

Form No. DMB 234A (Rev. 1/96)  
AUTHORITY: Act 431 of 1984  
COMPLETION: Required  
PENALTY: Failure to deliver in accordance with Contract  
terms and conditions and this notice, may be considered  
in default of Contract

STATE OF MICHIGAN  
DEPARTMENT OF MANAGEMENT AND BUDGET  
PURCHASING OPERATIONS  
P.O. BOX 30026, LANSING, MI 48909  
OR  
530 W. ALLEGAN, LANSING, MI 48933

September 19, 2008

CHANGE NOTICE NO. 5  
TO  
CONTRACT NO. 071B6200427  
between  
THE STATE OF MICHIGAN  
and

NAME & ADDRESS OF VENDOR <b>Bristol Technology Services</b>  <b>1325 Balfour</b> <b>Grosse Pte Park, MI 48230</b>  <b>Email: Charlie@bristoltech.com</b>	TELEPHONE Charles Bristol <b>(313) 282-6339/313-885-6716</b> <b>(fx)</b>
	VENDOR NUMBER/MAIL CODE
	BUYER/CA (517) 241-0239 <b>Jacque Kuch</b>
Contract Compliance Inspector: Mary Ladd <b>Re: START Center for Geographic Information</b>	
CONTRACT PERIOD: From: <b>September 18, 2006</b> To: <b>October 31, 2009</b>	
TERMS <b>N/A</b>	SHIPMENT <b>N/A</b>
F.O.B. <b>N/A</b>	SHIPPED FROM <b>N/A</b>
MINIMUM DELIVERY REQUIREMENTS <b>N/A</b>	

**NATURE OF CHANGE(S):**

**Effective immediately, this contract is hereby EXTENDED to October 31, 2009.  
All other terms and conditions remain the same.**

**AUTHORITY/REASON(S):**

**Per agency and vendor agreement.**

**ESTIMATED CONTRACT VALUE REMAINS: \$624,000.00**

STATE OF MICHIGAN  
 DEPARTMENT OF MANAGEMENT AND BUDGET  
 PURCHASING OPERATIONS  
 P.O. BOX 30026, LANSING, MI 48909  
 OR  
 530 W. ALLEGAN, LANSING, MI 48933

March 3, 2008

CHANGE NOTICE NO. 4  
 TO  
 CONTRACT NO. 071B6200427  
 between  
 THE STATE OF MICHIGAN  
 and

NAME & ADDRESS OF VENDOR <b>Bristol Technology Services</b>		TELEPHONE Charles Bristol <b>(313) 282-6339/313-885-6716 (fx)</b>
1325 Balfour Grosse Pte Park, MI 48230		VENDOR NUMBER/MAIL CODE
Email: <a href="mailto:Charlie@bristoltech.com">Charlie@bristoltech.com</a>		BUYER/CA (517) 241-0239 <b>Jacque Kuch</b>
Contract Compliance Inspector: Mary Ladd <b>Re: START Center for Geographic Information</b>		
CONTRACT PERIOD: From: <b>September 18, 2006</b> To: <b>October 31, 2008</b>		
TERMS <b>N/A</b>	SHIPMENT <b>N/A</b>	
F.O.B. <b>N/A</b>	SHIPPED FROM <b>N/A</b>	
MINIMUM DELIVERY REQUIREMENTS <b>N/A</b>		

**NATURE OF CHANGE(S):**

Per vendor and agency agreement, add three (3) resources to this contract:

- Sarah AcMoody - \$50 per hour
- Edward Bissell - \$50 per hour
- Joel Lewis - \$50 per hour

All other terms and conditions remain the same.

**AUTHORITY/REASON(S):**

Per agency and vendor agreement.

**ESTIMATED CONTRACT VALUE REMAINS: \$624,000.00**

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 DEPARTMENT OF MANAGEMENT AND BUDGET  
 PURCHASING OPERATIONS  
 P.O. BOX 30026, LANSING, MI 48909  
 OR  
 530 W. ALLEGAN, LANSING, MI 48933**

November 6, 2007

**CHANGE NOTICE NO. 3  
 TO  
 CONTRACT NO. 071B6200427  
 between  
 THE STATE OF MICHIGAN  
 and**

NAME & ADDRESS OF VENDOR <b>Bristol Technology Services</b>  <b>1325 Balfour</b> <b>Grosse Pte Park, MI 48230</b>  Email: <a href="mailto:Charlie@bristoltech.com">Charlie@bristoltech.com</a>	TELEPHONE Charles Bristol <b>(313) 282-6339/313-885-6716</b> <b>(fx)</b>
	VENDOR NUMBER/MAIL CODE
	BUYER/CA (517) 241-0239 <b>Jacque Kuch</b>
Contract Compliance Inspector: Mary Ladd <b>Re: START Center for Geographic Information</b>	
CONTRACT PERIOD: From: <b>September 18, 2006</b> To: <b>October 31, 2008</b>	
TERMS <p style="text-align: center;">N/A</p>	SHIPMENT <p style="text-align: center;">N/A</p>
F.O.B. <p style="text-align: center;">N/A</p>	SHIPPED FROM <p style="text-align: center;">N/A</p>
MINIMUM DELIVERY REQUIREMENTS <p style="text-align: center;">N/A</p>	

**NATURE OF CHANGE(S):**

**Effective immediately, this contract is hereby EXTENDED to October 31, 2008. All other terms and conditions remain the same.**

**AUTHORITY/REASON(S):**

**Per agency and vendor agreement.**

**ESTIMATED CONTRACT VALUE REMAINS: \$624,000.00**

Form No. DMB 234A (Rev. 1/96)  
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**STATE OF MICHIGAN  
 DEPARTMENT OF MANAGEMENT AND BUDGET  
 PURCHASING OPERATIONS  
 P.O. BOX 30026, LANSING, MI 48909  
 OR  
 530 W. ALLEGAN, LANSING, MI 48933**

September 25, 2007

**CHANGE NOTICE NO. 2  
 TO  
 CONTRACT NO. 071B6200427  
 between  
 THE STATE OF MICHIGAN  
 and**

NAME & ADDRESS OF VENDOR <b>Bristol Technology Services          1325 Balfour          Grosse Pte Park, MI 48230</b>	TELEPHONE <b>(313) 282-6339</b>
	VENDOR NUMBER/MAIL CODE
	BUYER/CA (517) 241-0239 <b>Jacque Kuch</b>
Contract Compliance Inspector: Mary Ladd <b>Re: START Center for Geographic Information</b>	
CONTRACT PERIOD: From: <b>September 18, 2006</b> To: <b>October 31, 2007</b>	
TERMS <b>N/A</b>	SHIPMENT <b>N/A</b>
F.O.B. <b>N/A</b>	SHIPPED FROM <b>N/A</b>
MINIMUM DELIVERY REQUIREMENTS <b>N/A</b>	

**NATURE OF CHANGE(S):**

Effective immediately, this contract is hereby EXTENDED to October 31, 2007. All other terms and conditions remain the same.

**AUTHORITY/REASON(S):**

Per agency and vendor agreement.

