 1 - GENERAL**

##### **1.1 SUMMARY**

- A. The CONTRACTOR shall perform all excavation and backfilling necessary to complete the work. This shall include the removal and disposal of unsuitable material, placement of suitable fill and backfill material, and the restoration and final grading for all earth surfaces.

##### **1.2 REFERENCES**

- A. MDOT - Michigan Department of Transportation 2012 Standard Specifications for Construction

##### **1.3 PROJECT REQUIREMENTS**

- A. Work within rights-of-way.
  - 1. Where the governmental bodies having jurisdiction of the streets or rights-of-way have specific specifications relating to the requirements for work within their jurisdiction, such requirements must be met as a minimum requirement, and if these Specifications impose further limitation on the work, they shall also be met as the required work standard.
  - 2. During all operations of the CONTRACTOR in the streets and roadways, the CONTRACTOR shall maintain barricades, lights, and warning signs as required by the agency having jurisdiction.

##### **1.4 QUALITY ASSURANCE**

- A. The CONTRACTOR shall provide certifications from all sources including sieve analysis and verification that the materials otherwise meet specifications.

#### **PART 2 - PRODUCTS**

##### **2.1 GRANULAR MATERIALS**

- A. Rip Rap shall conform to specifications for MDOT Heavy Rip Rap. Material shall be limestone.
- B. 23A gravel shall conform to MDOT specifications. Material shall be natural gravel.
- C. 21AA gravel shall conform to MDOT specifications. Material shall be crushed limestone.
- D. Limestone blocks shall be dense, sound and free from cracks, seams and other defects conducive to accelerated weathering. Blocks shall be delivered as mined from a quarry. Exposed surfaces shall be flat.
  - 1. Blocks shall have a bulk specific gravity (saturated surface dry basis) of not less than 2.5.

2. Absorption shall be not more than 2% by weight.
3. Bulk specific gravity and absorption shall be determined by ASTM C-127.
4. The OWNER reserves the right to refuse any block brought to the site that is not suitable and does not meet the above criteria and/or shows excessive weathering, cracking or deformation.
5. Stone shall match the existing stone at the Argo Cascades and shall be provided by Stoneco from their Ottawa lake, Michigan Quarry or equal.

### **PART 3 - EXECUTION**

#### **3.1 GRAVEL PAVING**

- A. Unacceptable materials such as rocks over 2" in diameter, organic materials and debris shall be removed from the surface before placing new gravel. Existing gravel shall be removed from the gutters.
- B. Granular fill shall be placed in successive layers not more than 6 inches in depth the full width of the cross section, each layer to be thoroughly compacted by means of vibratory compactors or by an approved pneumatic-tired roller or combination thereof, as required by the ENGINEER. Each layer shall be compacted to not less than 95% of the maximum unit density as determined at the optimum moisture content.
- C. The surface shall be smoothed, trimmed and compacted to the required line, grade and cross section. Drainage shall be toward existing gutters. It shall be thoroughly compacted by rolling with a roller of approved type weighing not less than 8 tons.
- D. No storage piles of aggregate shall be placed directly upon the finished subgrade. Should the subgrade become rutted or disturbed by the CONTRACTOR's operations, it shall be reshaped and re-compacted.

#### **3.1 PLACEMENT OF BOULDERS**

- A. Dragline buckets and skips shall not be used for placing boulders. The CONTRACTOR should anticipate that re-handling of individual stones, after initial placement, will be required to achieve required slopes, grades, elevation and position.
- B. Placement of all boulders shall be subject to approval by the ENGINEER before grouting.

#### **3.2 RESTORATION**

- A. The CONTRACTOR shall remove excess dirt and other construction material from the site of the work and leave the site in a condition equal to its original state.
- B. The final condition of the streets and roadways shall be subject to the approval of the governmental body having jurisdiction thereof, as well as review by the ENGINEER.
- C. Disturbed lawn areas shall be given 4" of clean topsoil and replanted with MDOT THM mix. The CONTRACTOR shall be responsible for watering seeded areas as necessary to fully establish the seed.

END OF SECTION

## **SECTION 03110**

### **CONCRETE WORK**

#### **1.00 GENERAL**

##### **1.01 DESCRIPTION**

- A. Concrete work shall include the furnishing of all labor, materials, formwork, reinforcing, tools and equipment required to construct, place and finish all monolithic concrete work for a complete and functioning installation in accordance with the Contract Documents, including the following items:
1. Concrete Fill
  2. Concrete deck repairs
  3. Reinforcing
  4. Joints and joint materials
  5. Concrete bases for machinery
  6. Installing all inserts, anchors and anchor bolts as shown and/or specified

##### **1.02 REFERENCE SPECIFICATIONS**

- A. The latest version of American Concrete Institute's Standard Specifications for Structural Concrete for Buildings (ACI 301) is hereby made part of this Section as amended below, unless otherwise noted on the Plans or specified herein. The CONTRACTOR shall familiarize himself with, and his work shall be guided by, the ACI 301 and the Supplemental Requirements listed below. All ASTM or ACI Standards and Recommended Practices as referenced in ACI 301 are also hereby made parts of these Specifications.

##### **1.03 QUALITY ASSURANCE**

- A. At least one person shall be present at all times during the execution of this work who shall be thoroughly trained and experienced in the handling and placing of the concrete work and who shall direct all work performed under this Section.
- B. Only thoroughly trained and experienced journeyman concrete finishers shall be used in finishing exposed concrete surfaces.

