



**STATE OF MICHIGAN
ENTERPRISE PROCUREMENT**

Department of Technology, Management, and Budget

525 W. Allegan, Lansing MI 48913
P.O. Box 30026, Lansing, MI 48909

NOTICE OF CONTRACT

CONTRACT NO. 071B7700022

between

THE STATE OF MICHIGAN

and

CONTRACTOR	Tribridge Holdings, LLC
	4830 W. Kennedy Blvd, Suite 890
	Tampa FL 33407
	Rick Thompson
	719-339-2907
	Rick.Thompson@tribridge.com
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CONTRACT SUMMARY			
DESCRIPTION: Michigan State Historic Preservation Office (MISHPO) System			
INITIAL EFFECTIVE DATE	INITIAL EXPIRATION DATE	INITIAL AVAILABLE OPTIONS	EXPIRATION DATE BEFORE CHANGE(S) NOTED BELOW
10/1/2016	5/31/2021	Five 1-Year	5/31/2021
PAYMENT TERMS		DELIVERY TIMEFRAME	
NA		NA	
ALTERNATE PAYMENT OPTIONS			EXTENDED PURCHASING
<input type="checkbox"/> P-card <input type="checkbox"/> Direct Voucher (DV) <input type="checkbox"/> Other			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
MINIMUM DELIVERY REQUIREMENTS			
NA			
MISCELLANEOUS INFORMATION			
This Contract is awarded from Request for Proposal # 007116B0006697 to establish an information system related to the identification and management of historical and archaeological sites and historical artifacts and the submission, review, and response of federally-funded projects on behalf of the Michigan State Housing Development Authority (MSHDA). The contract may also be leveraged by any other State agency to create establish a scalable business workflow platform using Microsoft Dynamics CRM technology, as well as the geo-spatial mapping of the resulting data, to meet its specific business needs.			
ESTIMATED CONTRACT VALUE AT TIME OF EXECUTION		\$2,917,389.00	

FOR THE CONTRACTOR:

Company Name

Authorized Agent Signature

Authorized Agent (Print or Type)

Date

FOR THE STATE:

Signature

Name & Title

Agency

Date

CONTRACT TERMS

Software as a Service (SaaS)

This Software as a Service Contract (this “**Contract**” or “**Agreement**”) is agreed to between the State of Michigan (the “**State**”) and Tribridge Holdings, LLC (“**Contractor**”), a Delaware limited liability company. This Contract is effective on October 1, 2016 (“**Effective Date**”), and unless earlier terminated, will expire on May 31, 2021 (the “**Term**”).

This Contract may be renewed for up to five (5) additional one (1) year period(s). Renewal must be by written notice from the State and will automatically extend the Term of this Contract. Each renewal term shall automatically renew on the anniversary date of this Agreement unless the State provides Contractor written notice at least sixty (60) days prior to the end of the term of its intent not to renew.

Any State agency, MiDEAL partner or public entity may leverage this contract.

1. Definitions.

“**Accept**” has the meaning set forth in **Section 4.2(b)**.

“**Acceptance**” has the meaning set forth in **Section 4.2(b)**.

“**Action**” has the meaning set forth in **Section 15.1**.

“**Agreement**” has the meaning set forth in the preamble.

“**Allegedly Infringing Features**” has the meaning set forth in **Section 15.3(b)(ii)**.

“**Authorized Users**” means all Persons authorized by the State to access and use the Services through the State’s account under this Contract, subject to the maximum number of users specified in the applicable Statement of Work.

“**Business Day**” means a day other than a Saturday, Sunday or State Holiday.

“**Change Notice**” has the meaning set forth in **Section 2.2**.

“**Code**” has the meaning set forth in **Section 21**.

“**Confidential Information**” has the meaning set forth in **Section 12.1**.

“**Contract**” has the meaning set forth in the preamble.

“**Contract Administrator**” is the individual appointed by each party to (a) administer the terms of this Contract, and (B) approve and execute any Change Notices under this Contract. Each party’s Contract Administrator will be identified in the Statement of Work.

“Contractor” has the meaning set forth in the preamble.

“Contractor Personnel” means all employees and agents of Contractor, all Subcontractors and all employees and agents of any Subcontractor, involved in the performance of Services.

“Contractor Security Officer” has the meaning set forth in **Section 2.5(a)**.

“Contractor Service Manager” has the meaning set forth in **Section 2.5(a)**.

“Contractor Systems” has the meaning set forth in **Section 13.3**.

“Critical Support Request” has the meaning set forth in **Section 6**.

“Documentation” means all generally available documentation relating to the Services, including all user manuals, operating manuals and other instructions, specifications, documents and materials, in any form or media, that describe any component, feature, requirement or other aspect of the Services, including any functionality, testing, operation or use thereof.

“Effective Date” has the meaning set forth in the preamble.

“Fees” has the meaning set forth in **Section 8.1**.

“Force Majeure Event” has the meaning set forth in **Section 19.1**.

“Harmful Code” means any software, hardware or other technologies, devices or means, the purpose or effect of which is to: (a) permit unauthorized access to, or to destroy, disrupt, disable, distort, or otherwise harm or impede in any manner, any (i) computer, software, firmware, hardware, system or network, or (ii) any application or function of any of the foregoing or the integrity, use or operation of any data Processed thereby; or (b) prevent the State or any Authorized User from accessing or using the Services or Contractor Systems as intended by this Contract, and includes any virus, bug, trojan horse, worm, backdoor or other malicious computer code and any time bomb or drop dead device.

“High Support Request” has the meaning set forth in **Section 6**.

“HIPAA” has the meaning set forth in **Section 9.1**.

“Hosted Services” has the meaning set forth in **Section 2.1(a)**.

“Intellectual Property Rights” means any and all rights comprising or relating to: (a) patents, patent disclosures and inventions (whether patentable or not); (b) trademarks, service marks, trade dress, trade names, logos, corporate names and domain names, together with all of the goodwill associated therewith; (c) authorship rights, copyrights and copyrightable works (including computer programs) and rights in data and databases; (d) trade secrets, know-how and other confidential information; and (e) all other intellectual property rights, in each case whether registered or unregistered and including all applications for, and renewals or extensions of, such rights, and all similar or equivalent rights or forms of protection provided by applicable Law in any jurisdiction throughout the world.

“Key Personnel” means any Contractor Personnel identified as key personnel in this Contract or any Statement of Work.

“Law” means any statute, law, ordinance, regulation, rule, code, order, constitution, treaty, common law, judgment, decree or other requirement or rule of any federal, state, local or foreign government or political subdivision thereof, or any arbitrator, court or tribunal of competent jurisdiction.

“Loss” means all losses, damages, liabilities, deficiencies, claims, actions, judgments, settlements, interest, awards, penalties, fines, costs or expenses of whatever kind, including reasonable attorneys’ fees and the costs of enforcing any right to indemnification hereunder and the cost of pursuing any insurance providers. “Losses” has a correlative meaning.

“Low Support Request” has the meaning set forth in **Section 6**.

“Medium Support Request” has the meaning set forth in **Section 6**.

“Person” means an individual, corporation, partnership, joint venture, limited liability company, governmental authority, unincorporated organization, trust, association or other entity.

“Personal Health Information (PHI)” has the meaning set forth in **Section 9.1**.

“Personally Identifiable Information (PII)” has the meaning set forth in **Section 9.1**.

“Process” means to perform any operation or set of operations on any data, information, material, work, expression or other content, including to (a) collect, receive, input, upload, download, record, reproduce, store, organize, combine, log, catalog, cross-reference, manage, maintain, copy, adapt, alter, translate or make other improvements or derivative works, (b) process, retrieve, output, consult, use, disseminate, transmit, submit, post, transfer, disclose or otherwise provide or make available, or (c) block, erase or destroy. **“Processing”** and **“Processed”** have correlative meanings.

“Reject” has the meaning set forth in **Section 4.2(b)**.

“Rejection” has the meaning set forth in **Section 4.2(b)**.

“Representatives” means a party’s employees, officers, directors, consultants, legal advisors and, with respect to Contractor, Contractor’s Subcontractors.

“RFP” means the State’s request for proposal designed to solicit responses for Services under this Contract.

“Service Level Credits” has the meaning set forth in **Section 6**.

“Service Level Failure” means a failure to perform the Support Services fully in compliance with the Support Service Level Requirements.

“Service Software” means any and all software applications and any third-party or other software, and all new versions, updates, revisions, improvements and modifications of the foregoing, that Contractor provides remote access to and use of as part of the Services.

“Service Support Level Requirements” has the meaning set forth in **Section 6**.

“Services” has the meaning set forth in **Section 2.1**.

“Source Code” means the human readable source code of the Service Software to which it relates, in the programming language in which the Service Software was written, together with all related flow charts and technical documentation, including a description of the procedure for generating object code, all of a level sufficient to enable a programmer reasonably fluent in such programming language to understand, build, operate, support, maintain and develop modifications, upgrades, updates, adaptations, enhancements, new versions and other derivative works and improvements of, and to develop computer programs compatible with, the Service Software.

“Specifications” means the specifications for the Services set forth in the applicable Statement of Work and, to the extent consistent with and not limiting of the foregoing, the Documentation.

“State” has the meaning set forth in the preamble.

“State Data” has the meaning set forth in **Section 9.1**.

“State Modification” has the meaning set forth in **Section 15.2(a)**.

“State Project Manager” has the meaning set forth in **Section 2.8**.

“State Systems” means the information technology infrastructure, including the computers, software, databases, electronic systems (including database management systems) and networks, of the State or any of its designees.

“Statement of Work” has the meaning set forth in **Section 2.1(a)**. The Initial Statement of Work is attached as **Schedule A**, and subsequent Statements of Work shall be sequentially identified and attached as Schedule A-1, A-2, A-3, etc.

“Subcontractor” means any entity that performs any Services under this Contract and otherwise has the meaning set forth in **Section 2.4(a)**.

“Support Request” has the meaning set forth in **Section 6**.

“Support Service Level Requirements” has the meaning set forth in **Section 6**.

“Support Services” has the meaning set forth in **Section 6**.

“System” has the meaning set forth in **Section 5.2**

“**System Availability Credits**” has the meaning set forth in **Section 5.4**.

“**Term**” has the meaning set forth in the preamble.

“**Transition Period**” has the meaning set forth in **Section 7.44**.

“**Transition Responsibilities**” has the meaning set forth in **Section 7.4**.

“**User Data**” means any and all information reflecting the access or use of the Hosted Services by or on behalf of the State or any Authorized User, including any end user profile, visit, session, impression, click-through or click-stream data and any statistical or other analysis, information or data based on or derived from any of the foregoing.

2. **Services.**

2.1 Services. Throughout the Term and at all times in connection with its actual or required performance under this Contract, Contractor will, in accordance with all terms and conditions set forth in this Contract and each applicable Statement of Work, provide to the State and its Authorized Users the following services (“**Services**”):

(a) the hosting, management and operation of the Service Software and other services for remote electronic access and use by the State and its Authorized Users (“**Hosted Services**”) as described in one or more written, sequentially numbered, statements of work referencing this Contract, including all Specifications set forth in such statements of work, which, upon their execution will be attached as **Schedule A** to this Contract and by this reference are incorporated in and made a part of this Contract (each, a “**Statement of Work**”)

(b) service maintenance and the Support Services as set forth in **Section 6** and in the applicable Statement of Work; and

(c) such other services as may be specified in the applicable Statement of Work.

2.2 Change Notices.

(a) Any modifications or changes to the Services under any executed Statement of Work will be effective only if and when memorialized in a mutually agreed written change notice (“**Change Notice**”) signed by both Parties, provided, however, that for any Services provided on a limited basis (for example, on a per user, server, CPU or named-user basis), the State may, at any time, increase or decrease the number of its licenses hereunder subject to a corresponding forward-going adjustment of the Fees to reflect these changes in accordance with the pricing set forth in the applicable Statement of Work.

(b) In the event the Services are customizable, a more detailed change control process may be specified in the applicable Statement of Work. In such event, the change control process set forth in such Statement of Work shall control.

2.3 Compliance With Laws. Contractor must comply with all applicable Laws as they concern this Contract, including by securing and maintaining all required and appropriate visas, work permits, business licenses and other documentation and clearances necessary for performance of the Services.

2.4 Subcontracting. Contractor will not itself, and will not permit any Person to, subcontract any Services, in whole or in part, without the State's prior written consent, which consent may be given or withheld in the State's sole discretion. Without limiting the foregoing:

(a) Contractor must ensure each Contractor subcontractor (including any subcontractor of a Contractor subcontractor, each, a "**Subcontractor**") complies with all relevant terms of this Contract, including all provisions relating to State Data or other Confidential Information of the State;

(b) the State's consent to any such Subcontractor does not relieve Contractor of its representations, warranties or obligations under this Contract;

(c) Contractor will remain responsible and liable for any and all: (i) performance required hereunder, including the proper supervision, coordination and performance of the Services; and (ii) acts and omissions of each Subcontractor (including, such Subcontractor's employees and agents, who, to the extent they are involved in providing any Services, are deemed Contractor Personnel) to the same extent as if such acts or omissions were done by Contractor;

(d) any noncompliance by any Subcontractor or its employees or agents with the provisions of this Contract or any Statement of Work will constitute a breach by Contractor;

(e) prior to the provision of Services by any Subcontractor, Contractor must obtain from each such proposed Subcontractor:

(i) the identity of such Subcontractor and the location of all its data centers, if any, that will be used in Processing any State Data, which information Contractor shall promptly disclose to the State in writing; and

(ii) a written confidentiality, restricted use, work-for-hire and intellectual property rights assignment Contract giving the State rights at least equal to those set forth in **Section 9** (State Data), **Section 12** (Confidentiality), and **Section 13** (Security) and containing the Subcontractor's acknowledgment of, and agreement to, the provisions of **Section 2.5** (Contractor Personnel)

2.5 Contractor Personnel. Contractor will:

(a) appoint: (i) a Contractor employee to serve as a primary contact with respect to the Services who will have the authority to act on behalf of Contractor in matters pertaining to the receipt and processing of Support Requests and the Support Services (the "**Contractor Service Manager**"); and (ii) a Contractor employee to respond to the State's inquiries regarding the security of the Contractor Systems who has sufficient knowledge of the security of the Contractor Systems and the authority to act on behalf

of Contractor in matters pertaining thereto ("**Contractor Security Officer**"); and (iii) other Key Personnel, who will be suitably skilled, experienced and qualified to perform the Services;

(b) provide names and contact information for Contractor's Key Personnel on **Schedule B** to this Contract;

(c) maintain the same Contractor Service Manager, Contractor Security Officer and other Key Personnel throughout the Term and such additional period, if any, as Contractor is required to perform the Services, except for changes in such personnel due to: (i) the State's request pursuant to **Section 2.5(d)**; or (ii) the death, disability, resignation or termination of such personnel or other circumstances outside Contractor's reasonable control; and

(d) if the State reasonably determines that any Key Personnel's performance is unsatisfactory, the State shall promptly give notice to Contractor and the parties will negotiate in good faith to achieve a mutually satisfactory personnel outcome.

2.6 Management and Payment of Contractor Personnel.

(a) Contractor is solely responsible for the payment of Contractor Personnel, including all fees, expenses and compensation to, by or on behalf of any Contractor Personnel and, if applicable, the withholding of income taxes and payment and withholding of social security and other payroll taxes, unemployment insurance, workers' compensation insurance payments and disability benefits.

(b) Contractor will ensure that no Person who has been convicted of a felony or any misdemeanor involving, in any way, theft, fraud, or bribery provides any Services or has access to any State Data, State Systems or State facilities. On a case-by-case basis, the State may request that Contractor initiate a background check on any Contractor Personnel before they may have access to State Data, State Systems or State facilities. Any request for a background check shall be initiated by the State and must be reasonably related to the type of work requested. The scope of the background check is at the discretion of the State and the results shall be used solely to determine the eligibility of Contractor Personnel to work with State Data, State Systems or in State facilities. If provided to the State, results of background checks will be promptly returned to Contractor, and will be treated as Confidential Information. All investigations will include a Michigan State Police Background check (ICHAT) and may include a National Crime Information Center (NCIC) Finger Print check. Contractor will present attestation of satisfactory completion of such tests. Contractor is responsible for all costs and expenses associated with such background checks.

2.7 Time is of the Essence. Contractor acknowledges and agrees that time is of the essence with respect to its obligations under this Contract and that prompt and timely performance of all such obligations, including all timetables and other requirements of this Contract and each Statement of Work, is strictly required.

2.8 State Project Manager. The State will appoint and, in its reasonable discretion, replace, a State employee to serve as the primary contact with respect to the Services who will have the authority

to act on behalf of the State in matters pertaining to the Support Services, including the submission and processing of Support Requests (the “**State Project Manager**”).

3. License Grant and Restrictions

3.1 Contractor License Grant. Contractor hereby grants to the State, exercisable by and through its Authorized Users, a nonexclusive, royalty-free, irrevocable (except as provided herein) right and license during the Term and such additional periods, if any, as Contractor is required to perform Services under this Contract or any Statement of Work, to:

(a) access and use the Hosted Services, including in operation with other software, hardware, systems, networks and services, for the State’s business purposes, including for Processing State Data;

(b) generate, print, copy, upload, download, store and otherwise Process all GUI, audio, visual, digital and other output, displays and other content as may result from any access to or use of the Services;

(c) prepare, reproduce, print, download and use a reasonable number of copies of the Specifications and Documentation for any use of the Services under this Contract; and

(d) access and use the Services for all such non-production uses and applications as may be necessary or useful for the effective use of the Hosted Services hereunder, including for purposes of analysis, development, configuration, integration, testing, training, maintenance, support and repair, which access and use will be without charge and not included for any purpose in any calculation of the State’s or its Authorized Users’ use of the Services, including for purposes of assessing any Fees or other consideration payable to Contractor or determining any excess use of the Hosted Services as described in **Section 3.3**.

(e) Notwithstanding anything to the contrary contained herein, any access to and use of the Hosting Services shall be governed by the applicable license agreement and the State will at all times comply with such license agreement. Contractor will not be responsible for any conflict between the terms of this Agreement and the terms of the license agreement for the Hosting Services nor shall Contractor be responsible for the performance of the Hosting Services.

3.2 License Restrictions. The State will not: (a) rent, lease, lend, sell, sublicense, assign, distribute, publish, transfer or otherwise make the Hosted Services available to any third party, except as expressly permitted by this Contract or in any Statement of Work; or (b) use or authorize the use of the Services or Documentation in any manner or for any purpose that is unlawful under applicable Law.

3.3 Use. The State will pay Contractor the corresponding Fees set forth in the Statement of Work for all Authorized Users access and use of the Service Software.

3.4 State License Grant. The State hereby grants to Contractor a limited, non-exclusive, non-transferable license (i) to use the State’s (or individual agency’s, department’s or division’s) name,

trademarks, service marks or logos, solely in accordance with the State's specifications, and (ii) to display, reproduce, distribute and transmit in digital form the State's (or individual agency's, department's or division's) name, trademarks, service marks or logos in connection with promotion of the Services as communicated to Contractor by the State. Use of the State's (or individual agency's, department's or division's) name, trademarks, service marks or logos will be specified in the applicable Statement of Work.

4. Service Preparation, Testing and Acceptance

4.1 Service Preparation. Promptly upon the parties' execution of a Statement of Work, Contractor will take all steps necessary to make the Services procured thereunder ready and available for the State's use in accordance with the Statement of Work and this Contract, including any applicable milestone date or dates set forth in such Statement of Work.

4.2 Testing and Acceptance.

(a) When Contractor notifies the State in writing that the Services are ready for use in a production environment, the State will have thirty (30) days (or such other period as may be agreed upon by the Parties in writing) from receipt of the notice to test the Services to determine whether they comply in all material respects with the requirements of the Specifications in the Statement of Work.

(b) Upon completion of the State's testing, the State will notify Contractor of its acceptance ("**Accept**" or "**Acceptance**") or, if it has identified any noncompliance with the Specifications in the Statement of Work, rejection ("**Reject**" or "**Rejection**") of the Services. If the State Rejects the Services, the State will provide a written list of items that must be corrected. On receipt of the State's notice, Contractor will promptly commence, at no additional cost or charge to the State, all reasonable efforts to complete, as quickly as possible and in any event within twenty (20) days (or such other period as may be agreed upon by the Parties in writing) from receipt of the State's notice, such necessary corrections, repairs and modifications to the Services to bring them into full compliance with the Specifications.

(c) If any corrective measures are required under **Section 4.2(b)**, upon completion of all such measures, Contractor will notify the State in writing and the process set forth in **Section 4.2(a)** and **Section 4.2(b)** will be repeated; provided that if the State determines that the Services, as revised, still do not comply in all material respects with the Specifications, the State may, in its sole discretion:

- (i) require the Contractor to repeat the correction, repair and modification process set forth in **Section 4.2(b)** at no additional cost or charge to the State; or
- (ii) terminate any and all of the relevant Statement of Work, this Contract and any other Statements of Work hereunder.

(d) The parties will repeat the foregoing procedure until the State Accepts the Services or elects to terminate the relevant Statement of Work as provided in **Section 4.2(c)(ii)** above. If the State so terminates the relevant Statement of Work, Contractor must refund to the State all sums previously paid

to Contractor under such Statement of Work within ten (10) Business Days of the State's written notice of termination, and the State will be relieved of all obligations thereunder.

5. System Availability and System Availability Credits.

5.1 Hosted Services Requirement.

(a) State acknowledges that the Hosted Services are being provided by third-party vendor in an infrastructure that is completely managed and monitored by the third party vendor. As such, Contractor is unable to warrant or guarantee Hosted Services performance or the System performance in the Hosted Services environment, as measured in terms of system speed or system speed or availability, arising from issues that are predominantly related to the third-party vendor's infrastructure or hardware.

(b) State acknowledges that any exceptions, scheduled downtime, service availability reports, and remedies for service availability failures, related to use of the Hosting Services shall be governed by the applicable license agreement and the State will at all times comply with such license agreement. Contractor will not be responsible for any conflict between the terms of this Agreement and the terms of the license agreement for the Hosting services nor shall Contractor be responsible for the performance of the Hosting Services.

5.2 Contractor Guarantee. Contractor shall guarantee a fully-operational application ("**System**") that runs on the Hosting Services vendor's environment, as designed and deployed by the Contractor. This does not include changes to the System made by the State or other third party contractors, infrastructure-related issues, internet issues or desktop computer-related issues. Contractor is responsible for the performance and usability of the System, and guarantees as part of this agreement that the System shall be free of software defects that could affect system usage and performance, which includes the following list as an example:

- (a) An error message is appearing in a window of the System,
- (b) A user cannot log in or cannot complete a process in the System,
- (c) A user enters data and cannot save the data, or "saved" data appears to be missing in the System,
- (d) A print job or a workflow will not execute from the System,
- (e) A report, dashboard, or query will not render in the System,
- (f) The System screen "freezes" and navigation is inoperable,
- (g) Commercially unreasonable application performance,
- (h) Application or module down, and/or

(i) Any other commercially reasonable software defect that affects system usage or performance.

Commercially reasonable is based upon a standard of reasonableness, which is a subjective test of what a reasonable organization or person would do in the individual circumstance as judged by the standards of the general public and/or applicable business community, taking all factors into account. Contractor and State will mutually agree upon the definition of reasonable as needed.

5.3 System Availability. The System Service Level Commitment for Availability is 99.9%. The System shall be available 24 hours a day, 7 days a week, each day of the year, except for periods of scheduled outage or maintenance. The Contractor shall meet the System Service Level Commitment during each calendar month. The System Service Level Commitment will be calculated on a calendar-monthly basis. The System Service Level Commitment shall take effect upon final Acceptance of the System. The Contractor shall take action to restore availability as soon as possible following a System Availability Failure.

5.4 Remedies for System Availability Failures. If the actual System Availability is less than the System Service Level Commitment for Availability indicated above for any calendar month, such failure will constitute a system availability failure for which Contractor will issue to the State the following credits on the Fees payable for unlimited support and maintenance provided during the service period ("**System Availability Credits**").

Availability	Credit of Monthly Fees
>=99.9%	None
<99.9% but >= 99.0%	15%
<99.0% but >= 95.0%	35%
<95.0%	50%

Any System Availability Credits shall be applied to the next invoice from Contractor to the State for unlimited support and maintenance.

System Disruption Exceptions

Contractor shall not be responsible for System Downtime which results from any of the following:

- a. Facility power failure(s)
- b. State data system or network failure
- c. State user error
- d. Force majeure events
- e. Hosting Services Vendor infrastructure or downtime

6. Support and Maintenance Services.

Once the State is live, commencing on final acceptance of the System and project by the State, Tribridge proposes an unlimited support plan for the MiSHPO system administered by the Tribridge dedicated customer care team. Tribridge will be contractually responsible for all maintenance and support services for all elements of the business application. Microsoft will be responsible for the hosted environments (CRM Online and Azure).

Each environment and software publisher will handle warranty work and updates related to their relevant areas, with Tribridge acting as the single point of contact for service and support for all non-uptime related issues.

For clarification, the software components (CRM and third party ISVs) will be located in the following environments:

- Microsoft CRM: Microsoft CRM Online
- North52: Microsoft CRM Online
- Scribe: Microsoft Azure
- EZ Territory: Microsoft Azure
- Bing Maps: Microsoft Azure

(a) Support

Our team of over 30 dedicated professionals provide complete support services. Technical support is administered remotely. The Tribridge Customer Care team will handle all warranty and non-warranty support requests for the application software. Tribridge guarantees the availability of maintenance and support services for application software, for a minimum of one year after our contract with the State expires, provided that the State remains current on the Maintenance and Support agreement found in this proposal.

(b) Support Hours and Contact

Tribridge support hours for this proposal are 24 hours a day, 7 days a week, 365 days a year for Critical and High incidents and normal business hours (weekdays from 8AM EST to 6PM EST) for all other incidents. Microsoft offers 24x7 support of CRM Online for an additional fee (which has been provided to the State for consideration). The State has many options for contacting Tribridge for support, including:

Phone

Support requests can be made by telephone Toll Free to the Customer Care team. All support requests are logged into the Tribridge service database for tracking and follow-up. Support requests of an urgent nature should always be reported using the toll free number to facilitate expedited handling.

Email

Support requests can be made by email (Support@Tribridge.com). All email requests are logged into the Tribridge service database for tracking and follow-up. Email is not recommended for reporting urgent issues.

Online

Support requests can be entered directly into the Tribridge service database via our online portal.

Support provided by our Customer Care Team includes:

Level 1 – Support Services provided by the Tribridge Customer Care Team (Call Center). Remote support services delivered by phone, email or remote access into your system are covered.

Level 2 – Remote Professional Services. Remote support provided by our consultants and systems engineering team members. This level of service is performed by phone, e-mail, or remote login to your system.

Level 3 – This has been provided as a separate option for the State’s consideration under the Enhancements budget/proposal.

For information purposes, onsite support provided by our consulting and systems engineering teams at the clients site at an agreed upon time and materials rate. All onsite services have a minimum billable rate and duration of eight (8) hours.

(c) Response SLA

The State may contact the Tribridge Customer Care team for support requests via web portal, email address or if urgent, call the Customer Care toll free phone line. The Customer Care team will open a support request in the Tribridge ticketing system and assign a priority. Due to the differing priorities in why a customer might call Customer Care for support, Tribridge has structured a response plan to address the most critical issues first. When the State opens a support request, they should indicate the priority of the request by using the priority type described below. The Customer Care team will assign the actual priority on the ticket. “Fix” times for each level of severity will be established with the State

- | | |
|--------------|--|
| 1. Critical: | Defects that could (or did) cause disastrous consequences for the system in question (e.g., critical loss of data, critical loss of system availability, critical loss of security, critical loss of safety, etc.). The system or a major process of the system is completely down |
| 2. High: | Defects that could (or did) cause very serious consequences for the system in question (e.g., a function is severely broken, cannot be used and there is no workaround). System or a major process of the system is impacting users. |
| 3. Medium: | Defects that could (or did) cause significant consequences for the system in question - A defect that needs to be fixed but there is a workaround (e.g., function is badly broken but workaround exists). System is impacted for one or more users. |
| 4. Low: | Defects that could (or did) cause small or negligible consequences for the system in question. Easy to recover or workaround (i.e., misleading error messages, displaying output in a font or format |

Contractor shall present the State with the corrective plan of action and regular updates on the success of the plan of action.

For the purposes of the helpdesk SLAs a "Failure to Respond" occurs when the Tribridge team has confirmed receipt of a service ticket and the Tribridge team fails to respond to the State within the timeframe defined in the SLA. The Contractor team receipt of the service ticket shall be defined as the date/time of confirmed receipt by Contractor via a mutually agreeable helpdesk submission process.

In no case shall service level credits exceed 50% of the support costs paid by State per year.

If Contractor fails to meet the Service Level requirements outlined above and Resolution requirements below Contractor will issue to the State the following Service Level Credits on Fees payable by the state for support costs:

- Critical Issues require a response by telephone or email by Tribridge within 1 hour. Resolution is required within 8 hours or less, unless an alternate timeframe is mutually agreed upon by State and Contractor. Failure to provide an adequate resolution will result in a \$200 credit per issue per day.
- High Issues require a response by telephone or email by Tribridge within 1 hour. Resolution is required within 8 hours or less, unless an alternate timeframe is mutually agreed upon by State and Contractor. Failure to provide an adequate resolution will result in a \$100 credit per issue per day.
- Medium Issues require a response by telephone or email within 6 business hours. Resolution is required within 1 week or less (Or next patch cycle when mutually acceptable), unless an alternate timeframe is mutually agreed upon by State and Contractor. Failure to provide an adequate resolution will result in a \$200 credit per issue per week.
- Low Issues require a response by telephone or email within 24 hours. Resolution is required within 1 month or less (or next patch cycle when mutually acceptable), unless an alternate time frame is mutually agreed upon by State and Contractor. Failure to provide an adequate resolution will result in a \$200 credit per issue per month.

The penalties listed above shall not limit the rights of the State to take further legal action, but does exclude further performance credits, in the event of a material breach of Contractor's obligations under this Agreement. Where a credit is due under this section, the State may reasonably withhold the amount of any pending performance credit from any pending invoice to Tribridge or withhold such amount from a future invoice to Tribridge. Any performance credit issues that may result in payment to the State shall be immediately escalated to the Steering Committee for review, evaluation, and decision.

(f) Solution/Software Maintenance

Once the State is live and operational on the new system as a user of the MiSHPO solution, the State will be eligible to receive new versions of the software products from the software publishers as long as the State remains current on all software maintenance programs (i.e., subscription payments).

Software maintenance is administered through the web via download. The State will provide the contact information for a System Administrator responsible for internal system support who will receive the maintenance updates via email. The State will have complete control of what software maintenance they wish to download and administer to the system. Tribridge is available to provide input and advice to the State on maintenance updates as needed.

7. Termination, Expiration and Transition.

7.1 Termination for Cause by State. In addition to any right of termination set forth elsewhere in this Contract:

(a) The State may terminate this Contract for cause, in whole or in part, if Contractor: (i) endangers the value, integrity, or security of State Systems, State Data, or the State's facilities or personnel; (ii) becomes insolvent, petitions for bankruptcy court proceedings, or has an involuntary bankruptcy proceeding filed against it by any creditor; or (iii) breaches any of its material duties or obligations under this Contract. Any reference to specific breaches being material breaches within this Contract will not be construed to mean that other breaches are not material.