**ESTIMATED CONTRACT VALUE REMAINS: \$624,000.00**

Form No. DMB 234A (Rev. 1/96)  
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STATE OF MICHIGAN  
DEPARTMENT OF MANAGEMENT AND BUDGET  
PURCHASING OPERATIONS  
P.O. BOX 30026, LANSING, MI 48909  
OR  
530 W. ALLEGAN, LANSING, MI 48933

August 31, 2007

CHANGE NOTICE NO. 1  
TO  
CONTRACT NO. 071B6200427  
between  
THE STATE OF MICHIGAN  
and

NAME & ADDRESS OF VENDOR <b>Bristol Technology Services</b> <b>1325 Balfour</b> <b>Grosse Pte Park, MI 48230</b>	TELEPHONE <b>(313) 282-6339</b>
	VENDOR NUMBER/MAIL CODE
	BUYER/CA (517) 241-0239 <b>Jacque Kuch</b>
Contract Compliance Inspector: Mary Ladd <b>Re: START Center for Geographic Information</b>	
CONTRACT PERIOD: From: <b>September 18, 2006</b> To: <b>September 30, 2007</b>	
TERMS <b>N/A</b>	SHIPMENT <b>N/A</b>
F.O.B. <b>N/A</b>	SHIPPED FROM <b>N/A</b>
MINIMUM DELIVERY REQUIREMENTS <b>N/A</b>	

**NATURE OF CHANGE(S):**

Effective immediately, this contract is hereby EXTENDED to September 30, 2007. All other terms and conditions remain the same.

**AUTHORITY/REASON(S):**

Per agency and vendor agreement.

**ESTIMATED CONTRACT VALUE REMAINS: \$624,000.00**

Form No. DMB 234A (Rev. 1/96)  
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**STATE OF MICHIGAN  
 DEPARTMENT OF MANAGEMENT AND BUDGET  
 PURCHASING OPERATIONS  
 P.O. BOX 30026, LANSING, MI 48909  
 OR  
 530 W. ALLEGAN, LANSING, MI 48933**

September 13, 2006

**NOTICE  
 OF  
 CONTRACT NO. 071B6200427  
 between  
 THE STATE OF MICHIGAN  
 and**

NAME & ADDRESS OF VENDOR <b>Bristol Technology Services          1325 Balfour          Grosse Pte Park, MI 48230</b>	TELEPHONE <b>(313) 282-6339</b>
	VENDOR NUMBER/MAIL CODE
	BUYER/CA (517) 241-0239 <b>Jacque Kuch</b>
Contract Compliance Inspector: Mary Ladd <b>Re: START Center for Geographic Information</b>	
CONTRACT PERIOD: From: <b>September 18, 2006</b> To: <b>September 17, 2007</b>	
TERMS <b>N/A</b>	SHIPMENT <b>N/A</b>
F.O.B. <b>N/A</b>	SHIPPED FROM <b>N/A</b>
MINIMUM DELIVERY REQUIREMENTS <b>N/A</b>	

The terms and conditions of this Contract are those of ITB #07116200399.

**ESTIMATED CONTRACT VALUE: \$624,000.00**



## SECTION I GENERAL INFORMATION

### I-A PURPOSE

This Contract is for temporary professional services to assist the Michigan Department of Information Technology (MDIT), and **Center for Geographic Information (CGI) with the Creation of High Resolution National Hydrography Dataset Datasets and State Ortholmagery Reprojection, Dataset Correction, and Resolution Degradation and Dataset Compression. This invitation to bid is for two (2) Programmer Analysts and two (2) Sr. Project Managers.**

The contract period is **9/18/2006 to 9/17/2007**. The contracts awarded from this solicitation will be a time and materials contract, with a "not to exceed" contract price. The State anticipates possible contract **renewals for 2 years** following the initial year. The State does not commit to procuring services in the quantities estimated or in any other amounts.

### I-B ISSUING OFFICE

This Contract is issued by Purchasing Operations, State of Michigan, Department of Management and Budget (DMB), hereafter known as Purchasing Operations, for the Michigan Department of Information Technology (MDIT) and the Center for Geographic Information (CGI). Where actions are a combination of those of Purchasing Operations, MDIT, and CGI, the authority will be known as the State.

Purchasing Operations is the sole point of contact in the State with regard to all procurement and contractual matters relating to the services described herein. Purchasing Operations is the only office authorized to change, modify, amend, alter, clarify, or otherwise alter the specifications, terms, and conditions of this Contract. All communications concerning this procurement must be addressed to:

Jacque Kuch, Buyer  
DMB, Purchasing Operations  
2nd Floor, Mason Building  
P.O. Box 30026  
Lansing, Michigan 48909  
[kuchj@michigan.gov](mailto:kuchj@michigan.gov)

### I-C PROJECT MANAGER and CONTRACT ADMINISTRATOR

MDIT and CGI] have assigned a Project Manager and a Contract Administrator who have been authorized by Purchasing Operations to administer the resulting Contract(s) on a day-to-day basis during the term of the Contract. However, administration of any Contract implies no authority to change, modify, clarify, amend, or otherwise alter the terms, conditions, and specifications of such contract. That authority is retained by Purchasing Operations.

#### The Project Manager for this contract is:

Rob Surber  
MDIT, Center for Geographic Information  
Romeny Building, 10<sup>th</sup> Floor  
111 S Capitol Ave  
Lansing MI 48933  
Tel: 517-373-7910  
Fax: 517-373-2939  
[SurberR@mi.gov](mailto:SurberR@mi.gov)

**The Contract Administrator for this contract is:**

Mary Ladd  
MDIT, Bureau of Strategic Policy, Office of Contracts  
Constitution Hall, South Atrium  
525 West Allegan Street  
Lansing, MI 48913  
Tel: 517-335-4082  
Fax: 517-241-8852  
LaddM@mi.gov

**I-D INCURRING COSTS AND LEGISLATIVE APPROPRIATIONS**

The State of Michigan is not liable for any costs incurred by any bidder prior to signing of a contract by all parties and delivery of services under the contract. Any costs to be paid by the State are limited to those authorized by the terms and conditions of any resulting Contract.

The State fiscal year is October 1st through September 30th. The prospective contractor is advised that payments in any given fiscal year are contingent upon enactment of legislative appropriations.

**I-E PROPOSALS**

RESERVED

**I-F ACCEPTANCE OF ITB and PROPOSAL CONTENT**

RESERVED

**I-G CONTRACTOR RESPONSIBILITIES**

The Contractor will be required to assume responsibility for all contractual activities offered in this Contract, whether or not the Contractor performs them. Further, the State will consider the Contractor to be the sole point of contact with regard to contractual matters, including payment of any and all charges resulting from the anticipated contract. Contractor must make timely payment to staff performing services for the State.

Note: If any personnel contracted through this RFP are not your employees, but that of another company, you must include a list of those companies (subcontractors), including firm name and address, contact person, complete description of skill sets to be subcontracted, and descriptive information concerning subcontractor's organizational abilities in your response. The State reserves the right to approve subcontractors for this work and to require the Contractor to replace subcontractors found to be unacceptable. The Contractor is totally responsible for adherence by the subcontractor to all provisions of the Contract. Failure to identify companies providing personnel for your use in Contracts will be cause for cancellation of your Contract and possible removal from the RE:START program.

**I-H NEWS RELEASES**

News releases pertaining to this Contract or the services, study, data, or project to which it relates will not be made without prior written State approval, and then only in accordance with explicit written instructions from the State. No results of the project are to be released without prior approval of the State and then only to persons designated.