#### **2.00 PRODUCTS**

##### **2.01 MONOLITHIC CONCRETE**

- A. The requirements listed below are to be used in conjunction with ACI 301. Their numbering refers to the chapter and paragraph number of ACI 301 and intends to explain and/or modify the requirements therein:
- 2.1.2. Use Type I or Type III Portland Cement.
  - 3.2 All monolithic concrete shall conform to the Mix Design Schedule at the end of this section. Where referred to in other Sections of this Specification, the following definitions shall pertain:

Class A Concrete (Concrete Deck)

4,000 psi, 28-day strength  
Class B Concrete (Fill)  
3,000 psi, 28-day strength

- 3.4.1. Water-cement ratio shall not exceed 0.43 by weight.
- 3.6. Aggregates shall be ASTM C33 limestone, size 67 unless noted otherwise in the Mix Design Schedule.
- 3.7.1. Calcium chloride or admixtures containing calcium chloride shall not be used.
- 3.8.1.2. Cement content shall not be less than 564 lbs per cubic yard of concrete.
- 4.1.3. Earth cuts as forms for vertical surfaces shall be permitted when neat and clean for footings and foundations, subject to ENGINEER's review.
- 4.2.4. Chamfer strips shall be required in the corners of concrete forms to produce beveled edges on permanently exposed surfaces. Chamfers shall be 3/4-inch x 3/4-inch unless otherwise noted on the Plans.
- 4.3.1. The tolerance limits as specified in Table 4.3.1. of ACI 301 shall apply.
- 4.5.5. Forms and shoring which support the weight of concrete in beams and slabs shall not be removed until the concrete has reached a minimum strength of 3,000 psi.
- 5.1.1. Reinforcing shop drawings shall be one reproducible (mylar or sepia) copy and one print.
- 5.2.1. All reinforcement shall be ASTM A615 Grade 60, epoxy coated.  
  
Plain bars are not permitted.
- 6.1.1. Construction joints shall be located as described in ACI 301-89. In general, slab and wall pours shall not exceed 1,200 sq ft surface area in one concrete placement between construction joints. The longer edge shall not be greater than twice the shorter edge for any one concrete pour between construction joints.
- 6.1.4. Bond through construction joints shall generally be obtained by method outlined in 6.1.4.1. or 6.1.4.3. of ACI 301, unless otherwise noted on the Plans.
- 6.2.2. Use bituminous type of expansion joint filler at intersections of walls and slabs on grade except where noted otherwise on the Plans.  
  
Use a non-extruding and resilient bituminous type of expansion joint filler in slabs on grade, where slab to slab is joined.
- 8.6. Concreting under water will not be permitted except when so reviewed by the ENGINEER.

9.3. Tie holes shall be thoroughly filled with non-shrink patching mortar. The layout of tie holes and exterior finish of the tie holes on surfaces permanently exposed to view on the outside shall be submitted to the ENGINEER for review.

10.2.2. Smooth form finish, as described in paragraph 10.2.2. of ACI 301 shall be used on all surfaces exposed to view.

## 2.02 GROUT

- A. Grout for limestone blocks shall be a mixture of portland cement, sand and gravel, mixed with water to a thick consistency. Minimal water should be used to prevent excess shrinkage after placement. Maximum water cement ratio = 0.45.
- B. Aggregate shall be 70% 2NS sand and 30% 3/8-inch limestone. Maximum aggregate size shall be 3/8-inch.
- C. Cement shall be Type IIIA.

## 3.00 EXECUTION

### 3.01 SURFACE CONDITIONS

- A. Inspection
  - 1. Before starting the work of this Section, the installed work of all other trades shall be inspected and verified complete to the point that concrete work may properly begin.
  - 2. Verify that all items to be embedded in concrete are in place.
  - 3. Verify that concrete may be placed to the lines and elevations indicated on the Plans with all required clearances from reinforcement.
- B. Discrepancies
  - 1. In the event of any discrepancy between Plans and Specification requirements, and actual field conditions, the ENGINEER shall be immediately notified before beginning work.
  - 2. In areas of discrepancy, concrete work shall not proceed until all such discrepancies are fully and correctly resolved.

### 3.02 PREPARATION

- A. General
  - 1. All construction scrap and debris shall be removed from the areas in which concrete will be placed.
  - 2. Areas in which concrete will be placed shall be thoroughly cleaned to ensure the proper placement and bonding of concrete.

3. All concrete handling and transporting equipment shall be clean and free of dirt or other deleterious materials which would affect the quality of concrete work.

B. Notification

1. The ENGINEER shall be notified of the placing of concrete at least 48 hours in advance of such work.

### 3.03 PERFORMANCE OF WORK

- A. All concrete work in this Section shall be performed in full accordance with the previously stated requirements of this Section.

### 3.04 CLEANING UP

- A. At the completion of the concrete work required in this Section to the satisfaction of and review by the ENGINEER, all extraneous concrete debris, materials and equipment shall be removed from the job site.

### MIX DESIGN SCHEDULE

Concrete Class	A
Locations	All concrete repairs
28-day compressive strength	4,000
Cement Content (# per CY of concrete)	564 (6 sack)
Coarse Aggregate	3/8" Limestone
Water/Cement Ratio by weight (max.)	0.43
Air Content (% by volume)	6.0 +/- 1.0
Slump at point of placement (inches)	2" to 6" (will vary based on location)
Fiber reinforcement	Yes
Fly Ash (% by volume of Type I or Type III cement,max.)	20
Silica Fume	No

END OF SECTION



**SECTION 03800**

**CONCRETE JACKING**

**1.00 GENERAL**

**1.01 DESCRIPTION**

- A. These specifications cover the furnishing, boring, drilling, pumping cementous grout slurry and appurtenances for raising existing concrete slabs to their original lines and grade, of filling voids between the bottom of the existing slab and the subgrade.
- B. The work described in each item includes the furnishing of all materials, equipment, supplies, tools, the performance of all labor and services, and all incidentals necessary to complete the slab jacking and/or void filling under the concrete slab in a neat, substantial and workman-like manner.

**1.02 SLAB RAISING**

A. Materials

- 1. Cement Slurry Mixture: The slurry mixture used for jacking concrete slabs shall be composed of lime, sand, ground clay, Portland Cement (Type 1A conforming to ASTM C150) and fly ash in the following proportions by volume:

Lime / Fly Ash Mixture passing #50 sieve 100%:	27%
Sand passing #4 sieve 100%:	15%
Ground Clay passing #4 sieve 100%:	50%
Portland Cement – 3 ½ bag mix (approx.)	8%

(Should Fly Ash and/or Lime not be readily available, increase the amount of Sand by 27% to mixture)

This shall be accomplished by use of a continuous mixer. All aggregate shall be metered for the precise mix design to assure consistent quality control.

- 2. All materials for job site shall at all times be mobile and not stored in the road or walk area, unless agreed upon between CONTRACTOR and OWNER at bid submittal.
- 3. Slurry material for the slab and curb raising shall be mixed with enough potable water to a workable consistency (3 to 6 inch slump). Material once mixed shall be utilized within one hour and may not be re-tempered (unless so directly by the ENGINEER, if applicable).
- 4. All holes drilled for injection pumping shall be repaired with an aggregate mixture to match existing surface as best as possible. Holes will be patched utilizing a mixture of Portland Type 1 A Cement and mason sand in 2 to 1 proportion.