(b) If the State terminates this Contract under this **Section 7.1**, the State will issue a termination notice specifying whether Contractor must: (a) cease performance immediately, or (b) continue to perform for a specified period. If it is later determined that Contractor was not in breach of this Contract, the termination will be deemed to have been a termination for convenience, effective as of the same date, and the rights and obligations of the parties will be limited to those provided in **Section 7.2**.

(c) The State will only pay for amounts due to Contractor for Services accepted by the State on or before the date of termination, subject to the State's right to set off any amounts owed by the Contractor for the State's reasonable costs in terminating this Contract. Contractor must promptly reimburse to the State any Fees prepaid by the State prorated to the date of such termination. Further, Contractor must pay all reasonable costs incurred by the State in terminating this Contract for cause, including administrative costs, attorneys' fees, court costs, and transition costs, .

7.2 Termination for Convenience by State. The State may immediately terminate this Contract in whole or in part, without penalty and for any reason, including but not limited to, appropriation or budget shortfalls. The termination notice will specify whether Contractor must: (a) cease performance immediately, or (b) continue to perform in accordance with **Section 7.44**. If the State terminates this Contract for convenience, the State agrees to pay Contractor for its reasonable fees and expenses incurred or due under the Agreement through the effective date of termination and pay all reasonable costs and Contractor's then current rates for State approved Transition Responsibilities.

7.3 Termination for Cause by Contractor. The Contractor reserves the right, following thirty (30) days prior written notice to suspend or discontinue its performance or provision of products and services hereunder for the State's lack or delinquency of payment of any undisputed amounts due. In the event the State fails to cure delinquency of payment of any undisputed amounts within thirty (30) days of receipt of written notice, Contractor may terminate this Agreement for cause.

7.4 Transition Responsibilities. Upon termination or expiration of this Contract for any reason, Contractor must, for a period of time specified by the State (not to exceed 90 calendar days; the "Transition Period"), provide all reasonable transition assistance requested by the State, to allow for the expired or terminated portion of the Contract to continue without interruption or adverse effect, and

to facilitate the orderly transfer of the Services to the State or its designees. Such transition assistance may include but is not limited to: (a) continuing to perform the Services at the established Statement of Work rates; (b) taking all reasonable and necessary measures to transition performance of the work, including all applicable Services to the State or the State's designee; (c) taking all necessary and appropriate steps, or such other action as the State may direct, to preserve, maintain, protect, or return to the State all State Data; and (d) preparing an accurate accounting from which the State and Contractor may reconcile all outstanding accounts (collectively, the "**Transition Responsibilities**"). The Term of this Contract is automatically extended through the end of the Transition Period.

7.5 Effect of Termination. Upon and after the termination or expiration of this Contract or one or more Statements of Work for any or no reason:

(a) Contractor will be obligated to perform all Transition Responsibilities specified in **Section 7.4**.

(b) All licenses granted to Contractor in State Data will immediately and automatically also terminate. Contractor must promptly return to the State all State Data not required by Contractor for its Transition Responsibilities, if any.

(c) Contractor will (i) return to the State all documents and tangible materials (and any copies) containing, reflecting, incorporating, or based on the State's Confidential Information; (ii) permanently erase the State's Confidential Information from its computer systems; and (iii) certify in writing to the State that it has complied with the requirements of this **Section 7**, in each case to the extent such materials are not required by Contractor for Transition Responsibilities, if any

(d) Notwithstanding any provisions of this Contract or any Statement of Work to the contrary, upon the State's termination of this Contract or any Statement of Work for cause pursuant to **Section 7.1**, the State will have the right and option to continue to access and use the Services under each applicable Statement of Work, in whole and in part, for a period not to exceed one hundred and eighty (180) days from the effective date of such termination pursuant to the terms and conditions of this Contract and each applicable Statement of Work.

(e) Intentionally omitted.

(f)

7.6 Survival. The rights, obligations and conditions set forth in this **Section 7.6** and **Section 1** (Definitions), **Section 7.5** (Effect of Termination; Data Retention), **Section 9** (State Data), **Section 12** (Confidentiality), **Section 13** (Security), **Section 15.1** (Indemnification), **Section 16** (Limitations of Liability), **Section 17** (Representations and Warranties), **Section 18** (Insurance) and **Section 21** (Effect of Contractor Bankruptcy) and **Section 22** (General Provisions), and any right, obligation or condition that, by its express terms or nature and context is intended to survive the termination or expiration of this Contract, survives any such termination or expiration hereof.

8. Fees and Expenses.

8.1 Fees. Subject to the terms and conditions of this Contract and the applicable Statement of Work, including the provisions of this **Section 8**, the State shall pay the fees set forth in the applicable Statement of Work, subject to such increases and adjustments as may be permitted pursuant to **Section 8.2** (“**Fees During Option Years**”).

8.2 Fees During Option Years. Contractor’s Fees are fixed during the initial period of the Term. Contractor may increase Fees for any renewal period by providing written notice to the State at least sixty (60) calendar days prior to the commencement of such renewal period. An increase of Fees for any renewal period may not exceed three percent (3%) of the Fees effective during the immediately preceding twelve (12) month period. No increase in Fees is effective unless made in compliance with the provisions of this **Section 8.2**.

8.3 Administrative Fee and Reporting Contractor must pay an administrative fee of 1% on all payments made to Contractor under the Contract including transactions with the State (including its departments, divisions, agencies, offices, and commissions), MiDEAL members, and other states (including governmental subdivisions and authorized entities). Administrative fee payments must be made by check payable to the State of Michigan and mailed to:

Department of Technology, Management and Budget
Financial Services – Cashier Unit
Lewis Cass Building
320 South Walnut St.
P.O. Box 30681
Lansing, MI 48909

Contractor must submit an itemized purchasing activity report, which includes at a minimum, the name of the purchasing entity and the total dollar volume in sales. Reports should be mailed to DTMB-Procurement. The administrative fee and purchasing activity report are due within 30 calendar days from the last day of each calendar quarter.

8.4 Responsibility for Costs. Contractor is responsible for all costs and expenses incurred in or incidental to the performance of Services, including all costs of any materials supplied by Contractor, all fees, fines, licenses, bonds, or taxes required of or imposed against Contractor, and all other of Contractor’s costs of doing business.

8.5 Taxes. The State is exempt from State sales tax for direct purchases and may be exempt from federal excise tax, if Services purchased under this Contract are for the State’s exclusive use. Notwithstanding the foregoing, all Fees are inclusive of taxes, and Contractor is responsible for all sales, use and excise taxes, and any other similar taxes, duties and charges of any kind imposed by any federal, state, or local governmental entity on any amounts payable by the State under this Contract.

8.6 Invoices. Contractor will invoice the State for all Fees in electronic format, via such delivery means and to such address as are specified by the State in writing from time to time. If more than one

Statement of Work is in effect, Contractor shall provide separate invoices for each Statement of Work. Each separate invoice must: (a) clearly identify the Statement of Work to which it relates, in such manner as is required by the State; (b) list each Fee item and Service Credit separately; (c) include sufficient detail for each line item to enable the State to verify the calculation thereof; (d) for Fees determined on a time and materials basis, report details of time taken to perform Services, and such other information as the State requires, on a per-individual basis; and (e) include such other information as may be required by the State as set forth in the applicable Statement of Work.

8.7 Payment Terms. Invoices are due and payable by the State, in accordance with the State's standard payment procedures as specified in 1984 Public Act no. 279, MCL 17.51, *et seq.*, within forty-five (45) calendar days after receipt, provided the State determines that the invoice was properly rendered.

8.8 State Audits of Contractor.

(a) During the Term, and for four (4) years after, Contractor must maintain complete and accurate books and records regarding its business operations relevant to the calculation of Fees and any other information relevant to Contractor's compliance with this **Section 8**. During the Term, and for four (4) years after, upon the State's request, Contractor must make such books and records and appropriate personnel, including all financial information, available during normal business hours for inspection and audit by the State or its authorized representative, provided that the State: (a) provides Contractor with at least fifteen (15) days prior notice of any audit, and (b) conducts or causes to be conducted such audit in a manner designed to minimize disruption of Contractor's normal business operations.

(b) The State may take copies and abstracts of materials audited. The State will pay the cost of such audits. Contractor must immediately upon written notice from the State pay the State the amount of any overpayment revealed by the audit.

8.9 Payment Does Not Imply Acceptance. The making of any payment or payments by the State, or the receipt thereof by Contractor, will in no way affect the responsibility of Contractor to perform the Services in accordance with this Contract, and will not imply the State's Acceptance of any Services or the waiver of any warranties or requirements of this Contract, including any right to Service Credits.

8.10 Withhold Remedy. In addition and cumulative to all other remedies in law, at equity and under this Contract, if Contractor is in material default of its performance or other obligations under this Contract or any Statement of Work and fails to cure the default within fifteen (15) days after receipt of the State's written notice of default, the State may, without waiving any other rights under this Contract, elect to withhold from the payments due to Contractor under this Contract during the period beginning with the sixteenth (16th) day after Contractor's receipt of such notice of default, and ending on the date that the default has been cured to the reasonable satisfaction of the State, an amount that is in proportion to the magnitude of the default or the Service that Contractor is not providing. Upon Contractor's cure of the default, the State will cause the withheld payments to be paid to Contractor,

without interest. Upon a final and binding legal determination that the State has withheld any payment in bad faith, such payment shall promptly be paid to Contractor.

8.11 Right of Set-off. Without prejudice to any other right or remedy it may have, the State reserves the right to set off at any time any amount then due and owing to it by Contractor against any amount payable by the State to Contractor under this Contract.

8.12 Support Not to be Withheld or Delayed. Contractor may not withhold or delay any Services or fail to perform any other Services or obligations hereunder by reason of: (a) the State's good faith withholding of any payment or amount in accordance with this **Section 8**; or (b) any dispute whatsoever between the parties, including any payment or other dispute arising under or concerning this Contract or any other agreement between the parties.

9. State Data.

9.1 Ownership. The State's data ("**State Data**," which will be treated by Contractor as Confidential Information) includes: (a) User Data; and (b) the State's data collected, used, processed, stored, or generated in connection with the Services, including but not limited to (i) personally identifiable information ("**PII**") collected, used, processed, stored, or generated as the result of the Services, including, without limitation, any information that identifies an individual, such as an individual's social security number or other government-issued identification number, date of birth, address, telephone number, biometric data, mother's maiden name, email address, credit card information, or an individual's name in combination with any other of the elements here listed; and (ii) personal health information ("**PHI**") collected, used, processed, stored, or generated as the result of the Services, which is defined under the Health Insurance Portability and Accountability Act ("**HIPAA**") and its related rules and regulations. State Data is and will remain the sole and exclusive property of the State and all right, title, and interest in the same is reserved by the State. This **Section 9.1** survives termination or expiration of this Contract.

9.2 Contractor Use of State Data. Contractor is provided a limited license to State Data for the sole and exclusive purpose of providing the Services, including a license to collect, process, store, generate, and display State Data only to the extent necessary in the provision of the Services. Contractor must: (a) keep and maintain State Data in strict confidence, using such degree of care as is appropriate and consistent with its obligations as further described in this Contract and applicable law to avoid unauthorized access, use, disclosure, or loss; (b) use and disclose State Data solely and exclusively for the purpose of providing the Services, such use and disclosure being in accordance with this Contract, any applicable Statement of Work, and applicable law; and (c) not use, sell, rent, transfer, distribute, or otherwise disclose or make available State Data for Contractor's own purposes or for the benefit of anyone other than the State without the State's prior written consent. This **Section 9.2** survives termination or expiration of this Contract.

9.3 Extraction of State Data. Contractor must, within five (5) Business Days of the State's request, provide the State, without charge and without any conditions or contingencies whatsoever

(including but not limited to the payment of any fees due to Contractor), an extract of State Data in the format specified by the State.

9.4 Discovery. Contractor shall promptly notify the State upon receipt of any requests which in any way might reasonably require access to State Data or the State's use of the Hosted Services. Contractor shall notify the State Project Manager by the fastest means available and also in writing. In no event shall Contractor provide such notification more than twenty-four (24) hours after Contractor receives the request. Contractor shall not respond to subpoenas, service of process, FOIA requests, and other legal requests related to the State without first notifying the State and obtaining the State's prior approval of Contractor's proposed responses. Contractor agrees to provide its completed responses to the State with adequate time for State review, revision and approval.

9.5 Loss or Compromise of Data. In the event of any act, error or omission, negligence, misconduct, or breach on the part of Contractor that compromises or is suspected to compromise the security, confidentiality, or integrity of State Data or the physical, technical, administrative, or organizational safeguards put in place by Contractor that relate to the protection of the security, confidentiality, or integrity of State Data, Contractor must, as applicable: (a) notify the State as soon as practicable but no later than twenty-four (24) hours of becoming aware of such occurrence; (b) cooperate with the State in investigating the occurrence, including making available all relevant records, logs, files, data reporting, and other materials required to comply with applicable law or as otherwise required by the State; (c) in the case of PII or PHI, at the State's sole election, (i) with approval and assistance from the State, notify the affected individuals who comprise the PII or PHI as soon as practicable but no later than is required to comply with applicable law, or, in the absence of any legally required notification period, within five (5) calendar days of the occurrence; or (ii) reimburse the State for any costs in notifying the affected individuals; (d) in the case of PII, provide third-party credit and identity monitoring services to each of the affected individuals who comprise the PII for the period required to comply with applicable law, or, in the absence of any legally required monitoring services, for no less than twenty-four (24) months following the date of notification to such individuals; (e) perform or take any other actions required to comply with applicable law as a result of the occurrence; (f) pay for any costs associated with the occurrence, including but not limited to any costs incurred by the State in investigating and resolving the occurrence, including reasonable attorney's fees associated with such investigation and resolution; (g) without limiting Contractor's obligations of indemnification as further described in this Contract, indemnify, defend, and hold harmless the State for any and all claims, including reasonable attorneys' fees, costs, and incidental expenses, which may be suffered by, accrued against, charged to, or recoverable from the State in connection with the occurrence; (g) be responsible for recreating lost State Data in the manner and on the schedule set by the State without charge to the State; and (h) provide to the State a detailed plan within ten (10) calendar days of the occurrence describing the measures Contractor will undertake to prevent a future occurrence. Notification to affected individuals, as described above, must comply with applicable law, be written in plain language, not be tangentially used for any solicitation purposes, and contain, at a minimum: name and contact information of Contractor's representative; a description of the nature of the loss; a list of the types of data involved; the known or approximate date of the loss; how such loss may affect the affected individual; what steps Contractor has taken to protect the affected individual;

what steps the affected individual can take to protect himself or herself; contact information for major credit card reporting agencies; and, information regarding the credit and identity monitoring services to be provided by Contractor. The State will have the option to review and approve any notification sent to affected individuals prior to its delivery. Notification to any other party, including but not limited to public media outlets, must be reviewed and approved by the State in writing prior to its dissemination. This **Section 9.5** survives termination or expiration of this Contract.

9.6 HIPAA Compliance. The State and Contractor must comply with all obligations under HIPAA and its accompanying regulations, including but not limited to entering into a business associate agreement, if reasonably necessary to keep the State and Contractor in compliance with HIPAA.

9.7 ADA Compliance. If the Services are required to be compliant with the Americans with Disabilities Act or Section 508 of the Workforce Rehabilitation Act of 1973, such compliance requirements shall be specified in the Statement of Work.

10. Intentionally Omitted.

11. CEPAS Electronic Receipt Processing Standard. All electronic commerce applications that allow for electronic receipt of credit or debit card and electronic check transactions must be processed via the State's Centralized Electronic Payment Authorization System (CEPAS). To minimize the risk to the State, full credit/debit card numbers, sensitive authentication data, and full bank account information must never be stored on state-owned IT resources.

12. Confidentiality.

12.1 Meaning of Confidential Information. The term "**Confidential Information**" means all information and documentation of a party that: (a) has been marked "confidential" or with words of similar meaning, at the time of disclosure by such party; (b) if disclosed orally or not marked "confidential" or with words of similar meaning, was subsequently summarized in writing by the disclosing party and marked "confidential" or with words of similar meaning; and, (c) should reasonably be recognized as confidential information of the disclosing party. The term "Confidential Information" does not include any information or documentation that was or is: (a) in the possession of the State and subject to disclosure under the Michigan Freedom of Information Act (FOIA); (b) already in the possession of the receiving party without an obligation of confidentiality; (c) developed independently by the receiving party, as demonstrated by the receiving party, without violating the disclosing party's proprietary rights; (d) obtained from a source other than the disclosing party without an obligation of confidentiality; or, (e) publicly available when received, or thereafter became publicly available (other than through any unauthorized disclosure by, through, or on behalf of, the receiving party). Notwithstanding the above, in all cases and for all matters, State Data is deemed to be Confidential Information.

12.2 Obligation of Confidentiality. The parties agree to hold all Confidential Information in strict confidence and not to copy, reproduce, sell, transfer, or otherwise dispose of, give or disclose such Confidential Information to third parties other than employees, agents, or subcontractors of a party

who have a need to know in connection with this Contract or to use such Confidential Information for any purposes whatsoever other than the performance of this Contract. The parties agree to advise and require their respective employees, agents, and subcontractors of their obligations to keep all Confidential Information confidential. Disclosure to the Contractor's subcontractor is permissible where: (a) the subcontractor is a Permitted Subcontractor; (b) the disclosure is necessary or otherwise naturally occurs in connection with work that is within the Permitted Subcontractor's responsibilities; and (c) Contractor obligates the Permitted Subcontractor in a written contract to maintain the State's Confidential Information in confidence.

12.3 Cooperation to Prevent Disclosure of Confidential Information. Each party must use its best efforts to assist the other party in identifying and preventing any unauthorized use or disclosure of any Confidential Information. Without limiting the foregoing, each party must advise the other party promptly in the event either party learns or has reason to believe that any person who has had access to Confidential Information has violated or intends to violate the terms of this Contract. Each party will cooperate with the other party in seeking injunctive or other equitable relief against any such person.

12.4 Remedies for Breach of Obligation of Confidentiality. Each party acknowledges that breach of its obligation of confidentiality may give rise to irreparable injury to the other party, which damage may be inadequately compensable in the form of monetary damages. Accordingly, a party may seek and obtain injunctive relief against the breach or threatened breach of the foregoing undertakings, in addition to any other legal remedies which may be available, to include, in the case of the State, at the sole election of the State, the immediate termination, without liability to the State, of this Contract or any Statement of Work corresponding to the breach or threatened breach.

12.5 Surrender of Confidential Information upon Termination. Upon termination or expiration of this Contract or a Statement of Work, in whole or in part, each party must, within five (5) Business Days from the date of termination, return to the other party any and all Confidential Information received from the other party, or created or received by a party on behalf of the other party, which are in such party's possession, custody, or control. If Contractor or the State determine that the return of any Confidential Information is not feasible, such party must destroy the Confidential Information and certify the same in writing within five (5) Business Days from the date of termination to the other party.

13. Security.

13.1 Protection of the State's Confidential Information. Subject to the State's agreement governing the Hosted Services, throughout the Term and at all times in connection with its actual or required performance of the Services hereunder, Contractor will:

(a) maintain and enforce an information security program including safety and physical and technical security policies and procedures with respect to its Processing of the State's Confidential Information that comply with the requirements of the State's data security policies as set forth in **Schedule C** (Data Security Requirements) and, to the extent such practices and standards are consistent with and not less protective than the foregoing requirements, are at least equal to applicable best industry practices and standards;

(b) provide technical and organizational safeguards against accidental, unlawful or unauthorized access to or use, destruction, loss, alteration, disclosure, transfer, commingling or Processing of such information that ensure a level of security appropriate to the risks presented by the Processing of the State's Confidential Information and the nature of such Confidential Information, consistent with best industry practice and standards.

(c) take all reasonable measures to:

- (i) secure and defend all locations, equipment, systems and other materials and facilities employed in connection with the Services against "hackers" and others who may seek, without authorization, to disrupt, damage, modify, access or otherwise use Contractor Systems or the information found therein;
- (ii) prevent (A) the State and its Authorized Users from having access to the data of other customers or such other customer's users of the Services; (B) the State's Confidential Information from being commingled with or contaminated by the data of other customers or their users of the Services; and (C) unauthorized access to any the State's Confidential Information;

(d) continuously monitor its systems for potential areas where security could be breached.

13.2 Unauthorized Access. Contractor may not access, and shall not permit any access to, State Systems, in whole or in part, whether through Contractor's Systems or otherwise, without the State's express prior written authorization. Such authorization may be revoked by the State in writing at any time in its sole discretion. Any access to State Systems must be solely in accordance with this Contract, and in no case exceed the scope of the State's authorization pursuant to this **Section 13.2**. All State-authorized connectivity or attempted connectivity to State Systems shall be only through the State's security gateways and firewalls and in compliance with the State's security policies set forth in **Schedule C** as the same may be supplemented or amended by the State and provided to Contractor from time to time.

13.3 Contractor Systems. Contractor will be solely responsible for the information technology infrastructure, including all computers, software, databases, electronic systems (including database management systems) and networks used by or for Contractor to access State Systems or otherwise in connection with the Services ("**Contractor Systems**") and shall prevent unauthorized access to State Systems through the Contractor Systems.

14. Intentionally omitted.

15. Indemnification.

15.1 General Indemnification. Contractor must defend, indemnify and hold harmless the State, and the State's agencies, departments, officers, directors, employees, agents, and contractors from and against all Losses arising out of or resulting from any third party claim, suit, action or proceeding (each, an "**Action**") that does or is alleged to arise out of or result from:

(a) the Contractor's breach of any representation, warranty, covenant or obligation of Contractor under this Contract (including, in the case of Contractor, any action or failure to act by any Contractor Personnel that, if taken or not taken by Contractor, would constitute such a breach by Contractor); or

(b) any negligence or more culpable act or omission (including recklessness or willful misconduct) in connection with the performance or nonperformance of any Services or other activity actually or required to be performed by or on behalf of, Contractor (including, in the case of Contractor, any Contractor Personnel) under this Contract, provided that, to the extent that any Action or Losses described in this **Section 15.1** arises out of, results from, or alleges a claim that any of the Services (excluding any third-party products or services) does or threatens to infringe, misappropriate or otherwise violate any Intellectual Property Rights or other rights of any third party, Contractor's obligations with respect to such Action and Losses, if any, shall be subject to the terms and conditions of **Section 15.2(a)** through **Section 15.2(b)** and **Section 15.3**.

15.2 Infringement Indemnification By Contractor. Contractor must indemnify, defend and hold the State, and the State's agencies, departments, officers, directors, employees, agents, and contractors harmless from and against all Losses arising out of or resulting from any Action that does or is alleged to arise out of or result from a claim that any of the Services, (excluding any third-party products or services), or the State's or any Authorized User's use thereof, actually does or threatens to infringe, misappropriate or otherwise violate any Intellectual Property Right or other right of a third party, provided however, that Contractor shall have no liability or obligation for any Action or Loss to the extent that such Action or Loss arises out of or results from any:

(a) alteration or modification of the or Service Software by or on behalf of the State or any Authorized User without Contractor's authorization (each, a "**State Modification**"), provided that no infringement, misappropriation or other violation of third party rights would have occurred without such State Modification and provided further that any alteration or modification made by or for Contractor at the State's request shall not be excluded from Contractor's indemnification obligations hereunder unless (i) such alteration or modification has been made pursuant to the State's written specifications and (ii) the Hosted Services, as altered or modified in accordance with the State's specifications, would not have violated such third party rights but for the manner in which the alteration or modification was implemented by or for Contractor; and

(b) use of the Hosted Services by the State or an Authorized User pursuant to this Contract in combination with any software or service not provided, authorized or approved by or on behalf of Contractor, if (i) no violation of third party rights would have occurred without such combination and (ii) such software or service is not commercially available and not standard in Contractor's or the State's industry and there are no Specifications, Documentation, or other materials indicating Contractor's specification, authorization or approval of the use of the Hosted Services in combination therewith.

15.3 Mitigation.

(a) If Contractor receives or otherwise learns of any threat, warning or notice alleging that all, or any component or feature, of the Services violates a third party's rights, Contractor must promptly notify the State of such fact in writing, and take all commercially reasonable actions necessary to ensure the State's continued right to access and use such Services and otherwise protect the State from any Losses in connection therewith, including investigating such allegation and obtaining a credible opinion of counsel that it is without merit.

(b) Subject to the exclusions set forth in clauses (a) and (b) of **Section 15.2**, if any of the Services or any component or feature thereof is ruled to infringe or otherwise violate the rights of any third party by any court of competent jurisdiction, or if any use of any Services or any component thereof is threatened to be enjoined, or is likely to be enjoined or otherwise the subject of an infringement or misappropriation claim, Contractor must, at Contractor's sole cost and expense:

- (i) procure for the State the right to continue to access and use the Services to the full extent contemplated by this Contract and the Specifications; or
- (ii) modify or replace all components, features and operations of the Services that infringe or are alleged to infringe ("**Allegedly Infringing Features**") to make the Services non-infringing while providing equally or more suitable features and functionality, which modified and replacement services shall constitute Services and be subject to the terms and conditions of this Contract.

(c) If neither of the remedies set forth in **Section 15.3(b)** is reasonably available with respect to the Allegedly Infringing Features then Contractor may direct the State to cease any use of any materials that have been enjoined or finally adjudicated as infringing, provided that Contractor will:

- (i) refund to the State any prepaid Fees for Services that have not been provided.

(d) The remedies set forth in this **Section 15.3** are in addition to, and not in lieu of, all other remedies that may be available to the State under this Contract or otherwise, including the State's right to be indemnified pursuant to **Section 15.1** and **Section 15.2**.

15.4 Indemnification Procedure. The State will notify Contractor in writing if indemnification is sought; however, failure to do so will not relieve Contractor, except to the extent that Contractor is materially prejudiced. Contractor must, to the satisfaction of the State, demonstrate its financial ability to carry out these obligations. The State is entitled to: (i) regular updates on proceeding status; (ii) participate in the defense of the proceeding; (iii) employ its own counsel; and to (iv) retain control of the defense, at its own expense, if the State deems necessary. Contractor will not, without the State's prior written consent (not to be unreasonably withheld), settle, compromise, or consent to the entry of any judgment in or otherwise seek to terminate any claim, action, or proceeding. Any litigation activity on behalf of the State or any of its subdivisions, under this **Section 15**, must be coordinated with the Department of Attorney General. An attorney designated to represent the State may not do so until approved by the Michigan Attorney General and appointed as a Special Assistant Attorney General.

16. Limitations of Liability.

(a) Disclaimer of Damages. NEITHER PARTY WILL BE LIABLE, REGARDLESS OF THE FORM OF ACTION, WHETHER IN CONTRACT, TORT, NEGLIGENCE, STRICT LIABILITY OR BY STATUTE OR OTHERWISE, FOR ANY CLAIM RELATED TO OR ARISING UNDER THIS CONTRACT FOR CONSEQUENTIAL, INCIDENTAL, INDIRECT, OR SPECIAL DAMAGES, INCLUDING WITHOUT LIMITATION LOST PROFITS AND LOST BUSINESS OPPORTUNITIES.

(b) Limitation of Liability. IN NO EVENT WILL EITHER PARTY'S AGGREGATE LIABILITY TO CONTRACTOR UNDER THIS CONTRACT, REGARDLESS OF THE FORM OF ACTION, WHETHER IN CONTRACT, TORT, NEGLIGENCE, STRICT LIABILITY OR BY STATUTE OR OTHERWISE, FOR ANY CLAIM RELATED TO OR ARISING UNDER THIS CONTRACT, EXCEED THE MAXIMUM AMOUNT OF FEES SPECIFIED IN THE STATEMENT OF WORK.

17. Contractor Representations and Warranties.

17.1 Authority and Bid Response. Contractor represents and warrants to the State that:

(a) it is duly organized, validly existing, and in good standing as a corporation or other entity as represented under this Contract under the laws and regulations of its jurisdiction of incorporation, organization, or chartering;

(b) it has the full right, power, and authority to enter into this Contract, to grant the rights and licenses granted under this Contract, and to perform its contractual obligations;

(c) the execution of this Contract by its Representative has been duly authorized by all necessary organizational action;

(d) when executed and delivered by Contractor, this Contract will constitute the legal, valid, and binding obligation of Contractor, enforceable against Contractor in accordance with its terms;

(e) the prices proposed by Contractor were arrived at independently, without consultation, communication, or agreement with any other bidder for the purpose of restricting competition; the prices quoted were not knowingly disclosed by Contractor to any other bidder to the RFP; and no attempt was made by Contractor to induce any other Person to submit or not submit a proposal for the purpose of restricting competition;

(f) all written information furnished to the State by or for Contractor in connection with this Contract, including Contractor's bid response to the RFP, is true, accurate, and complete, and contains no untrue statement of material fact or omits any material fact necessary to make the information not misleading; and

(g) Contractor is not in material default or breach of any other contract or agreement that it may have with the State or any of its departments, commissions, boards, or agencies. Contractor further represents and warrants that it has not been a party to any contract with the State or any of its

departments that was terminated by the State within the previous five (5) years for the reason that Contractor failed to perform or otherwise breached an obligation of the contract.

17.2 Software and Service Warranties. Contractor represents and warrants to the State that:

(a) Contractor has, and throughout the Term and any additional periods during which Contractor does or is required to perform the Services will have, the unconditional and irrevocable right, power and authority, including all permits and licenses required, to provide the Services and grant and perform all rights and licenses granted or required to be granted by it under this Contract;

(b) neither Contractor's grant of the rights or licenses hereunder nor its performance of any Services or other obligations under this Contract does or at any time will: (i) conflict with or violate any applicable Law, including any Law relating to data privacy, data security or personal information; (ii) require the consent, approval or authorization of any governmental or regulatory authority or other third party; or (iii) require the provision of any payment or other consideration by the State or any Authorized User to any third party, and Contractor shall promptly notify the State in writing if it becomes aware of any change in any applicable Law that would preclude Contractor's performance of its material obligations hereunder;

(c) as accessed and used by the State or any Authorized User in accordance with this Contract and the Specifications, except for any third-party software or services, the Documentation and all other Services and materials provided by Contractor under this Contract will not infringe, misappropriate or otherwise violate any Intellectual Property Right or other right of any third party;

(d) there is no settled, pending or, to Contractor's knowledge as of the Effective Date, threatened Action, and it has not received any written, oral or other notice of any Action (including in the form of any offer to obtain a license): (i) alleging that any access to or use of the Services does or would infringe, misappropriate or otherwise violate any Intellectual Property Right of any third party; (ii) challenging Contractor's ownership of, or right to use or license, any software or other materials used or required to be used in connection with the performance or receipt of the Services, or alleging any adverse right, title or interest with respect thereto; or (iii) that, if decided unfavorably to Contractor, would reasonably be expected to have an actual or potential adverse effect on its ability to perform the Services or its other obligations under this Contract, and it has no knowledge after reasonable investigation of any factual, legal or other reasonable basis for any such litigation, claim or proceeding; the Service Software and Services will in all material respects conform to and perform in accordance with the Specifications and all requirements of this Contract, including the Availability and Availability Requirement provisions set forth in **Section 5**;

(e) all Specifications are, and will be continually updated and maintained so that they continue to be, current, complete and accurate and so that they do and will continue to fully describe the Services in all material respects such that at no time during the Term or any additional periods during which Contractor does or is required to perform the Services will the Hosted Services have any material undocumented feature;

(f) the Contractor Systems and Services (specifically excluding any third party products or services) are and will remain free of Harmful Code;

(g) Contractor will not advertise through the Hosted Services (whether with adware, banners, buttons or other forms of online advertising) or link to external web sites that are not approved in writing by the State;

(h) Contractor will perform all Services in a timely, professional and workmanlike manner with a level of care, skill, practice and judgment consistent with generally recognized industry standards and practices for similar services, using personnel with the requisite skill, experience and qualifications, and will devote adequate resources to meet Contractor's obligations (including the Availability Requirement and Support Service Level Requirements) under this Contract;

(i) Contractor acknowledges that the State cannot indemnify any third parties, including but not limited to any third-party software providers that provide software that will be incorporated in or otherwise used in conjunction with the Services, and that notwithstanding anything to the contrary contained in any third-party software license agreement or end user license agreement, the State will not indemnify any third party software provider for any reason whatsoever.