**I-I SELECTION CRITERIA**

RESERVED

**I-J INDEPENDENT PRICE DETERMINATION**

RESERVED

**I-K SEALED BID RECEIPT (SEE ALSO PARAGRAPH IV-G)**

RESERVED

**I-L DISCLOSURE**



All information in a bidder's proposal and any Contract resulting from this Contract is subject to disclosure under the provisions of the "Freedom of Information Act.", 1976 Public Act No. 442, as amended, MCL 15.231, et seq.

## **I-M AWARD**

RESERVED

## **I-N MODIFICATIONS, REVISIONS, CONSENTS AND APPROVALS**

This Contract may not be modified, amended, extended, or augmented, except by a writing executed by the parties hereto, and any breach or default by a party shall not be waived or released other than in writing signed by the other party.

Additional services which are outside the Scope of Services of this Contract shall not be performed by the Contractor without the prior, written approval of the State. Additional services, when authorized by an executed contract, change order, or an amendment to this Contract, shall be compensated by a fee mutually agreed upon between the State and the Contractor.

## **I-O CONTRACT DOCUMENTS**

The following constitute the complete and exclusive statement of the agreement between the parties as it relates to this transaction:

1. State's ITB and any Addenda thereto;
2. Contractor's response to the State's ITB and Addenda; and
3. All amendments and change orders as written and properly approved.

and by reference:

4. State's Pre-qualification RFI and any Addenda thereto;
5. Contractor's response to the State's Pre-qualification RFI and Addenda

All responses, representations, and assurances contained in the Proposal are incorporated into and are enforceable provisions of this Contract. In the event of any conflict between the provisions of the ITB, and the Contractor's response to the ITB, the terms of the ITB and any Contract amendments shall prevail.

## **I-P SPECIAL TERMS AND CONDITIONS**

1. Normal State work hours are 8:00 a.m. to 5:00 p.m. Monday through Friday.
2. All work will be performed at the site identified in Section III of this Contract, unless otherwise agreed to by both parties.
3. The Contractor must permit representatives of the Michigan Department of Information Technology (MDIT), and the agency, and other authorized public agencies interested in the services requested in this ITB to have full access to the services requested showing the Contractor's performance, during normal business hours.
4. The Contractor, during the performance of services detailed in this Contract, will be responsible for any loss or damage to original documents, belonging to the State when they are in the Contractor's possession. Restoration of lost or damaged original documents shall be at the Contractor's expense.
5. All questions, which may arise as to the quality and acceptability of work, the manner of performance and rate of progress of the work, the interpretation of designs and specifications, and as to the satisfactory and acceptable fulfillment of the terms of this agreement shall be decided by MDIT and the State agencies involved.
6. The Contractor shall agree that it will not volunteer, offer, or sell its services to any litigant against the State its agencies, employees and officials, with respect to any services that it has agreed to perform



for the State, provided that this provision shall not apply either when the Contractor is issued a valid subpoena to testify in a judicial or administrative proceeding or when the enforcement of this provision would cause the Contractor to be in violation of any Michigan or Federal law.

7. All work prepared by the Contractor during the execution of this contract shall be considered works made by hire and shall belong exclusively to the State and its designees, unless specifically provided otherwise by mutual agreement of the authorized representatives of the Contractor and the State. This includes, but is not limited to, all new business processes created, all planning and design work performed, all technology developed, the source and object code of all software programs and systems, any business objects or databases created, all related documentation (written or automated), and all documents and reports. If by operation of law any of the work, including all related intellectual property rights is not owned in its entirety by the State automatically upon creation thereof, the Contractor agrees to assign, and hereby assigns to the State and its designees the ownership of such work, including all related intellectual property rights. The Contractor agrees to provide, at no additional charge, any assistance and to execute any action reasonably required for the State to perfect its intellectual property rights with respect to the aforementioned work. If the Contractor uses any subcontractors to perform and prepare any of the work, the Contractor shall insure through agreement with the subcontractors that all intellectual property rights in any of the work shall belong exclusively to the State. Failure of the Contractor to insure such rights may be considered by the State to be a material breach of this contract.
8. The Contractor shall agree that they will not furnish or disclose any items owned by the State to a third party without the written permission of the State. This includes both items created as part of this contract and items owned by the State that are incidental to the contract. The Contractor shall also agree not to use items owned by the State for other purposes without the prior written permission of the State.
9. Individuals assigned by the Contractor are employees of the Contractor, and are not, under any circumstances or conditions, employees of the State.
10. The State will retain the right to release outright or request the replacement of any person who is working at an inferior level of performance. The Contractor will be given 24 hours advance notice of this action.
11. The Contractor's name, logo, or other company identifier may not appear on documentation delivered to the State without written authorization from the Contract Administrator. An exception to this will be transmittal of cover letters showing delivery of said documents.
12. The Contractor will certify in writing that it is in conformance with all applicable federal and state civil rights and practices equal employment opportunity for all persons regardless of race, creed, color, religion, national origin, gender or handicap; it is also in conformance with the requirements of the Americans with Disabilities Act. Failure to comply with the aforementioned laws may result in termination of the contract.
13. The Contractor shall use all software in accordance with the State's license agreements and any further restrictions imposed by the State. The Contractor shall not make any unauthorized copies of any software under any circumstances. Contractors found copying or knowingly using copyrighted software other than for backup purposes are subject to progressive disciplinary action. Contractors shall not provide software to any outsiders including consultants, local governmental units, and others when this would be a violation of law or copyright agreements.



14. Contractors are responsible for maintaining the confidentiality of their passwords and are liable for any harm resulting from disclosing or allowing disclosure of any password. Any conduct that restricts or inhibits the legitimate business use of State systems or network is prohibited. Each person must use State systems and networks only for lawful purposes. Specifically prohibited is any use of State systems or disclosure of any data which would constitute a criminal offense, give rise to civil liability, violate any State of Michigan policy, or otherwise violate any applicable local, state, or federal law. This also applies to any computer systems or networks that are accessed from State computer systems or networks.
15. The MDIT and the [agency] have developed, and will continue to develop during the course of this effort, a growing number of information technology standards. The selected Contractor must follow any and all standards adopted by MDIT and the [agency]. Where standards do not exist, the final acceptance of a new technique, technology, or design will rest with the Project Manager, following consultation and review with MDIT.

## **I-Q DEPARTMENT AND CONTRACTOR RESPONSIBILITIES**

### **Department Responsibilities:**

1. Provide office space within the Departments for temporary employees selected to work on these projects. NOTE: Access to office space during non-working hours must be approved.
2. Provide conference room space when sufficient notice is given and space is available.
3. Provide telephones for calls originating from within the Department of Information Technology, Agency Services, Departments of State and Treasury, Department of State Division that are project-related.
4. Provide copying services that are project-related.
5. Provide access to Facsimile equipment for items that are project-related.
6. Provide computer hardware and software, as deemed necessary, for all temporary staff/personnel working within the Department.

### **Contractor Responsibilities:**

1. Provide temporary professional services Monday through Friday, during the same work hours as those worked by State employees working at the identified facility.
2. Provide those services requested based on staff having the qualifications identified in this Contract.
3. Provide services on an as needed, if needed, basis. The exact timing and scheduling of the services shall be between the State and the contractor at the time of need.
4. All personnel provided by the Contractor shall be subject to the rules, regulations, and policies of the MDIT, agency/division and the State.
5. The Contractor shall replace all personnel whose work was found to be unsatisfactory within 24 hours of notification. Replacement of discontinued staff will be at the State's sole discretion; the State is not obligated to replace terminated or withdrawn individuals.