B. Equipment

- 1. Mixing equipment shall be a self-contained continuous mixer, with calibrated mixing and delivery capability, carrying all water, cement and aggregate needed for the job site. The continuous mixer shall meet or exceed the Standards of Calibration as set forth by the Volumetric Mixer Manufacturer Bureau (VMMB), a member of National Ready Mix Concrete Association (NRMCA), and conforming to ASTM 685, ACI 304.6 and CSA 23.7.

REPAIRS OF ARGO DAM AND GEDDES DAM

2. All materials pumped shall be of a minimum of 500 PSI to a maximum of 1,000 PSI mix design.

### **1.03 WORK**

#### **A. Holes**

1. The CONTRACTOR shall drill holes by whatever convenient means. However, CONTRACTOR shall exercise caution to prevent cracking of the concrete slab in which the hole is being drilled. The hole size for the slab raising operations shall be a minimum of one inch (1") up to a maximum of (2") inches in diameter. The holes shall be spaced uniformly as necessary to assure continuity of slurry between holes.

#### **B. Forms**

1. The CONTRACTOR shall add supplemental formwork as required to contain grouts within specified areas.

#### **C. Slab Raising**

1. Slabs shall be raised to the required elevation and pitched at one-quarter (1/4) inch per foot of lineal run, or as directed by the ENGINEER. If required, saw cuts shall be made at joints to allow free movement of the work. Saw cutting is incidental to the price.

#### **D. Patching Holes**

1. Holes shall be cleaned the full depth of the slab by removing excess slurry and wire brushing exposed sidewalls. Prior to placement of the Portland Cement, the surface around the holes shall be damp.
2. Slurry holes shall not be cleaned out and patched until the slurry that was pumped has been allowed to stabilize.

#### **E. Clean-Up**

1. Slabs raised shall be thoroughly scraped and swept after completion, but prior to patching. Surrounding grass areas adjacent to slab raising shall be left in a clean, debris-free condition. Clean-up is included in the price as bid.
2. Formwork shall be removed from the site.

### **1.04 DAMAGE**

- A. Any concrete that is damaged by the Mud Jacking Operation shall be replaced or repaired by the CONTRACTOR at his expense per Section B below.

- B. Repair of damage caused by Mud Jacking Operation:

1. Removal shall be accomplished by whatever means considered practical by the CONTRACTOR (subject to approval of the ENGINEER). Removal and replacement limits shall be defined by the nearest contraction joint. Repair shall be per specifications.

2. If the CONTRACTOR damages any utilities, he will immediately notify the appropriate utility provider (and ENGINEER, if applicable) and pay for all repair costs.

END OF SECTION

## **SECTION 05050**

### **MISCELLANEOUS METALS**

#### **1.00 GENERAL**

#### **1.01 DESCRIPTION**

- A. Provide and install all miscellaneous metal items indicated on the Drawings and specified herein.
- B. The following items are specified in detail within this Section:
  - 1. Adhesive anchors
  - 2. Angles, channels, misc. shapes
  - 3. Pipe rail
  - 4. Grating
- C. The following items are also part of this Section and must meet general specification parameters: miscellaneous plates, inserts, structurals, fasteners, and all other fabricated metal items necessary for a complete and operable installation.

#### **1.02 REFERENCE STANDARDS**

- A. For miscellaneous metal structural work, conform to the American Institute of Steel Construction (AISC) "Specifications for the Design, Fabrication and Erection of Structural Steel for Buildings" for Type 2 and 3 construction with commentary and applicable supplements. Also comply with the AISC "Code of Standard Practice for Steel Buildings and Bridges".
- B. For stair, ladder, railing, and walking surface work of this Section, comply with the Michigan Occupational Safety and Health Act Standards, and federal and local safety standards as they apply for floor and wall openings and general hazards regarding falling.
- C. For all welding work use welders certified for the specified standard. Comply with the American Welding Society "Structural Welding Code" and "Standard Code for Welding in Building Construction" (the term "Building Commissioner" when cited in the codes shall be interpreted to mean "ENGINEER").
- D. For all bolted connections comply with the "Specification for Structural Joints Using ASTM A325 or A-490 Bolts" approved by the Research Council on Riveted and Bolted Structural Joints of the Engineering Foundation including commentary by the AISC.

#### **1.03 SUBMITTALS**

- A. Submit Shop Drawings for all custom work specified in this Section. Where standard products are specified and no modification will be required, submit manufacturer's literature.
- B. See Section 01330 for additional requirements.

#### **1.04 PRODUCT HANDLING AND STORAGE**

Ship all prefabricated miscellaneous metal items in a protected manner to prevent damage prior to installation. Store materials awaiting installation so that they will not be adversely affected by weathering.

---

#### REPAIRS OF ARGO DAM AND GEDDES DAM

## **2.00 PRODUCTS**

### **2.01 GENERAL PROVISIONS**

- A. Unless otherwise noted on the Drawings or in these Specifications, use steel for miscellaneous metal items.
- B. For structural steel shapes, plates and bars, conform to the requirements of ASTM A36 "Specification for Structural Steel".
- C. When galvanizing is called for, provide hot galvanized coatings that conform to the requirements of ASTM A123 "Specification for Zinc (Hot-Galvanized) Coatings on Structural Steel Shapes, Plates, and Bars and Their Products" or ASTM A446 "Specification for the Physical Quality of Zinc-Coated (Galvanized) Steel Sheet by the Hot-Dip Process".
- D. Use prime paints and finish paints that comply with Section 09900 of these Specifications.
- E. Where aluminum is called for, provide aluminum that conforms to ASTM B209 (6061-T6) for plates, ASTM B221 (6061-T6) for extrusions, and ASTM B429 (6061-T6) for pipe.
- F. Where stainless steel is called for, provide stainless steel that conforms to ASTM A312 for pipes and ASTM A412 for plate, sheet, and strip.
- G. Bolt or weld all shop-fabricated structural metal assemblies. For framing bolts, use bolts that conform to ASTM A307 (where normal strength bolts can be used), or ASTM A325M (where high-strength bolts are required). For welds, use AWS A5.1, E70XX welding electrodes.