(j) Notwithstanding the foregoing and anything to the contrary contained herein, all warranties concerning the Hosted Services will be subject to and governed by the State's agreement with vendor providing Hosted Services.

(k) Contractor warrants that its Services will be performed in accordance with each Statement of Work and in a professional and workmanlike manner, and Contractor will undertake to correct any work not in compliance with this warranty brought to its attention within ninety (90) days after the later of the date the Service was performed or the date the problem was discovered, but in any event Contractor must be notified within one hundred eighty (180) days after the date the Service is performed.

(l) For any custom or developed software, Contractor's warranty is not applicable if the problem is caused by (i) any modification, variation or addition to the developed software not performed by the Contractor; (ii) the State's incorrect use, abuse or corruption of the developed software or (iii) use of the developed software with other software or on equipment with which the developed software is incompatible.

(m) Contractor does not warrant and shall not be responsible for the performance of any third-party vendor's (e.g., Microsoft, etc.) products or services, except to the extent such third-party products are incorporated into any deliverable hereunder (in which event Tribridge's warranties applicable to deliverables shall apply to such third-party components). All software and hardware is acquired subject to the end user license agreement, warranty, and other terms provided by the manufacturer or supplier of such third-party product. The State agrees to be bound by and comply with any such manufacturer license agreement, warranty, or other terms and conditions, and understands and agrees to look solely to the third-party vendor of the product for maintenance and support, including but not limited to resolution of system errors, bugs, patches, hot fixes, etc. The State's sole and exclusive rights and remedies with

respect to any third-party product or service, including rights and remedies in the event a third-party product or service gives rise to an infringement claim, will be against the third-party vendor and not against Contractor. Contractor does agree, however, to assign to the State any assignable warranties Contractor may receive from any such third-party vendor.

17.3 **DISCLAIMER.** EXCEPT FOR THE EXPRESS WARRANTIES IN THIS CONTRACT, CONTRACTOR HEREBY DISCLAIMS ALL WARRANTIES, WHETHER EXPRESS, IMPLIED, STATUTORY OR OTHERWISE UNDER OR IN CONNECTION WITH THIS CONTRACT OR ANY SUBJECT MATTER HEREOF.

18. Insurance.

18.1 Required Coverage.

(a) **Insurance Requirements.** Contractor must maintain the insurances identified below and is responsible for all deductibles. All required insurance must: (a) protect the State from claims that may arise out of, are alleged to arise out of, or result from Contractor's or a subcontractor's performance; (b) be primary and non-contributing to any comparable liability insurance (including self-insurance) carried by the State; and (c) be provided by a company with an A.M. Best rating of "A" or better and a financial size of VII or better.

Required Limits	Additional Requirements
Commercial General Liability Insurance	
<u>Minimal Limits:</u> \$1,000,000 Each Occurrence Limit \$1,000,000 Personal & Advertising Injury Limit \$2,000,000 General Aggregate Limit \$2,000,000 Products/Completed Operations <u>Deductible Maximum:</u> \$50,000 Each Occurrence	Contractor must have their policy endorsed to add "the State of Michigan, its departments, divisions, agencies, offices, commissions, officers, employees, and agents" as additional insureds using endorsement CG 20 10 11 85, or both CG 2010 07 04 and CG 2037 07 0.
Automobile Liability Insurance	
<u>Minimal Limits:</u> \$1,000,000 Per Occurrence	Contractor must have their policy: (1) endorsed to add "the State of Michigan, its departments, divisions, agencies, offices, commissions, officers, employees, and agents" as additional insureds; and (2) include Hired and Non-Owned Automobile coverage.
Workers' Compensation Insurance	

<u>Minimal Limits:</u> Coverage according to applicable laws governing work activities.	Waiver of subrogation, except where waiver is prohibited by law.
Employers Liability Insurance	
<u>Minimal Limits:</u> \$500,000 Each Accident \$500,000 Each Employee by Disease \$500,000 Aggregate Disease.	
Privacy and Security Liability (Cyber Liability) Insurance	
<u>Minimal Limits:</u> \$1,000,000 Each Occurrence \$1,000,000 Annual Aggregate	Contractor must have their policy: (1) endorsed to add “the State of Michigan, its departments, divisions, agencies, offices, commissions, officers, employees, and agents” as additional insureds; and (2) cover information security and privacy liability, privacy notification costs, regulatory defense and penalties, and website media content liability.
Professional Liability (Errors and Omissions) Insurance	
<u>Minimal Limits:</u> \$3,000,000 Each Occurrence \$3,000,000 Annual Aggregate <u>Deductible Maximum:</u> \$50,000 Per Loss	

(b) If Contractor's policy contains limits higher than the minimum limits, the State is entitled to coverage to the extent of the higher limits. The minimum limits are not intended, and may not be construed to limit any liability or indemnity of Contractor to any indemnified party or other persons.

(c) If any of the required policies provide **claims-made** coverage, Contractor must: (a) provide coverage with a retroactive date before the effective date of the contract or the beginning of contract work; (b) maintain coverage and provide evidence of coverage for at least three (3) years after completion of the contract of work; and (c) if coverage is canceled or not renewed, and not replaced with another claims-made policy form with a retroactive date prior to the contract effective date, Contractor must purchase extended reporting coverage for a minimum of three (3) years after completion of work.

(d) Contractor must: (a) provide insurance certificates to the Contract Administrator, containing the agreement or purchase order number, at Contract formation and within 20 calendar days of the expiration date of the applicable policies; (b) require that subcontractors maintain the required insurances contained in this Section; (c) notify the Contract Administrator within 5 business days if any insurance is cancelled; and (d) waive all rights against the State for damages covered by insurance. Failure to maintain the required insurance does not limit this waiver.

18.2 Non-waiver. This **Section 18** is not intended to and is not be construed in any manner as waiving, restricting or limiting the liability of either party for any obligations under this Contract (including any provisions hereof requiring Contractor to indemnify, defend and hold harmless the State).

19. Force Majeure.

19.1 Force Majeure Events. Subject to **Section 19.2**, neither party will be liable or responsible to the other party, or be deemed to have defaulted under or breached this Contract, for any failure or delay in fulfilling or performing any term hereof, when and to the extent such failure or delay is caused by: acts of God, flood, fire or explosion, war, terrorism, invasion, riot or other civil unrest, embargoes or blockades in effect on or after the date of this Contract, national or regional emergency, or any passage of law or governmental order, rule, regulation or direction, or any action taken by a governmental or public authority, including imposing an embargo, export or import restriction, quota or other restriction or prohibition (each of the foregoing, a "**Force Majeure Event**"), in each case provided that: (a) such event is outside the reasonable control of the affected party; (b) the affected party gives prompt written notice to the other party, stating the period of time the occurrence is expected to continue; (c) the affected party uses diligent efforts to end the failure or delay and minimize the effects of such Force Majeure Event.

19.2 State Performance; Termination. In the event of a Force Majeure Event affecting Contractor's performance under this Contract, the State may suspend its performance hereunder until such time as Contractor resumes performance. The State may terminate this Contract by written notice to Contractor if a Force Majeure Event affecting Contractor's performance hereunder continues substantially uninterrupted for a period of fifteen (15) Business Days or more. Unless the State terminates this Contract pursuant to the preceding sentence, any date specifically designated for Contractor's performance under this Contract will automatically be extended for a period up to the duration of the Force Majeure Event.

19.3 Exclusions; Non-suspended Obligations. Notwithstanding the foregoing or any other provisions of this Contract:

- (a) in no event will any of the following be considered a Force Majeure Event:
 - (i) shutdowns, disruptions or malfunctions of the Contractor Systems or any of Contractor's telecommunication or internet services other than as a result of general

and widespread internet or telecommunications failures that are not limited to the Contractor Systems; or

- (ii) the delay or failure of any Contractor Personnel to perform any obligation of Contractor hereunder unless such delay or failure to perform is itself by reason of a Force Majeure Event; and

(b) no Force Majeure Event modifies or excuses Contractor's obligations under **Section 5** (System Availability and System Availability Credits), **Section 6** (Support Service Level Credits), **Section 9** (State Data), **Section 12** (Confidentiality), **Section 13** (Security), or **Section 15** (Indemnification), or any Availability Requirement, Support Service Level Requirement, Service Availability Credit or Service Level Credit obligations under this Contract or an applicable Statement of Work.

20. Software Escrow. The parties may enter into a separate intellectual property escrow agreement. Such escrow agreement will govern all aspects of Source Code escrow and release.

21. Effect of Contractor Bankruptcy. All rights and licenses granted by Contractor under this Contract are and shall be deemed to be rights and licenses to "intellectual property," and the subject matter of this agreement, including the Services, is and shall be deemed to be "embodiments" of "intellectual property" for purposes of and as such terms are used in and interpreted under section 365(n) of the United States Bankruptcy Code (the "**Code**") (11 U.S.C. § 365(n) (2010)). The State has the right to exercise all rights and elections under the Code and all other applicable bankruptcy, insolvency and similar laws with respect to this Contract (including all executory Statement of Works). Without limiting the generality of the foregoing, if Contractor or its estate becomes subject to any bankruptcy or similar proceeding, subject to the State's rights of election, all rights and licenses granted to the State under this Contract will continue subject to the respective terms and conditions of this Contract, and will not be affected, even by Contractor's rejection of this Contract.

22. General Provisions.

22.1 Further Assurances. Each party will, upon the reasonable request of the other party, execute such documents and perform such acts as may be necessary to give full effect to the terms of this Contract.

22.2 Relationship of the Parties. The relationship between the parties is that of independent contractors. Nothing contained in this Contract is to be construed as creating any agency, partnership, joint venture or other form of joint enterprise, employment or fiduciary relationship between the parties, and neither party has authority to contract for or bind the other party in any manner whatsoever.

22.3 Media Releases. News releases (including promotional literature and commercial advertisements) pertaining to this Contract or project to which it relates must not be made without the prior written approval of the State, and then only in accordance with the explicit written instructions of the State.

22.4 Notices. All notices, requests, consents, claims, demands, waivers and other communications hereunder, other than routine communications having no legal effect, must be in writing and addressed to the parties as follows (or as otherwise specified by a party in a notice given in accordance with this Section):

If to Contractor:

Tribridge Holdings, LLC
4830 W. Kennedy Blvd., Suite 890
Tampa, FL 33609
E-mail: josh.jaquish@tribridge.com
Attention: Josh Jaquish
Title: Vice President – Public Sector

If to State:

State of Michigan
DTMB-Procurement
Attention: Jarrod Barron
PO Box 30026
Lansing, MI 48909-7526
Barronj1@michigan.gov

Notices sent in accordance with this **Section 22.4** will be deemed effectively given: (a) when received, if delivered by hand (with written confirmation of receipt); (b) when received, if sent by a nationally recognized overnight courier (receipt requested); (c) on the date sent by e-mail (with confirmation of transmission), if sent during normal business hours of the recipient, and on the next business day, if sent after normal business hours of the recipient; or (d) on the fifth (5th) day after the date mailed, by certified or registered mail, return receipt requested, postage prepaid.

22.5 Extended Purchasing Program. This Contract is extended to MiDEAL members. MiDEAL members include local units of government, school districts, universities, community colleges, and nonprofit hospitals. A current list of MiDEAL members is available at www.michigan.gov/mideal. Upon written agreement between the State and Contractor, this Contract may also be extended to: (a) State of Michigan employees, and (b) other states (including governmental subdivisions and authorized entities). If extended, Contractor must supply all Contract Activities at the established Contract prices and terms, and the State reserves the right to impose an 1% administrative fee and negotiate additional discounts based on any increased volume generated by such extensions. Contractor must submit invoices to, and receive payment from, extended purchasing program members on a direct and individual basis.

22.6 Headings. The headings in this Contract are for reference only and do not affect the interpretation of this Contract.

22.7 Entire Agreement. This Contract, including all Statements of Work and other Schedules and Exhibits, constitutes the sole and entire agreement of the parties to this Contract with respect to the subject matter contained herein, and supersedes all prior and contemporaneous understandings and agreements, both written and oral, with respect to such subject matter. In the event of any conflict between the terms of this Contract and those of any Schedule, Exhibit or other document, the following

order of precedence governs: (a) first, this Contract, excluding its Exhibits and Schedules; and (b) second, the Exhibits and Schedules to this Contract as of the Effective Date. NO TERMS ON CONTRACTORS WEBSITE, BROWSE-WRAP, SHRINK-WRAP, CLICK-WRAP OR OTHER NON-NEGOTIATED TERMS AND CONDITIONS PROVIDED WITH ANY OF THE SERVICES, OR DOCUMENTATION HEREUNDER WILL CONSTITUTE A PART OR AMENDMENT OF THIS CONTRACT OR IS BINDING ON THE STATE OR ANY AUTHORIZED USER FOR ANY PURPOSE. ALL SUCH OTHER TERMS AND CONDITIONS HAVE NO FORCE AND EFFECT AND ARE DEEMED REJECTED BY THE STATE AND THE AUTHORIZED USER, EVEN IF ACCESS TO OR USE OF SUCH SERVICE OR DOCUMENTATION REQUIRES AFFIRMATIVE ACCEPTANCE OF SUCH TERMS AND CONDITIONS.

22.8 Assignment. This Agreement shall be binding upon and inure to the benefit of the parties hereto and their respective successors and assigns, except that neither party may assign or transfer its rights or obligations under this Agreement without the prior written consent of the other, and any purported assignment shall be void. Notwithstanding the foregoing, either party may assign or delegate this Agreement, its rights and obligations hereunder, without the written consent of the other party (but with notice to the non-assigning party) in the event of a restructuring, merger or a sale of all or substantially all of the assets of the assigning party.

22.9 No Third-party Beneficiaries. This Contract is for the sole benefit of the parties and nothing herein, express or implied, is intended to or will confer on any other person or entity any legal or equitable right, benefit or remedy of any nature whatsoever under or by reason of this Contract.

22.10 Amendment and Modification; Waiver. This Contract may only be amended, modified or supplemented by an agreement in writing signed by each party's Contract Administrator. No waiver by any party of any of the provisions hereof is effective unless explicitly set forth in writing and signed by the party so waiving. Except as otherwise set forth in this Contract, no failure to exercise, or delay in exercising, any right, remedy, power or privilege arising from this Contract will operate or be construed as a waiver thereof; nor will any single or partial exercise of any right, remedy, power or privilege hereunder preclude any other or further exercise thereof or the exercise of any other right, remedy, power or privilege.

22.11 Severability. If any term or provision of this Contract is invalid, illegal or unenforceable in any jurisdiction, such invalidity, illegality or unenforceability will not affect any other term or provision of this Contract or invalidate or render unenforceable such term or provision in any other jurisdiction. Upon such determination that any term or other provision is invalid, illegal or unenforceable, the parties hereto will negotiate in good faith to modify this Contract so as to effect the original intent of the parties as closely as possible in a mutually acceptable manner in order that the transactions contemplated hereby be consummated as originally contemplated to the greatest extent possible.

22.12 Governing Law. This Contract is governed, construed, and enforced in accordance with Michigan law, excluding choice-of-law principles, and all claims relating to or arising out of this Contract are governed by Michigan law, excluding choice-of-law principles. Any dispute arising from this Contract must be resolved in the Michigan Court of Claims. Complaints against the State must be

initiated in Ingham County, Michigan. Contractor waives any objections; such as lack of personal jurisdiction or forum non conveniens. Contractor must appoint agents in Michigan to receive service of process.

22.13 Equitable Relief. Each party to this Contract acknowledges and agrees that (a) a breach or threatened breach by such party of any of its obligations under this Contract would give rise to irreparable harm to the other party for which monetary damages would not be an adequate remedy and (b) in the event of a breach or a threatened breach by such party of any such obligations, the other party hereto is, in addition to any and all other rights and remedies that may be available to such party at law, at equity or otherwise in respect of such breach, entitled to equitable relief, including a temporary restraining order, an injunction, specific performance and any other relief that may be available from a court of competent jurisdiction, without any requirement to post a bond or other security, and without any requirement to prove actual damages or that monetary damages will not afford an adequate remedy. Each party to this Contract agrees that such party will not oppose or otherwise challenge the appropriateness of equitable relief or the entry by a court of competent jurisdiction of an order granting equitable relief, in either case, consistent with the terms of this **Section 22.13**.

22.14 Nondiscrimination. Under the Elliott-Larsen Civil Rights Act, 1976 PA 453, MCL 37.2101, *et seq.*, and the Persons with Disabilities Civil Rights Act, 1976 PA 220, MCL 37.1101, *et seq.*, Contractor and its subcontractors agree not to discriminate against an employee or applicant for employment with respect to hire, tenure, terms, conditions, or privileges of employment, or a matter directly or indirectly related to employment, because of race, color, religion, national origin, age, sex, height, weight, marital status, or mental or physical disability. Breach of this covenant is a material breach of this Contract.

22.15 Unfair Labor Practice. Under 1980 PA 278, MCL 423.321, *et seq.*, the State must 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 under MCL 423.322. This information is compiled by the United States National Labor Relations Board. A contractor of the State, in relation to the contract, must not enter into a contract with a subcontractor, manufacturer, or supplier whose name appears in this register. Under MCL 423.324, the State may void any contract if, after award of the contract, the contractor as an employer or the name of the subcontractor, manufacturer or supplier of the contractor appears in the register.

22.16 Schedules All Schedules that are referenced herein and attached hereto are hereby incorporated by reference. The following Schedules are attached hereto and incorporated herein:

Schedule A	Statement of Work
Schedule B	Key Personnel
Schedule C	Data Security, Backup and Disaster Recovery
Schedule D	Customer Care / Support Agreement
Schedule E	Pricing
Schedule F	Third-Party License Agreements

22.17 Counterparts. This Contract may be executed in counterparts, each of which will be deemed an original, but all of which together are deemed to be one and the same agreement and will become effective and binding upon the parties as of the Effective Date at such time as all the signatories hereto have signed a counterpart of this Contract. A signed copy of this Contract delivered by facsimile, e-mail or other means of electronic transmission (to which a signed copy is attached) is deemed to have the same legal effect as delivery of an original signed copy of this Contract.

22.18 Intellectual Property. State and Tribridge will maintain joint ownership of all deliverables for the projects, and neither party will be obligated to pay the other for future use of the deliverables, except as specifically provided for in this Agreement or the Statement of Work. Subject to our mutual obligations of confidentiality, Tribridge will be free to use the concepts, techniques, know-how, work products, and deliverables used in connection with the projects. In addition, Tribridge will continue to be free to perform similar services for our other customers using the knowledge, skills and experience obtained during the projects. Tribridge will provide State the source code for any intellectual property created in connection with the Statement of Work if (i) all amounts due hereunder are fully paid, and (ii) Customer acknowledges that Tribridge will not provide ongoing support for the source code. Notwithstanding the foregoing, this Section 22.18 shall not apply to any Tribridge product to which the parties have entered into a separate license agreement; in such event, such license agreement shall supersede this Section 22.18.

22.19 Non-solicitation of Employees. For the duration of this Agreement and for a period of one year after the Services are completed, each party agrees not to employ or solicit the employment of the other party's personnel; provided, however, that this provision will not apply to personnel who respond to a general advertisement, online job posting, or other broad solicitation not directly or indirectly targeting such party or its personnel.

SCHEDULE A – Statement of Work (SOW)

1.000 Project Identification

1.001 Project Request

The State of Michigan (SOM), through the State Historic Preservation Office (SHPO) Division of the Michigan State Housing Development Authority (MSHDA), supported by the Michigan Department of Technology, Management and Budget (DTMB), seeks to migrate data from the existing ARGUS system and provide a new system, referred to as “MiSHPO.” The purpose of the system is to maintain information related to the identification and management of historical and archaeological sites and historical artifacts throughout Michigan. These sites and artifacts are not limited to artifacts normally found within the confines of a museum, but extend to and include historic properties, buildings and geographic locations around the state. As a result, traditional museum solutions, such as ARGUS, do not meet the needs of SHPO.

The base of the system shall be a data platform to separate search and retrieval operations from transactional systems. The platform’s primary tasks shall be to store and distribute data to transactional applications and other applications as SHPO grows. In this case, our transactional system shall implement workflow. Workflow will produce and consume the digital resources of the platform.

The platform shall support data with geographic features, time and time periods along with normal field type attribution found in a database system. All of the programs have a strong geographic component and map interfaces are expected as part of workflow steps and presentation.

Finally, a publicly accessible secure web site shall serve the purposes of both the casual and professional user of SHPO data via direct access to available open data found on the platform and a lean search interface which we refer to as the Register.

The desired solution, as reflected in the attached Requirements Matrix, is intended to include the following components:

- **Platform** – is a system that allows for the secure sharing of resources (data and functions) with end-users and developers through Application Programming Interfaces (API).
- **Workflow** – a system that allows for the initiation and tracking of a business process. The desired solution shall be flexible enough to allow SOM to modify existing or create new work flows, as business needs change over time.
- **Register** – The ability to search and view data which is stored in the platform.

The Service Software shall adhere to the DTMB system and security standards as well as MSHDA business requirements. The Project will follow both SOM DTMB Suite Project Management and Systems Engineering Methodologies. The Service Software shall accommodate the SOM technology infrastructure.

1.002 Background

State Historic Preservation Office

The SHPO seeks to enhance the appreciation of Michigan’s cultural resources by collaborating with and assisting property owners; developers; nonprofits; cultural resource management professionals; and local, state, and federal agencies.

The SHPO’s federally mandated function is to provide technical assistance toward the identification, evaluation, designation, and protection of historic sites. The SHPO administers incentive programs that include federal tax credits and federal pass-through grants as well as state funded grants. The SHPO also manages an archaeological collection. For more information on the SHPO, see www.michigan.gov/shpo.

Process and Information Issues

The SHPO currently relies on paper records and maps. The service delivery model is dependent on U.S. Postal Service, State interdepartmental mail and limited email. There is minimal process control and

information validation. This results in incorrect information and causes delays in SHPO's ability to respond to requests for services. There is minimal ability to improve the process in this environment.

SHPO's mission includes the "what" and "where" of historic preservation on a statewide geographic scale. Our current system, ARGUS (Questor Systems, Inc., Argus.net v4.3.0.28), is a relational database system designed for use by museums to manage objects and artifacts physically located within the walls of a museum. ARGUS addresses some of the "what" questions relating to historic preservation but is deficient with respect to the "where." It provides no way to locate historic buildings and archaeological sites in a mapping environment and provides no means of understanding the geographic relationships between two or more buildings or sites. This lack of functionality has created a situation in which the efficiency of SHPO operations is severely impaired. SHPO staff estimates that a significant portion of its operational time and effort is devoted to performing work-arounds to make up for system deficiencies in ARGUS.

ARGUS deficiencies include, but are not limited to, the following:

- Improper data attribution, designation, and validation to maintain an accurate and current inventory of historic sites (archaeological sites, historic buildings, historic districts, etc.) and projects;
- Limited geographic location information for historic sites and projects in Michigan;
- Insufficient geographic relationships between historic sites; between projects; and between historic sites and projects;
- Insufficient search capabilities (geographic or otherwise) to ensure that historic sites and projects are taken into consideration at all levels of planning and development, and for public information, education, cultural economic development, heritage tourism, research, and technical assistance; and
- Lack of process/workflow to support historic preservation activities.

Project Goals

The purpose of this project is to convert the paper dependent processes to a digital data system. The project will include creating the new MiSHPO system and migrating the SHPO paper and digital data. The MiSHPO system conceptually combines the platform for a collaborative workflow system and the ability to map projects/properties using Geographic Information System (GIS). The system will automate the intake, review, approval and publishing processes of four SHPO programs: 1) National Register of Historic Places (NRHP), 2) Archaeology, 3) Section 106 Environmental Review and the 4) Historic Rehabilitation Tax Credits. In addition, the system will provide a platform to support SHPO process improvement and the sharing of system data and functionality with registered systems and applications.

The Business Objectives are to increase staff efficiency, improve process execution times and remove bottle necks found in mailing documents, intake, and verification.

- Maintain or decrease the staff to run the SHPO
- Improve the turnaround time for SHPO programs
- Provide quality Historic Place data
- Create opportunities to share Historic Place data within State and Local government and the private sector

1.100 Scope of Work and Deliverables

1.101 In Scope

The following are **in scope** for this contract:

- Software
- Implementation services
- Training
- Documentation

- Hosting and operation services
- Maintenance and Support
- Knowledge Transfer/Transition
- Future Enhancements

1.102 Out Of Scope

The following is **out of scope** for this contract:

- Hardware

1.103 Environment

All services and products provided must comply with all applicable State IT policies and standards. Contractors are required to review all applicable links provided below and state compliance in their responses.

Enterprise IT Policies, Standards and Procedures:

http://michigan.gov/dtmb/0,4568,7-150-56355_56579_56755---,00.html

Look and Feel Standard

All software items provided by the Contractor must be ADA compliant and adhere to the “Look and Feel” Standards www.michigan.gov/somlookandfeelstandards.

The State Unified Information Technology Environment (SUITE):

Includes standards for project management, systems engineering, and associated forms and templates – must be followed: <http://www.michigan.gov/suite>

1.104 Work And Deliverables

For each section of Work and Deliverable, the contractor is required to follow the SUITE methodology for acceptable practices in project management and deliverable documentation.

A. Initiation, Planning and Requirements Validation

Contractor’s System and Services will meet the functional and technical requirements detailed in **Section 1.103, Section 1.104,** and the **Requirements Matrix**.

Contractor will attend the Orientation Meeting described in **Section 1.301** and meet with State staff to review the requirements specified in the **Requirements Matrix** to ensure the System will be implemented successfully. Contractor will identify any functional, general or technical issues that need to be addressed to ensure successful implementation and will propose resolutions to be undertaken and timing thereof.

The parties will review the Preliminary Project Plan Contractor submitted with its proposal and identify any issues that need to be addressed. Contractor will then provide the Final Project Plan and final report formats described in **Section 1.300 et seq.** detailing how the System will be set up to provide the State’s requested functionality.

The parties will review the Preliminary Enterprise Architecture Solution Assessment (EASA) Contractor submitted with its proposal and identify any issues that need to be addressed. Contractor will then submit a Final EASA to the DTMB Project Manager (PM) encapsulating any identified changes within the timeframe established in the Final Project Plan.

Contractor shall complete the DTMB 0170 Security Assessment form, or other similar documentation as the State may require, to obtain Michigan Cyber Security written approvals as required by the State within the timeframe established in the Final Project Plan.

Deliverable(s):

- Documentation verifying and validating requirements
- Current Business Operations Document

- Conceptual Business Operations Document
- Conceptual Business Work Flow Diagram
- Final Project Plan
- Final Report Formats
- Final EASA
- Final Security Assessment documentation

Acceptance Criteria:

- High-level acceptance criteria per **Section 1.501**.

B. Software

The Contractor will provide a solution that satisfies the requirements as outlined in the **Requirements Matrix**.

Deliverable(s)

Software provided in an installable format meeting all requirements detailed in the **Requirements Matrix** including but not limited to the following high-level requirements:

- Software will allow for management of business processes via work-flow
- Software will include GIS mapping functionality
- Software will store all data in a database from which State staff query and extract
- Software will produce specified production and management reports
- This application will serve both the State Staff and public facing stakeholders.

Acceptance Criteria:

- High-level acceptance criteria per Section 1.501 and the Contract Terms.
- Software meets the requirements detailed in the **Requirements Matrix**.

C. Implementation

Contractor will install, configure, integrate, and test the solution in cooperation with the State's designated employees and/or contractors to ensure the complete and successful implementation of the software. All software installations will be performed by qualified personnel, and the Contractor will fully document the process. Contractor will perform the initial software installation and configuration. Thereafter, Contractor will provide support to DTMB for installation either via phone, email, web session, or remotely via VPN. Contractor is responsible for the successful installation, regardless of whether they are on-site or supporting DTMB remotely. The initial software solution will be implemented in a test environment and run parallel for up to 30 days before being moved into production. At all times during implementation, Contractor will work with State staff to identify gaps in fulfilling requirements, will propose changes to the software to manage such gaps and will document the fulfillment of all gaps.

Contractor will migrate the initial SHPO data from Argus.net. The Argus.net application is on a .NET platform with a SQL 2008 database. The State estimates the ARGUS data to be 1.12GB of values and 8.4GB of images on 25,000 – 40,000 historic sites and on 45,000 projects. SHPO will perform all tasks related to data cleansing prior to migration of the data from Argus.net. The data for each site is consistent with that described and detailed in the following documents:

1. The National Register of Historic Places Nomination Form:
http://www.nps.gov/Nr/publications/downloads/2012_10-900_final.doc
2. The National Register of Historic Places Nomination Form Continuation Sheet:
http://www.nps.gov/Nr/publications/downloads/2012_10-900a_final.doc
3. The National Register of Historic Places Multiple Property Nomination Forms:
http://www.nps.gov/Nr/publications/downloads/2012_10-900b_final.doc
4. The Instructions for Completing the National Register of Historic Places Nomination Form:
<http://www.nps.gov/Nr/publications/bulletins/pdfs/nrb16a.pdf>

5. The Instructions for Completing the National Register of Historic Places Multiple Property Nomination Form: <http://www.nps.gov/Nr/publications/bulletins/pdfs/nrb16b.pdf>

Deliverable(s)

- Initial software installation and implementation in test environment
- Configurations and customizations per the requirements and project plan
- For State hosted solutions, system interfaces/integration with State's environment and hardware
- A Plan for Argus data migration, One or more files suitable for import into proposed system.
- Migration of data into system
- System moved into production environment
- Documentation identifying the fulfillment of each software requirement

Acceptance Criteria:

- High-level acceptance criteria per Section 1.501.

D. Training and Knowledge Transfer

The Contractor will provide training to the State as described below to transfer knowledge of the application to the State. All training will take place in State facilities in Lansing, Michigan.

Deliverables

- On-site End User training for up to thirty (30) State-designated individuals who will utilize the system.
- On-site Administrator/System training, i.e., technical training for up to six (6) State-designated individuals who work with the Contractor to configure the applications, including but not limited to, establishing databases and interfaces, data conversion, and customization.
- When new versions are released that have a significant impact in end-user functionality, Contractor shall provide additional training at no additional cost. This training shall be delivered via classroom, online/web-based training, release features or job aids to the System Administrators and up to six (6) State-designated individuals.