In the event an individual has been terminated or has voluntarily withdrawn from an assignment, the State will advise the Contractor which of the following three options will be employed:

- The State can request the same Contractor replace the individual with an individual of equal or greater qualifications.
- The State can choose from the other candidates submitted in response to the ITB, if they are still available and the proposed rates are still valid.



- The State can re-issue the ITB and obtain a new list of candidates and rates from eligible Contractors.
6. Contractor shall ensure that staff proposed for assignment are fully trained and meet the skill set requirements of the job position being filled.
  7. The State and/or its agencies make changes to their technical architectures from time to time. If a contract individual is assigned to a State project or support area and the technology associated with their assignment changes, the Contractor is responsible for training in the new or changed technology (e.g., Contractor personnel needs training in a particular CASE tool in order to perform their State assignment).

The cost of the course, including any travel expenses, will be the responsibility of the Contractor and the training hours will not be billable to the State). This responsibility includes all fees associated with the actual training course, travel expenses, and also the hours the individual spends in training. The maximum liability to the Contractor firm for training hours for any individual will be two weeks per year.

8. Provide parking when working on-site.
9. Phone calls not related to the project are not to be charged to the State.
10. The Contractor recognizes its responsibility for all tasks and deliverables contained therein, warrants that it has fully informed itself of all relevant factors affecting accomplishment of the tasks and deliverables and agrees to be fully accountable for the performance thereof. In addition, the Contractor assumes full responsibility for the acts of all subcontractors. Contractor shall have sole responsibility for the supervision, daily direction and control, payment of salary (including withholding of income taxes and social security), worker's compensation, disability benefits and the like for its personnel.

Contractor's management responsibilities include, but are not limited to, the following:

- Ensure personnel understand the work to be performed to which they are assigned.
- Ensure personnel know their management chain and adhere to Contractor policies and exhibit professional conduct to perform in the best interest of the State.
- Ensure personnel adhere to applicable laws, regulations, and Contract conditions governing Contractor performance and relationships with the State.
- Regularly assess personnel performance and provide feedback to improve overall task performance.
- Ensure high quality results are achieved through task performance.
- Provide training.

#### **I-R USE OF AGENCY STANDARD INFORMATION TECHNOLOGY ENVIRONMENT**

Unless otherwise stated in this ITB, all items produced by the Contractor must run on and be compatible with the information technology environment described in Section III.B. of this ITB.

It is recognized that technology changes rapidly. The staff may request a change in the standard environment using the process identified by MDIT. Any changes must be approved, in writing by MDIT, before work may proceed based on the changed environment.

Additionally, the State needs to be able to maintain software and other items produced as the result of the contract. Therefore, software development tools may not be used unless request is made, in writing, and approved by MDIT, in writing.

## **SECTION II CONTRACTUAL SERVICES TERMS AND CONDITIONS**



## **II-A CONTRACT PAYMENT**

The State shall not be liable to pay the Contractor for any work performed prior to the Contractor's receipt of a fully executed Blanket Purchase Order (BPO).

The services shall be provided and invoiced on a monthly basis, as used. After the services have been rendered, the Contractor shall invoice the State in accordance with the payment provisions of the Contract. Invoices must list the project, agency, Contract number and monthly rate. All invoices MUST include copies of timesheets signed by the project manager verifying hours were worked and that services were acceptably performed.

The State shall not be liable to pay the Contractor for any hours worked in excess of the rate stated in the BPO. The State will not pay the Contractor for overtime, holiday or other premium charges or other benefits.

The Contractor shall not receive payment for Services the State finds unsatisfactory or which were performed in violation of federal, state or local law, ordinance, rule or regulation.

## **II-B ACCOUNTING RECORDS**

The Contractor agrees that the State may, upon 24-hour notice, perform an audit at Contractor's location(s) to determine if the Contractor is complying with the requirements of the Contract. The Contractor agrees to cooperate with the State during the audit and produce all records and documentation that verifies compliance with the Contract requirements.

## **II-C INDEMNIFICATION**

1. For Purposes of Indemnification as set forth in this section, State means the State of Michigan, its departments, divisions, agencies, offices, commissions, officers, employees and agents.
2. General Indemnification  
The Contractor shall indemnify, defend and hold harmless the State from and against all losses, liabilities, penalties, fines, damages, and claims (including taxes), and all related costs, and all related costs and expenses (including reasonable attorneys; and costs of investigation, litigation, settlement, judgments, interest and penalties), arising from or in connection with any claim, demand, action, citation or legal proceeding against the State arising out of or resulting from the death or bodily injury of any person, or the damage, loss or destruction of any real or tangible personal property, in connection with the performance of services by Contractor, by any of its subcontractors, by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable provided that the Contractor is notified within 30 days from the time that the State has knowledge of such claims. This indemnification obligation shall not apply to the extent, if any, that such death, bodily injury or property damage is caused by the conduct of the State.
3. Patent/Copyright Infringement Indemnification  
The Contractor shall indemnify, defend and hold harmless the State from and against all losses, liabilities, damages (including taxes), and all related costs and expenses (including reasonable attorneys' fees and costs of investigation, litigation, settlement, judgments, interest and penalties) incurred in connection with any action or proceeding threatened or brought against the State to the extent that such action or proceeding is based on a claim that any piece of equipment, software, commodity or service supplied by the Contractor or its subcontractors, or the operation of such equipment, software, commodity or service, or the use or reproduction of any documentation provided with such equipment, software, commodity or service infringes any United States patent, copyright or trade secret of any person or entity, which is enforceable under the laws of the United States.

In addition, should the equipment, software, commodity, or service, or its operation, become or in the State's or Contractor's opinion be likely to become the subject of a claim of infringement, the Contractor shall at the Contractor's sole expense (i) procure for the State the right to continue using the equipment, software, commodity or service or, if such option is not reasonably available to the Contractor, (ii) replace or modify to the State's satisfaction the same with equipment, software,



commodity or service of equivalent function and performance so that it becomes non-infringing, or, if such option is not reasonably available to Contractor, (iii) accept its return by the State with appropriate credits to the State against the Contractor's charges and reimburse the State for any losses or costs incurred as a consequence of the State ceasing its use and returning it.

4. Continuation of Indemnification Obligation

The duty to indemnify will continue in full force and effect, notwithstanding the expiration or early cancellation of the Contract, with respect to any claims based on facts or conditions that occurred prior to expiration or cancellation.

**II-D LIMITATION OF LIABILITY**

The Contractor's liability for damages to the State for any cause whatsoever, and regardless of the form of action, whether in contract or tort, shall be limited the value of the Contract or \$200,000 which ever is higher. The foregoing limitation of liability shall not apply to claims for infringement of United States patent, copyright or trade secrets; to claims for death or bodily injury or damage to any real or tangible personal property caused by the negligence or fault of the Contractor; to claims related to the Contractor's unauthorized release of confidential information; to claims covered by other specific provisions of this Contract, if any, calling for liquidated damages; to the Contractor's indemnification obligations under Section II-C; and to the receipt of court costs or attorney's fees that might be awarded by a court in addition to damages after litigation based on this Contract.

Neither the Contractor nor the State shall be liable to the other for indirect or consequential damages even, if such party has been advised of the possibility of such damages. This limitation as to indirect or consequential damages does not apply to claims for infringement of United States patent, copyright or trade secrets; to claims related to the Contractor's unauthorized release of confidential information; to other specific provisions of this Contract, if any, calling for liquidated damages; or to the receipt of court costs or attorney's fees that might be awarded by a court in addition to damages after litigation based on this Contract.