### **2.02 ANCHORS AND FASTENERS**

- A. All permanent anchors into concrete shall be 304 stainless steel, adhesive set using Hilti HY-150 Max.
- B. Temporary anchors into concrete shall be stainless steel. Repair any temporary holes with non-shrink non-metallic grout.
- C. Install all anchors in strict accordance with manufacturer's recommendations.
- D. Bolts, nuts, washers and screws shall be type 304 Stainless Steel.

### **2.03 PIPE RAIL**

- A. Structural Performance Railings: Provide barrier capable of withstanding the following structural loads based on the latest International Building Code, without exceeding allowable design working stresses of materials for handrails, railings, anchors, and connections.
  - 1. Top rail of barrier: Capable of withstanding the following loads as indicated:
    - a. Concentrated load of 200 lbf applied at any point and in any direction.

- b. Uniform load of 50 lbf/ft. applied horizontally and concurrently with uniform load of 100 lbf/ft. applied vertically downward.
    - c. Concentrated and uniform loads above need not be assumed to act concurrently.
  - 2. Intermediate rails: capable of withstanding the following loads applied as indicated:
    - a. Concentrated load of 200 lbf applied at any point and in any direction.
    - b. Uniform load of 50 lbf applied in any direction.
    - c. Reactions due to this loading are not required to be superimposed with the proceeding section.
- B. Where used as standard barrier, the vertical distance from the floor to the upper surface of the top rail shall be 42 inches. Where changes in height of the railings are required, provide a smooth transition without discontinuity in the railing. Provide pipe railing assemblies with intermediate railings or expanded metal panels as indicated on the Drawings.
- C. Construct pipe railing of standard, Schedule 80 wrought steel pipe complying with ASTM A120 or ASTM A501 Standards. Unless indicated to the contrary on the Drawings, use nominal 1-1/2" diameter pipe for rails and posts. Unless indicated to the contrary on the Drawings, all handrail shall be hot-dipped galvanized.
- D. Weld and grind smooth all joints. Use special fittings where non-perpendicular joints occur. Anchor railing posts to concrete with epoxy set anchors. Set railings to line and elevation and brace until all posts are securely anchored. Anchor railings to structural steel framing by welding. Anchor railings to masonry by anchor bolting.

## **2.04 ALUMINUM GRATING**

- A. Grating shall be made of rectangular bars and swags, 1-1/2 inch depth and 3/16 inch. Swags shall be 4 inches on center maximum. Bar spacing shall be 1-1/4 inch on center maximum.
- B. Walking surface shall be serrated.
- C. Material shall be welded 6063-T6 aluminum.

## **2.05 GROUT**

- A. Grout for base plates and thin fills shall be nonshrink, nonmetallic type per ASTM C1107. Grout shall be pre-mixed and factory-packaged. Formulation shall be nonstaining, noncorrosive, nongaseous properties. Provide grout from Sika or Master Builders as recommended by grout manufacturer for exterior applications.

## **3.00 EXECUTION**

### **3.01 WORKMANSHIP**

- A. As far as practical shop assemble all miscellaneous metal items. Make field measurements prior to shop assembly to ensure proper fit of shop fabricated items.

- B. Install miscellaneous metalwork so that corners are square, vertical lines are plumb, and horizontal lines level.
- C. Properly anchor all miscellaneous metalwork. Coordinate with the work of other Sections where inserts and/or anchors must be embedded in concrete.
- D. Unless noted otherwise, all welding shall conform to AWS D1.1.

**3.02 PROTECTION**

- A. Protect all miscellaneous metal work against damage during shipment, storage, and after installation while other work is being performed.

END OF SECTION

## SECTION 09900

### PAINTING

#### **PART 1 - GENERAL**

##### **1.1 DESCRIPTION**

- A. It is the intent of this Section that all painting necessary to result in a complete, finished appearing facility be accomplished. As part of the work of this Section, prepare surfaces that are to be painted and furnish and apply paint materials. Paint schedules follow the text of this Section and define the surface preparation and coating systems required to paint the various types of surfaces that are to be painted. The Paint Application Table below identifies the areas to receive the paint systems specified in the paint schedules. For items or areas not listed in the Paint Application Table, consult the ENGINEER for the proper system to be used. Exclusion from the Paint Application Table does not necessarily indicate that an item or area does not require painting.
- B. Acceptable manufacturers shall be Tnemec and Carboline. The paint schedules that follow this specification have been developed for Tnemec products. If Carboline products are to be used, submit schedules describing Carboline's equal products and colors for review and approval.
- C. All field painting shall be by brush and roller only. Spray application of coatings will not be permitted in the field.
- D. Paint Application Table
- Schedule C1: Concrete
- Paint exterior sides of control building as shown on the drawings.
- One (1) color maximum, to be selected by the OWNER.
- Schedule M1: Exterior Metal
- Paint all metal refurbished for the project including: gear housings, chain guards, bearing blocks, tainter gate components, valve floor stands, steel barriers, etc. Paint all sides of all metal components of designated equipment. Motors, gear boxes, electrical panels and greased or lubricated parts inside housings is not to be painted.
- Three (3) colors maximum, to be selected by the OWNER.
- E. In addition to the painting indicated in the above Paint Application Table, paint all aluminum surfaces that will be in contact with concrete or dissimilar metals using two coats of the prime coat specified for Exterior Metal. Coordinate painting with the fabrication of components and with the work of other trades so as to ensure the full and correct application of paint materials.
- F. In addition to the painting indicated in the above Paint Application Table, apply touch-up paint to finish defects and field cuts, welds, and penetrations of galvanized metal. Prepare and pretreat surfaces in accordance with Schedule M7 above and finish paint according to the appropriate paint schedule.

ARGO DAM AND GEDDES DAM: COATING AND MISCELLANEOUS REPAIRS



- G. Prime and finish painting, regardless of the location in which the work is performed, shall conform to all requirements of this Section. Coordinate painting with the fabrication of components and with the work of other trades so as to ensure the full and correct application of paint materials.

## **1.2 DEFINITIONS**

- A. For the purposes of this Section, the following definitions apply: "Paint" means all pretreatment, prime, intermediate and final coatings specified herein including clear, translucent and opaque materials.