Acceptance Criteria

- High-level acceptance criteria per Section 1.501.
- State-identified end users are able to utilize the functionality of the application in the performance of their duties;
- State-identified system administrators are able to perform the tasks necessary to configure and administer the solution; and
- State-identified DTMB technical staff are knowledgeable in the maintenance and support of the solution.

E. Documentation

Contractor will provide a complete set of solution documentation to the State. Contractor will provide MiSHPO-specific documentation as a by-product of Effort from Deliverables A, C and D. Microsoft provides an online library of CRM Documentation for users, technical staff and administrators. There is no separate cost for documentation including, but not limited to, the deliverables specified below:

1. A copy of the following documentation in both an editable electronic format and available online:
 - a. User and Technical Manuals
 - b. Data Element Dictionary
 - c. Operations Manual
 - d. All updates of documentation during the term of the Contract, software license and maintenance agreement
2. The following documentation is provided for all modules and program development:
 - a. System-wide documentation and specifications

- b. Baseline End-User training manuals to be used as a basis for “User Manuals” and online help
 - c. Installation procedure
 - d. Module configuration documents sufficient for configuration maintenance purposes
 - e. Testing scripts
 - f. Specification documentation
 - g. Production migration
3. The documentation of components, features, and use of the hardware/software will be detailed such that resolution of most problems can be determined from the documentation, and most questions can be answered.
4. All system, operational, user, change, and issue documentation must be available in electronic format, published to a website, accessible to State users, updated regularly, with unique numerical identifiers for each section and be consistent with the most current version of the application(s) and one (1) previous version.
5. All system, operations, user, change and issue documentation is to be organized in a format approved by the State and facilitates updating and allows for revisions to the documentation to be clearly identified including the three (3) previous versions.
6. The Contractor must develop and submit for State approval complete, accurate, and timely system, operations, and user documentation.
7. Detailed workflow diagrams in an electronic pdf format depicting the business process resulting from full implementation of the solution.

The Contractor must notify the State of any discrepancies or errors outlined in the system, operations, and user documentation.

Deliverable(s)

- User manuals
- Technical manuals
- Data Elements Dictionary
- Operations Manual
- Updates to all documentation deliverables

Acceptance Criteria

- High-level acceptance criteria per Section 1.501.

F. Maintenance and Support

Contractor will provide the State ongoing maintenance and support for the Service Software as described in the Contract Terms.

G. Future Enhancements

Upon request and at the State’s sole option, the Contractor will provide additional goods or services to meet changing needs and requirements. Contractor will ensure that sufficient technical resources are available to address this requirement. To obtain Future Enhancements, the State will submit a SOW to the Contractor for the additional goods and services requested. For each such SOW received from the State, the Contractor will provide a Written Proposal, including a project plan and a quote based on the rates established in **Cost Table 8**. Upon review and written approval of the Written Proposal by the DTMB PM and the Agency PM, the Agency will submit a contract change request to DTMB-Procurement in accordance with **Section 1.403 Change Management**. Upon review and written approval by DTMB-Procurement, a contract amendment (Change Notice) will be executed. A fully executed Change Notice is required prior to issuance of any Purchase Order (PO). An issued PO is required prior to Contractor providing any goods or services under this Section.

Unless otherwise requested, contractor will develop customizations at its own facilities. Contractor will provide any customizations specifically requested by the State of Michigan, even if its other customers

have not requested similar customizations. Contractor will provide such services in a manner that meets State requirements. Contractor will support testing to ensure the as-built enhancements perform as specified by the State. Contractor will provide test cases to the State that the contractor used in testing the enhancements in advance of user acceptance testing.

Deliverable(s)

- Written Proposal including project plan and quote
- Services upon the State's request

Acceptance Criteria:

- High-level acceptance criteria per Section 1.501.
- Services conforming to each respective Statement of Work and Written Proposal.

1.200 Roles and Responsibilities

1.201 Contractor Staff, Roles, And Responsibilities

A. Contractor Staff

The Contractor will provide sufficient qualified staffing to satisfy the deliverables of this Statement of Work. See Schedule B for list of Key Personnel.

B. On Site Work Requirements

1. Location of Work

The work is to be performed, completed, and managed as follows:

- Kick-off Meeting, Requirements Validation and Training in Lansing, Michigan
- Critical Issue Resolution Meeting in Lansing, Michigan at the State's sole discretion
- For State hosted solution, installation and configuration in Lansing, Michigan
- All other work to be performed at Contractor's facility unless expressly requested by the State

2. Hours of Operation:

- State working hours are 8:00 a.m. to 5:00 p.m. EST, Monday through Friday, with work performed as necessary after those hours to meet project deadlines. No overtime will be authorized or paid.
- The State is not obligated to provide State management of assigned work outside of normal State working hours. The State reserves the right to modify the work hours in the best interest of the project.
- Contractor will observe the same standard holidays as State employees. The State does not compensate for holiday pay.

1.202 State Staff, Roles, And Responsibilities

The State project team will consist of Subject Matter Experts (SME's), project support, and a DTMB and Agency project manager:

Subject Matter Experts

The Subject Matter Experts representing the business units involved will provide the vision for the business design and how the application shall provide for that vision. They shall be available on an as needed basis. The SME's will be empowered to:

- Resolve project issues in a timely manner
- Review project plan, status, and issues
- Resolve deviations from project plan
- Provide acceptance sign-off
- Utilize change control procedures
- Ensure timely availability of State resources
- Make key implementation decisions, as identified by the Contractor's project manager, within 48-hours of their expected decision date.

Agency Roles	Agency/Division	Title
Project Owner/Sponsor	MSHDA	Linda Beachnau – MSHDA IT Manager
SHPO Sponsor	SHPO	Brian Conway – State Historic Preservation Officer
SHPO SME	SHPO	Diane Tuinstra – State Historian
Agency IT Project Manager	MSHDA	Vanessa McDonald

DTMB Roles	Agency/Division	Title
Sponsor	DTMB	Tizianna Galeazzi – DTMB General Manager Treasury, Lottery, Attorney General, MSHDA and Land Bank
Business Relationship Manager	DTMB	Carmen Redwine – DTMB Business Relationship Manager Lottery, Attorney General, MSHDA and Land Bank
Project Manager	DTMB	Tracie Mansberger – DTMB Project Manager

State Project Manager- (DTMB and Agency)

DTMB will provide a Project Manager who will be responsible for the State’s infrastructure and coordinate with the Contractor in determining the system configuration.

The State’s Project Manager will provide the following services:

- Provide State facilities, as needed
- Coordinate the State resources necessary for the project
- Facilitate coordination between various external contractors
- Facilitate communication between different State departments/divisions
- Provide acceptance and sign-off of deliverable/milestone
- Review and sign-off of timesheets and invoices
- Resolve project issues
- Escalate outstanding/high priority issues
- Utilize change control procedures
- Conduct regular and ongoing review of the project to confirm that it meets original objectives and requirements
- Document and archive all important project decisions
- Arrange, schedule and facilitate State staff attendance at all project meetings.

DTMB shall provide a Contract Administrator whose duties shall include, but not be limited to, supporting the management of the Contract.

Name	Agency/Division	Title
Jarrod Barron	DTMB	Buyer / Contract Administrator

1.300 Project Plan

1.301 Project Plan Management

Preliminary Project Plan

Contractor will develop a project plan using project management methodologies following PMBOK guidelines with the required DTMB SUITE steps.

Orientation Meeting

Within fourteen (14) calendar days after the Effective Date of this Contract, the Contractor will attend an orientation meeting to discuss the content and procedures of the Contract. The meeting will be held in Lansing, Michigan, at a date and time mutually acceptable to the State and the Contractor.

Performance Review Meetings

Contractor will attend monthly meetings, at a minimum, to review the Contractor's performance under the Contract. The meetings will be held in Lansing, Michigan, or by teleconference, as mutually agreed by the State and the Contractor.

Project Control

1. The Contractor will carry out this project under the direction and control of DTMB, MSHDA/SHPO.
2. Within fourteen (14) calendar days after the Effective Date of the Contract, Contractor will submit to the State project manager(s) for final approval of the project plan ("Final Project Plan"). This project plan must be in agreement with **Section 1.104**, and must include the following:
 - The Contractor's project organizational structure.
 - The Contractor's staffing table with names and title of personnel assigned to the project. This must be in agreement with staffing of accepted proposal. Necessary substitutions due to change of employment status and other unforeseen circumstances may only be made with prior approval of the State.
 - The project work breakdown structure (WBS) showing sub-projects, activities and tasks, and resources required and allocated to each.
 - The time-phased plan in the form of a graphic display, showing each event, task, and decision point in the WBS.
3. The Contractor will manage the project in accordance with the State Unified Information Technology Environment (SUITE) methodology, which includes standards for project management, systems engineering, and associated forms and templates which is available at <http://www.michigan.gov/suite>
 - a. Contractor will use an automated tool for planning, monitoring, and tracking the Contract's progress and the level of effort of any Contractor personnel spent performing Services under the Contract. The tool shall have the capability to produce:
 - Staffing tables with names of personnel assigned to Contract tasks.
 - Project plans showing tasks, subtasks, deliverables, and the resources required and allocated to each (including detailed plans for all Services to be performed through the Project Completion, updated weekly).
 - Updates must include actual time spent on each task and a revised estimate to complete.
 - Graphs showing critical events, dependencies and decision points during the course of the Contract.
 - b. Any tool(s) used by Contractor for such purposes must produce information of a type and in a manner and format that will support reporting in compliance with the State standards.

1.302 Project Reports

The parties will review the sample Project Reporting Formats Contractor submitted with its proposal and identify any issues that need to be addressed. Contractor will then submit Project Reporting Formats to the State's Project Manager for approval within fourteen (14) calendar days after the Orientation Meeting. Once both parties have agreed to the format of each report, it shall become the standard to follow for the duration of the contract.

- Weekly Project status
- Updated project plan
- Summary of activity during the report period

- Accomplishments during the report period
- Deliverable status
- Schedule status
- Action Item status
- Issues
- Change Control
- Repair status
- Maintenance Activity

1.400 Project Management

1.401 Issue Management

An issue is an identified event that if not addressed may affect schedule, scope, quality, or budget.

The Contractor shall maintain an issue log for issues relating to the provision of services under this Contract. The issue log must be communicated to the State's Project Manager on an agreed upon schedule, with email notifications and updates. The issue log must be updated and must contain the following minimum elements:

- Description of issue
- Issue identification date
- Responsibility for resolving issue.
- Priority for issue resolution (to be mutually agreed upon by the State and the Contractor)
- Resources assigned responsibility for resolution
- Resolution date
- Resolution description

Issues shall be escalated for resolution from level 1 through level 3, as defined below:

- Level 1 (Low) – Business leads/Subject Matter Experts will resolve routine issues during the implementation phase. These questions would deal with business processes and matters of departmental or National Register procedure.
- Level 2 (Medium) – Project Managers will coordinate any issues that deal with changes to scope, requirements or project deadlines.
- Level 3 (High) – Project Sponsors/DTMB Infrastructure level will resolve any issues that deal with changes to costs, contract terms, security or infrastructure concerns, or which cannot be resolved by other means.

The Contractor shall also maintain a defects log for software defects identified by the State. A defect is defined as an issue discovered during the course of development or testing which does not meet the agreed upon requirements of the project, and which has a detrimental impact on the functionality of the application. The defects log must be communicated to the State's Project Manager on an agreed upon schedule, with email notifications and updates. The defects log must be updated and must contain the following minimum elements:

- Description of each defect
- Defect identification date
- Priority for fixing defects (to be mutually agreed upon by the State and the Contractor)
- Contractor resources assigned responsibility for fixing each defect
- Estimated date for fixing each defect
- Description of the fix to be applied

1.402 Risk Management

A risk is an unknown circumstance or event that, if it occurs, may have a positive or negative impact on the project.

The Contractor is responsible for establishing a risk management plan and process, including the identification and recording of risk items, prioritization of risks, definition of mitigation strategies, monitoring of risk items, and periodic risk assessment reviews with the State.

A risk management plan format shall be submitted to the State for approval within twenty (20) business days after the Contract's Effective Date. The risk management plan will be developed during the initial planning phase of the project, and be in accordance with the State's PMM methodology. Once both parties have agreed to the format of the plan, it shall become the standard to follow for the duration of the contract. The plan must be updated bi-weekly, or as agreed upon.

The Contractor shall provide the tool to track risks. The Contractor will work with the State and allow input into the prioritization of risks.

The Contractor is responsible for identification of risks for each phase of the project. Mitigating and/or eliminating assigned risks will be the responsibility of the Contractor. The State will assume the same responsibility for risks assigned to them.

1.403 Change Management

Change management is defined as the process to communicate, assess, monitor, and control all changes to system resources and processes. The State also employs change management in its administration of the Contract.

If a proposed contract change is approved by the Agency, the Contract Administrator will submit a request for change to the Department of Technology, Management and Budget, Procurement Buyer, who will make recommendations to the Director of DTMB-Procurement regarding ultimate approval/disapproval of change request. If the DTMB Procurement Director agrees with the proposed modification, and all required approvals are obtained (including State Administrative Board), the DTMB-Procurement Buyer will issue an addendum to the Contract, via a Contract Change Notice. **Contractors who provide products or services prior to the issuance of a Contract Change Notice by the DTMB-Procurement, risk non-payment for the out-of-scope/pricing products and/or services.**

The Contractor must employ change management procedures to handle such things as "out-of-scope" requests or changing business needs of the State while the migration is underway.

The Contractor will employ the change control methodologies to justify changes in the processing environment, and to ensure those changes will not adversely affect performance or availability.

1.500 Acceptance

1.501 Criteria

The following is standard acceptance criteria for all document and software deliverables.

Document Deliverables

- Documents are dated and in electronic format, compatible with State of Michigan software.
- Requirements documents are reviewed and updated throughout the development process to assure requirements are delivered in the final product.
- Draft documents are not accepted as final deliverables.
- The documents will be reviewed and accepted in accordance with the requirements of the Contract.

- DTMB will review documents within a mutually agreed upon timeframe. In the absence of an agreed timeframe, the Contract Terms will control.
 - Approvals will be written and signed by both the DTMB Project Manager and Agency Project Manager.
 - Issues will be documented and submitted to the Contractor.
 - After issues are resolved or waived, the Contractor will resubmit documents for approval within 10 days of receipt.
- Deliverable approval process detailed in the Contract Terms has been followed and met.

Software Deliverables

- Deliverable approval process detailed in the Contract Terms has been followed and met.

1.502 Final Acceptance

Final acceptance is expressly conditioned upon completion of ALL deliverables/milestones identified in Section 1.104 Work and Deliverables, completion of ALL tasks in the project plan, completion of ALL applicable inspection and/or testing procedures, and the certification by the State that the Contractor has met the defined requirements. Final acceptance will be given after the expiration of the Warranty Period if all outstanding issues have been resolved to the State's satisfaction. See also the Contract Terms for further details.

REQUIREMENTS MATRIX

The Requirements are organized by subject matter as follows:

ITEM	Functional Requirements Section
1	System Standards
2	System Operations
3	System Security
4	System Hosting
5	System Authorization and Authentication and Process
6	System Resources
7	Application Programming Interfaces
8	System and COTS Authorizations and Process
9	General Work Flow Authorizations and Process
10	Archaeology Workflow Authorizations and Process
11	NRHP Workflow Authorizations and Process
12	Section 106 Workflow Authorizations and Process
13	Tax Credit Workflow Authorizations and Process
200	System Asset List
201	System Activities Engine
202	System API Register
203	Bibliography Engine
205	System Change History
207	Foreign System Registry
208	Historic Document Engine
209	Historic Person Engine
210	Historic Photograph Engine
211	Historic Place Engine
213	Historic Period Engine
214	Input Validation
216	Invitations Engine
217	Lexicon Engine
218	Communication Monitoring
219	Retention Schedule Engine
220	Wiki Text Engine
221	System Access Engine
222	Workflow Engine
223	Geographic Information System
224	Cartographic Map Engine
225	System API-Usage Engine
226	Geocoding Engine
227	Member Profile
301	Workflow Design Tool
302	Web Site
Exhibit I	Processes
Exhibit II	Roles
Exhibit III	Activity Types
Exhibit IV	Authorizations
Exhibit V	Properties
Exhibit VI	Digital Map Assets
Exhibit VII	Assets

REQ. NO. DESCRIPTION	DETAIL	Function is: (M)andatory, (E)xpected, (O)ptional	Off-The-Shelf	Configuration	Customization	Comments / Development Tools to be Used
ITEM 001	SYSTEM STANDARDS					
Description	System Standards are provided to make you aware of areas of importance to the system.					
Traceability Number						
001.1	Compliance with the Department of Technology, Management and Budget (MDTMB) Agency Web standards	M	X			Microsoft Dynamics CRM is deployed across the State at the Department of Corrections, State Court Administrator's Office and Office of Children Ombudsmen among others. The Dynamics CRM platform is currently deployed to other agencies by DTMB and is in compliance with MDTMB web standards.
001.2	Compliance with the MDTMB enterprise security standards	M	X			EASA has been approved The Dynamics CRM platform is currently deployed to other agencies by DTMB and is in compliance with MDTMB security standards.
001.3	Compliance with National Park Service Standards	E		X		Microsoft Dynamics CRM can be configured to be compliant with the Federal Information Processing Standard (FIPS) 140-2, which is a publication titled "Security Requirements for Cryptographic Modules." It specifies which encryption algorithms and hashing algorithms can be used, and how encryption keys are to be generated and managed.
001.4	Business Process must be built in accordance with a standard such as BPML	M	X			Microsoft Dynamics CRM processes are based on the Windows Workflow Foundation programming model. Windows Workflow Foundation provides a runtime engine, a framework, a base library of activities, and default implementations of the runtime services. The Windows Workflow Foundation runtime engine manages process execution, and supports processes that can remain active for extended periods of time. It preserves the state

						of process execution during computer shutdown and restart
001.5	Data exchange must conform to JavaScript Object Notation (JSON) format	M	X			All data exchanges from and to Dynamics CRM can be sent in JSON format.
001.6	Geographic feature data exchange must conform to GeoJSON	M	X			EasyTerritory includes a GIS server that supports import and export to Microsoft Software SQL Server geometry data type.
001.7	Time Periods do not have a standard representation. ISO 8601 covers date and time but no equivalent exists for JSON. Instead of just making up a JSON format, we propose that the GeoJSON format be extended to encompass a new feature type i.e., Time Period. (See section 403, figure 2)	M			X	As part of the solution, we will investigate the possibility of proposing a change to the GeoJSON spec to support the concept of a time period.

ITEM 002		SYSTEM OPERATIONS				
Description	System Operations are those day to day routine functions of the system.					
Traceability Number						
002	System Operations: Functions	E				
002.1	Provision for operations support of the MiSHPO system during normal business hours 7 am to 6 pm Monday through Friday	E		X		Customer Care Team provides extended service hours
002.2	Provide System support hours 6 pm to 7 am Monday through Friday	E	X			Microsoft provides 24/7 support of the system through Premier support which has been quoted
002.4	Provide Written permission from SOM operational manager for exceptions to System support hours during project life cycle.	E	X			N/A- Hosted by Microsoft. System support is available as soon as product is purchased
002.5	Provide system maintenance at regularly scheduled intervals, and at a time so as to not interfere with normal business operations.	E	X			Microsoft provides updates and patches without affecting system uptime and is supported by financially backed SLAs.

REQ. NO. DESCRIPTION	DETAIL	Function is: (M)andatory, (E)xpected, (O)ptional	YES			
			Off-The-Shelf	Configuration	Customization	Comments / Development Tools to be Used
ITEM 003	PLATFORM SECURITY					
Description	Platform Security functions are provided to give guidance and to describe the intended purpose of the platform.					
Traceability Number						
003.1	The platform shall use roles to govern resource permissions	M	X			Dynamics CRM security roles can be configured to grant and/or deny access to the application and its data.
003.2	The platform shall encrypt data in transit i.e. servers to servers and server to devices	M	X			Dynamics CRM currently offers the ability to encrypt the full customer database by leveraging SQL Transparent Data Encryption (TDE) to perform real-time I/O encryption and decryption of the data and log files to provide data encryption at-rest.
003.3	The platform shall encrypt data at rest	M	X			Dynamics CRM currently offers the ability to encrypt the full customer database by leveraging SQL Transparent Data Encryption (TDE) to perform real-time I/O encryption and decryption of the data and log files to provide data encryption at-rest.
003.4	The platform shall maintain an actor acknowledged security contract as a condition of using the platform and or an application	E	X			Dynamics CRM security roles can be configured to grant and/or deny access to the application and its data.

REQ. NO. DESCRIPTION	DETAIL	Function is: (M)andatory, (E)xpected, (O)ptional	YES			
			Off-The-Shelf	Configuration	Customization	Comments / Development Tools to be Used
ITEM 007	SYSTEM ACCESS POINTS					
Traceability Number						
Description	The System requires an access point		X			Microsoft Dynamics SDK
007.1	The Platform requires an access point(s) for members inside and outside the SoM firewall	M	X			Microsoft Dynamics SDK Discoverable Services
007.2	The workflow implementation requires an access point(s) for members inside and outside the SoM firewall	E		X		Workflow interaction is configurable based on permissions granted to internal and external users
007.3	The Training and Documentation Wiki requires an access point(s) for members inside and outside the SoM firewall	E		X		Access is configurable based on permissions granted to internal and external users
ITEM 009	SOCIAL MEDIA					
Traceability Number						
009.1	The platform shall provide Output to social media such as: Facebook, LinkedIn, Twitter, Instagram, Pinterest, Google Plus	O		X		Configurable output that may or may not involve approval steps
ITEM 101	THE PLATFORM					
Traceability Number						
101.1	The primary function of the Platform is the sharing of resource assets	E	X			The Dynamics CRM platform contains built in APIs to communicate with the platform and access the data contained within. Any additional APIs required and their associated components would need to be custom developed.
101.2	The Platform shall be configurable to permit or deny software developers access to Open APIs without an administrator's intervention	E		X		Microsoft Dynamics CRM provides secure access to the platforms APIs via the Dynamics CRM Software Developer's Kit.
101.3	The platform shall be scalable	E	X			The Dynamics CRM platform is scalable in terms of access to API's, database storage, users and processing volumes.

REQ. NO. DESCRIPTION	DETAIL	Function is: (M)andatory, (E)xpected, (O)ptional	Off-The-Shelf	Configuration	Customization	Comments / Development Tools to be Used
101.4	The platform shall scale in terms of the number of APIs	E	X			The Dynamics CRM platform is scalable in terms of access to API's, database storage, users and processing volumes.
101.5	The platform shall scale in terms of resource storage	E	X			The Dynamics CRM platform is scalable in terms of access to API's, database storage, users and processing volumes.
101.6	The platform shall scale in terms of processing volume for application requests	E	X			The Dynamics CRM platform is scalable in terms of access to API's, database storage, users and processing volumes.
101.7	The platform shall scale to terms of the number of users	E	X			The Dynamics CRM platform is scalable in terms of access to API's, database storage, users and processing volumes.
101.8	The platform shall provide self-managed member accounts	E	X			The Dynamics CRM platform authenticates users via their Active Directory account.
101.9	The platform API(s) shall Authenticate Applications	E	X			Microsoft Dynamics CRM provides secure access to the platforms APIs via the Dynamics CRM Software Developer's Kit.
101.10	The platform shall provide consistency of authentication across applications a.k.a., Single Sign On or SSO	E	X			The Dynamics CRM platform authenticates users via their Active Directory account when they log into the application.
101.11	The platform shall authenticate platform Members a.k.a., users	E	X			The Dynamics CRM platform authenticates users via their Active Directory account when they log into the application.
101.12	The platform administrator shall create API roles as needed.	E	X			Dynamics CRM security roles can be configured to grant and/or deny access to the application and its data.
101.13	The platform administrator shall create Resource roles as needed.	E	X			Dynamics CRM security roles can be configured to grant and/or deny access to the application and its data.
101.14	The platform shall authorize member interactions with roles	E	X			Dynamics CRM security roles can be configured to grant and/or deny access to the application and its data.
101.15	The platform shall be administered by one or more administrators	E	X			Dynamics CRM security roles can be configured to grant and/or deny access to the application and its data.

101.16	The platform administrator shall configure and implement Application Programming Interfaces (See section 128)	E			X	The Dynamics CRM platform contains built in APIs to communicate with the platform. Any additional APIs required would need to be custom developed.
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REQ. NO. DESCRIPTIO N	DETAIL	Function is: (M)andatory , (E)xpected, (O)ptional	YES			
			Off-The-Shelf	Configuration	Customization	Comments / Development Tools to be Used
101.17	The platform administrator shall configure and implement platform resources (See section 128)	E		X		The Dynamics CRM platform contains built in APIs to communicate with the platform. Any additional APIs required and their associated components would need to be custom developed.
101.18	The administration of an individual application shall be left to that application	E		X		Users are granted rights to configure applications based on security roles.
101.19	A Platform Member shall configure his or her own profile (see section 127)	E	X			Permissions are contingent upon role-based security
101.20	The platform shall monitor API Requests (see section 129)	E			X	The Dynamics CRM platform contains built in APIs to communicate with the platform. Any additional APIs required and their associated components would need to be custom developed.
101.21	The platform shall monitor Changes to Resource Assets (see section 105)	E	X			Auditing is configurable.
101.22	The platform shall maintain a register of available APIs	E			X	The Dynamics CRM platform contains built in APIs to communicate with the platform. Any additional APIs required and their associated components would need to be custom developed.
101.23	The platform shall maintain a register of applications using platform resources	E			X	The Dynamics CRM platform contains built in APIs to communicate with the platform. Any additional APIs required and their associated components would need to be custom developed.
101.24	The platform shall maintain a register of platform members using platform resources	E	X		X	Application sessions are logged.
101.25	The platform shall provide Resource Asset retention schedule (see section 119)	E	X			Audit files are maintained as needed.
101.26	The Platform shall provide a method to convert geographic features from the data storage format to GeoJSON	E	X			EasyTerritory includes the MapDotNet Studio utility to perform data extract, transfer and load (ETL) to between common spatial formats such as GeoJSON, .SHP, .TAB, ArcSDE, Oracle Spatial and MSFT SQL Server Spatial.

						Both EasyTerritory and MapDotNet are products developed and sold commercially by ISC.
101.27	The Platform shall provide a method to convert geographic features from the GeoJSON format to database feature format	E	X			EasyTerritory includes the MapDotNet Studio utility to perform data extract, transfer and load (ETL) to between common spatial formats such as GeoJSON, .SHP, .TAB, ArcSDE, Oracle Spatial and MSFT SQL Server Spatial. Both EasyTerritory and MapDotNet are products developed and sold commercially by ISC.
101.28	The Platform shall provide an API method to calculate the Length of a geographic feature	E	X			The EasyTerritory API includes the MapDotNet REST API that support a call to get spatial details of a record in MSFT SQL Spatial, including length for polyline features. Additionally, the EasyTerritory application supports polyline drawing as well as feature identify with length.

REQ. NO. DESCRIPTION	DETAIL	Function is: (M)andatory, (E)xpected, (O)ptional	YES			Comments / Development Tools to be Used
			Off-The-Shelf	Configuration	Customization	
101.29	The Platform shall provide an API method to calculate the Area of a geographic feature	E	X			The EasyTerritory API includes the MapDotNet REST API and JavaScript libraries that support a call to get spatial details of a record in MSFT SQL Spatial, including area and perimeter for polygon features. Additionally, the EasyTerritory application supports polygon drawing as well as feature identify with area and perimeter measurements.
101.30	The Platform shall provide an API method to return a default centroid of a given geographic feature	E	X			The EasyTerritory API includes the MapDotNet REST API and JavaScript toolkit that support a call to get spatial details of a record in MSFT SQL Spatial, including area and perimeter for polygon features. Additionally, the EasyTerritory application supports polygon drawing as well as feature identify with area and perimeter measurements.
101.31	The Platform shall provide an API method to calculate the Bounding Rectangle of a geographic feature	E	X			The EasyTerritory API includes the MapDotNet REST API and JavaScript toolkit that support a call to get spatial details of a record in MSFT SQL Spatial, including area and perimeter for polygon features. Additionally, the EasyTerritory application supports polygon drawing as well as

						feature identify with area and perimeter measurements.
101.32	The Platform shall provide an API method to encode a cartographic configuration into URL for sharing	E	X			EasyTerritory provides map saving and sharing through a URL. The map can be saved through the application or a project with an ID, can be created through a REST API call on-the-fly. Projects are saved in a SQL table.
101.33	The Platform shall provide an API method to create a map given a map encoded URL	E	X			An EasyTerritory project (map) can be created through a REST API call on-the-fly.
101.34	The Platform shall provide an API method to return a map given Cartographic Configuration	E	X			EasyTerritory supports the ability to get a project layer definitions back in json or XML format.
101.35	The Platform scripting language shall provide interfaces to call and process restful API requests and responses	E	X			The EasyTerritory and MapDotNet REST APIs can be call from JavaScript.
101.36	The Platform shall support a scripting language to create custom methods and functions to provide calculations and data manipulations	E	X			The Business Process Automation features provides robust formula creation.
101.37	The Platform shall provide or be configurable to use external database storage for purposes of resource asset storage	E		X		Configurable to store to a number of supported types including Azure and SharePoint.
101.38	The Platform shall provide a backup solution for resource assets	E		X		The Dynamics CRM database resides on the Microsoft SQL Server platform. Traditional SQL Server backup methods can be used for creating and maintaining any backups.
101.39	The Platform shall encrypt a resource asset while the asset is at rest	E	X			Dynamics CRM currently offers the ability to encrypt the full customer database by leveraging SQL Transparent Data Encryption (TDE) to perform real-time I/O encryption and decryption of the data and log files to provide data encryption at-rest.