**II-E CONTRACTOR'S LIABILITY INSURANCE**

BEFORE STARTING WORK THE CONTRACTOR MUST FURNISH TO THE DIRECTOR OF PURCHASING OPERATIONS, CERTIFICATE(S) OF INSURANCE VERIFYING LIABILITY COVERAGE. THE CONTRACT OR PURCHASE ORDER NO. MUST BE SHOWN ON THE CERTIFICATE OF INSURANCE TO ASSURE CORRECT FILING. These Certificates shall contain a provision that coverage's afforded under the policies will not be canceled until at least fifteen days prior written notice bearing the Contract Number or Purchase Order Number has been given to the Director of Purchasing Operations.

The Contractor shall purchase and maintain such insurance as will protect him from claims set forth below which may arise out of or result from the Contractor's operations under the Contract (Purchase Order), whether such operations be by himself or by any Subcontractor or by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable:

1. Claims under workers' disability compensation, disability benefit and other similar employee benefit act. A non-resident Contractor shall have insurance for benefits payable under Michigan's Workers' Disability Compensation Law for any employee resident of and hired in Michigan; and as respects any other employee protected by workers' disability compensation laws of any other state the Contractor shall have insurance or participate in a mandatory state fund to cover the benefits payable to any such employee.
2. Claims for damages because of bodily injury, occupational sickness or disease, or death of his employees.
3. Claims for damages because of bodily injury, sickness or disease, or death of any person other than his employees, subject to limits of liability of not less than \$100,000 each occurrence and, when applicable \$300,000 annual aggregate, for non-automobile hazards and as required by law for automobile hazards.



4. Claims for damages because of injury to or destruction of tangible property, including loss of use resulting, subject to a limit of liability of not less than \$50,000 each occurrence for non-automobile hazards and as required by law for automobile hazards.
5. Insurance for Subparagraphs (3) and (4) non-automobile hazards on a combined single limit of liability basis shall not be less than \$100,000 each occurrence and when applicable, \$300,000 annual aggregate.

The insurance shall be written for not less than any limits of liability herein specified or required by law, whichever is greater, and shall include contractual liability insurance as applicable to the Contractor's obligations under the Indemnification clause of the BPO.

## **II-F CANCELLATION**

The State may cancel this Contract without further liability or penalty to the State, its departments, divisions, agencies, offices, commissions, officers, agents and employees for any of the following reasons:

1. **Material Breach by the Contractor.** In the event that the Contractor breaches any of its material duties or obligations under the Contract the State may, having provided written notice of cancellation to the Contractor, cancel this Contract in whole or in part, for cause, as of the date specified in the notice of cancellation.

In the event that this Contract is cancelled for cause, in addition to any legal remedies otherwise available to the State by law or equity, the Contractor shall be responsible for all costs incurred by the State in canceling the Contract, including but not limited to, State administrative costs, attorneys fees and court costs, and any additional costs the State may incur to procure the services required by this Contract from other sources. All excess re-procurement costs and damages shall not be considered by the parties to be consequential, indirect or incidental, and shall be subject to the dollar limitation of liability as provided in Section II-D.

In the event the State chooses to partially cancel this Contract for cause charges payable under this Contract will be equitably adjusted to reflect those services that are cancelled.

In the event this Contract is cancelled for cause pursuant to this section, and it is therefore determined, for any reason, that the Contractor was not in breach of contract pursuant to the provisions of this section, that cancellation for cause shall be deemed to have been a cancellation for convenience, effective as of the same date, and the rights and obligations of the parties shall be limited to that otherwise provided in the Contract for a cancellation for convenience.

2. **Cancellation For Convenience By the State.** The State may cancel this Contract for its convenience, in whole or part, if the State determines that such a cancellation is in the State's best interest. Reasons for such cancellation shall be left to the sole discretion of the State and may include, but not necessarily be limited to (a) the State no longer needs the services or products specified in the Contract, (b) relocation of office, program changes, changes in laws, rules, or regulations make implementation of the Contract services no longer practical or feasible, and (c) unacceptable prices for additional services requested by the State. The State may cancel the Contract for its convenience, in whole or in part, by giving the Contractor written notice 30 days prior to the date of cancellation. If the State chooses to cancel this Contract in part, the charges payable under this Contract shall be equitably adjusted to reflect those services that are cancelled.
3. In the event that funds to enable the State to effect continued payment under this Contract are not appropriated or otherwise made available. The Contractor acknowledges that, if this Contract extends for several fiscal years, continuation of this Contract is subject to appropriation or availability of funds for this project. If funds are not appropriated or otherwise made available, the State shall have the right to cancel this Contract at the end of the last period for which funds have been appropriated or otherwise made available by giving written notice of cancellation to the Contractor. The State shall give



the Contractor written notice of such non-appropriation or unavailability within 30 days after it receives notice of such non-appropriation or unavailability.

4. In the event the Contractor, an officer of the Contractor, or an owner of a 25% or greater share of the Contractor, is convicted of a criminal offense incident to the application for or performance of a State, public or private Contract or subcontract; or convicted of a criminal offense including but not limited to any of the following: embezzlement, theft, forgery, bribery, falsification or destruction of records, receiving stolen property, attempting to influence a public employee to breach the ethical conduct standards for State of Michigan employees; convicted under State or federal antitrust statutes; or convicted of any other criminal offense which in the sole discretion of the State, reflects upon the Contractor's business integrity.
5. In the event any final administrative or judicial decision or adjudication disapproves a previously approved request for purchase of personal services pursuant to Constitution 1963, Article 11, section 5, and Civil Service Rule 4-6. Cancellation may be in whole or in part and may be immediate as of the date of the written notice to the Contractor or may be effective as of the date stated in such written notice.

## **II-G ASSIGNMENT**

The Contractor shall not have the right to assign this Contract or to assign or delegate any of its duties or obligations under this Contract to any other party (whether by operation of law or otherwise), without the prior written consent of the State. Any purported assignment in violation of this section shall be null and void. Further, the Contractor may not assign the right to receive money due under the Contract without the prior written consent of the State Purchasing Operations Director.

## **II-H DELEGATION**

The Contractor shall not delegate any duties or obligations under this Contract to a subcontractor other than a subcontractor named in the bid unless the State Purchasing Operations Director has given written consent to the delegation.

## **II-I NON-DISCRIMINATION CLAUSE**

In the performance of any Contract or purchase order resulting herefrom, the bidder agrees not to discriminate against any employee or applicant for employment, with respect to their hire, tenure, terms, conditions or privileges of employment, or any matter directly or indirectly related to employment, because of race, color, religion, national origin, ancestry, age, sex, height, weight, marital status, physical or mental disability unrelated to the individual's ability to perform the duties of the particular job or position. The bidder further agrees that every subcontract entered into for the performance of any Contract or purchase order resulting herefrom will contain a provision requiring non-discrimination in employment, as herein specified, binding upon each subcontractor. This covenant is required pursuant to the Elliot Larsen Civil Rights Act, 1976 Public Act 453, as amended, MCL 37.2101, et seq, and the Persons with Disabilities Civil Rights Act, 1976 Public Act 220, as amended, MCL 37.1101, et seq, and any breach thereof may be regarded as a material breach of the Contract or purchase order.