## **1.3 QUALITY ASSURANCE**

- A. Applicator's Quality Assurance: Submit list of a minimum of 3 completed projects of similar size and complexity to this Work completed within the last 5 years. Projects shall demonstrate experience working on comparable structures. Include for each project:
  1. Project name and location.
  2. Name of project Owner, include a contact name and phone number.
  3. Name of General Contractor is different than Contractor holding this contract.
  4. Name of Engineer, include a contact name and phone number.
  5. Name of coating manufacturer.
  6. Approximate area of coatings applied.
  7. Date of completion.
- B. Use only qualified journeyman painters for the mixing and application of paint on exposed surfaces. In the acceptance or rejection of installed painting, no allowance will be made for lack of skill on the part of painters.
- C. Apply paints following the recommendations in the "Applications Manual for Paint and Protective Coatings" published by McGraw-Hill.

## **1.4 FIELD QUALITY CONTROL**

- A. Inspector's Services: The Contractor shall hire Dixon Engineering or Nelson Tank (third party satisfactory to the Owner), at no additional expense to the Owner, to perform field inspections of items 1-4 below and prepare the field inspection reports described in item 5 below:
  1. Verify coatings and other materials are as specified.
  2. Verify surface preparation and applications are as specified.
  3. Visually inspect all welds prior to coating.
  4. Verify DFT of each coat and total DFT of each coating systems are as specified using wet film and dry film gauges.

ARGO DAM AND GEDDES DAM: COATING AND MISCELLANEOUS REPAIRS

5. Coating Defects: Check coatings for film characteristics or defects that would adversely affect performance or appearance of coating systems.
6. Report:
  - a. Submit written reports describing inspections made and actions taken to correct nonconforming work.
  - b. Report nonconforming work not corrected.
  - c. Submit copies of report to Owner and Contractor.

## **1.5 SUBMITTALS**

- A. Provide submittals in accordance with Division 1 of the Specifications. Prior to ordering and delivering paint materials to the project site, submit the following:
  1. Manufacturer literature demonstrating compliance with these Specifications and indicating paint formulation, rate of coverage, recommended uses and recommended application method.
  2. Color chips for the full range of colors available in each product.
  3. Blast materials.
  4. Blast containment plan.
  5. MSDS for all coatings, solvents and blast materials.
- B. The paint products indicated in these Specifications establish the required standard of paint quality. Carboline equivalents must include manufacturer data showing that they adhere to these standards.

## **1.6 PRODUCT HANDLING**

- A. Deliver all paint materials to the job site in their original unopened containers with all labels intact and legible at time of use. Store only the approved materials at the job site. Store them in a suitable and designated area restricted to the storage of paint materials and related equipment. Use all means necessary to ensure the safe storage and use of paint materials and the prompt and safe disposal of waste. Store volatile solvents, rags and cleaning materials in a well-ventilated area.
- B. Use all means necessary to protect paint materials before, during, and after application and to protect the installed work and materials of all other trades. In the event of damage, immediately make all repairs and replacements necessary at no additional cost to the OWNER.

## **1.7 EXTRA STOCK**

- A. Upon completion of the work of this Section, deliver to the OWNER an extra stock of paint equaling approximately 2% of each color and gloss used in each coating material with all such extra stock tightly sealed in clearly labeled containers that have not been previously opened.

## **1.8 GUARANTEE**

- A. Furnish a 1-year warranty from the date of substantial completion on workmanship. Manufacturer to provide an unlimited warranty on the materials.

## **2.0 PRODUCTS**

### **2.1 PAINT MATERIALS**

- A. Provide paint materials in accordance with the paint schedules that follow the text of this Section.
- B. All paint materials for each paint system shall be the products of a single manufacturer. All paint materials and equipment shall be compatible in use: finish coats shall be compatible with prime coats, prime coats shall be compatible with the surface to be coated, and all tools and equipment shall be compatible with the coating to be applied. Thinners, when used, shall be only those thinners specifically recommended for that purpose by the manufacturer of the material to be thinned.
- C. Furnish finish paint in the colors selected by the OWNER from the manufacturer's standard available colors (a minimum of 12 colors must be available for each finish paint requiring color choice). Specially mixed colors may be required to achieve OSHA approved safety colors and to provide the piping and plumbing line colors to meet the OWNER's color scheme. The City of Ann Arbor Color Coding of Piping schedule is appended to this specification for reference.

## **3.0 EXECUTION**

### **3.1 SURFACE CONDITIONS**

- A. Prior to beginning the work of this Section, carefully inspect the installed work of all other trades and verify that all such work is complete to the point where this application may properly commence. Verify that paint finishes may be applied in strict accordance with all pertinent codes and regulations and the requirements of these Specifications. In the event of discrepancy, immediately notify the ENGINEER. Do not proceed with application in areas of discrepancy until all such discrepancies have been fully resolved. Application of paint materials shall be deemed to indicate acceptability of the existing surface conditions.

### **3.2 SURFACE PREPARATION**

- A. General
  - 1. Prior to beginning surface preparation and painting operations, completely mask, remove, or otherwise adequately protect all hardware, accessories, machined surfaces, plates, equipment identification tags/nameplates, lighting fixtures, and all work of other trades that are not to receive the paint coating. Before applying paint, thoroughly clean and prepare all surfaces according to the specified surface preparation method. Schedule all cleaning and painting so that dust and other contaminants from the cleaning process will not fall on wet, newly painted surfaces.
  - 2. Dust, abrasive compounds and other contaminants shall not be permitted to enter the water way.

B. Preparation of Concrete and Masonry Surfaces

1. The surface finishing of concrete is specified in Division 3.00 of these Specifications. Do not begin paint application until these requirements have been met and concrete has cured for at least 28 days.
2. Prior to painting, grind or scrape off all surface defects such as fins, protrusions, bulges, and mortar spatter. On concrete surfaces, remove non-degraded release agents, oil, wax and grease by scraping off heavy deposits and washing with hot trisodium phosphate solution (2 lbs trisodium phosphate per gallon 160°F water). After cleaning flush with warm water to remove residual cleaning solution.
3. Where the paint schedule calls for brush-off blast cleaning, dry sandblast concrete using silica sand passing a 16 mesh screen. Sandblast until the surface has been lightly abraded without entirely removing the surface or exposing underlying aggregate. After sandblasting, remove dust, sand and loose particles by vacuuming or blowing off with high pressure air.