REQ. NO. DESCRIPTION	DETAIL	Function is: (M)andatory, (E)xpected, (O)ptional	YES				Comments / Development Tools to be Used
			Off-The-Shelf	Configuration	Customization		
ITEM 105	PLATFORM RESOURCE CHANGE HISTORY						
Traceability Number							
105.2	The function of the Platform Resource Change History is the capture of resource asset attribute changes for	E		X		The Dynamics CRM platform supports an auditing capability where entity and attribute data changes within an organization can be	

	purposes of managing the retention schedule and maintaining a record of agency activities					recorded over time for use in analysis and reporting purposes. Auditing is supported on all custom and most customizable entities and attributes. Any record in the system can be assigned to other users and all historical assignment changes can be seen for each record.
105.3	Resource Asset Change Logging is the default and applies to all platform resources	E		X		The Dynamics CRM platform supports an auditing capability where entity and attribute data changes within an organization can be recorded over time for use in analysis and reporting purposes. Auditing is supported on all custom and most customizable entities and attributes. Any record in the system can be assigned to other users and all historical assignment changes can be seen for each record.
105.4	The resource asset change log shall automatically record all updated resource asset attribute values	E		X		The Dynamics CRM platform supports an auditing capability where entity and attribute data changes within an organization can be recorded over time for use in analysis and reporting purposes. Auditing is supported on all custom and most customizable entities and attributes. Any record in the system can be assigned to other users and all historical assignment changes can be seen for each record.
105.5	The resource asset change log shall automatically record the attribute values of a deleted resource asset	E		X		The Dynamics CRM platform supports an auditing capability where entity and attribute data changes within an organization can be recorded over time for use in analysis and reporting purposes. Auditing is supported on all custom and most customizable entities and attributes. Any record in the system can be assigned to other users and all historical assignment changes can be seen for each record.
105.6	If the Platform Resource Change History is an independent standalone application then the application shall authenticate a user	E				N/A

105.7	If the Platform Resource Change History is an independent standalone application then the application shall provide a user interface for authentication	E				N/A
105.8	User-interfaces shall be provided that create, update, and deactivate Resource_Asset_Change_Log_Definition. (fields found in Section 407)	E		X		The Dynamics CRM platform provides users access to the data in the system through the use of Forms. Users can create, update and deactivate records directly from the Forms.
105.9	All Resource Asset Attributes must be validated (See section 114)	E		X		The Dynamics CRM platform provides the ability to validate data and, if the data is not validated, prevent the saving of the data to the record being entered or modified.
105.10	Platform Resource Change History shall integrate Resource_Asset_Change_Log_Definitions API	E		X		The Dynamics CRM platform provides powerful and flexible interface and data movement capability via the system's native import features, through the use of third party data integration tools such as Scribe or by developing communication to the Dynamics CRM API and web services using the SDK.
105.11	Platform Resource Change History shall collect but is not limited to: Resource_Asset_Change_Log_Definition)	E		X		The Dynamics CRM platform supports an auditing capability where entity and attribute data changes within an organization can be recorded over time for use in analysis and reporting purposes. Auditing is supported on all custom and most customizable entities and attributes. Any record in the system can be assigned to other users and all historical assignment changes can be seen for each record.
ITEM 107	PLATFORM FOREIGN SYSTEM REGISTER APPLICATION					
Traceability Number						
107.2	The function of Platform Foreign System Register Application is the registration of all applications consuming platform resources	E			X	The Dynamics CRM platform contains built in APIs to communicate with the platform. Any additional APIs required and their associated components would need to be custom developed.
107.3	If the Platform Foreign System Register Application is an independent standalone application then the application shall authenticate a user	E			X	The Dynamics CRM platform contains built in APIs to communicate with the platform. Any additional APIs required and their associated components would need to be custom developed.

REQ. NO. DESCRIPTION	DETAIL	Function is: (M)andatory, (E)xpected, (O)ptional	YES			
			Off-The-Shelf	Configuration	Customization	Comments / Development Tools to be Used
107.4	If the Platform Foreign System Register Application is an independent standalone application then the application shall provide a user interface for authentication	E			X	The Dynamics CRM platform contains built in APIs to communicate with the platform. Any additional APIs required and their associated components would need to be custom developed.
107.5	User-interfaces shall be provided that create, update, and deactivate Foreign_System_Definition. (fields found in Section 407)	E			X	The Dynamics CRM platform contains built in APIs to communicate with the platform. Any additional APIs required and their associated components would need to be custom developed.
107.6	All Resource Asset Attributes must be validated (See section 114)	E			X	The Dynamics CRM platform provides the ability to validate data and, if the data is not validated, prevent the saving of the data to the record being entered or modified.
107.7	Foreign systems must register with the platform to use the APIs	E			X	The Dynamics CRM platform contains built in APIs to communicate with the platform. Any additional APIs required and their associated components would need to be custom developed.
107.8	Platform Foreign System Register Application shall integrate Foreign_System_Definitions API	E		X		The Dynamics CRM platform provides powerful and flexible interface and data movement capability via the system's native import features, through the use of third party data integration tools such as Scribe or by developing communication to the Dynamics CRM API and web services using the SDK.
107.9	Platform Foreign System Register Application shall integrate API_Register_Definitions API	E		X		The Dynamics CRM platform provides powerful and flexible interface and data movement capability via the system's native import features, through the use of third party data integration tools such as Scribe or by developing communication to the Dynamics CRM API and web services using the SDK.
ITEM 114	PLATFORM SOURCE VALIDATION					
Traceability Number						

114.1	A platform API shall provide consistent data validation for resource asset attribute values	E		X		The Dynamics CRM platform provides the ability to validate data and, if the data is not validated, prevent the saving of the data to the record being entered or modified.
114.2	A platform API resource shall be considered valid when all the resource's assets are valid	E		X		The Dynamics CRM platform contains built in APIs to communicate with the platform. All data validation is handled in the SDK layer. Any additional APIs required and their associated components would need to be custom developed.
114.3	A platform API resource asset shall be considered valid when all the asset's attribute values are valid	E		X		The Dynamics CRM platform contains built in APIs to communicate with the platform. All data validation is handled in the SDK layer. Any additional APIs required and their associated components would need to be custom developed.
REQ. NO. DESCRIPTION	DETAIL	Function is: (M)andatory, (E)xpected, (O)ptional	YES			Comments / Development Tools to be Used
			Off-The-Shelf	Configuration	Customization	
114.4	A platform API shall provide duplicate asset validation that can be configured to be on or off I.e., allow duplicate or deny duplicate asset	E		X		The Dynamics CRM platform contains built in APIs to communicate with the platform. Duplicate detection capabilities exists within the CRM platform as well as through the SDK. Duplicate detection can be enabled or disabled. Any additional APIs required and their associated components would need to be custom developed.
114.5	A platform API shall provide validation that can be configured to be on or off I.e., required or not required	E		X		The Dynamics CRM platform contains built in APIs to communicate with the platform. Data validation components at the platform and SDK layer can be configured to be active or inactive. Any additional APIs required and their associated components would need to be custom developed.
114.6	If validation is set to off then an absolutely empty value is considered valid but when a value is provided then the value is validated according to type, range and size	E		X		The Dynamics CRM platform provides the ability to validate data and, if the data is not validated, prevent the saving of the data to the record being entered or modified.

114.7	A platform API shall validate the type of a resource asset attribute e.g., numeric, character, date or date time, and geographic feature	E		X		The Dynamics CRM platform contains built in APIs to communicate with the platform. Data type validation components at the platform and SDK layer can be configured to be active or inactive. Any additional APIs required and their associated components would need to be custom developed.
114.8	A platform API shall validate the range of a resource asset attribute value I.e., expected minimum and maximum value	E		X		The Dynamics CRM platform contains built in APIs to communicate with the platform. Data range validation components at the platform and SDK layer can be configured to be active or inactive. Any additional APIs required and their associated components would need to be custom developed.
114.9	A platform API shall validate the size, in terms of storage, of a resource asset attribute value I.e., expected minimum and maximum size	E		X		The Dynamics CRM platform contains built in APIs to communicate with the platform. Data size validation components at the platform and SDK layer can be configured to indicate the maximum size of a file that is being attached to record. Any additional APIs required and their associated components would need to be custom developed.

REQ. NO. DESCRIPTION	DETAIL	Function is: (M)andatory, (E)xpected, (O)ptional	YES			Comments / Development Tools to be Used
			Off-The-Shelf	Configuration	Customization	
ITEM 119	PLATFORM RETENTION SCHEDULE APPLICATION					
Traceability Number						
119.2	The function of the Platform Retention Schedule Application is to keep data storage to an absolute minimum by planning and implementing a resource asset lifecycle a.k.a., a data retention period	E			X	The Dynamics CRM platform supports the ability to archive and delete records individually and in bulk. Any automation or scheduling component to archive or delete data would be custom development.
119.3	If the Platform Retention Schedule Application is an independent standalone application then the application shall authenticate a user	E				N/A

119.4	If the Platform Retention Schedule Application is an independent standalone application then the application shall provide a user interface for authentication	E				N/A
119.5	User-interfaces shall be provided that create, update, and deactivate Retention_Schedule_Definition. (fields found in Section 407)	E			X	The Dynamics CRM platform contains built in APIs to communicate with the platform. Any additional APIs required and their associated components would need to be custom developed.
119.6	All Resource Asset Attributes must be validated (See section 114)	E			X	The Dynamics CRM platform contains built in APIs to communicate with the platform. Any additional APIs required and their associated components would need to be custom developed.
119.7	Retention is modeled on the SOM document retention schedule	E			X	The Dynamics CRM platform contains built in APIs to communicate with the platform. Any additional APIs required and their associated components would need to be custom developed.
REQ. NO. DESCRIPTION	DETAIL	Function is: (M)andatory, (E)xpected, (O)ptional	YES			Comments / Development Tools to be Used
			Off-The-Shelf	Configuration	Customization	
119.8	Provide notification when there is pending record purge by email	E		X		The Dynamics CRM platform provides a powerful and flexible workflow engine that can be quickly tailored via point-and-click configuration to accommodate a wide variety of business scenarios, including team member notifications and reminders, prompts for further information including notes and opinions, and alerts based on key status changes or data.
119.9	Provide retention of SHPO assets according to a retention schedule	E			X	The Dynamics CRM platform supports the ability to archive and delete records individually and in bulk. Any automation or scheduling component to archive or delete data would be custom development.

119.10	The schedule shall include a reference to where records are stored I.e., database table identity	E			X	The Dynamics CRM platform supports the ability to archive and delete records individually and in bulk. Any automation or scheduling component to archive or delete data would be custom development.
119.11	Provide a flag or method that allows for the override of a specific asset's retention period effectively enforcing a separate retention period for a specific asset without affecting other assets in the same resource. This retention period will need	E			X	The Dynamics CRM platform supports the ability to archive and delete records individually and in bulk. Any automation or scheduling component to archive or delete data would be custom development.
119.11	The schedule shall include a declaration of how to determine the starting point of the retention period I.e., from last activity or creation date	E			X	The Dynamics CRM platform supports the ability to archive and delete records individually and in bulk. Any automation or scheduling component to archive or delete data would be custom development.
119.12	The schedule shall include the retention period a.k.a. the number of years to retain a record	E			X	The Dynamics CRM platform supports the ability to archive and delete records individually and in bulk. Any automation or scheduling component to archive or delete data would be custom development.
119.13	The schedule shall include a declaration of the method of record purging I.e., manual or automatic	E			X	The Dynamics CRM platform supports the ability to archive and delete records individually and in bulk. Any automation or scheduling component to archive or delete data would be custom development.
119.14	The schedule shall provide retention periods	E			X	The Dynamics CRM platform supports the ability to archive and delete records individually and in bulk. Any automation or scheduling component to archive or delete data would be custom development.
119.15	The schedule shall provide a conditional period from the time of creation and for a given number of years	E			X	The Dynamics CRM platform supports the ability to archive and delete records individually and in bulk. Any automation or scheduling component to archive or delete data would be custom development.
REQ. NO. DESCRIPTION	DETAIL	Function is: (M)andatory, (E)xpected, (O)ptional	YES			
			Off-The-Shelf	Configuration	Customization	Comments / Development Tools to be Used

119.16	The schedule shall provide a conditional period from the time of last activity and for a given number of years	E			X	The Dynamics CRM platform supports the ability to archive and delete records individually and in bulk. Any automation or scheduling component to archive or delete data would be custom development.
119.17	The schedule shall provide a definitive period by an expiration date	E			X	The Dynamics CRM platform supports the ability to archive and delete records individually and in bulk. Any automation or scheduling component to archive or delete data would be custom development.
119.18	The schedule shall provide permanent period designation to store a record indefinitely	E			X	The Dynamics CRM platform supports the ability to archive and delete records individually and in bulk. Any automation or scheduling component to archive or delete data would be custom development.
119.19	Platform Retention Schedule Application retention shall provide asset purging	E			X	The Dynamics CRM platform supports the ability to archive and delete records individually and in bulk. Any automation or scheduling component to archive or delete data would be custom development.
119.20	Platform Retention Schedule Application shall provide method to create purge list. Returns a list of assets ready to be purged	E			X	The Dynamics CRM platform supports the ability to archive and delete records individually and in bulk. Any automation or scheduling component to archive or delete data would be custom development.
119.21	Platform Retention Schedule Application shall provide a method to purge assets manually from purge list	E			X	The Dynamics CRM platform supports the ability to archive and delete records individually and in bulk. Any automation or scheduling component to archive or delete data would be custom development.
119.22	Platform Retention Schedule Application shall provide a method to purge assets automatically	E			X	The Dynamics CRM platform supports the ability to archive and delete records individually and in bulk. Any automation or scheduling component to archive or delete data would be custom development.
119.23	Platform Retention Schedule Application shall track assets with regards to date and time of creation, and updates	E			X	The Dynamics CRM platform supports the ability to archive and delete records individually and in bulk. Any automation or scheduling component to archive or delete data would be custom development.
119.24	Retention is related to Request and Change Histories	E			X	The Dynamics CRM platform supports the ability to archive and delete records individually and in bulk. Any automation or

						scheduling component to archive or delete data would be custom development.
119.25	Platform Retention Schedule Application shall integrate Retention_Schedule_Definitions API	E		X		The Dynamics CRM platform provides powerful and flexible interface and data movement capability via the system's native import features, through the use of third party data integration tools such as Scribe or by developing communication to the Dynamics CRM API and web services using the SDK.
REQ. NO. DESCRIPTION	DETAIL	Function is: (M)andatory, (E)xpected, (O)ptional	YES			Comments / Development Tools to be Used
			Off-The-Shelf	Configuration	Customization	
ITEM 126	PLATFORM GECODING APPLICATION					
Traceability Number						
126.2	The function of the Platform Geocoding Application is to convert place names and addresses to representative geographic point or polygon features	E	X			EasyTerritory includes several components and APIs for record geocoding. For Dynamics CRM, EasyTerritory includes a workflow plugin that calls the EasyTerritory geocode API (which in turn ultimately calls the Bing Maps Geocode API). Bing Maps returns a latitude, longitude, geocode quality, the standardized address both full and in parts. Additionally, the geocoding REST service can be made through a REST call using JavaScript.
126.3	The Platform Geocoding Application shall provide a method to convert place names to representative polygons	E	X			EasyTerritory supports creating travel-time rings and radiuses from place location looked up in the application. For example, searching an address, 123 Main Street, Detroit, MI 43781 would present the users with a callout and an option to create a travel-time ring or radius around that point location. If additional map assets were available in the database (e.g. city limits boundaries) those could be selected and converted to polygons in the map.
126.4	If the Platform Geocoding Application is an independent standalone application then the application shall authenticate a user	E	X			EasyTerritory leverages Bing Maps for geocoding and handles the authentication to

						the Bing Maps services with a Bing Key configured at the application level.	
126.5	Geocoding shall be made available to existing or future SoM applications. We prefer an annual allotment of 500,000 service calls at a fixed cost with increases of 100,000 also at a fixed cost up to 1 million per year.	E	X			Bing Maps has a flexible pricing and licensing model based with SKUs available for known users or transaction buckets. Get pricing from Microsoft.	
126.6	If the Platform Geocoding Application is an independent standalone application then the application shall provide a user interface for authentication	E	X			EasyTerritory handles the authentication to Bing Maps through a configuration in which you specify the Bing Maps key at the application level.	
126.7	User-interfaces shall be provided that create, update, and deactivate Geocoding_Request_Definition. (fields found in Section 407)	E				Leveraging the EasyTerritory Bing Maps geocode plugin for CRM workflows. The geocode will return latitude, longitude, geocode quality, and standardize street address on record create, address update and deactivate.	
126.8	All Resource Asset Attributes must be validated (See section 114)	E		X		Validation is configured through the business process automation engine.	
REQ. NO. DESCRIPTION	DETAIL	Function is: (M)andatory, (E)xpected, (O)ptional	YES				Comments / Development Tools to be Used
			Off-The-Shelf	Configuration	Customization		
126.9	Provide API method to return a Point Feature given Michigan Street Number, Street Name, City, State and Zipcode	E	X			The EasyTerritory geocoder leverages Bing Maps for geocoding and will return a latitude/longitude, with geocode quality and standardized address.	
126.10	Provide an API method to return a Point Feature representing the centroid of a city or township given a Michigan city or a township name	E	X			EasyTerritory will attempt to geocode records to the greatest accuracy that it has data for. For example, if only City and State are passed to the geocoding service, the returned latitude and longitude would be for the centroid of the city. If only Zip Code was passed, the result would be the centroid of the Zip Code polygon.	
126.11	Provide an API method to return a Polygon Feature representing a city given a Michigan city name	E	X			EasyTerritory includes a library for Dynamics CRM and an REST API method that can be called to query a table of polygon records (based on attribute or spatial intersection) and return the geometry and attributes. In this scenario the data (e.g. MI city limits) would be a	

					map asset loaded into the SQL Server database (using the GeoJson import). The call to the REST API would return the feature geometry, attributes, and calculated center point.
126.12	Provide an API method to return a Point Feature representing the centroid of a township given a Michigan township name	E	X		EasyTerritory includes a library for Dynamics CRM and an REST API method that can be called to query a table of polygon records (based on attribute or spatial intersection and return the geometry and attributes. In this scenario the data (e.g. MI township boundaries) would be a map asset loaded into the SQL Server database (using the GeoJson import). The call to the REST API would return the feature geometry, attributes, and calculated center point.
126.13	Provide an API method to return a Polygon Feature representing a township given a Michigan township name	E	X		EasyTerritory includes a library for Dynamics CRM and an REST API method that can be called to query a table of polygon records (based on attribute or spatial intersection) and return the geometry and attributes. In this scenario the data (e.g. MI township boundaries) would be a map asset loaded into the SQL Server database (using the GeoJson import). The call to the REST API would return the feature geometry, attributes (e.g. township name), and calculated center point.
126.14	Provide an API method to return a Point Feature representing the centroid of a Michigan Township given a Tier and Range	E	X		EasyTerritory includes a library for Dynamics CRM and an REST API method that can be called to query a table of polygon records (based on attribute or spatial intersection) and return the geometry and attributes. In this scenario the data (e.g. MI township boundaries) would be a map asset loaded into the SQL Server database (using the GeoJson import). The call to the REST API would return the feature geometry, attributes (e.g. township name), and calculated center point.
126.15	Provide an API method to return a Polygon Feature representing a Michigan Township given a Tier and Range	E	X		Given a STR geographic layer from the asset library loaded into a SQL Server table with the geometry datatype. EasyTerritory REST Services can take a polygon and return intersecting STR features.

126.16	Provide an API method to return a Point Feature representing the centroid of a Michigan Township Section given a Tier and Range and Section number	E				Given a STR geographic layer from the asset library loaded into a SQL Server table with the geometry datatype. EasyTerritory REST Services can take a polygon and return intersecting STR features including the polygon centroid.
REQ. NO. DESCRIPTION	DETAIL	Function is: (M)andatory, (E)xpected, (O)ptional	YES			
			Off-The-Shelf	Configuration	Customization	Comments / Development Tools to be Used
126.17	Provide an API method to return a Polygon Feature representing a Michigan Township Section given a Tier and Range and Section number	E	X			Given a STR geographic layer from the asset library loaded into a SQL Server table with the geometry datatype. EasyTerritory REST Services can take a polygon and return intersecting STR features including the polygon shape.
126.18	Provide an API method to return a Point Feature representing the centroid of a zipcode given a Michigan Zipcode alpha numeric	E	X			EasyTerritory provides quarterly updates of the US ZIP code data (polygons and points) that can loaded into a SQL Server table with the geometry datatype. EasyTerritory REST Services can take a polygon and return intersecting STR features including the polygon shape.
126.19	Provide an API method to return a Polygon Feature representing a zipcode given a Michigan Zipcode alpha numeric	E	X			EasyTerritory provides quarterly updates of the US ZIP code data (polygons and points) that can loaded into a SQL Server table with the geometry datatype. EasyTerritory REST Services can take a polygon and return intersecting STR features including the polygon shape.
126.20	Provide an API method to return a Point Feature representing the centroid of a Michigan county given a county name	E	X			Given a County boundary geographic layer from the asset library loaded into a SQL Server table with the geometry datatype. EasyTerritory REST Services can take a polygon and return intersecting county features including the polygon shape.
126.21	Provide an API method to return a Polygon Feature representing a Michigan county given a county name	E	X			Given a County boundary geographic layer from the asset library loaded into a SQL Server table with the geometry datatype. EasyTerritory REST Services can take a polygon and return

						intersecting county features including the polygon shape and county name.
126.23	Platform Geocoding Application shall collect but is not limited to: Geocoding_Request_Definition)	E		X		User interfaces and permissions are configured in CRM by the system customizer

REQ. NO. DESCRIPTION	DETAIL	Function is: (M)andatory, (E)xpected, (O)ptional	YES			Comments / Development Tools to be Used
			Off-The-Shelf	Configuration	Customization	
ITEM 127	PLATFORM MEMBER PROFILE APPLICATION					
Traceability Number						
127.2	The function of the Platform Member Profile Application is to manage the storage, formatting and referencing of Member Definition	E		X		Member profile formatting is configurable along with the configurable access for other platform resources
127.3	Provide password protected access to the system	E	X			Microsoft Dynamics CRM Security Model
127.4	The platform's Administrator shall have the ability to deactivate and activate Members to deny or permit resource access	E	X			Microsoft Dynamics CRM Security Model
127.5	Provide methods for Self-administration of personal information	E	X			Microsoft Dynamics CRM Security Model
127.6	Provide a method for an actor to change their personal password	E	X			Microsoft Dynamics CRM Security Model
127.7	Provide methods to ensure passwords contain 10 or more characters, contain upper and lowercase characters, contain symbols and numbers	E	X			Microsoft Dynamics CRM Security Model
127.8	Members shall use a valid email address as their user name.	E	X			Microsoft Dynamics CRM Security Model

REQ. NO. DESCRIPTION	DETAIL	Function is: (M)andatory, (E)xpected, (O)ptional	YES			
			Off-The- Shelf	Configuratio n	Customizati on	Comments / Development Tools to be Used
ITEM 128	PLATFORM API AND RESOURCE CONFIGURATION APPLICATION					
Traceability Number						
128.2	The primary function of an application Programming Interface (API) is the collection and distribution of resource assets	E		X		The Dynamics CRM platform provides powerful and flexible interface and data movement capability via the system's native import features, through the use of third party data integration tools such as Scribe or by developing communication to the Dynamics CRM API and web services using the SDK. The Dynamics CRM platform contains built in APIs to communicate with the platform. Any additional APIs required and their associated components would need to be custom developed.
128.3	The function of the Platform API and Resource Configuration Application is the creation, versioning and deactivation of Application Programming Interfaces	E		X		The Dynamics CRM platform provides powerful and flexible interface and data movement capability via the system's native import features, through the use of third party data integration tools such as Scribe or by developing communication to the Dynamics CRM API and web services using the SDK. The Dynamics CRM platform contains built in APIs to communicate with the platform. Any additional APIs required and their associated components would need to be custom developed.
128.4	The platform shall share each resource through an application programming interface (API)	E		X		The Dynamics CRM platform provides powerful and flexible interface and data movement capability via the system's native import features, through the use of third party data integration tools such as Scribe or by developing communication to the Dynamics CRM API and web services using the SDK. The

						Dynamics CRM platform contains built in APIs to communicate with the platform. Any additional APIs required and their associated components would need to be custom developed.
128.5	The platform shall create, version, deactivate and delete APIs	E		X		The Dynamics CRM platform provides powerful and flexible interface and data movement capability via the system's native import features, through the use of third party data integration tools such as Scribe or by developing communication to the Dynamics CRM API and web services using the SDK. The Dynamics CRM platform contains built in APIs to communicate with the platform. Any additional APIs required and their associated components would need to be custom developed.
128.6	The platform shall create, version, deactivate and delete resources	E		X		The Dynamics CRM platform provides powerful and flexible interface and data movement capability via the system's native import features, through the use of third party data integration tools such as Scribe or by developing communication to the Dynamics CRM API and web services using the SDK. The Dynamics CRM platform contains built in APIs to communicate with the platform. Any additional APIs required and their associated components would need to be custom developed.
128.7	If the Platform API and Resource Configuration Application is an independent standalone application then the application shall authenticate a user	E				NA - The authentication methods used by the system are inherent in the Dynamics CRM platform.
128.8	A platform API shall verify a user's authentication	E		X		The Dynamics CRM platform provides the ability for an administrator to create users and assign security roles to determine access privileges in the system.
128.9	A platform API shall authorize users to use a resource's assets	E		X		The Dynamics CRM platform provides the ability for an administrator to create users and assign security roles to determine access privileges in the system.

REQ. NO. DESCRIPTION	DETAIL	Function is: (M)andatory, (E)xpected, (O)ptional	YES			
			Off-The- Shelf	Configuratio n	Customizati on	Comments / Development Tools to be Used
128.10	The platform API shall authorize applications to use a resource's assets	E		X		The Dynamics CRM platform provides the ability for an administrator to create users and assign security roles to determine access privileges in the system.
128.11	The Platform Administrator shall permission each resource	E		X		The Dynamics CRM platform provides the ability for an administrator to create users and assign security roles to determine access privileges in the system.
128.12	A Platform API resource's user authorization permissions shall include create, read, update, and deactivate	E		X		The Dynamics CRM platform provides the ability to allow users create, read, update and deactivate records depending in their defined role in the security model of the platform.
128.13	A Platform API resource's authorization permissions shall each be configurable to on or off	E		X		The Dynamics CRM platform provides the ability to enable or disable a user's access to the system.
128.14	A Platform API resource is configurable to allow or deny duplicate assets	E		X		The Dynamics CRM platform provides the ability to perform duplicate data checks upon record creation and allow for the records to be merged or duplicated.
128.16	A Platform API Resource's access scope shall be Limited to none, all, one, or more applications	E		X		The Dynamics CRM platform provides powerful and flexible interface and data movement capability via the system's native import features, through the use of third party data integration tools such as Scribe or by developing communication to the Dynamics CRM API and web services using the SDK. The Dynamics CRM platform contains built in APIs to communicate with the platform. Any additional APIs required and their associated components would need to be custom developed.
128.17	A Platform API Resource's Asset access scope shall be limited to none, all, one, or more applications	E		X		The Dynamics CRM platform provides powerful and flexible interface and data movement capability via the system's native import features, through the use of third party data integration tools such as Scribe or by developing communication to the Dynamics

						CRM API and web services using the SDK. The Dynamics CRM platform contains built in APIs to communicate with the platform. Any additional APIs required and their associated components would need to be custom developed.	
128.18	The Platform Administrator shall configure resource asset storage	E		X		The Dynamics CRM platform provides an administrator with the capability to define new entities and attributes to collect and store new data elements.	
128.19	The platform shall configure and implement a resource's create, read, update and deactivate methods on the creation of the resource's API	E		X		The Dynamics CRM platform provides powerful and flexible interface and data movement capability via the system's native import features, through the use of third party data integration tools such as Scribe or by developing communication to the Dynamics CRM API and web services using the SDK. The Dynamics CRM platform contains built in APIs to communicate with the platform. Any additional APIs required and their associated components would need to be custom developed.	
128.20	A platform API shall implement a resource asset's create, read, update and deactivate functions as a HTTP POST, GET, PUT and DELETE requests respectively	E		X		The Dynamics CRM platform provides powerful and flexible interface and data movement capability via the system's native import features, through the use of third party data integration tools such as Scribe or by developing communication to the Dynamics CRM API and web services using the SDK. The Dynamics CRM platform contains built in APIs to communicate with the platform. Any additional APIs required and their associated components would need to be custom developed.	
REQ. NO. DESCRIPTION	DETAIL	Function is: (M)andatory, (E)xpected, (O)ptional	YES				Comments / Development Tools to be Used
			Off-The- Shelf	Configuratio n	Customizati on		
128.21	A resource asset create, read, update and deactivate functions shall authorize a calling application and fail when unauthorized	E		X		The Dynamics CRM platform contains built in APIs to communicate with the platform. All authorization is handled through the Active	

					Directory credentials whether logging into the application through the user interface or via the SDK. Failed authorization will result in the asset not being modified.
128.22	A resource's asset create, read, update and deactivate functions shall authenticate and authorize a user when credentials are provided and fail when user is unauthenticated or unauthorized	E		X	The Dynamics CRM platform contains built in APIs to communicate with the platform. All authorization is handled through the Active Directory credentials whether logging into the application through the user interface or via the SDK.
128.23	A resource's asset attribute values shall be validate before creating or updating an asset (See section 114)	E		X	The Dynamics CRM platform provides the ability to validate data and, if the data is not validated, prevent the saving of the data to the record being entered or modified.
128.24	A resource's asset create and update functions shall fail when values are invalid	E		X	The Dynamics CRM platform provides the ability to validate data and, if the data is not validated, prevent the saving of the data to the record being entered or modified.
128.25	A resource's asset create, read, update and deactivate functions upon failing to create, read, update or deactivate an asset shall respond with an http status code in the 400 or 500 range	E		X	The Dynamics CRM platform provides the ability to validate data and, if the data is not validated, prevent the saving of the data to the record being entered or modified. A notification is presented to the user when such a failure occurs.
128.26	The API shall provide a method to create a new asset	E		X	The Dynamics CRM platform provides users access to the data in the system through the use of Forms. Users can create, update and deactivate records directly from the Forms.
128.27	The API shall provide searches for keywords, geographic features, and time periods	E		X	<p>The Dynamics CRM platform provides the ability to perform searches against the entities and attributes in the system via various searching methods including Quick Search and Advanced Find, which is a powerful multi-entity search function that is built into the platform.</p> <p>From Dynamics CRM, a user can build an Advanced Find query and map the results in an EasyTerritory project. Once the locations are displayed in the EasyTerritory map, the feature can be selected by click or spatial query and the results grid will provide a link to open the specific record in Dynamics CRM. Filters on keywords and date/time ranges can be performed in the Advanced Find query prior to</p>

						loading the data in the map or filters on keywords and date/time ranges can be apply once data is added to the EasyTerritory Map.	
128.28	The API shall provide a method to merge a presentation template with JSON data	E		X		The Dynamics CRM platform provides powerful and flexible interface and data movement capability via the system's native import features, through the use of third party data integration tools such as Scribe or by developing communication to the Dynamics CRM API and web services using the SDK. The Dynamics CRM platform contains built in APIs to communicate with the platform. Any additional APIs required and their associated components would need to be custom developed.	
128.29	The API shall provide a method to update asset attributes	E		X		The Dynamics CRM platform provides users access to the data in the system through the use of Forms. Users can create, update and deactivate records directly from the Forms.	
REQ. NO. DESCRIPTION	DETAIL	Function is: (M)andatory, (E)xpected, (O)ptional	YES				Comments / Development Tools to be Used
			Off-The- Shelf	Configuratio n	Customizati on		
128.30	The API shall provide a method to deactivate an asset	E		X		The Dynamics CRM platform provides users access to the data in the system through the use of Forms. Users can create, update and deactivate records directly from the Forms.	
128.31	The platform shall transmit assets as data objects	E		X		The Dynamics CRM platform provides powerful and flexible interface and data movement capability via the system's native import features, through the use of third party data integration tools such as Scribe or by developing communication to the Dynamics CRM API and web services using the SDK. The Dynamics CRM platform contains built in APIs to communicate with the platform. Any additional APIs required and their associated components would need to be custom developed.	