## **II-J UNFAIR LABOR PRACTICES**

Pursuant to 1980 Public Act 278, as amended, MCL 423.231, et seq, the State shall not award a Contract or subcontract to an employer whose name appears in the current register of employers failing to correct an unfair labor practice compiled pursuant to section 2 of the Act. This information is compiled by the United States National Labor Relations Board.

A Contractor of the State, in relation to the Contract, shall not enter into a Contract with a subcontractor, manufacturer, or supplier whose name appears in this register. Pursuant to section 4 of 1980 Public Act 278, MCL 423.324, the State may void any Contract if, subsequent to award of the Contract, the name of the Contractor as an employer, or the name of the subcontractor, manufacturer or supplier of the Contractor appears in the register.

## **II-K SURVIVOR**



Any provisions of the Contract that impose continuing obligations on the parties including, but not limited to the Contractor's indemnity and other obligations shall survive the expiration or cancellation of this Contract for any reason.

#### **II-L GOVERNING LAW**

This Contract shall in all respects be governed by, and construed in accordance with, the laws of the State of Michigan. Any dispute arising herein shall be resolved in the State of Michigan.

#### **II-M NO WAIVER OF DEFAULT**

The failure of a party to insist upon strict adherence to any term of a Contract resulting from this ITB shall not be considered a waiver or deprive the party of the right thereafter to insist upon strict adherence to that term, or any other term, of the Contract.

#### **II-N SEVERABILITY**

Each provision of the Contract shall be deemed to be severable from all other provisions of the Contract and, if one or more of the provisions of the Contract shall be declared invalid, the remaining provisions of the Contract shall remain in full force and effect.

#### **II-O HEADINGS**

Captions and headings used in the Contract are for information and organization purposes. Captions and headings, including inaccurate references, do not, in any way, define or limit the requirements or terms and conditions of this Contract.

#### **II-P RELATIONSHIP OF THE PARTIES**

The relationship between the State and the Contractor is that of client and independent Contractor. No agent, employee, or servant of the Contractor or any of its subcontractors shall be or shall be deemed to be an employee, agent, or servant of the State for any reason. The Contractor will be solely and entirely responsible for its acts and the acts of its agents, employees, servants and subcontractors during the performance of this Contract.

#### **II-Q MISCELLANEOUS**

1. The Contractor covenants that it is not, and will not become, in arrears to the State upon any contract, debt, or any other obligation to the State, including real property and personal property taxes.
2. **DAMAGES FOR UNAUTHORIZED PERSONNEL CHANGES**
  - a. The Contractor shall not replace the personnel designated in this Contract without the prior, written approval of the State.
  - b. If the Contractor violates this requirement, it shall pay the State, as liquidated damages and not as a penalty, a sum equal to the amount payable under this Contract.
  - c. The State may recover the amount due from the Contractor under this section by setting off against any amount due under this Contract or other contracts it may have with the Contractor.
3. **AUTHORIZATION & CAPABILITY**
  - a. The Contractor warrants that it has taken all corporate actions necessary for the authorization, execution, delivery and performance of this Contract. It is ready to perform its obligations.
  - b. The Contractor further warrants that the person signing this Contract is authorized to do so on behalf of the Contractor and is empowered to bind the Contractor to this Contract.



## SECTION III WORK STATEMENT

### A. Brief Description of Work

#### National Hydrography Dataset (NHD)

The project will target the completion of the Michigan High Resolution National Hydrography Dataset (NHD) for the remaining 14 Michigan-only watersheds not complete for the state.

**See Attached** *“National Hydrography Dataset (NHD) and OrthoImagery Staff Augmentation Attachment A”* for more details.

#### OrthoImagery

Through the Michigan Imagery Grant Partnership, the SOM has acquired use rights to local, regional and/or county orthoimagery for use by State agencies (normal resolution) and the public (degraded resolution). The objective of the project is to address the large amounts of data, as well as processing needs to convert the data into a format that is easily accessed by users, both internal and external to Michigan State government using one or more of the following options: Orthoimagery Reprojection, Orthoimagery Dataset Correction, and Resolution Degradation and Dataset Compression.

### B. Background on the work requested

#### National Hydrography Dataset (NHD)

As a product of cooperation among the Environmental Protection Agency (USEPA), the U.S. Geological Survey (USGS) and other governmental agencies, the National Hydrography Dataset (NHD) is a comprehensive set of digital spatial data that encodes information about naturally occurring and constructed bodies of water, paths through which water flows, and related entities. The information encoded about these features includes classification and other characteristics, delineation, geographic name, position and related measures, a "reach code" through which other information can be related to the NHD, and the direction of water flow. In addition to this geographic information, the dataset contains metadata and information that supports the exchange of future updates and improvements to the data.

The data supports many applications, such as:

- Making maps. Positional and descriptive data in the NHD provide the starting point for making many different kinds of maps.
- Geocoding observations. Much like street addresses provide a way to link data to a road network, the NHD's "reach code" provides the means to link data to water features.
- Modeling the flow of water along the Nation's waterways. Information about the direction of flow, when combined with other data, can help users model the transport of materials in hydrographic networks, and other applications.
- Maintaining data. Many organizations would like to share the costs of improving and updating their collections of geographic data. Unique identifiers and other methods encoded in the NHD help to solve technical problems of cooperative data maintenance.

In 1999, coverage was made available for the conterminous United States and Hawaii. Data for Puerto Rico, the Virgin Islands, and parts of Alaska will follow. The move to high resolution is an effort to maintain and improve the data. The current project aims at the completion of the Michigan High Resolution National Hydrography Dataset (NHD) for the remaining 14 Michigan-only watersheds not complete for the state.

#### OrthoImagery

The State of Michigan (SOM) Department of Information Technology (DIT), Center for Geographic Information (CGI) is administering a program to support statewide acquisition of imagery for its business use. State and Federal agencies are contributing to this program administered by the CGI.



One track is to acquire imagery that can support base feature identification, interpretation, and conversion. The entire state will be covered with base imagery every five years.

Where possible, the SOM DIT CGI intends to be a funding partner with existing local, county and regional ortho-imagery acquisition projects over the course of a five-year period. The goal is to leverage dollars between government agencies for common imagery products that meet the major business needs of all and yet protect the interests of all.

For any area not covered under a partnership during the five-year cycle, the SOM DIT CGI will serve as project manager to acquire imagery in order to complete the balance of the state.

### **C. Objectives**

#### National Hydrography Dataset (NHD)

Completion of the Michigan High Resolution National Hydrography Dataset (NHD) for the remaining 14 Michigan-only watersheds not complete for the state. A complete linear referencing system for remaining Hydro network will be the final product deliverable.

#### OrthoImagery

SOM DIT CGI desires to obtain OrthoImagery for the entire State of Michigan, leaf-off and at least 2-foot pixel or better.

Through the Michigan Imagery Grant Partnership, the SOM has acquired use rights to local, regional and/or county orthoimagery for use by State agencies (normal resolution) and the public (degraded resolution). The success of the program has resulted in storage needs for large amounts of data, as well as processing needs to convert the data into a format that is easily accessed by users, both internal and external to Michigan State government using one or more of the following options: Orthoimagery Reprojection, Orthoimagery Dataset Correction, and Resolution Degradation and Dataset Compression.