C. Preparation of Metal Surfaces

1. Prepare metal surfaces for painting by following the method indicated on the appropriate paint schedule. Preparation methods are referenced to the Steel Structures Painting Council (SSPC) Specifications. Do not prepare metal for painting when the relative humidity is higher than 85% or the metal is less than 5°F above the dew point. After surface preparation, thoroughly clean all surfaces of any remaining dirt, oil and grease and leave it ready to receive prime paint.

### 3.3 PAINT APPLICATION

- A. Apply paint in accordance with paint schedule requirements, the cited reference, all codes and regulations, and the recommendations of the paint manufacturer. Apply prime paint to metal surfaces within 24 hrs after surface preparation. Do not apply paint in areas where dust is being generated.
- B. Do not apply paint when the surrounding air temperature as measured in the shade is below 40°F or when the temperature of the surface to be painted is below 35°F. Do not apply paint when it is expected that the relative humidity will exceed 85% or that the air temperature will drop below 40°F within 18 hrs after the application of paint. Dew or moisture condensation should be anticipated and if such conditions are prevalent, delay painting until certain that the surfaces can be kept above the dew point. Follow all additional environmental limitation requirements of the paint manufacturer.
- C. Paint material mil thicknesses and numbers of coats indicated in the paint schedules are based on brush or roller application. Field application shall be by brush and roller only. For shop spray application, apply as many coats as required to meet the specified mil thickness.
- D. Allow sufficient drying time between coats of paint. During adverse weather, extend length of drying time as recommended by the paint manufacturer.
- E. Prior to applying each paint coating after the first, check mil thickness of previously applied coating(s). Correct for insufficient paint thickness by increasing the mil thickness of subsequent applications, if allowed by the paint manufacturer or by applying additional coatings to provide the specified paint thickness.

- F. Spot sand between coatings to remove paint defects visible to the unaided eye from a distance of five feet.
- G. Ventilation: Provide ventilation during coating evaporation stage in confined or enclosed areas in accordance with AWWAD 102.

### **3.4 CLEAN UP**

- A. During the progress of the work, do not allow the accumulation of empty containers or other excess items except in areas specifically set aside for that purpose. Following completion of painting in each area, promptly remove all masking and temporary protection. After paint has dried, reinstall all items removed for painting. Upon completion of this portion of the work, visually inspect all surfaces and remove paint and traces of paint from surfaces not scheduled to be painted.

SCHEDULES FOLLOW

**PAINT SCHEDULE C1  
CONCRETE**

---

**Surface Preparation:** Surface must be dry, clean, and free from contaminants. On concrete, remove non-degraded release agents, oil, wax, and grease by washing with a hot trisodium phosphate solution. Brush off blast cleaning (concrete) SSPC SP13

---

<b>Paint Manufacturer</b>	<b>Application</b>	<b>Product Name</b>	<b>Product Type</b>	<b>No. Of Coats</b>	<b>Dry MILS/ Coat</b>	<b>Comments</b>
Tnemec	Primer	Hi-Build Epoxoline Series 66	Polyamide Epoxy	One	5 – 6	white
“	Intermediate	Hi-Build Epoxoline Series 66	Polyamide Epoxy	One	5 – 6	Owner to select colors
“	Finish	Endurashield Series 1074U	Aliphatic Acrylic Polyurethane	Two	4 – 5	Owner to select colors
<b>TOTAL SYSTEM THICKNESS</b>					<b>18 – 22</b>	

---

**PAINT SCHEDULE M1  
EXTERIOR METAL**

**Surface Preparation: SSPC-SP10 Near White Blast Cleaning  
Abrade then SSPC-SP1 Solvent Cleaning (galvanized)**

<b>Paint Manufacturer</b>	<b>Application</b>	<b>Product Name</b>	<b>Product Type</b>	<b>No. Of Coats</b>	<b>Dry Mils/ Coat</b>	<b>Comments</b>
Tnemec	Primer	Series 90G-1K97	Aromatic Polyurethane, Zinc Rich	One	2.5 – 3.5	Greenish gray (not req. for galv.)
“	Intermediate	Hi-Build Epoxoline Series 66	Polyamide Epoxy	One	5 – 6	Owner to select colors
“	Finish	Endurashield Series 1074U	Aliphatic Acrylic Polyurethane	Two	4 – 5	Owner to select colors
<b>TOTAL SYSTEM THICKNESS</b>					<b>15.5 – 19.5 (plain mild steel)</b>	
					<b>13 – 16 (galv)</b>	

APPENDIX

LEAD BASED PAINT TEST RESULTS



## ANALYTICAL LABORATORY REPORT

Monday, November 26, 2012

Page 1 of 3

**CUSTOMER:** Stantec  
3754 Ranchero Drive  
Ann Arbor, MI 48108

**DATE RECEIVED:** Wednesday, November 14, 2012  
**PO/PROJECT #:** 2075116502  
**SUBMITTAL #:** 2012-11-14-012

**LAB NUMBER: AB39802**

**Sampled By:** Paul J. Malocha  
**Job Location:** Ann Arbor, MI  
**Sample Identification:** 1 - Argo lifts

**Date Sampled:** Thursday, November 8, 2012  
**Sample Description:** Paint Chips

**Preparation Method:** EPA 3050B-P-M (Acid Digestion for Paints)  
**Analysis Method:** EPA 6010C (ICP-AES Method for Determination of Metals)  
**Date Analyzed:** Wednesday, November 21, 2012

<u>ELEMENT</u>	<u>RESULT (by weight)</u>	<u>REPORTING LIMIT (RL)</u>
Lead	0.0041 %	0.0025 %

**LAB NUMBER: AB39803**

**Sampled By:** Paul J. Malocha  
**Job Location:** Ann Arbor, MI  
**Sample Identification:** 2 - Argo valves

**Date Sampled:** Thursday, November 8, 2012  
**Sample Description:** Paint Chips

**Preparation Method:** EPA 3050B-P-M (Acid Digestion for Paints)  
**Analysis Method:** EPA 6010C (ICP-AES Method for Determination of Metals)  
**Date Analyzed:** Wednesday, November 21, 2012

<u>ELEMENT</u>	<u>RESULT (by weight)</u>	<u>REPORTING LIMIT (RL)</u>
Lead	0.043 %	0.0025 %