128.32	The platform shall format data objects as defined by the open standard JSON	E		X		The Dynamics CRM platform provides powerful and flexible interface and data movement capability via the system's native import features, through the use of third party data integration tools such as Scribe or by developing communication to the Dynamics CRM API and web services using the SDK. The Dynamics CRM platform contains built in APIs to communicate with the platform. Any additional APIs required and their associated components would need to be custom developed.
128.33	The platform shall transmit encrypted data objects	E		X		The Dynamics CRM platform provides powerful and flexible interface and data movement capability via the system's native import features, through the use of third party data integration tools such as Scribe or by developing communication to the Dynamics CRM API and web services using the SDK. The Dynamics CRM platform contains built in APIs to communicate with the platform. Any additional APIs required and their associated components would need to be custom developed.
128.34	The platform shall not transmit deactivated assets	E		X		The Dynamics CRM platform provides powerful and flexible interface and data movement capability via the system's native import features, through the use of third party data integration tools such as Scribe or by developing communication to the Dynamics CRM API and web services using the SDK. The Dynamics CRM platform contains built in APIs to communicate with the platform. Any additional APIs required and their associated components would need to be custom developed.
128.35	The platform shall record API requests including the request method (GET, POST, PUT and DELETE), parameters, user identity, application identity and current time. EXCLUDING PASSWORDS	E		X		The Dynamics CRM platform provides powerful and flexible interface and data movement capability via the system's native import features, through the use of third party data integration tools such as Scribe or by developing communication to the Dynamics CRM API and web services using the SDK. The Dynamics CRM platform contains built in APIs to communicate with the platform. Any

						additional APIs required and their associated components would need to be custom developed.	
128.36	The platform shall log a history of resource asset attribute changes including current value, previous, value user identity, application identity and current time. EXCLUDING PASSWORDS	E		X		The Dynamics CRM platform supports an auditing capability where entity and attribute data changes within an organization can be recorded over time for use in analysis and reporting purposes. Auditing is supported on all custom and most customizable entities and attributes. Any record in the system can be assigned to other users and all historical assignment changes can be seen for each record.	
128.37	The Platform Administrator shall create and configure a retention schedule for each resource (see section 119)	E		X		The Dynamics CRM platform provides powerful and flexible interface and data movement capability via the system's native import features, through the use of third party data integration tools such as Scribe or by developing communication to the Dynamics CRM API and web services using the SDK. The Dynamics CRM platform contains built in APIs to communicate with the platform. Any additional APIs required and their associated components would need to be custom developed.	
128.38	The platform shall retain resource assets for a period defined by a retention schedule	E		X		The Dynamics CRM platform provides powerful and flexible interface and data movement capability via the system's native import features, through the use of third party data integration tools such as Scribe or by developing communication to the Dynamics CRM API and web services using the SDK. The Dynamics CRM platform contains built in APIs to communicate with the platform. Any additional APIs required and their associated components would need to be custom developed.	
REQ. NO. DESCRIPTION	DETAIL	Function is: (M)andatory, (E)xpected, (O)ptional	YES				Comments / Development Tools to be Used
			Off-The- Shelf	Configuratio n	Customizati on		

128.39	If the Platform API and Resource Configuration Application is an independent standalone application then the application shall provide a user interface for authentication	E		X		The Dynamics CRM platform provides powerful and flexible interface and data movement capability via the system's native import features, through the use of third party data integration tools such as Scribe or by developing communication to the Dynamics CRM API and web services using the SDK. The Dynamics CRM platform contains built in APIs to communicate with the platform. Any additional APIs required and their associated components would need to be custom developed.
128.40	User-interfaces shall be provided that create, update, and deactivate API_Register_Definition, API_Name_Definition, API_Field_Definition, API_Permission_Definition, Resource_Scope_Definition, Resource_Asset_Scope_Definition, Resource_Registry_Definition. (fields found in Section 407)	E		X		The Dynamics CRM platform provides users access to the data in the system through the use of Forms. Users can create, update and deactivate records directly from the Forms.
128.41	Platform API and Resource Configuration Application shall integrate API_Register_Definitions API,	E		X		The Dynamics CRM platform provides powerful and flexible interface and data movement capability via the system's native import features, through the use of third party data integration tools such as Scribe or by developing communication to the Dynamics CRM API and web services using the SDK. The Dynamics CRM platform contains built in APIs to communicate with the platform. Any additional APIs required and their associated components would need to be custom developed.
128.42	Platform API and Resource Configuration Application shall integrate API_Name_Definitions API	E		X		The Dynamics CRM platform provides powerful and flexible interface and data movement capability via the system's native import features, through the use of third party data integration tools such as Scribe or by developing communication to the Dynamics CRM API and web services using the SDK. The Dynamics CRM platform contains built in APIs to communicate with the platform. Any additional APIs required and their associated components would need to be custom developed.

128.43	Platform API and Resource Configuration Application shall integrate API_Field_Definitions API	E		X		The Dynamics CRM platform provides powerful and flexible interface and data movement capability via the system's native import features, through the use of third party data integration tools such as Scribe or by developing communication to the Dynamics CRM API and web services using the SDK. The Dynamics CRM platform contains built in APIs to communicate with the platform. Any additional APIs required and their associated components would need to be custom developed.	
128.44	Platform API and Resource Configuration Application shall integrate API_Permission_Definitions API	E		X		The Dynamics CRM platform provides powerful and flexible interface and data movement capability via the system's native import features, through the use of third party data integration tools such as Scribe or by developing communication to the Dynamics CRM API and web services using the SDK. The Dynamics CRM platform contains built in APIs to communicate with the platform. Any additional APIs required and their associated components would need to be custom developed.	
128.45	Platform API and Resource Configuration Application shall integrate Resource_Scope_Definitions API	E		X		The Dynamics CRM platform provides powerful and flexible interface and data movement capability via the system's native import features, through the use of third party data integration tools such as Scribe or by developing communication to the Dynamics CRM API and web services using the SDK. The Dynamics CRM platform contains built in APIs to communicate with the platform. Any additional APIs required and their associated components would need to be custom developed.	
REQ. NO. DESCRIPTION	DETAIL	Function is: (M)andatory, (E)xpected, (O)ptional	YES				Comments / Development Tools to be Used
			Off-The- shelf	Configuratio n	Customizati on		

128.46	Platform API and Resource Configuration Application shall integrate Resource_Asset_Scope_Definitions API	E		X		The Dynamics CRM platform provides powerful and flexible interface and data movement capability via the system's native import features, through the use of third party data integration tools such as Scribe or by developing communication to the Dynamics CRM API and web services using the SDK. The Dynamics CRM platform contains built in APIs to communicate with the platform. Any additional APIs required and their associated components would need to be custom developed.
128.47	Platform API and Resource Configuration Application shall collect but is not limited to: API_Register_Definition)	E		X		The Dynamics CRM platform provides the ability to create new and modify existing entities and attributes to collect data per the requirements of the system.
128.48	Platform API and Resource Configuration Application shall collect but is not limited to: API_Name_Definition)	E		X		The Dynamics CRM platform provides the ability to create new and modify existing entities and attributes to collect data per the requirements of the system.
128.49	Platform API and Resource Configuration Application shall collect but is not limited to: API_Field_Definition)	E		X		The Dynamics CRM platform provides the ability to create new and modify existing entities and attributes to collect data per the requirements of the system.
128.50	Platform API and Resource Configuration Application shall collect but is not limited to: API_Permission_Definition)	E		X		The Dynamics CRM platform provides the ability to create new and modify existing entities and attributes to collect data per the requirements of the system.
ITEM 129	PLATFORM API REQUEST APPLICATION					
Traceability Number				X		The Dynamics CRM platform provides powerful and flexible interface and data movement capability via the system's native import features, through the use of third party data integration tools such as Scribe or by developing communication to the Dynamics CRM API and web services using the SDK. The Dynamics CRM platform contains built in APIs to communicate with the platform. Any additional APIs required and their associated components would need to be custom developed.

129.2	The function of the Platform API Request Application is to manage the storage, formatting and referencing of Request_Log_Definition	E		X		The Dynamics CRM platform provides the ability to create new and modify existing entities and attributes to collect data per the requirements of the system. All attributes in the system contain properties that allow you to define the data type, formatting, field requirements and size.	
129.3	Provide automatic Log entry to describe an activity completion	E		X		The Dynamics CRM platform provides the ability to create and store activities in the system. Upon completion of the activity, the record can be marked as closed or canceled.	
129.4	Provide automatic Log entry for the initiation of an activity	E		X		The Dynamics CRM platform provides the ability to create and store activities in the system. Upon completion of the activity, the record can be marked as closed or canceled.	
129.5	Provide request information suitable to recreate the request but do not include PASSWORDS	E		X		The Dynamics CRM platform provides powerful and flexible interface and data movement capability via the system's native import features, through the use of third party data integration tools such as Scribe or by developing communication to the Dynamics CRM API and web services using the SDK. The Dynamics CRM platform contains built in APIs to communicate with the platform. Any additional APIs required and their associated components would need to be custom developed.	
REQ. NO. DESCRIPTION	DETAIL	Function is: (M)andatory, (E)xpected, (O)ptional	YES				Comments / Development Tools to be Used
			Off-The- Shelf	Configuratio n	Customizati on		
129.6	If root-no is an independent standalone application then the application shall authenticate a user	E		X			
129.7	If the Platform API Request Application is an independent standalone application then the application shall provide a user interface for authentication	E		X		N/A	
129.8	User-interfaces shall be provided that search Request_Log_Definition. (fields found in Section 407)	E		X		The Dynamics CRM platform provides the ability to perform searches against the entities and attributes in the system via various searching methods including Quick Search and	

						Advanced Find, which is a powerful multi-entity search function that is built into the platform.	
129.9	All Resource Asset Attributes must be validated (See section 114)	E		X		The Dynamics CRM platform provides the ability to validate data and, if the data is not validated, prevent the saving of the data to the record being entered or modified.	
129.10	Platform API Request Application shall collect but is not limited to: Request_Log_Definition	E		X		The Dynamics CRM platform provides the ability to create new and modify existing entities and attributes to collect data per the requirements of the system.	
ITEM 131	PLATFORM PRESENTATION TEMPLATE APPLICATION						
Traceability Number							
131.2	The function of the Platform Presentation Template Application is the creation of consistent human readable output across many applications. Conceptually, templates are similar to a mail merge	E		X		Microsoft Dynamics CRM	
131.3	The expected form of a template shall be plain text. The plain text may represent xml, microsoft word or html	E		X		Microsoft Dynamics CRM	
131.4	The expected form of a template data shall be plain text. The plain text shall be formatted as JSON	E		X		Microsoft Dynamics CRM	
REQ. NO. DESCRIPTION	DETAIL	Function is: (M)andatory, (E)xpected, (O)ptional	YES				Comments / Development Tools to be Used
			Off-The- Shelf	Configuratio n	Customizati on		
131.5	The function of the Platform Presentation Template Application is to manage the collection, formatting and referencing of: Presentation_Template_Definition	E	X				
131.6	If the Platform Presentation Template Application is an independent standalone application then the application shall authenticate a user	E				N/A	
131.7	If the Platform Presentation Template Application is an independent standalone application then the application shall provide a user interface for authentication	E				N/A	
131.8	User-interfaces shall be provided that create, update, and deactivate Presentation_Template_Definition (see section 407) (fields found in Section 407)	E		X		Permissions are configured through the role-based security model	

131.9	User-interfaces shall provide methods to search, create and update presentation templates (see definitions) I.e., Presentation_Template_Definition	E		X		Microsoft Dynamics CRM	
131.10	The Platform Presentation Template Application shall provide a template tag or placeholder to reference or name an individual resource asset attribute	E				Microsoft Dynamics CRM	
REQ. NO. DESCRIPTION	DETAIL	Function is: (M)andatory, (E)xpected, (O)ptional	YES				Comments / Development Tools to be Used
			Off-The- Shelf	Configuratio n	Customizati on		
131.11	The Platform Presentation Template Application shall provide a template tag or placeholder to reference or name an individual resource asset attribute within a list of assets	E	X			Uses GUID	
131.12	The Platform Presentation Template Application shall provide a template tag or placeholder to reference a cartographic map	E	X			Mapping interface uses GUID as record reference	
131.13	The Platform Presentation Template Application shall provide a template tag or placeholder to reference an image or photograph	E		X		Relationship to image folders can be configured to store collections for the asset	
131.14	All Resource Asset Attributes must be validated (See section 114)	E		X		Validation is configurable	
131.15	The Platform Presentation Template Application's merge function is one of the API core functions (see section 128)	E	X		X	Merge is available for certain entities, depending on which entities need to be merged, this could be a custom feature	
131.16	Platform Presentation Template Application shall integrate Presentation_Template_Definitions API	E	X			Microsoft Dynamics CRM	
131.17	The Platform Presentation Template Application shall collect but is not limited to collecting: Presentation_Template_Definition	E	X			Microsoft Dynamics CRM	
ITEM 201	WORKFLOW APPLICATION						
Traceability Number							

REQ. NO. DESCRIPTION	DETAIL	Function is: (M)andatory, (E)xpected, (O)ptional	YES			
			Off-The- Shelf	Configuratio n	Customizati on	Comments / Development Tools to be Used
201.2	The function of the Workflow Application is the orderly and timely collection of data from multiple sources over the internet	E		X		Connection to sources is configurable through an interface, however some sources may require web services
201.3	If the Workflow Application is an independent standalone application then the application shall authenticate a user	E				N/A
201.4	Workflow Deployment shall be implemented by an administrator	E	X			Microsoft Dynamics CRM Interface for Windows Workflow Foundation
201.5	Workflow Application shall provide a multi-user workflow design tool	E	X			Microsoft Dynamics CRM Interface for Windows Workflow Foundation
201.6	Workflow shall be organized by project	E	X			Windows Workflow Foundation
201.7	The Workflow design tool shall create, read, update, version and delete projects	E	X			Microsoft Dynamics CRM Interface for Windows Workflow Foundation
201.8	The Workflow projects shall contain a workflow model represented as an interactive swim-lane diagram	O			X	Interaction with the Windows Workflow Foundation programming interface is available through Visual Studio
201.9	The Workflow model shall contain workflow steps and have the ability to create, display, update and deactivate steps	E	X			Windows Workflow Foundation
201.10	The Workflow model steps shall contain workflow data collection fields, field validation, labels, buttons and controls as well as configuration for notifications, escalation, timers and step authorization	E	X			Windows Workflow Foundation
201.11	Workflow step fields and controls shall implement spell checking	E		X		Use of spell checking with browsers is configurable

REQ. NO. DESCRIPTION	DETAIL	Function is: (M)andatory, (E)xpected, (O)ptional	YES			
			Off-The- Shelf	Configuratio n	Customizati on	Comments / Development Tools to be Used
201.12	The Workflow model shall contain workflow global variables for data storage between workflow steps	E	X			Windows Workflow Foundation
201.13	The Workflow model steps shall contain workflow local variables for temporary storage	E	X			Windows Workflow Foundation
201.14	A workflow model step shall receive control data from other workflow steps	E	X			Windows Workflow Foundation
201.15	A workflow model step shall pass control data to other workflow steps	E	X			Windows Workflow Foundation
201.17	The Workflow Application shall have a method to import and export a standard business process exchange model (See 201.22)	E			X	The contract-first workflow development tool allows the developer to design a contract in code first, then, with a few clicks in Visual Studio, automatically generate an activity template in the toolbox representing each operation. These activities are then used to create a workflow that implements the operations defined by the contract. The workflow designer will validate the workflow service to ensure that these operations are implemented and the signature of the workflow matches the contract signature. The developer can also associate a workflow service with a collection of implemented contracts.
201.18	Workflow shall have capacity to run many business process models simultaneously	E	X			Windows Workflow Foundation
201.19	Workflow shall support a scripting language to create custom methods and functions to provide calculations and data manipulations	E	X			Windows Workflow Foundation
201.20	The Workflow scripting language shall provide interfaces to call and process restful API requests and responses	E	X			Windows Workflow Foundation
201.21	Workflow shall be implemented as a web application	E	X			Windows Workflow Foundation

201.22	Provide a standard business process exchange model definition E.g., XML Process Definition Language (XPDL) (See http://www.xpdl.org)	E	X			Windows Workflow Foundation employs a standard process exchange model for workflow portability.	
REQ. NO. DESCRIPTION	DETAIL	Function is: (M)andatory, (E)xpected, (O)ptional	YES				Comments / Development Tools to be Used
			Off-The- Shelf	Configuratio n	Customizati on		
201.23	Provide a Workflow Deployment package that uses a standard business process model, modular, portable, scriptable and version controlled	E	X			Microsoft Dynamics CRM Interface for Windows Workflow Foundation	
201.24	Workflow shall provide configurable escalation that includes but is not limited to adding, changing or removing escalation notice recipients; escalation conditions	E	X			Microsoft Dynamics CRM Interface for Windows Workflow Foundation	
201.25	Workflow shall provide a configuration adjustment for adding, updating or removing alert notification recipients	E	X			Microsoft Dynamics CRM Interface for Windows Workflow Foundation	
201.26	Workflow shall provide a configuration adjustment for disabling a given alert	E	X			Microsoft Dynamics CRM Interface for Windows Workflow Foundation	
201.27	Workflow shall provide a configuration adjustment for updating alert message	E	X			Microsoft Dynamics CRM Interface for Windows Workflow Foundation	
201.28	If the Workflow Application is an independent standalone application then the application shall provide a user interface for authentication	E				N/A	
201.29	Workflow shall be configurable via a graphical User Interface i.e., a swim-lane diagram	O		X		Windows Workflow Foundation	
201.30	An interactive map user-interface shall be provided that creates, updates, and deletes a representative geographic feature. (See section 123)	E	X			EasyTerritory provides an out-of-the-box HTML5 web resource plugin for Dynamics CRM that allows a user to create, delete and adjust geographic information on the form.	
201.31	A User Interface shall be provided for geocoding (see section 126)	E	X			EasyTerritory provides several mechanisms to geocode data within CRM. First, the EasyTerritory geocode plugin can be attached to a workflow to geocode records on create, or address update. The geocode workflow plugin can also be called in bulk to geocode records that don't have a latitude and longitude.	

						Secondly, the EasyTerritory SpotOn Plugin can be used to adjust a poorly geocoded record by letting the user select the location on the map. The SpotOn plugin support location service for mobile field collection and additionally show the Bing Maps aerial photo for more detailed information.	
REQ. NO. DESCRIPTION	DETAIL	Function is: (M)andatory, (E)xpected, (O)ptional	YES				Comments / Development Tools to be Used
			Off-The- Shelf	Configuratio n	Customizati on		
201.32	All Resource Asset Attributes must be validated (See section 114)	E		X		Validation is configured either through the Business Process Automation tool or as part of attribute parameters	
201.33	The Workflow Application must validate all resource asset attribute values (see section 114)	E		X		Validation will be configured at workflow stages	
201.34	Workflow shall be configurable and store data in Microsoft SQL Server 2012 or newer	E	X			Windows Workflow Foundation	
201.35	The Workflow Application shall integrate geocoding	E	X			The EasyTerritory geocode plugin can be attached to a workflow to geocode records on create, or address update. The geocode workflow plugin can also be called in bulk to geocode records that don't have a latitude and longitude.	
201.36	The Workflow Application shall integrate interactive geographic mapping in workflow steps	E	X			The EasyTerritory SpotOn Plugin can be used to adjust a poorly geocoded record by letting the user select the location on the map. The SpotOn plugin support location service for mobile field collection and additionally show the Bing Maps aerial photo for more detailed information.	
201.37	Workflow products upon completion shall be automatically moved to the platform (see section 101)	E	X			Microsoft Dynamics CRM Application Layer	
ITEM 202	WORKFLOW – INVITATION APPLICATION						
Traceability Number							

202.2	The function of the Workflow - Invitation Application is to allow a member user to request another user to perform or assist in a workflow step or invite a non-member to become a member of the platform	E		X		Routing or workflow steps are configurable
202.3	If the Workflow - Invitation Application is an independent standalone application then the application shall authenticate a user	E				N/A
REQ. NO. DESCRIPTION	DETAIL	Function is: (M)andatory, (E)xpected, (O)ptional	YES			Comments / Development Tools to be Used
			Off-The- shelf	Configuratio n	Customizati on	
202.4	If the Workflow - Invitation Application is an independent standalone application then the application shall provide a user interface for authentication	E				N/A
202.5	User-interfaces shall be provided that create, update, and deactivate Invitation_Definition (fields found in Section 407)	E		X		Permissions are configured through the role-based security model.
202.6	All Resource Asset Attributes must be validated (See section 114)	E		X		Validation is configurable
202.7	The Workflow - Invitation Application shall provide method to invite a user to participate in a collaborative work	E		X		Workflow invitations are configurable
202.8	The Workflow - Invitation Application shall provide notification to recipient upon invitation,	E		X		Alerts and Notifications are configurable
202.9	The Workflow - Invitation Application shall provide a recipient with link to accept or decline an invitation	E		X		Acknowledgement is configurable
202.10	The Workflow - Invitation Application shall provide notification to sender upon a recipient's response	E		X		Notifications are configurable

REQ. NO. DESCRIPTION	DETAIL	Function is: (M)andatory, (E)xpected, (O)ptional	YES			
			Off-The- Shelf	Configuratio n	Customizati on	Comments / Development Tools to be Used
202.11	The Workflow - Invitation Application shall provide configurable invitation types: an Invitation to become a system member; an Invitation to an actor to work on NRHP nomination; an Invitation to an actor to work on tax credit project; an Invitation to an actor to work on archaeology project; an Invitation to an actor to work on a section 106 project; an invitation to request help	E		X		Invitations based on project and resource types are configurable
202.12	Workflow - Invitation Application shall integrate Invitation_Definitions API	E	X			Scribe Online
202.13	Workflow - Invitation Application shall collect but is not limited to: Invitation_Definition)	E		X		Access is configurable through the role-based security model
ITEM 203	WORKFLOW – COMMUNICATION MESSAGE APPLICATION					
Traceability Number						
203.2	The function of the Workflow - Communication Messaging Application is to manage, modify and monitor the messages between workflow members	E	X			Microsoft Dynamics CRM
203.3	The Workflow - Communication Messaging Application shall provide the ability to log all messages between registered actors	E		X		Logging will be provided for both internal and external users as needed.
203.4	The Workflow - Communication Messaging Application shall provide ability to modify text of a communication sent by a registered actor	E		X		Ability to modify can be configured through the role-based security model
REQ. NO. DESCRIPTION	DETAIL	Function is: (M)andatory, (E)xpected, (O)ptional	YES			
			Off-The- Shelf	Configuratio n	Customizati on	Comments / Development Tools to be Used
203.5	The Workflow - Communication Messaging Application shall provide automated notification of	E		X		Automated notification of changes can be configured to notify designated users

	change to a communication back to the originator of the message					
203.6	The Workflow - Communication Messaging Application shall provide ability to forward a communication on to the intended receiver	E	X			Sending an e-mail notification is a standard feature
203.8	If the Workflow - Communication Messaging Application is an independent standalone application then the application shall provide a user interface for authentication	E				N/A
203.9	User-interfaces shall be provided that create, update, and deactivate Workflow_Message_Definition. (fields found in Section 407)	E		X		The workflow engine provides capability for configuring messages.
203.10	A user Interface shall be provided for geocoding (see section 400)	E	X			<p>EasyTerritory provides several mechanisms to geocode data within CRM. First, the EasyTerritory geocode plugin can be attached to a workflow to geocode records on create, or address update. The geocode workflow plugin can also be called in bulk to geocode records that don't have a latitude and longitude.</p> <p>Secondly, the EasyTerritory SpotOn Plugin can be used to adjust a poorly geocoded record by letting the user select the location on the map. The SpotOn plugin support location service for mobile field collection and additionally show the Bing Maps aerial photo for more detailed information.</p>
203.11	All Resource Asset Attributes must be validated (See section 114)	E		X		Validation will be configured through the business process automation engine
203.12	Workflow - Communication Messaging Application shall integrate Workflow_Message_Definitions API	E	X			Scribe Online
203.13	The Workflow - Communication Messaging Application shall collect but is not limited to: Workflow_Message_Definition)	E		X		Workflow messages are configurable

REQ. NO. DESCRIPTION	DETAIL	Function is: (M)andatory, (E)xpected, (O)ptional	YES			
			Off-The- Shelf	Configuratio n	Customizati on	Comments / Development Tools to be Used
ITEM 207	REGISTER - BIBLIOGRAPHY APPLICATION					
Traceability Number						
207.2	The function of the Register - Bibliography Application is to manage the collection, formatting and referencing of Citation_Definition	E		X		Solution will be configured to capture, format and reference needed fields
207.3	If the Register - Bibliography Application is an independent standalone application then the application shall authenticate a user	E				N/A
207.4	If the Register - Bibliography Application is an independent standalone application then the application shall provide a user interface for authentication	E				N/A
207.5	User-interfaces shall be provided to create, update, and deactivate Citation_Definition	E		X		Permissions are configured through the role-based security model
207.6	All Resource Asset Attributes must be validated (See section 114)	E		X		Validation will be configured through the business rules processing engine
207.7	The Register - Bibliography Application shall provide Citation_Definition template configuration. (See section 131)	E		X		Templates will be configured through standard interface
207.8	Register - Bibliography Application shall integrate Citation_Definitions API	E	X			Scribe Online
207.9	The first version the Register - Bibliography Application shall interface with the Citation_Definition API	E	X			Scribe Online

REQ. NO. DESCRIPTION	DETAIL	Function is: (M)andatory, (E)xpected, (O)ptional	YES			
			Off-The- Shelf	Configuratio n	Customizati on	Comments / Development Tools to be Used
207.10	Register - Bibliography Application shall collect but is not limited to: Citation_Definition)	E		X		Access is configurable through the role-based security model
ITEM 208	REGISTER – DOCUMENT APPLICATION					
Traceability Number						
208.2	The function of the Register - Document Application is to manage the collection, formatting and referencing of Historic_Document_Definitions	E		X		Metadata for the documents is configurable, however formatting content of any document other than those produced by the system would be considered beyond the scope of this application
208.3	If Register - Historic Document Application is an independent standalone application then the application shall provide a user interface for authentication	E	X			SharePoint uses Single Sign On (SSO) functionality and does not require an additional user interface for authentication unless credentials do not match site authorization or credentials have expired.
208.4	The Register - Document Application shall provide User Interfaces to create, update, and deactivate Historic_Document_Definition	E		X		Access is configured through the role-based security model
208.5	The Register - Document Application shall provide an interactive map User Interface to create, update, and delete a representative geographic feature (see section 123)	E	X			EasyTerritory provides several mechanisms to geocode data within CRM. First, the EasyTerritory geocode plugin can be attached to a workflow to geocode records on create, or address update. The geocode workflow plugin can also be called in bulk to geocode records that don't have a latitude and longitude. http://easyterritory.com/docs_bulkgeocoder.html Secondly, the EasyTerritory SpotOn Plugin can be used to adjust a poorly geocoded record by letting the user select the location on the map. The SpotOn plugin support location service for mobile field collection and additionally show the

						Bing Maps aerial photo for more detailed information.	
208.6	The Register - Document Application shall provide a User Interface to geocode (see section 126)	E	X			<p>EasyTerritory provides several mechanisms to geocode data within CRM. First, the EasyTerritory geocode plugin can be attached to a workflow to geocode records on create, or address update. The geocode workflow plugin can also be called in bulk to geocode records that don't have a latitude and longitude.</p> <p>Secondly, the EasyTerritory SpotOn Plugin can be used to adjust a poorly geocoded record by letting the user select the location on the map. The SpotOn plugin support location service for mobile field collection and additionally show the Bing Maps aerial photo for more detailed information.</p>	
REQ. NO. DESCRIPTION	DETAIL	Function is: (M)andatory, (E)xpected, (O)ptional	YES				Comments / Development Tools to be Used
			Off-The- Shelf	Configuratio n	Customizati on		
208.7	All Resource Asset Attributes must be validated (See section 114)	E		X		Validation will be configured using the business process automation engine	
208.8	If Register - Document Application is an independent standalone application then the application shall authenticate a user	E				N/A	
208.9	Register - Document Application shall integrate Historic_Document_Definitions API	E	X			Scribe Online	
208.10	The Register - Document Application shall integrate geocoding	E	X			<p>EasyTerritory provides several mechanisms to geocode data within CRM. First, the EasyTerritory geocode plugin can be attached to a workflow to geocode records on create, or address update. The geocode workflow plugin can also be called in bulk to geocode records that don't have a latitude and longitude.</p>	

						Secondly, the EasyTerritory SpotOn Plugin can be used to adjust a poorly geocoded record by letting the user select the location on the map. The SpotOn plugin support location service for mobile field collection and additionally show the Bing Maps aerial photo for more detailed information.
208.11	The Register - Document Application shall integrate interactive geographic mapping	E	X			EasyTerritory will be used as the interactive mapping application with the document application.
208.12	Register - Document Application shall collect but is not limited to: Historic_Document_Definition)	E		X		Access will be configured through role-based security
ITEM 209	REGISTER – HISTORIC PERSON APPLICATION					
Traceability Number						
209.2	The function of the Register - Historic Person Application is to manage the storage, formatting and referencing of Person_Definition, Person_Birth_Death_Definition, Person_Profession_Definition, Person_Professional_Contribution_Definition	E		X		Solution will be configured to store, format and reference needed fields
REQ. NO. DESCRIPTION	DETAIL	Function is: (M)andatory, (E)xpected, (O)ptional	YES			Comments / Development Tools to be Used
			Off-The- Shelf	Configuratio n	Customizati on	
209.3	The Register - Historic Person Application shall provide a historically significant person's name(s)	E		X		System Customizer Interface
209.4	The Register - Historic Person Application shall provide a historically significant person's ethnic heritage	E		X		System Customizer Interface
209.5	The Register - Historic Person Application shall provide a historically significant person's life span	E		X		System Customizer Interface
209.6	The Register - Historic Person Application shall provide a collection of a historically significant person's professions	E		X		System Customizer Interface

209.7	The Register - Historic Person Application shall provide collection of a historically significant person's professional contributions	E		X		System Customizer Interface
209.8	The Register - Historic Person Application shall provide indicator of historically significant person's national prominence	E		X		System Customizer Interface
209.9	The Register - Historic Person Application shall provide an indicator of historically significant person's cultural importance	E		X		System Customizer Interface
209.10	The Register - Historic Person Application shall provide a statement of a historically significant person's significance	E		X		System Customizer Interface
209.11	If the Register - Historic Person Application is an independent standalone application then the application shall authenticate a user	E				N/A
REQ. NO. DESCRIPTION	DETAIL	Function is: (M)andatory, (E)xpected, (O)ptional	YES			Comments / Development Tools to be Used
			Off-The- Shelf	Configuratio n	Customizati on	
209.12	If the Register - Historic Person Application is an independent standalone application then the application shall provide a user interface for authentication	E				N/A
209.13	User-interfaces shall be provided that create, update, and deactivate Person_Definition, Person_Birth_Death_Definition, Person_Profession_Definition, Person_Professional_Contribution_Definition (fields found in Section 407)	E		X		Access will be configured through the role-based security model
209.14	All Resource Asset Attributes must be validated (See section 114)	E		X		Validation will be configured through the business process automation engine
209.15	User-interfaces shall be provided that search, create and update a Person_Definition presentation template (fields found in Section 407)	E		X		User interfaces are configured through the role-based security model and System Customizer interface