### **D. Agency technical environment for the work**

#### Equipment and Software Requirements - National Hydrography Dataset (NHD)

Required of the winning bid but provided by State of Michigan upon award of bid is a 40 Hrs training in National Hydrography Dataset (NHD) by the Michigan NHD Expert. Training will be provided at the vendor's location. The vendor will be compensated for the training time at the senior level (40 hrs).

The vendor will not incur any cost for the training .

The expert will turn around and provide training to other vendor's staff involved in the project. Similarly, training will be compensated at the level of staff providing and receiving training.

The winning vendor will also be required to have access to Digital Orthophoto Quarter-Quadrangles (DOQQs) in Spatial Database Engine (SDE) software from ESRI.

State of Michigan uses the United States Geologic Survey (USGS) 1998 DOQQs. 1998 or later will be acceptable.

The State of Michigan can give access to DOQQs for download, but the vendor will need to acquire SDE on their own.

Michigan State University also has DOQQs.

#### Equipment and Software Requirements - OrthoImagery Program

The winning vendor must have Quality Assurance / Quality Control (QA/QC) process tools. Please provide a description of the QA/QC tools your firm intends to employ on this project.

### **E. Description of the requested work, including deliverables and knowledge transfer**

SCOPE OF WORK:

National Hydrography Dataset (NHD)

The project will target the completion of the Michigan High Resolution National Hydrography Dataset (NHD) for the remaining 14 Michigan-only watersheds not complete for the state.

See Attached “National Hydrography Dataset (NHD) and OrthoImagery Staff Augmentation Attachment A” for more details.

OrthoImagery

Through the Michigan Imagery Grant Partnership, the SOM has acquired use rights to local, regional and/or county orthoimagery for use by State agencies (normal resolution) and the public (degraded resolution). The objective of the project is to address the large amounts of data, as well as processing needs to convert the data into a format that is easily accessed by users, both internal and external to Michigan State government using one or more of the following options: Orthoimagery Reprojection, Orthoimagery Dataset Correction, and Resolution Degradation and Dataset Compression.

Immediate Image Processing Needs – Current as of April 14, 2006

Phase 1: Orthoimagery Reprojection

Most orthoimagery resulting from the partnership is delivered in a coordinate system other than the state standard coordinate system, Michigan GeoRef. Since it is the desire of the CGI to have all GIS and remotely sensed data placed into the Michigan GeoRef coordinate system, the orthoimagery must be reprojected from its native coordinate system (usually Stateplane) into Michigan GeoRef. This is a straightforward and relatively speedy process for vector data, such as transportation networks and hydrography data. However, it is a much more difficult and time-consuming process for raster data, particularly image raster data, such as orthoimagery. High pixel resolution affects the size of files dramatically, which complicates and extends processing, including the reprojection process. Table 1, below, gives the approximate size, in Gigabytes, for a standard sized county.

	6" resolution	1' resolution
B&W	70 Gb	17.5 Gb
Color	210 Gb	52.5 Gb

It is difficult to streamline image processing, since imagery supplied by partners often varies in resolution, spectral type and coordinate system. Lastly, the processing involved requires specialized image processing software, such as ERDAS IMAGINE and/or ER Mapper, that is expensive to purchase and difficult to learn. CGI is looking for a vendor proficient in image processing, and one with experience in reprojection process. The winning vendor must be able to reproject any and all datasets supplied by CGI, regardless of format, resolution or native coordinate system.

CGI will provide to the winning vendor orthoimagery datasets from partner counties or regions. The vendor will import, reproject and tile out imagery into CGIs chosen image format. Data will be moved from CGI to the vendor, and vice versa, by high capacity external hard drives or an ftp portal.

Phase 2: Orthoimagery Dataset Correction

Although most orthoimagery contracts result in aesthetically pleasing, seamless datasets, CGI may encounter some imagery that has not gone through a robust balancing process to remove such things as seams and checkerboard patterns. It may be necessary to process this imagery to fix or minimize such balancing and matching issues, which often requires specialized software and a practiced eye. Many other issues may also exist. These include corrupt image tiles, missing data, incorrect or missing projection information and/or other radiometric or spatial problems. These additional issues need to be dealt with as they occur.



The winning vendor staff must have both the skill and the software to accomplish image corrections. All corrections should be accomplished in conjunction with the reprojection process. Radiometric corrections will be completed using ERDAS IMAGINE and ER Mapper image processing software.

### Phase 3: Resolution Degradation and Dataset Compression

CGI ultimately wants to store all orthoimagery at the highest resolution possible (typically 6") for use by other State agencies. If it becomes necessary to make a degraded resolution available to the general public, the winning vendor can provide highly compressed, two-foot resolution images to fill this need. The winning vendor is requested, if at all possible, to compress the imagery using near-lossless compression techniques. Imagery can often be compressed up to 20x without significant loss of quality.

Data will be degraded to a 2.0 foot x 2.0 foot pixel resolution and will be compressed using near-lossless compression techniques at a target compression ratio of 10:1. This will reduce the size of the imagery dataset to approximately 1 - 5% of its original size, depending on original resolution (see example below).

0.5 foot resolution, uncompressed (70 MB)	2 foot resolution, compressed 10x (0.5 MB)
----------------------------------------------	-----------------------------------------------

Given the high quality and sheer quantity of data produced through the Michigan Imagery Grant Partnership, opportunities exist for further processing and long-term maintenance of this imagery.

### Phase 4: 3-Dimensional processing [Possible future phase depending on completion of earlier phases and availability of funds]

High resolution imagery, paired with elevation information, offers the ability to view the landscape in 3-D. Using specialized software, it is possible to drape orthoimagery on top of a digital elevation model (DEM) or digital surface model (DSM) to create 3-D perspective views. A 3-D perspective can aid in many activities. Some include:

- Topographic analyses, such as view shed analysis, flood and erosion prediction and sand dune movement
- Transportation planning, such as road placement
- Emergency response and wildfire fighting
- Agricultural analyses, such as locating cold air drainage sites for cherry orchards
- Informing the public (about features and resources available in an area)

Increasingly, Michigan counties are purchasing high precision contour data as part of their orthoimagery contracts. This data is useful for precise 3-D analyses.

The winning vendor must be capable of virtual 3-D data creation and analysis using a variety of elevation and imagery data. Additionally, vector data, such as roads and hydrography, can be displayed on top of 3-D virtual data.

### Phase 5: Historic Datasets [Possible future phase depending on completion of earlier phases, availability of data and funds]

As the orthoimagery grant opportunity continues into the next phase and CGI starts receiving updated orthoimagery from participating counties, it must determine if and how it wants to store the historic imagery. Space, again, is an important consideration, but use is as well. Many users are interested in historic imagery, as well as recent imagery. The winning vendor must be able to suggest and/or provide a reputable repository of historic imagery for the State of Michigan. The winning vendor will also be asked to suggest ways that the Michigan Imagery can be integrated into the Michigan State University Aerial Imagery Archive.



## PHASES:

### National Hydrography Dataset (NHD)

Create High Resolution National Hydrography Dataset (NHD) for assigned areas of Michigan. Must follow "NHD Create (v2.0) – HR NHD Production Guide" attached ([National Hydrography Dataset \(NHD\) and Orthoimagery Staff Augmentation Attachment A](#))

#### Requirements:

ESRI ArcInfo workstation version 9.x

ESRI ArcView version 3.2

Access to 1998 USGS DOQQs via ESRI SDE

CGI will provide initial training, geography and custom programs to complete the process.