**LAB NUMBER: AB39804**

**Sampled By:** Paul J. Malocha  
**Job Location:** Ann Arbor, MI  
**Sample Identification:** 3 - Argo control house

**Date Sampled:** Thursday, November 8, 2012  
**Sample Description:** Paint Chips

**Preparation Method:** EPA 3050B-P-M (Acid Digestion for Paints)  
**Analysis Method:** EPA 6010C (ICP-AES Method for Determination of Metals)  
**Date Analyzed:** Wednesday, November 21, 2012

<u>ELEMENT</u>	<u>RESULT (by weight)</u>	<u>REPORTING LIMIT (RL)</u>
Lead	0.097 %	0.0025 %

**LAB NUMBER: AB39805**

**Sampled By:** Paul J. Malocha  
**Job Location:** Ann Arbor, MI  
**Sample Identification:** 4 - Argo railings

**Date Sampled:** Thursday, November 8, 2012  
**Sample Description:** Paint Chips

**Preparation Method:** EPA 3050B-P-M (Acid Digestion for Paints)  
**Analysis Method:** EPA 6010C (ICP-AES Method for Determination of Metals)  
**Date Analyzed:** Wednesday, November 21, 2012

<u>ELEMENT</u>	<u>RESULT (by weight)</u>	<u>REPORTING LIMIT (RL)</u>
Lead	2.4 %	0.0026 %

CCC&L has obtained accreditation under the programs detailed on the final page of the laboratory report. The accreditations pertain only to the testing performed for the elements, and in accordance with the test methods, listed in the scope of accreditation table. Testing which is performed by CCC&L according to other test methods, or for elements which are not included in the table fall outside of the current scope of laboratory accreditation.

This report shall not be reproduced except in full, without written approval of CCC&L.

## ANALYTICAL LABORATORY REPORT

Monday, November 26, 2012

Page 2 of 3

CUSTOMER: Stantec  
3754 Ranchero Drive  
Ann Arbor, MI 48108

DATE RECEIVED: Wednesday, November 14, 2012  
PO/PROJECT #: 2075116502  
SUBMITTAL #: 2012-11-14-012

## LAB NUMBER: AB39806

Sampled By: Paul J. Malocha  
Job Location: Ann Arbor, MI  
Sample Identification: 5 - Geddes door

Date Sampled: Friday, November 9, 2012  
Sample Description: Paint Chips

Preparation Method: EPA 3050B-P-M (Acid Digestion for Paints)  
Analysis Method: EPA 6010C (ICP-AES Method for Determination of Metals)  
Date Analyzed: Wednesday, November 21, 2012

ELEMENT	RESULT (by weight)	REPORTING LIMIT (RL)
Lead	0.033 %	0.0064 %

## LAB NUMBER: AB39807

Sampled By: Paul J. Malocha  
Job Location: Ann Arbor, MI  
Sample Identification: 6 - Geddes lifts  
Flagged Data: Substrate could not be completely removed.

Date Sampled: Friday, November 9, 2012  
Sample Description: Paint Chips

Preparation Method: EPA 3050B-P-M (Acid Digestion for Paints)  
Analysis Method: EPA 6010C (ICP-AES Method for Determination of Metals)  
Date Analyzed: Wednesday, November 21, 2012

ELEMENT	RESULT (by weight)	REPORTING LIMIT (RL)
Lead	0.0074 %	0.0025 %

CCC&L has obtained accreditation under the programs detailed on the final page of the laboratory report. The accreditations pertain only to the testing performed for the elements, and in accordance with the test methods, listed in the scope of accreditation table. Testing which is performed by CCC&L according to other test methods, or for elements which are not included in the table fall outside of the current scope of laboratory accreditation.

This report shall not be reproduced except in full, without written approval of CCC&L.

**CUSTOMER:** Stantec  
3754 Ranchero Drive  
Ann Arbor, MI 48108

**DATE RECEIVED:** Wednesday, November 14, 2012  
**PO/PROJECT #:** 2075116502  
**SUBMITTAL #:** 2012-11-14-012

Unless otherwise noted, the condition of each sample was acceptable upon receipt, all laboratory quality control requirements were met, and sample results have not been adjusted based on field blank or other analytical blank results. Individual sample results relate only to the sample as received by the laboratory.

**Tests Reviewed By:** Michael J. Swiech, QA/QC Manager *Michael J. Swiech* Michael J. Swiech  
2012.11.26 13:23:35 -05'00'

CCC&L has obtained accreditation under the following programs:

- **National Lead Laboratory Accreditation Program (NLLAP)**  
ELLAP: AIHA Laboratory ELLAP Accreditation Program Laboratory, ID#101030 ([www.aiha.org](http://www.aiha.org))  
OH: Ohio Department of Health Lead Poisoning Prevention Program, Approval #E10013 ([www.odh.ohio.gov](http://www.odh.ohio.gov))
- **AIHA Laboratory IHLAP Accreditation Program ([www.aiha.org](http://www.aiha.org))**  
IHLAP: Laboratory ID#101030
- **National Environmental Laboratory Accreditation Program (NELAP)**  
NY: State of New York Department of Health, Laboratory ID#11609 (Serial # 46417 through 46421) (518-485-5570)  
LA: State of Louisiana Department of Environmental Quality, Laboratory ID#180321 (Certificate 05036) ([www.deq.louisiana.gov](http://www.deq.louisiana.gov))  
OK: Oklahoma Department of Environmental Quality, Laboratory ID#9993 (Certificate 2012-034) ([www.deq.state.ok.us](http://www.deq.state.ok.us))

The accreditations pertain only to the testing performed for the elements, and in accordance with the test methods, listed in the table below. Testing which is performed by CCC&L according to other test methods, or for elements which are not included in the table below fall outside of the current scope of laboratory accreditation. Customers are encouraged to verify the current accreditation status with the individual accreditation programs by calling or visiting the appropriate website for the applicable program.