209.16	The Register - Historic Person Application shall integrate Person_Definitions API	E		X		Scribe Online	
209.17	The Register - Historic Person Application shall integrate Person_Birth_Death_Definitions API	E		X		Scribe Online	
209.18	The Register - Historic Person Application shall integrate Person_Profession_Definitions API	E		X		Scribe Online	
REQ. NO. DESCRIPTION	DETAIL	Function is: (M)andatory, (E)xpected, (O)ptional	YES				Comments / Development Tools to be Used
			Off-The- Shelf	Configuratio n	Customizati on		
209.19	The Register - Historic Person Application shall integrate Person_Professional_Contribution_Definitions API	E		X		Scribe Online	
209.20	The Register - Historic Person Application shall collect but is not limited to: Person_Definition)	E		X		Access will be configured through the role-based security model	
209.21	The Register - Historic Person Application shall collect but is not limited to: Person_Birth_Death_Definition)	E		X		Access will be configured through the role-based security model	
209.22	The Register - Historic Person Application shall collect but is not limited to: Person_Profession_Definition)	E		X		Access will be configured through the role-based security model	
209.23	The Register - Historic Person Application shall collect but is not limited to: Person_Professional_Contribution_Definition	E		X		Access will be configured through the role-based security model	
ITEM 210	REGISTER – PHOTOGRAPH APPLICATION						
Traceability Number							

210.2	The function of the Register - Photograph Application is the collection and sharing of photographs	E		X		Solution will be configured to store photographs related to places including time period
210.3	If Register - Photograph Application is an independent standalone application then the application shall authenticate a user	E				N/A
210.4	If the Register - Photograph Application is an independent standalone application then the application shall provide a user interface for authentication	E				N/A
REQ. NO. DESCRIPTION	DETAIL	Function is: (M)andatory, (E)xpected, (O)ptional	YES			Comments / Development Tools to be Used
			Off-The- Shelf	Configuratio n	Customizati on	
210.5	User-interfaces shall be provided that create, update, and deactivate Photograph_Definition. (fields found in Section 407)	E		X		Permissions will be configured through the role-based security model
210.6	All Resource Asset Attributes must be validated (See section 114)	E		X		Validation will be configured through the business process automation engine
210.7	An interactive map user-interface shall be provided that creates, updates, and deletes a representative geographic feature (see section 123)	E		X		EasyTerritory will be configured to provide a mapping interface based on user roles
210.8	A user-interface shall be provided for geocoding (see section 126)	E	X			EasyTerritory
210.9	Register - Photograph Application shall collect but is not limited to: Photograph_Definition)	E		X		Access will be configured through the role-based security model
210.10	Register - Photograph Application shall integrate Photograph_Definitions API	E		X		Scribe Online
210.11	The Register - Photograph Application shall integrate geocoding	E	X			EasyTerritory

210.12	The Register - Photograph Application shall integrate interactive geographic mapping	E		X		EasyTerritory will be configured to allow interactive mapping based on user roles
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REQ. NO. DESCRIPTION	DETAIL	Function is: (M)andatory, (E)xpected, (O)ptional	YES				Comments / Development Tools to be Used
			Off-The- Shelf	Configuratio n	Customizati on		
ITEM 211	REGISTER – HISTORIC PLACE APPLICATION						
Traceability Number							
211.2	The function of Register - Historic Place Application is the sharing of National Register of Historic Place data (see section 407)	E		X		Solution will be configured to store data for sharing based on user roles	
211.3	The function of the Register - Historic Place Application is to search site data (See 405.35 – 405.67)			X		Search parameters and results are configurable	
211.4	The Register - Historic Place Application shall distribute resource assets marked with a not for publication flag to State Office of Historic Preservation staff only.	E		X		Record access will be controlled through the role-based security model	
211.5	If the Register - Historic Place Application is an independent standalone application then the application shall authenticate a user	E				N/A	
211.6	If the Register - Historic Place Application is an independent standalone application then the application shall provide a user interface for authentication	E				N/A	
211.7	User-interfaces shall be provided that create, update, and deactivate data (See 405.35 – 405.67)	E		X		User interfaces are configured through the role-based security model and System Customizer interface	
211.8	All Resource Asset Attributes must be validated (See section 114)			X		Validation will be configured through the business process automation engine	

REQ. NO. DESCRIPTION	DETAIL	Function is: (M)andatory, (E)xpected, (O)ptional	YES			
			Off-The- Shelf	Configuratio n	Customizati on	Comments / Development Tools to be Used
211.9	An interactive map user-interface shall be provided that creates, updates, and deletes a representative geographic feature. (See section 123)	E	X			Leveraging the EasyTerritory Bing Maps geocode plugin for CRM workflows. The geocode will return latitude, longitude, geocode quality, and standardize street address on record create, address update and deactivate.
211.10	A UI shall be provided for geocoding (see section 126)	E	X			EasyTerritory provides several mechanisms to geocode data within CRM. First, the EasyTerritory geocode plugin can be attached to a workflow to geocode records on create, or address update. The geocode workflow plugin can also be called in bulk to geocode records that don't have a latitude and longitude. Secondly, the EasyTerritory SpotOn Plugin can be used to adjust a poorly geocoded record by letting the user select the location on the map. The SpotOn plugin support location service for mobile field collection and additionally show the Bing Maps aerial photo for more detailed information.
211.11	User-interfaces shall provide methods to search, create and update presentation templates for data (See 405.35 – 405.67)	E		X		Permissions are configurable through the role-based security model
211.12	Register - Historic Place Application shall integrate NRHP_Master_Definitions API	E		X		Scribe Online
211.13	Register - Historic Place Application shall integrate NRHP_Property_Name__Definitions API	E		X		Scribe Online
211.14	Register - Historic Place Application shall integrate NRHP_Location_Definitions API	E		X		Scribe Online
211.15	Register - Historic Place Application shall integrate NRHP_State_Federal_Agency_Certification_Definitions API	E		X		Scribe Online
211.16	16, Register - Historic Place Application shall integrate NRHP_National_Park_Service_Certification_Definitions API	E		X		Scribe Online

211.17	Register - Historic Place Application shall integrate NRHP_Classification_Definitions API	E		X		Scribe Online
211.18	Register - Historic Place Application shall integrate NRHP_Historic_Function_Definitions API	E		X		Scribe Online
REQ. NO. DESCRIPTION	DETAIL	Function is: (M)andatory, (E)xpected, (O)ptional	YES			Comments / Development Tools to be Used
			Off-The- Shelf	Configuratio n	Customizati on	
211.19	Register - Historic Place Application shall integrate NRHP_Current_Function_Definitions API	E		X		Scribe Online
211.20	Register - Historic Place Application shall integrate NRHP_Description_Architectural_Classification_Definitions API	E		X		Scribe Online
211.21	21, Register - Historic Place Application shall integrate NRHP_Description_Summary_Paragraph_Definitions API	E		X		Scribe Online
211.22	Register - Historic Place Application shall integrate NRHP_Narrative_Description_Definitions API	E		X		Scribe Online
211.23	Register - Historic Place Application shall integrate NRHP_Description_Materials_Definitions API	E		X		Scribe Online
211.24	Register - Historic Place Application shall integrate NRHP_Statement_of_Significance_Definitions API	E		X		Scribe Online
211.25	Register - Historic Place Application shall integrate NRHP_Statement_of_Significance_Areas_of_Significance_Definitions API	E		X		Scribe Online
REQ. NO. DESCRIPTION	DETAIL	Function is: (M)andatory, (E)xpected, (O)ptional	YES			Comments / Development Tools to be Used
			Off-The- Shelf	Configuratio n	Customizati on	
211.26	Register - Historic Place Application shall integrate NRHP_Statement_of_Significance_Period_of_Significance_Definitions API	E		X		Scribe Online

211.27	Register - Historic Place Application shall integrate NRHP_Statement_of_Significance_Significant_Dates_Definitions API	E		X		Scribe Online	
211.28	Register - Historic Place Application shall integrate NRHP_Statement_of_Significance_Significant_Person_Definitions API	E		X		Scribe Online	
211.29	Register - Historic Place Application shall integrate NRHP_Statement_of_Significance_Cultural_Affiliation_Definitions API	E		X		Scribe Online	
211.30	Register - Historic Place Application shall integrate NRHP_Statement_of_Significance_Architects_Builders_Definitions API	E		X		Scribe Online	
211.31	Register - Historic Place Application shall integrate NRHP_Statement_of_Significance_Period_of_Significance_Definitions API	E		X		Scribe Online	
211.32	Register - Historic Place Application shall integrate NRHP_Statement_of_Significance_Criteria_Considerations_Definitions API	E		X		Scribe Online	
REQ. NO. DESCRIPTION	DETAIL	Function is: (M)andatory, (E)xpected, (O)ptional	YES				Comments / Development Tools to be Used
			Off-The- Shelf	Configuratio n	Customizati on		
211.33	Register - Historic Place Application shall integrate NRHP-Statement_of_Significance_Summary_Paragraph_Definitions API	E		X		Scribe Online	
211.34	Register - Historic Place Application shall integrate NRHP_Statement_of_Significance_Narrative_Statement_of_Significance_Definitions API	E		X		Scribe Online	
211.35	Register - Historic Place Application shall integrate NRHP_Major_Bibliographical_Reference_Definitions API	E		X		Scribe Online	
211.36	Register - Historic Place Application shall integrate NRHP_Major_Bibliographical_References_Bibliography_Definitions API	E		X		Scribe Online	
211.37	Register - Historic Place Application shall integrate NRHP_Geographical_Data_Definitions API	E		X		Scribe Online	
211.38	, Register - Historic Place Application shall integrate NRHP_Geographical_Data_UTM_References_Definitions API	E		X		Scribe Online	

211.39	Register - Historic Place Application shall integrate NRHP_Geographical_Data_Verbal_Boundary_Description_Definitions API	E		X		Scribe Online	
REQ. NO. DESCRIPTION	DETAIL	Function is: (M)andatory, (E)xpected, (O)ptional	YES				Comments / Development Tools to be Used
			Off-The- Shelf	Configuratio n	Customizati on		
211.40	Register - Historic Place Application shall integrate NRHP_Geographical_Data_Boundary_Justification_Definitions API	E		X		Scribe Online	
211.41	Register - Historic Place Application shall integrate NRHP_Form_Prepared_By_Definitions API	E		X		Scribe Online	
211.42	Register - Historic Place Application shall integrate NRHP_Additional_Documentation_Definitions API	E		X		Scribe Online	
211.43	Register - Historic Place Application shall integrate NRHP_Photographs_Definitions API	E		X		Scribe Online	
211.44	Register - Historic Place Application shall integrate NRHP_Property_Owner_Definitions API	E		X		Scribe Online	
211.45	Register - Historic Place Application shall collect but is not limited to: NRHP_Master_Definition	E		X		Access will be configured through the role-based security model	
211.46	Register - Historic Place Application shall collect but is not limited to: NRHP_Property_Name__Definition)	E		X		Access will be configured through the role-based security model	
211.47	Register - Historic Place Application shall collect but is not limited to: NRHP_Location_Definition	E		X		Access will be configured through the role-based security model	
211.48	Register - Historic Place Application shall collect but is not limited to: NRHP_State_Federal_Agency_Certification_Definition)	E		X		Access will be configured through the role-based security model	
REQ. NO. DESCRIPTION	DETAIL	Function is: (M)andatory, (E)xpected, (O)ptional	YES				Comments / Development Tools to be Used
			Off-The- Shelf	Configuratio n	Customizati on		

211.49	Register - Historic Place Application shall collect but is not limited to: NRHP_National_Park_Service_Certification_Definition)	E		X		Access will be configured through the role-based security model	
211.50	Register - Historic Place Application shall collect but is not limited to: NRHP_Classification_Definition)	E		X		Access will be configured through the role-based security model	
211.51	Register - Historic Place Application shall collect but is not limited to: NRHP_Historic_Function_Definition)	E		X		Access will be configured through the role-based security model	
211.52	Register - Historic Place Application shall collect but is not limited to: NRHP_Current_Function_Definition)	E		X		Access will be configured through the role-based security model	
211.53	Register - Historic Place Application shall collect but is not limited to: NRHP_Description_Architectural_Classification_Definition)	E		X		Access will be configured through the role-based security model	
211.54	Register - Historic Place Application shall collect but is not limited to: NRHP_Description_Summary_Paragraph_Definition)	E		X		Access will be configured through the role-based security model	
211.55	Register - Historic Place Application shall collect but is not limited to: NRHP_Narrative_Description_Definition)	E		X		Access will be configured through the role-based security model	
211.56	Register - Historic Place Application shall collect but is not limited to: NRHP_Description_Materials_Definition)	E		X		Access will be configured through the role-based security model	
REQ. NO. DESCRIPTION	DETAIL	Function is: (M)andatory, (E)xpected, (O)ptional	YES				Comments / Development Tools to be Used
			Off-The- Shelf	Configuratio n	Customizati on		
211.57	Register - Historic Place Application shall collect but is not limited to: NRHP_Statement_of_Significance_Definition)	E		X		Access will be configured through the role-based security model	
211.58	Register - Historic Place Application shall collect but is not limited to: NRHP_Statement_of_Significance_Areas_of_Significance_Definition)	E		X		Access will be configured through the role-based security model	
211.59	Register - Historic Place Application shall collect but is not limited to: NRHP_Statement_of_Significance_Period_of_Significance_Definition)	E		X		Access will be configured through the role-based security model	

211.60	Register - Historic Place Application shall collect but is not limited to: NRHP_Statement_of_Significance_Significant_Dates_Definition)	E		X		Access will be configured through the role-based security model
211.61	Register - Historic Place Application shall collect but is not limited to: NRHP_Statement_of_Significance_Significant_Person_Definition)	E		X		Access will be configured through the role-based security model
211.62	Register - Historic Place Application shall collect but is not limited to: NRHP_Statement_of_Significance_Cultural_Affiliation_Definition)	E		X		Access will be configured through the role-based security model
211.63	Register - Historic Place Application shall collect but is not limited to: NRHP_Statement_of_Significance_Architects_Builders_Definition)	E		X		Access will be configured through the role-based security model
REQ. NO. DESCRIPTION	DETAIL	Function is: (M)andatory, (E)xpected, (O)ptional	YES			Comments / Development Tools to be Used
			Off-The- Shelf	Configuratio n	Customizati on	
211.64	Register - Historic Place Application shall collect but is not limited to: NRHP_Statement_of_Significance_Period_of_Significance_Definition)	E		X		Access will be configured through the role-based security model
211.65	Register - Historic Place Application shall collect but is not limited to: NRHP_Statement_of_Significance_Criteria_Considerations_Definition)	E		X		Access will be configured through the role-based security model
211.66	Register - Historic Place Application shall collect but is not limited to: NRHP- Statement_of_Significance_Summary_Paragraph_Definition)	E		X		Access will be configured through the role-based security model
211.67	Register - Historic Place Application shall collect but is not limited to: NRHP_Statement_of_Significance_Narrative_Statement_of_Significance_Definition)	E		X		Access will be configured through the role-based security model
211.68	Register - Historic Place Application shall collect but is not limited to: NRHP_Major_Bibliographical_Reference_Definition)	E		X		Access will be configured through the role-based security model

211.69	Register - Historic Place Application shall collect but is not limited to: NRHP_Major_Bibliographical_References_Bibliography_Definition)	E		X		Access will be configured through the role-based security model	
211.70	Register - Historic Place Application shall collect but is not limited to: NRHP_Geographical_Data_Definition)	E		X		Access will be configured through the role-based security model	
REQ. NO. DESCRIPTION	DETAIL	Function is: (M)andatory, (E)xpected, (O)ptional	YES				Comments / Development Tools to be Used
			Off-The- Shelf	Configuratio n	Customizati on		
211.71	Register - Historic Place Application shall collect but is not limited to: NRHP_Geographical_Data_UTM_References_Definition)	E		X		Access will be configured through the role-based security model	
211.72	Register - Historic Place Application shall collect but is not limited to: NRHP_Geographical_Data_Verbal_Boundary_Description_Definition)	E		X		Access will be configured through the role-based security model	
211.73	Register - Historic Place Application shall collect but is not limited to: NRHP_Geographical_Data_Boundary_Justification_Definition)	E		X		Access will be configured through the role-based security model	
211.74	Register - Historic Place Application shall collect but is not limited to: NRHP_Form_Prepared_By_Definition)	E		X		Access will be configured through the role-based security model	
211.75	Register - Historic Place Application shall collect but is not limited to: NRHP_Additional_Documentation_Definition)	E		X		Access will be configured through the role-based security model	
211.76	Register - Historic Place Application shall collect but is not limited to: NRHP_Photographs_Definition)	E		X		Access will be configured through the role-based security model	
211.77	Register - Historic Place Application shall collect but is not limited to: NRHP_Property_Owner_Definition)	E		X		Access will be configured through the role-based security model	
211.78	The Register - Historic Place Application shall integrate geocoding	E		X		EasyTerritory	
211.79	The Register - Historic Place Application shall integrate interactive geographic mapping	E		X		EasyTerritory will be configured to allow interactive mapping based on user roles	

REQ. NO. DESCRIPTION	DETAIL	Function is: (M)andatory, (E)xpected, (O)ptional	YES			
			Off-The- Shelf	Configuratio n	Customizati on	Comments / Development Tools to be Used
ITEM 213	REGISTER – HISTORIC PERIOD APPLICATION					
Traceability Number						
213.2	The function of the Register - Historic Period Application is to manage the storage, formatting and referencing of Historic_Period_Definitions	E		X		Configurable entity for Historic Periods
213.3	The function of the Register - Historic Period Application is the definition and sharing of Historic Periods for purposes of consistency	E		X		Historic Periods entity serves as the reference for other components of platform, workflow and register
213.4	If the Register - Historic Period Application is an independent standalone application then the application shall authenticate a user	E				N/A
213.5	If the Register - Historic Period Application is an independent standalone application then the application shall provide a user interface for authentication	E				N/A
213.6	User-interfaces shall be provided that create, update, and deactivate Historic_Period_Definitions. (fields found in Section 407)	E		X		Permissions configurable through role-based security
213.7	All Resource Asset Attributes must be validated (See section 114)	E		X		Validation parameters are configurable
REQ. NO. DESCRIPTION	DETAIL	Function is: (M)andatory, (E)xpected, (O)ptional	YES			
			Off-The- Shelf	Configuratio n	Customizati on	Comments / Development Tools to be Used

213.8	User-interfaces shall be provided that search, create and update a Historic_Period_Definition presentation template (see Section 400) (fields found in Section 407)	E		X		Search parameters and results are configurable
213.9	Provide one or more period names for each Historic_Period_Definition	E		X		Many names can be associated with periods
213.10	Provide for multiple date formats for Historic_Period_Definition	E	X			Microsoft Dynamics CRM
213.11	Provide a time range for Historic_Period_Definition	E		X		Range parameters are configurable
213.12	Provide historic and prehistoric designations for period	E		X		Multiple attributes may be associated
213.13	Provide statement of significance for each Historic_Period_Definition	E		X		Historic periods may be associated with multiple statements, notes or descriptions
213.14	Provide local period with a spatial object or a reference to a spatial object representative of a city, county, township	E		X		Spatial objects of various types may be associated with time periods
213.15	Register - Historic Period Application shall integrate Historic_Period_Definitions API	E		X		Configurable through integration interface
213.16	Historic_Period_Definitions API	E		X		Access is discoverable via the Microsoft Dynamics SDK
213.17	Register - Historic Period Application shall collect but is not limited to: Historic_Period_Definition)	E		X		Access is configured through role-based security model

REQ. NO. DESCRIPTION	DETAIL	Function is: (M)andatory, (E)xpected, (O)ptional	YES			Comments / Development Tools to be Used
			Off-The- Shelf	Configuratio n	Customizati on	
ITEM 217	REGISTER – LEXICON APPLICATION					
Traceability Number						
217.2	The function of Register - Lexicon Application is to collect and share the words that make up the vocabulary of National Register of Historic Place	E		X		Lexicon structure is configurable

217.3	The function of the Register - Lexicon Application is to manage the storage, formatting and referencing of: Lexeme_Definition	E		X		Formatting and references are configurable	
217.4	If the Register - Lexicon Application is an independent standalone application then the application shall authenticate a user	E				N/A	
217.5	If the Register - Lexicon Application is an independent standalone application then the application shall provide a user interface for authentication	E				N/A	
217.6	User-interfaces shall be provided that create, update, and deactivate Lexeme_Definition. (fields found in Section 407)	E		X		Permissions are configurable through role-based security	
217.7	All Resource Asset Attributes must be validated (See section 114),	E		X		Validation is configurable	
217.8	User-interfaces shall be provided that search, create and update a Lexeme_Definition presentation template (fields found in Section 407)	E		X		Parameters for searching are configurable along with permissions for creating and updating the lexicon	
REQ. NO. DESCRIPTION	DETAIL	Function is: (M)andatory, (E)xpected, (O)ptional	YES				Comments / Development Tools to be Used
			Off-The- Shelf	Configuratio n	Customizati on		
217.9	Register - Lexicon Application shall collect but is not limited to: Lexeme_Definition)	E		X		Access is configurable through the role-based security model	
217.10	Register - Lexicon Application shall integrate Lexeme_Definitions API	E		X		Access is discoverable via the Microsoft Dynamics SDK	
ITEM 302	REGISTER						
Traceability Number							
302.2	The function of the Register is the search and display of facts, figures and symbols representing the Historical Places of Michigan	E		X		Search fields and symbol images can be configured.	
302.3	The audience for the Register are citizens, SHPO staff, and other state agencies	E		X		Access is configurable	

302.4	The Register is an independent standalone application that provides user authentication	E		X		Deployed in a safe zone without direct access to the Solution, however content is managed in the Solution.
302.5	Register shall provide user-interfaces to set up an Account	E	X			Microsoft Dynamics CRM Adxstudio
302.6	Register shall provide a user-interface to reset a forgotten password	E	X			Microsoft Dynamics CRM Adxstudio
302.7	If Register is an independent standalone application then the application shall provide a user interface for authentication	E				N/A
302.8	Limited access to open data sets shall be granted under the guest role	E	X			Microsoft Dynamics CRM Adxstudio
REQ. NO. DESCRIPTION	DETAIL	Function is: (M)andatory, (E)xpected, (O)ptional	YES			Comments / Development Tools to be Used
			Off-The- Shelf	Configurati on	Customizati on	
302.9	Register shall provide a single textbox to interface with the platform for purposes of key word searching	E		X		Search fields are configured to allow users to search for words in key fields
302.10	The Register shall provide an interactive Geographic Search Interface	E		X		Configuration of desired layers to display will be part of the implementation process.
302.11	The Geographic Search Interface shall provide method to show facts, figures and symbols as a geographic map	E		X		Display content is configured as part of the implementation process.
302.12	The Geographic Search Interface shall be configurable to do a geographic search across one or more resources	E	X			EasyTerritory
302.13	The Geographic Search Interface shall provide methods to zoom in and out of a map	E	X			EasyTerritory
302.14	The Geographic Search Interface shall provide method to pan the map	E	X			EasyTerritory

302.15	The Geographic Search Interface shall provide methods to initiate a geographic search given a geographic feature I.e. a pick and search method	E	X			EasyTerritory	
302.16	The Geographic Search Interface shall provide methods to manually draw a feature from which to initiate a geographic search I.e., a draw and search method	E	X			EasyTerritory	
302.17	The Geographic Search Interface shall provide methods to buffer a feature before using it to initiate a geographic search I.e., a draw and search method	E	X			EasyTerritory	
REQ. NO. DESCRIPTION	DETAIL	Function is: (M)andatory, (E)xpected, (O)ptional	YES				Comments / Development Tools to be Used
			Off-The- Shelf	Configuratio n	Customizati on		
302.18	The Time Period Search shall provide a method to search for records on a specific date	E		X		Search parameters and results are configurable.	
302.19	The Time Period Search shall provide a method to search for records on a specific year and month	E		X		Search parameters and results are configurable.	
302.20	The Time Period Search shall provide a method to search for records on a specific year	E		X		Search parameters and results are configurable.	
302.21	The Time Period Search shall provide a method to search for records on a specific range of dates	E		X		Search parameters and results are configurable.	
302.22	The Time Period Search shall provide a method to search for records on a range of months e.g., year and month to year and month	E		X		Search parameters and results are configurable.	
302.23	The Time Period Search shall provide a method to search for records over a range of year	E		X		Search parameters and results are configurable.	
302.24	The Register shall have an interactive map oriented display for search results (see section 123)	E		X		Search parameters and results are configurable.	
302.25	The Register shall provide an interactive tabular oriented display for search results	E		X		Search results are configurable.	

302.26	The Register shall provide a method to pan/scroll through a tabular result	E	X			EasyTerritory	
302.27	Provide tabular display of photographs when available	E		X		Embedded iFrame will be configured to display related photographs	
302.28	Provide links from tabular items to maps	E		X		Tabular items can include links	
REQ. NO. DESCRIPTION	DETAIL	Function is: (M)andatory, (E)xpected, (O)ptional	YES				Comments / Development Tools to be Used
			Off-The- Shelf	Configuratio n	Customizati on		
302.29	Provide links from tabular items to timelines e.g., http://timeline.knightlab.com	O		X		Links can be provided in tables since URLs can be field types in the solution	
302.31	Provide method to pan/scroll through a time period results	E		X		Results will be sequenced by time period where appropriate	
302.32	Provide timeline display of photographs when available	E		X		Using the time based searches will return attributes for the timeframe. Some customization may be required depending on the specific need.	
302.33	Provide links from timeline items to maps	E		X		Links can be provided as fields in timeline items to maps that are created for a time period	
302.34	Provide timeline display of historic person names	E		X		Results will be sequenced by time period where appropriate	
302.35	Provide timeline display of references to written materials with regards to that time period	E		X		Using the time based searches will return attributes for the timeframe.	
302.36	Provide timeline display of historic place names	E		X		Using the time based searches will return attributes for the timeframe.	
302.37	Provide search results ordered by time both ascending and descending,	E	X			Search Result grids allow quick sort by time	
302.38	Provide interactive method to switch between tabular, timeline, and cartographic map	E	X			Switching will be provided through system navigation tools	
302.39	Provide search results ordered alphabetically both ascending and descending	E	X			Search result grids support alphabetical sorting	
302.40	Provide search result display as a Cartographic map	E		X		EasyTerritory provides capability for displaying search results in a map	

302.42	The Register shall have an interactive timeline oriented display for search results	E		X		Interactive features can be configured.
REQ. NO. DESCRIPTION	DETAIL	Function is: (M)andatory, (E)xpected, (O)ptional	YES			Comments / Development Tools to be Used
			Off-The- shelf	Configuratio n	Customizati on	
302.44	A UI shall be provided for geocoding (see 400)	E	X			EasyTerritory provides
302.45	The Register shall provide searching for unstructured and structured text objects or combinations of both A.k.a., key word search	E		X		Searches can be performed on fields or strings that are enable for search
302.46	Unstructured text objects include Word, Phrases, Street Addresses and place names (County, City, Township, Zip Code)	E		X		Searches can be performed on fields or strings that are enable for search
302.47	Structured text objects are JSON objects that represent a geographic feature or a time period (sec 403, figure 2.)	E		X		EasyTerritory
302.48	Provide inexact and exact text matches. The default shall be inexact text matches	E		X		Provided through configuration of the business process automation engine
302.49	The Register shall provide a method to transition a tabular display to a map display	E	X			System navigation supports
302.50	The Register shall provide a method to transition a tabular display to a timeline display	E	X			System navigation supports
302.51	The Register shall provide a method to transition a map display to a timeline display	E	X			System navigation supports
302.52	The Register shall provide a method to transition a map display to a tabular display	E	X			EasyTerritory support displaying the results of a spatial query in a data grid within the application. All records on the map can be shown in the tabular results data grid view by using the 'query all' feature.
302.53	The Register shall provide a method to transition a timeline display to a map display	E	X			System navigation supports

REQ. NO. DESCRIPTION	DETAIL	Function is: (M)andatory, (E)xpected, (O)ptional	YES			
			Off-The- Shelf	Configuratio n	Customizati on	Comments / Development Tools to be Used
302.54	The Register shall provide a method to transition a timeline display to a tabular display	E	X			Results filtered on the map by date/time can be queried spatially and displayed in the tabular results grid.
302.55	All Resource Asset Attributes must be validated (Sec 214)	E		X		Validation will be configured through the business process automation engine
302.56	Provide automatic recording of all search requests	E		X		Search requests can be saved by users as personal views that can be shared with other users or configured as system views
302.57	Register shall provide links to the platform and workflow processes	E	X			Standard system navigation
302.58	The Register shall have configurable integration with the platform (see section 101)	E		X		System Customer Interface
302.59	The Register shall integrate with the platform (see section 101) including but not limited to: Historic Place (sec 211); Historic Photograph (Sec 210); Bibliography (Sec 203); Lexicon (Sec 217); Historic Document (Sec 208); Historic Person (Sec 209); Historic Period (Sec 213)	E		X		Solution will be configured with these named components.

REQ. NO. DESCRIPTION	DETAIL	Function is: (M)andatory, (E)xpected, (O)ptional	YES			
			Off-The- Shelf	Configuratio n	Customizati on	Comments / Development Tools to be Used
ITEM 308	TRAINING WIKI					
Traceability Number						

308.2	The function of the Training Wiki Application is the collaborative development of training materials and platform documentation Note: The Training Wiki Application is optional functionality. However, Should a Training Wiki Application be included in the proposed solution, the following requirements are expected.	O	X			Microsoft Dynamics CRM Knowledge Base
308.3	If the Training Wiki Application is an independent standalone application then the application shall authenticate a user	E	X			Microsoft Dynamics CRM Knowledge Base
308.4	If the Training Wiki Application is an independent standalone application then the application shall provide a user interface for authentication	E	X			Microsoft Dynamics CRM Knowledge Base
308.5	Training Wiki Application shall provide permission management	E	X			Microsoft Dynamics CRM Knowledge Base
308.6	Training Wiki Application shall allow integration of restful APIs	E	X			Microsoft Dynamics CRM Knowledge Base
308.7	Training Wiki Application shall provide notifications	E		X		Specific messages and triggers can be configured
308.8	Training Wiki Application shall provide page editor	E		X		Page content and layout is configurable

400, APPENDIX A - DEFINITIONS

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400.1, Access Scope - Access scope define which applications may use a specific resource.

400.2, Application - An application is software that consumes platform resources.

400.3, Asset - An asset a set of attributes the collectively define a person, place, thing or idea.

400.4, APIs - Application Programming Interface

400.5, Application Programming Interface - See Resource API

400.6, API Version - See version

400.7, BPM - Business Process Model

400.8, BPML - Business Process Modeling Language

400.9, Business Process Model - Business process modeling (BPM) in systems engineering is the activity of representing processes of an enterprise, so that the current process may be analyzed or improved.

400.10, Business Process Modeling Language - Business Process Modeling Language (BPML) is a language for business process modeling.

400.11, Business Process Model and Notation - Business Process Model and Notation (BPMN) is a graphical representation for specifying business processes in a business process model.

400.12, Cloud Service - A Cloud Service is infrastructure for digital storage, manipulation and distribution of resource assets over the internet.

400.13, Configure - See Configuration

400.14, Configuration - Configuration refers to changing software settings to alter or create new or different outputs without having to change the software's source code.

400.15, Custom - See Customization

400.16, Customization - Customization refers to changing the source code of a software application to alter or create new or different outputs.