([National Hydrography Dataset \(NHD\) and Orthoimagery Staff Augmentation Attachment A](#))

### Orthoimagery

## PHASES:

Staff augmentation is required to assist with the following phases:

1. Orthoimagery Reprojection
2. Orthoimagery Dataset Correction
3. Resolution Degradation and Dataset Compression
4. 3-Dimensional processing
5. Historic Datasets

See scope of work for detailed description.

## DELIVERABLES:

### National Hydrography Dataset (NHD)

All ArcInfo coverages and data files that result from completion of all steps documented in the "NHD Create (v2.0) – HR NHD Production Guide", attached ([National Hydrography Dataset \(NHD\) and Orthoimagery Staff Augmentation Attachment A](#)).

### Orthoimagery

#### Immediate Image Processing Needs

Phase 1: Reprojected County Orthoimagery datasets

Projected to Michigan GeoRef.

Tiled and provided in necessary format for import into ArcSDE.

FGDC compliant metadata provided in .html file format.

Phase 2: Corrected Orthoimagery datasets

Color balanced/matched to remove or reduce seams and checkerboard effects.

Corrected radiometric/spatial data, as needed

FGDC compliant metadata provided in .html file format.



Phase 3: Degraded and compressed Orthoimagery datasets  
 Degraded to 2' pixel resolution.  
 Compressed at a target compression ratio of 10:1.  
 Tiled and provided in compressed format (ECW, Mr. SID, JPEG 2000).  
 FGDC compliant metadata provided in .html file format.

Phase 4: Deliverables dependent on scope of work.

Phase 5: Deliverables dependent on scope of work.

**F. Any specific regulations, requirements or expertise applicable, including specific background/security checks required.**

The selection for this project will be based on an evaluation of the skill and knowledge of the staff of the proposing organization as well as the equipment and software that the organization will have on hand to perform the services required on this project. To that end, organizations interested in this work should provide resumes for their staff that they are proposing to employ on this project. These resumes should include a description of the work that is similar to this project's work, the role that the employee performed on that work and the beginning and end dates of each employee's activity in that work. Any employee whose resume is included in a proposal for this project is considered committed to this project. Additionally, detail the equipment and software that the organization will have available to perform this work. This detail should include models, versions, dates and number of copies.

Skills for the National Hydrography Dataset (NHD) Program - Senior Programmer Analyst – Must be Proficient in General Hydrography Dataset processing, geospatial modeling and databases.

Skills for the Orthoimagery Program – The Programmer Analyst - Must be Proficient in Orthoimagery processing, including:

1. Orthoimagery Reprojection
2. Orthoimagery Dataset Correction
3. Resolution Degradation and Dataset Compression
4. 3-Dimensional processing
5. Historic Datasets Archival using image-processing software such as ERDAS IMAGINE and/or ER Mapper.

**G. Reports required**

A bi-weekly progress report must be submitted to the Agency Project Manager throughout the life of this project. This report may be submitted with the billing invoice. Each bi-weekly progress report must contain the following:

1. Hours: Indicate the number of hours expended during the past two weeks, and the cumulative total to date for the project. Also state whether the remaining hours are sufficient to complete the project.
2. Accomplishments: Indicate what was worked on and what was completed during the current reporting period.
3. Funds: Indicate the amount of funds expended during the current reporting period, and the cumulative total to date for the project.
4. Plans: Anticipated efforts for the next two (2) weeks.



5. Issues: Any ongoing issues that require action or information from MDIT in order to resolve.

#### **H. Location where the work is to be performed**

The work will be done at the vendor's location.

#### **I. Hours**

Work hours are not to exceed eight (8) hours a day, forty (40) hours a week. Normal working hours of 8:00 am to 5:00 pm are to be observed unless otherwise agreed to in writing.

No overtime will be permitted without prior written approval of both the vendor and agency project manager.

#### **J. State's contract/project manager for the work**

The designated Agency Project Manager is:

Rob Surber  
 MDIT, Center for Geographic Information  
 Romeny Building, 10<sup>th</sup> Floor  
 111 S Capitol Ave  
 Lansing MI 48933  
 Tel: 517-373-7910  
 Fax: 517-373-2939  
[SurberR@mi.gov](mailto:SurberR@mi.gov)

#### **K. The numbers of personnel by skill set (classification),**

##### **Programmer – Analyst (2) (not to exceed rate \$55.00)**

Plans, develops, tests, and documents computer programs, applying knowledge of programming techniques and computer systems: Evaluates user request for new or modified program, such as for financial or human resource management system, clinical research trial results, statistical study of traffic patterns, or analyzing and developing specifications for bridge design, to determine feasibility, cost and time required, compatibility with current system, and computer capabilities. Consults with user to identify current operating procedures and clarify program objectives. Reads manuals, periodicals, and technical reports to learn ways to develop programs that meet user requirements. Formulates plan outlining steps required to develop program, using structured analysis and design. Submits plans to user for approval. Prepares flowcharts and diagrams to illustrate sequence of steps program must follow and to describe logical operations involved. Designs computer terminal screen displays to accomplish goals of user request. Converts project specifications, using flowcharts and diagrams, into sequence of detailed instructions and logical steps for coding into language processable by computer, applying knowledge of computer programming techniques and computer languages. Enters program codes into computer system. Enters commands into computer to run and test program. Reads computer printouts or observes display screen to detect syntax or logic errors during program test, or uses diagnostic software to detect errors. Replaces, deletes, or modifies codes to correct errors. Analyzes, reviews, and alters program to increase operating efficiency or adapt to new requirements. Writes documentation to describe program development, logic, coding, and corrections. Writes manual for users to describe installation and operating procedures. Assists users to solve operating problems. Recreates steps taken by user to locate source of problem and rewrites program to correct errors. May use computer-aided software tools, such as flowchart design and code generation, in each stage of system development. May train users to use program. May oversee installation of hardware and software. May provide technical assistance to program users. May install and test program at user site. May monitor performance of program after implementation. May specialize in developing programs for business or technical applications.

Programmer-Analyst capabilities with 1-7 years of experience, relies on experience and judgment to plan and accomplish goals, performs a variety of complicated tasks, may lead and direct the work of others, may report directly to a project lead or manager, a wide degree of creativity and latitude is expected.

##### **Project Manager**



Plans and coordinates work teams. Provides management and technical support to project team members. Handles complex projects. Designs and implements project plans. Generally manages a group of applications system analysts or infrastructure specialists. Relies on experience and judgment to plan and accomplish goals. Typically reports to a senior manager.

Project Manager capabilities with 2-7 years of experience.

**Project Manager Senior (2) (not to exceed rate \$\$110.00)**

Project Manager capabilities with 7 or more years of experience.

**PRICE PROPOSAL**

1. All rates quoted in bidder's response to this ITB will be firm for the duration of the contract. No price changes will be permitted.
  
2. Pricing
  - Classification/skill set: Program Analyst, Justin Booth  
Hourly/Monthly Rate: \$50.00 x 2080= \$104,000.00
  - Classification/skill set: Program Analyst, Robert Goodwin  
Hourly/Monthly Rate: \$50.00 x 2080 = \$104,000.00
  - Classification/skill set: Project Manager Sr., Charles Bristol  
Hourly/Monthly Rate: \$100.00 x 2080 = \$208,000.00
  - Classification/skill set: Project Manager Sr., Jessica Jo Moy  
Hourly/Monthly Rate: \$100.00 x 2080 = \$208,000.00

**Total \$624,000.00**