#### SCOPE OF ACCREDITATION

##### Air and Emissions

<u>Element/Test</u>	<u>Method</u>	<u>Accreditation(s)</u>
Particulates (PM10)	40 CFR 50 Appendix J	NY, LA
Total Suspended Particulates (TSP)	40 CFR 50 Appendix B	NY, LA
Lead in Airborne Dust	NIOSH 7300	ELLAP, OH, NY, LA
Lead in Airborne Dust	EPA600/R-93/200	ELLAP, OH
Metals in Airborne Dust	NIOSH 7300/ EPA 6010B or EPA 6010C	IHLAP
Metals in Airborne Dust	EPA600/R-93/200/ EPA 6010B or EPA 6010C	IHLAP

##### Solid Chemical Materials

<u>Element/Test</u>	<u>Method</u>	<u>Accreditation(s)</u>
TCLP	EPA 1311(Sample Preparation Method)	NY, LA, OK
Acid Digestion	EPA 3050B	NY, LA
Lead in Soil	EPA 3050B/EPA 6010C	NY, LA, OK
Lead in Soil	EPA 3050B/EPA 6010B or EPA 6010C	ELLAP, OH, NY, LA
Lead in Paint	EPA 3050B/EPA 6010B or EPA 6010C	ELLAP, OH, NY, LA
Lead in Dust Wipes	EPA 6010B or EPA 6010C	NY, LA
Lead in Dust Wipes	EPA600/R-93/200/EPA 6010B or 6010C	ELLAP, OH

##### Non-Potable Water / Analysis by ICP

<u>Element/Test</u>	<u>Method</u>	<u>Accreditation(s)</u>	<u>Method</u>	<u>Accreditation(s)</u>
Arsenic	EPA 6010B	NY	EPA 6010C/ EPA 200.7 Rev 4.4	NY, LA, OK
Barium	EPA 6010B	NY	EPA 6010C/ EPA 200.7 Rev 4.4	NY, LA, OK
Cadmium	EPA 6010B	NY	EPA 6010C/ EPA 200.7 Rev 4.4	NY, LA, OK
Chromium	EPA 6010B	NY	EPA 6010C/ EPA 200.7 Rev 4.4	NY, LA, OK
Copper	EPA 6010B	NY	EPA 6010C/ EPA 200.7 Rev 4.4	NY, LA, OK
Lead	EPA 6010B	NY	EPA 6010C/ EPA 200.7 Rev 4.4	NY, LA, OK
Mercury	EPA 245.1 Rev.3	NY, LA, OK		
Mercury	EPA 7470A	NY, LA, OK		
Nickel	EPA 6010B	NY	EPA 6010C/ EPA 200.7 Rev 4.4	NY, LA, OK
Selenium	EPA 6010B	NY	EPA 6010C/ EPA 200.7 Rev 4.4	NY, LA, OK
Silver	EPA 6010B	NY	EPA 6010C/ EPA 200.7 Rev 4.4	NY, LA, OK
Zinc	EPA 6010B	NY	EPA 6010C/ EPA 200.7 Rev 4.4	NY, LA, OK
Acid Digestion	EPA 3010A	NY, LA		

This report shall not be reproduced except in full, without written approval of CCC&L.

# CHAIN OF CUSTODY FORM

Send To:

**Corrosion Control Consultants & Labs, Inc. a GPI company**

4403 Donker Ct Kentwood MI 49512-4054

ph: 616-940-3112 fx: 616-940-8139 web-sites: www.ccclabs.com www.gpinet.com

Company: Stantec Consulting  
Michigan, Inc.

Address: 3754 Ranchero Drive  
Ann Arbor, MI 48108

Company Contact: Paul J. Malocha  
Telephone: 734-214-2525  
E-Mail: paul.malocha@stantec.com

P.O./Proj #: 2075116502

Job Location: **Ann Arbor, MI**

**FOR LAB USE ONLY**

Property Contained: YES NO N/A  
 ASTM E1792 wipes: YES NO N/A  
 Adequate Ph Adjust: YES NO N/A  
 Lab acidified: By/Date: CLM

MATRIX	TOTAL CONCENTRATION	MISC. TESTS	Special Instructions:
<input checked="" type="checkbox"/> PAINT CHIPS <input type="checkbox"/> SOIL <input type="checkbox"/> SPENT ABRASIVE <input type="checkbox"/> WIPE brand _____ <input type="checkbox"/> WASTEWATER <input type="checkbox"/> 37 mm CASSETTE <input type="checkbox"/> TSP FILTER <input type="checkbox"/> PM 10 FILTER <input type="checkbox"/> OTHER _____	<input checked="" type="checkbox"/> LEAD <input type="checkbox"/> LEAD, CAD, CHROME <input type="checkbox"/> RCRA (8) METALS <input type="checkbox"/> OTHER _____ WASTE CHARACTERIZATION <input type="checkbox"/> LEAD TCLP <input type="checkbox"/> RCRA (8) METALS TCLP <input type="checkbox"/> OTHER _____	<input type="checkbox"/> pH (Corrosivity) <input type="checkbox"/> Ignitability <input type="checkbox"/> VOC (Method 24) <input type="checkbox"/> Other _____ TURNAROUND TIME <input type="checkbox"/> Same Day* <input type="checkbox"/> 1 Day (24 Hour)* <input checked="" type="checkbox"/> Standard (2-4 days) <input type="checkbox"/> Other _____	*Same Day and 1 Day turn around not available for TCLP or PM10; additional fees may apply, contact lab for pricing.

CCC&L Lab No.	Sample Number	Date/Time Sampled	Sample Identification/Location	WIPES		AIR SAMPLES								
				Area wiped (sq.ft.)	Flow Rate	START	STOP	START	STOP	UNITS				
39802	1	Nov 8, 2012	Argo lifts											
39803	2	Nov 8, 2012	Argo valves											
39804	3	Nov 8, 2012	Argo control house											
39805	4	Nov 8, 2012	Argo railings											
39806	5	Nov 9, 2012	Geddes door											
39807	6	Nov 9, 2012	Geddes lifts											

Sampled By (Please print): Paul J. Malocha  
 Received by: Debbie Evans  
 Received by: Felix Grund  
 Method of Shipment: FedEx Ground  
 Received for Laboratory by: CLM

Date Submitted: November 13, 2012  
 Date/Time: 11/13/12 4:00 pm  
 Relinquished Date/Time: \_\_\_\_\_  
 Relinquished Date/Time: \_\_\_\_\_

Signature: Paul J. Malocha  
 Date/Time: 11/14/12 11:52  
 Submittal #: 2012-11-14-012  
 Form #53  
 12/22/11 Rev. 9

CLM