400.17, DTMB - Department of Technology Management and Budget

400.18, Deactivate - Deactivate is a process by which a resource or asset can be temporarily stopped from interacting with the system. Deactivate is different from delete in that delete permanently removes a resource or asset from interacting with a system.

400.19, Date Time - A Date Time represents an instant or point in time that is typically measured on a 24 hour clock and is formatted yyyyymmddhhmmss

400.20, Data object - A data object refers to JavaScript Object Notation (JSON) object

400.21, Exact Text Match - An exact match is found when two text strings contain the same characters in the same order and having the same case.

400.22, Escalation - Workflow escalation allows you to escalate the approval process to either the next step or an alternative set of steps when the allotted Time for the step has lapsed.

400.23, Geocoding - Geocoding is the process of converting place names and addresses into a representative geographic coordinate.

400.24, Geographic Feature - A Geographic Feature is a point, line or polygon.

400.25, Geographic Search - Geographic Searches use the spatial relationship of geographic features to perform resource searches. The relationships include 'intersects' and 'within' as in a point intersects a line, a line intersects a polygon or a polygon intersects a point. (See Section 403 for more examples)

400.26, Inexact Text Match - An inexact text match is found if any whole word within the input text is found within a resource

400.27, JSON - JavaScript Object Notation

400.28, MSHDA - Michigan State Housing Development Authority

400.29, NRHP - National Register of Historic Place

400.30, MBT - See Minimum Bounding Time

400.31, MBR - See minimum bounding rectangle

400.32, Minimum Bounding Time - Minimum Bounding Time (MBT) is the minimum time and the maximum time found in a given set of times.

400.33, Minimum Bounding Rectangle - A Minimum Bounding Rectangle (MBR) is the smallest rectangle that can be fit around a set of geometric figures.

400.34, NPS - National Parks Service

400.35, Platform - Platform as a service is a category of cloud computing services that provides a platform allowing customers to develop, run, and manage web applications without the complexity of building and maintaining the infrastructure typically associated with developing and launching an application.

400.36, Platform Resource - A platform resource is a list of assets housed on the platform.

400.37, Predicate - A predicate asserts something about a resource. Predicates act like functions and follow a restful pattern I.e., <URI>/<resource name>/<predicate>/<value | resource name> e.g., /place/merge/place.html

400.38, Presentation Template - A presentation template holds formatting such that machine readable data can be converted to human readable form. The template is plain text that defines formatting and data field references.

400.39, Representative Geographic Coordinate - A Representative Geographic Coordinate is a point used to generalize a Geographic Feature for the purpose symbolizing an object on a map.

400.40, Representative Geographic Feature - A Representative Geographic Feature is a point, line or polygon that is used to symbolize an object on a map.

400.41, Resource - A resource, in the context of a platform, is store or list of assets.

400.42, Resource API - A resource API is an application programming interface that is configured to grant access and permissions to a resource. API are Restful.

400.43, Restful - RESTful (Representational State Transfer) is an architectural style, and an approach to communications that is often used in the development of Web services. The use of REST is often preferred over the more heavyweight SOAP (Simple Object Access Protocol) style because REST does not leverage as much bandwidth, which makes it a better fit for use over the Internet. The SOAP approach requires writing or using a provided server program (to serve data) and a client program (to request data).

400.44, Retention - See Retention Schedule

400.45, Retention Schedule - A retention schedule defines when an asset expires

400.46, SHPO - State Historical Preservation Office

400.47, SoM - State of Michigan

- 400.48, Scripting - See Scripting Language
- 400.49, Scripting Language - A scripting language or script language is a programming language that supports scripts, programs written for a special run-time environment that can interpret (rather than compile) and automate the execution of tasks that could alternatively be executed one-by-one by a human operator.
- 400.50, TED - Department of talent and economic development
- 400.51, UI - User Interface
- 400.52, User-Interface - Use Interface
- 400.53, User Interface - In information technology, the user interface (UI) is everything designed into an information device with which a human being may interact -- including display screen, keyboard, mouse, light pen, the appearance of a desktop, illuminated characters, help messages, and how an application program or a Web site invites interaction and responds to it.
- 400.54, Validate - Validate is the activity of checking or proving the validity or accuracy of (something).
- 400.55, Version - A version is a form of update where a previous version is copied and new features added and the previous version is left intact.
- 400.56, WKT - Well Known Text
- 400.57, Well Known Text - Well Known Text is a markup language for defining vector geometry for maps.
- 400.58, Workflow - Workflow consists of an orchestrated and repeatable pattern of business activity enabled by the systematic organization of resources into processes that transform materials, provide services, or process information

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 402, APPENDIX C - MAP ASSET LIST
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- 402.1, USGS Maps of Michigan Digital Imagery for reference
- 402.2, Michigan Aerial Photography or Aerial Photo Service
- 402.3, Michigan Senate District Areas for reference
- 402.4, Michigan House District Areas for reference
- 402.5, US Senate District Area of Michigan (this is all of Michigan, add for consistency) for reference
- 402.6, US House District Areas of Michigan for reference
- 402.7, Michigan Flood Plain Areas for reference
- 402.8, US State boundaries
- 402.9, Michigan Counties boundaries
- 402.10, Michigan City/Municipalities boundaries
- 402.11, Michigan Township and Range boundaries
- 402.12, Michigan Township, Range and Section boundaries
- 402.13, Michigan Certified Local Government boundaries
- 402.14, Michigan 2010 Census Tract Areas
- 402.15, Michigan Land Use/Cover Areas
- 402.16, Michigan Neighborhood Enterprise Zone Areas
- 402.17, Michigan Great Lake Areas
- 402.18, Michigan Inland Lake Areas
- 402.19, Michigan River Areas
- 402.20, Michigan Hydrology
- 402.21, Michigan 2012 Plat Areas
- 402.22, Michigan Stream Lines
- 402.23, Michigan Interstate Highways Lines
- 402.24, Michigan State Highway Lines
- 402.25, Michigan County road Lines
- 402.26, Michigan Local street Lines
- 402.27, Michigan Railway Lines

402.28, Michigan Bridge Symbols
402.29, Michigan Elevation Contours (Areas)
402.30, Michigan Bathymetry for Great Lakes (Areas)
402.31, Michigan Cultural Features Domestic building Symbols (single/multiple dwelling/hotels/intentional housing)
402.32, Michigan Cultural Features Commercial building Symbols
402.33, Michigan Cultural Features Social Meeting Place Symbols (e.g., halls, clubhouse, civic)
402.34, Michigan Cultural Features Government Symbols (capital, city hall, correctional facility, fire station, government office, diplomatic building, custom house, post office, public works, courthouse)
402.35, Michigan Cultural Features Education Symbols (schools, colleges, library, research facilities)
402.36, Michigan Cultural Features Religion Symbols (religious facility, ceremonial site, church school, church-related residence)
402.37, Michigan Cultural Features Funerary Symbols (cemetery, graves/burials, mortuary)
402.38, Michigan Cultural Features Recreation and Cultural Symbols (theater, auditorium, museum, music facility, sports facility, outdoor recreation, fair, monument/marker, work of art)
402.39, Michigan Cultural Features Agriculture/Subsistence Symbols (processing, storage, agricultural field, animal facility, fishing facility or site, horticultural facility, agricultural outbuilding, irrigation facility)
402.40, Michigan Cultural Features Industry/Processing/Extraction Symbols (manufacturing facility, extractive facility, waterworks, energy facility, communications facility, processing site, industrial storage)
402.41, Michigan Cultural Features Healthcare Symbols (hospital, clinic, sanitarium, medical business/office, resort)
402.42, Michigan Cultural Features Defense Symbols (arms storage, fortification, military facility, battle site, coast guard facility, naval facility, air facility)
402.43, Michigan Cultural Features Landscape Symbols (parking lot, park, plaza, garden, forest, unoccupied land, underwater, natural feature, street furniture/object, conservation area)
402.44, Michigan Cultural Features Transportation Symbols (rail-related, air-related, water-related, road-related, pedestrian-related)
402.45, Michigan Tribal Historic Preservation Officers Lands
402.46, World Country boundaries
402.47, Third Party Maps TBD
402.48, Proposed Below Ground Sites points
402.49, Proposed Below Ground Obscured Sites points
402.50, Ineligible District Areas
402.51, Proposed NRHP Sites points
402.52, Proposed NRHP In need of more research Sites points
402.53, Proposed NRHP Districts Areas
402.54, Proposed NRHP District Sites points
402.55, Proposed Section 106 Area of Potential Effect Areas
402.56, Proposed Local Historic Site points
402.57, Proposed Local Historic District Areas
402.58, Proposed State Register of Historic Places (SRHP) Site point
402.59, Proposed SRHP Site Areas
402.60, Proposed Easements
402.61, Proposed Ineligible District Areas
402.62, Proposed Area of Potential Effect Areas
402.63, NRHP Sites points
402.64, NRHP In need of more research Sites points
402.65, NRHP District Areas boundaries
402.66, NRHP District Site Points
402.67, Section 106 Area of Effect Areas

402.68, Local Historic Site Points
402.69, Local Historic District Areas
402.70, State Register of Historic Places (SRHP) Site Point
402.71, SRHP Site Points
402.72, Approved Archaeology Site Points
402.73, Approved Obfuscated Archaeology Site Areas

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403, APPENDIX D - FIGURES

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403.1, Figure 1, Ecosystem
403.2, Figure 2, Time Measurement Representation
403.3, Figure 3, Resource and Geographic Feature Relationships
403.4, Figure 4, Resource and Time Relationships

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405, APPENDIX E - AP INTERFACES
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405.1, the following are examples of APIs that may or may not be part of the Platform. See Section 407 for example resources and assets.

- 405.2, Resource Asset Change Log Definition API (see related sections: 105, 128, and 407)
- 405.3, Foreign System Definition API (see related sections: 107, 128, and 407)
- 405.4, API Register Definition API (see related sections: 107, 128, and 407)
- 405.5, Retention Schedule Definition API (see related sections: 119, 128, and 407)
- 405.6, Geocoding Request Definition API (see related sections: 126, 128, and 407)
- 405.7, Member Definition API (see related sections: 127, 128, and 407)
- 405.8, Member Name Definition API (see related sections: 127, 128, and 407)
- 405.9, SHPO Mailing Address Definition API (see related sections: 127, 128, and 407)
- 405.10, Telephone Definition API (see related sections: 127, 128, and 407)
- 405.11, SHPO Degrees and Certificates Definition API (see related sections: 127, 128, and 407)
- 405.12, SHPO Portfolio Definition API (see related sections: 127, 128, and 407)
- 405.13, SHPO Resume Definition API (see related sections: 127, 128, and 407)
- 405.14, SHPO Experience and Expertise Definition API (see related sections: 127, 128, and 407)
- 405.15, SHPO Share and Assist Definition API (see related sections: 127, 128, and 407)
- 405.16, Security Statement Definition API (see related sections: 127, 128, and 407)
- 405.17, API Register Definition API (see related sections: 407)
- 405.18, API Name Definition API (see related sections: 407)
- 405.19, API Field Definition API (see related sections: 407)
- 405.20, API Permission Definition API (see related sections: 407)
- 405.21, Resource Scope Definition API (see related sections: 407)
- 405.22, Resource Asset Scope Definition API (see related sections: 407)
- 405.23, Resource Registry Definition API (see related sections: 407)
- 405.24, Request Log Definition API (see related sections: 129, 128, and 407)
- 405.25, Presentation Template Definition API (see related sections: 131, 128, and 407)
- 405.26, Invitation Definition API (see related sections: 202, 128, and 407)
- 405.27, Workflow Message Definition API (see related sections: 203, 128, and 407)
- 405.28, Citation Definition API (see related sections: 207, 128, and 407)
- 405.29, Historic Document Definition API (see related sections: 208, 128, and 407)
- 405.30, Person Definition API (see related sections: 209, 128, and 407)
- 405.31, Person Birth Death Definition API (see related sections: 209, 128, and 407)
- 405.32, Person Profession Definition API (see related sections: 209, 128, and 407)
- 405.33, Person Professional Contribution Definition API (see related sections: 209, 128, and 407)
- 405.34, Photograph Definition API (see related sections: 210, 128, and 407)
- 405.35, NRHP Master Definition API (see related sections: 211, 128, and 407)
- 405.36, NRHP Property Name Definition API (see related sections: 211, 128, and 407)
- 405.37, NRHP Location Definition API (see related sections: 211, 128, and 407)
- 405.38, NRHP State Federal Agency Certification Definition API (see related sections: 211, 128, and 407)
- 405.39, NRHP National Park Service Certification Definition API (see related sections: 211, 128, and 407)
- 405.40, NRHP Classification Definition API (see related sections: 211, 128, and 407)
- 405.41, NRHP Historic Function Definition API (see related sections: 211, 128, and 407)

- 405.42, NRHP Current Function Definition API (see related sections: 211, 128, and 407)
- 405.43, NRHP Description Architectural Classification Definition API (see related sections: 211, 128, and 407)
- 405.44, NRHP Description Summary Paragraph Definition API (see related sections: 211, 128, and 407)
- 405.45, NRHP Narrative Description Definition API (see related sections: 211, 128, and 407)
- 405.46, NRHP Description Materials Definition API (see related sections: 211, 128, and 407)
- 405.47, NRHP Statement of Significance Definition API (see related sections: 211, 128, and 407)
- 405.48, NRHP Statement of Significance Areas of Significance Definition API (see related sections: 211, 128, and 407)
- 405.49, NRHP Statement of Significance Period of Significance Definition API (see related sections: 211, 128, and 407)
- 405.50, NRHP Statement of Significance Significant Dates Definition API (see related sections: 211, 128, and 407)
- 405.51, NRHP Statement of Significance Significant Person Definition API (see related sections: 211, 128, and 407)
- 405.52, NRHP Statement of Significance Cultural Affiliation Definition API (see related sections: 211, 128, and 407)
- 405.53, NRHP Statement of Significance Architects Builders Definition API (see related sections: 211, 128, and 407)
- 405.54, NRHP Statement of Significance Period of Significance Definition API (see related sections: 211, 128, and 407)
- 405.55, NRHP Statement of Significance Criteria Considerations Definition API (see related sections: 211, 128, and 407)
- 405.56, NRHP-Statement of Significance Summary Paragraph Definition API (see related sections: 211, 128, and 407)
- 405.57, NRHP Statement of Significance Narrative Statement of Significance Definition API (see related sections: 211, 128, and 407)
- 405.58, NRHP Major Bibliographical Reference Definition API (see related sections: 211, 128, and 407)
- 405.59, NRHP Major Bibliographical References Bibliography Definition API (see related sections: 211, 128, and 407)
- 405.60, NRHP Geographical Data Definition API (see related sections: 211, 128, and 407)
- 405.61, NRHP Geographical Data UTM References Definition API (see related sections: 211, 128, and 407)
- 405.62, NRHP Geographical Data Verbal Boundary Description Definition API (see related sections: 211, 128, and 407)
- 405.63, NRHP Geographical Data Boundary Justification Definition API (see related sections: 211, 128, and 407)
- 405.64, NRHP Form Prepared by Definition API (see related sections: 211, 128, and 407)
- 405.65, NRHP Additional Documentation Definition API (see related sections: 211, 128, and 407)
- 405.66, NRHP Photographs Definition API (see related sections: 211, 128, and 407)
- 405.67, NRHP Property Owner Definition API (see related sections: 211, 128, and 407)
- 405.68, Historic Period Definition API (see related sections: 213, 128, and 407)
- 405.69, Lexeme Definition API (see related sections: 217, 128, and 407)

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 407, APPENDIX F - PLATFORM RESOURCES
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- 407.1, the following are examples of resources and assets that may or may not be part of the Platform
- 407.2, Resource Asset Change Log Definition (see related sections: 105)
- 407.3, field: Member Identity
- 407.4, field: Application Identity
- 407.5, field: API Identity
- 407.6, field: Resource Identity
- 407.7, field: Field Identity
- 407.8, field: Previous Value
- 407.9, field: Current Value
- 407.10, field: Date of Change
- 407.11, field: Request Type (get, post, put, delete)
- 407.12, Foreign System Definition (see related sections: 107)
- 407.13, field: FS Primary Identity
- 407.14, field: Foreign System Key Code

407.15, field: Foreign System Name
407.16, field: Foreign System Table Name
407.17, field: Foreign System Table Foreign Key Name
407.18, API Register Definition (see related sections: 107)
407.19, field: FS Primary Identity
407.20, field: API Name or Identity
407.21, Retention Schedule Definition (see related sections: 119)
407.22, field: Name/ Title
407.23, field: Asset Table Identity
407.24, field: Asset Identity
407.25, field: Retention Starting Specification
407.26, field: Years to Retain
407.27, field: Purge Type
407.28, Geocoding Request Definition (see related sections: 126)
407.29, field: Geocoding_Request_Definition Identity
407.30, field: Geocoding_Request_Definition lookup key
407.31, field: Geocoding_Request_Definition WKT centroid
407.32, field: MBR for centroid
407.33, field: Place name or address
407.34, field: Accuracy Code
407.35, Member Definition (see related sections: 127)
407.36, field: Member Primary Identifier
407.37, field: Active Member
407.38, Member Name Definition (see related sections: 127)
407.39, field: Member Primary Identifier
407.40, field: First Name
407.41, field: Last Name
407.42, SHPO Mailing Address Definition (see related sections: 127)
407.43, field: Street
407.44, field: Municipality
407.45, field: State
407.46, field: Postal Code
407.47, Telephone Definition (see related sections: 127)
407.48, field: Phone Number
407.49, field: Phone Type
407.50, SHPO Degrees and Certificates Definition (see related sections: 127)
407.51, field: Granting Institution Name
407.52, field: Program Name
407.53, field: Degree/Certificate
407.54, SHPO Portfolio Definition (see related sections: 127)
407.55, field: Project Name
407.56, field: Link to portfolio Document
407.57, field: SHPO_Portfolio_Definition Creation Date and Time
407.58, field: SHPO_Portfolio_Definition Creator Identity
407.59, SHPO Resume Definition (see related sections: 127)

407.60, field: Member identity
407.61, field: Link to resume Document
407.62, SHPO Experience and Expertise Definition (see related sections: 127)
407.63, field: My Experience
407.64, field: My Expertise
407.65, SHPO Share and Assist Definition (see related sections: 127)
407.66, field: Available to co-author
407.67, field: Share My Name
407.68, field: Share Portfolio
407.69, field: My Link
407.70, Security Statement Definition (see related sections: 127)
407.71, field: Security Statement
407.72, field: Agreement with Security Terms
407.73, API Register Definition (see related sections: 128)
407.74, field: API Identity
407.75, API Name Definition (see related sections: 128)
407.76, field: API Identity
407.77, field: Name
407.78, API Field Definition (see related sections: 128)
407.79, field: API Identity
407.80, field: Field Name
407.81, field: Type
407.82, API Permission Definition (see related sections: 128)
407.83, field: API Identity
407.84, field: Role Identity
407.85, Resource Scope Definition (see related sections: 128)
407.86, field: API Identity
407.87, field: Resource Scope (none, all, one)
407.88, field: Application Identity
407.89, Resource Asset Scope Definition (see related sections: 128)
407.90, field: API Identity
407.91, field: Asset Scope (none, all, one)
407.92, field: Application Identity
407.93, Resource Registry Definition (see related sections: 128)
407.94, field: Resource Registry Identity
407.95, field: Resource Registry Name
407.96, field: Resource Registry Description
407.97, Request Log Definition (see related sections: 129)
407.98, field: Request Type (get, post, put, delete)
407.99, field: Request
407.100, field: Request Log Date and time
407.101, field: Member Identity
407.102, field: Application Identity
407.103, field: API Identity
407.104, field: Sequence Number (1 = start, 2 = completed)

407.105, Presentation Template Definition (see related sections: 131)
407.106, field: Application Identity
407.107, field: Resource Identity
407.108, field: Template Body
407.109, field: Template Version
407.110, Invitation Definition (see related sections: 202)
407.111, field: Task Identity
407.112, field: Recipient's Identity
407.113, field: Sender's Identity
407.114, field: Message
407.115, field: Invitation Type
407.116, field: Is Accepted
407.117, Workflow Message Definition (see related sections: 203)
407.118, field: Sender Identity
407.119, field: Recipient Identity
407.120, field: Message
407.121, Citation Definition (see related sections: 207)
407.122, field: Title
407.123, field: Creators
407.124, field: Publisher
407.125, field: Publisher location
407.126, field: Date of print publication
407.127, field: Date of electronic publication
407.128, field: Associated institution
407.129, field: Volume
407.130, field: Pages
407.131, field: Date web site access
407.132, field: Web site URL
407.133, field: Name of web site
407.134, field: Web site editors
407.135, Historic Document Definition (see related sections: 208)
407.136, field: Title
407.137, field: Abstract
407.138, field: Representative Geographic Coordinate
407.139, field: Authors
407.140, field: Publisher
407.141, field: Publish Year
407.142, field: Editors
407.143, field: Document Link
407.144, field: Document
407.145, Person Definition (see related sections: 209)
407.146, field: First Name
407.147, field: Last Name
407.148, field: is Alias
407.149, Person Birth Death Definition (see related sections: 209)

407.150, field: Birth Date
407.151, field: Death Date
407.152, Person Profession Definition (see related sections: 209)
407.153, field: Profession Name
407.154, field: Profession Mastery
407.155, Person Professional Contribution Definition (see related sections: 209)
407.156, field: Profession Contribution Statement
407.157, Photograph Definition (see related sections: 210)
407.158, field: historic place identity
407.159, field: Description of view
407.160, field: Representative Coordinate
407.161, field: Photograph_Definition Photographer's Name
407.162, field: date of photograph content
407.163, field: Location of negative
407.164, field: Camera Orientation
407.165, field: Coordinate of photograph
407.166, field: Map Identifier
407.167, field: Link to Photograph
407.168, field: Photograph
407.169, NRHP Master Definition (see related sections: 211)
407.170, field: NRHP Master Identity
407.171, field: Not for publication
407.172, NRHP Property Name Definition (see related sections: 211)
407.173, field: NRHP Master Identity
407.174, field: NRHP Property Name Identity
407.175, field: Place Name
407.176, field: Is Current Name
407.177, field: Is Historic Name
407.178, NRHP Location Definition (see related sections: 211)
407.179, field: NRHP Master Identity
407.180, field: NRHP Location Identity
407.181, field: Multipart Listing Identity
407.182, field: Street
407.183, field: Postal Code
407.184, field: Municipality
407.185, field: vicinity
407.186, field: County
407.187, field: County Code
407.188, field: State
407.189, field: State code
407.190, field: Quality Code
407.191, NRHP State Federal Agency Certification Definition (see related sections: 211)
407.192, field: NRHP Master Identity
407.193, field: State and Federal Agency Certification Identity
407.194, field: Form Type

407.195, field: National Significance
 407.196, field: State Significance
 407.197, field: Form Type
 407.198, field: Local Significance
 407.199, field: Signature of certifying official
 407.200, field: Authority Signature Date
 407.201, field: Title
 407.202, field: State or Federal agency/bureau or Tribal Government
 407.203, field: Property Status
 407.204, field: Signature of certifying official
 407.205, field: Signature Date
 407.206, field: Title
 407.207, field: State or Federal agency/bureau or Tribal Government
 407.208, NRHP National Park Service Certification Definition (see related sections: 211)
 407.209, field: NRHP Master Identity
 407.210, field: NRHP National Park Service Certification Identity
 407.211, field: entered in the National Register
 407.212, field: determined not eligible for the National Register
 407.213, field: determined eligible for the National Register
 407.214, field: removed from the National Register
 407.215, field: other
 407.216, field: Originator Member Identity
 407.217, field: Fields
 407.218, NRHP Classification Definition (see related sections: 211) **Please note: The following fields are to be used as an example, and do not represent a comprehensive list of the NRHP fields required by the system. Required fields will be fully identified during the project requirements validation phase.**
 407.219, field: NRHP Master Identity
 407.220, field: NRHP Classification Identity
 407.221, field: Private ownership
 407.222, field: Public Local ownership
 407.223, field: Public State Ownership
 407.224, field: Public Federal Ownership
 407.225, field: Category of Property
 407.226, field: Contributing Building
 407.227, field: Noncontributing Buildings
 407.228, field: Contributing Sites
 407.229, field: Noncontributing Sites
 407.230, field: Contributing Structures
 407.231, field: Noncontributing Structures
 407.232, field: Contributing Objects
 407.233, field: Noncontributing Object
 407.234, field: Contributing Total
 407.235, field: Noncontributing Total
 407.236, field: Name of related multiple property listing
 407.237, field: Number of contributing resources previously listed in the National Register
 407.238, NRHP Historic Function Definition (see related sections: 211)

407.239, field: NRHP Master Identity
 407.240, field: NRHP Historical Function Identity
 407.241, field: Category
 407.242, NRHP Current Function Definition (see related sections: 211)
 407.243, field: NRHP Master Identity
 407.244, field: NRHP Current Function Identity
 407.245, field: Category
 407.246, NRHP Description Architectural Classification Definition (see related sections: 211)
 407.247, field: NRHP Master Identity
 407.248, field: NRHP Description Architectural Classification Identity
 407.249, field: Category
 407.250, NRHP Description Summary Paragraph Definition (see related sections: 211)
 407.251, field: NRHP Master Identity
 407.252, field: NRHP Description Summary Paragraph Identity
 407.253, field: Summary Paragraph
 407.254, NRHP Narrative Description Definition (see related sections: 211)
 407.255, field: NRHP Master Identity
 407.256, field: NRHP Description Narrative Description Identity
 407.257, field: Narrative Description
 407.258, NRHP Description Materials Definition (see related sections: 211)
 407.259, field: NRHP Master Identity
 407.260, field: NRHP Description Material Identity
 407.261, field: Exterior Part
 407.262, field: Material
 407.263, field: Other
 407.264, NRHP Statement of Significance Definition (see related sections: 211)
 407.265, field: NRHP Master Identity
 407.266, field: NRHP Statement of Significance Identity
 407.267, field: Significant Contributions
 407.268, field: Has Significant Persons
 407.269, field: Has Distinctive Character
 407.270, field: May yield information.
 407.271, field: Owned by a religious institution or used for religious purposes.
 407.272, field: Property Moved
 407.273, field: Property is a cemetery.
 407.274, field: Property is a reconstructed building, object, or structure.
 407.275, field: Property is a commemorative property.
 407.276, field: Property is less than 50 years old or achieving significance within the past 50 years.
 407.277, NRHP Statement of Significance Areas of Significance Definition (see related sections: 211)
 407.278, field: NRHP Master Identity
 407.279, field: NRHP Statement of Significance Areas of Significance Identity
 407.280, field: Category
 407.281, field: Other
 407.282, field: End
 407.283, field: Narrative Statement of Significance (Provide at least one paragraph for each area of significance.)

407.284, NRHP Statement of Significance Period of Significance Definition (see related sections: 211)
 407.285, field: NRHP Master Identity
 407.286, field: NRHP Statement of Significance Period of Significance Identity
 407.287, field: Began Period
 407.288, field: End Period
 407.289, field: Narrative Description
 407.290, field: Justify Period
 407.291, NRHP Statement of Significance Significant Dates Definition (see related sections: 211)
 407.292, field: NRHP Master Identity
 407.293, field: NRHP Statement of Significance Significant Date Identity
 407.294, field: Event Date
 407.295, field: Explain
 407.296, field: Creation Date and Time
 407.297, NRHP Statement of Significance Significant Person Definition (see related sections: 211)
 407.298, field: NRHP Master Identity
 407.299, field: NRHP Statement of Significance Significant Person Identity
 407.300, field: Name
 407.301, field: Explain
 407.302, field: End
 407.303, NRHP Statement of Significance Cultural Affiliation Definition (see related sections: 211)
 407.304, field: NRHP Master Identity
 407.305, field: NRHP Statement of Significance Significant Cultural Affiliation Identity
 407.306, field: Cultural Affiliation
 407.307, field: Cultural Affiliation
 407.308, NRHP Statement of Significance Architects Builders Definition (see related sections: 211)
 407.309, field: NRHP Master Identity
 407.310, field: NRHP Statement of Significance Significant Architects and Builders Identity
 407.311, field: Name
 407.312, field: importance
 407.313, field: Type
 407.314, NRHP Statement of Significance Period of Significance Definition (see related sections: 211)
 407.315, field: NRHP Master Identity
 407.316, field: Significant Period
 407.317, NRHP Statement of Significance Criteria Considerations Definition (see related sections: 211)
 407.318, field: NRHP Master Identity
 407.319, field: NRHP Statement of Significance Criteria Considerations Identity
 407.320, field: Originator Member Identity
 407.321, NRHP-Statement of Significance Summary Paragraph Definition (see related sections: 211)
 407.322, field: NRHP Master Identity
 407.323, field: NRHP Statement of Significance Summary Paragraph Identity
 407.324, field: Statement of Significance Summary Paragraph (Provide a summary paragraph that includes level of significance and applicable criteria.)
 407.325, NRHP Statement of Significance Narrative Statement of Significance Definition (see related sections: 211)
 407.326, field: NRHP Master Identity
 407.327, field: Statement of Significance
 407.328, NRHP Major Bibliographical Reference Definition (see related sections: 211)

407.329, field: NRHP Master Identity
 407.330, field: NRHP Major Bibliographical References Identity
 407.331, field: preliminary determination
 407.332, field: previously listed
 407.333, field: previously determined eligible
 407.334, field: designated a National Historic Landmark
 407.335, field: recorded by Historic American Buildings Survey
 407.336, field: recorded by Historic American Engineering Record
 407.337, field: recorded by Historic American Landscape Survey
 407.338, field: State Historic Preservation Office
 407.339, field: agency State Other
 407.340, field: Federal agency
 407.341, field: Local government
 407.342, field: University
 407.343, field: Other
 407.344, field: Historic American Buildings Survey #
 407.345, field: Historic American Engineering Record #
 407.346, field: Historic American Landscape Survey #
 407.347, field: Name of repository
 407.348, field: Historic Resources Survey Number (if assigned):
 407.349, NRHP Major Bibliographical References Bibliography Definition (see related sections: 211)
 407.350, field: NRHP Master Identity
 407.351, field: NRHP Major Bibliographical Reference Bibliography Identity
 407.352, field: Author
 407.353, field: Article Title
 407.354, field: Periodical Title
 407.355, field: Year of publication
 407.356, field: Month of publication
 407.357, field: pages
 407.358, field: pages
 407.359, NRHP Geographical Data Definition (see related sections: 211)
 407.360, field: NRHP Master Identity
 407.361, field: NRHP Geographical Identity
 407.362, field: Historically Significant Property Identity
 407.363, field: Acreage of Property
 407.364, NRHP Geographical Data UTM References Definition (see related sections: 211)
 407.365, field: NRHP Master Identity
 407.366, field: NRHP Geographical UTM References Identity
 407.367, field: Zone
 407.368, field: Easting
 407.369, field: Northing
 407.370, NRHP Geographical Data Verbal Boundary Description Definition (see related sections: 211)
 407.371, field: NRHP Master Identity
 407.372, field: NRHP Geographical Verbal Boundary Description Identity
 407.373, field: Verbal Boundary Description

407.374, NRHP Geographical Data Boundary Justification Definition (see related sections: 211)
407.375, field: NRHP Master Identity
407.376, field: NRHP Geographical Verbal Boundary Justification Identity
407.377, field: Boundary Justification
407.378, NRHP Form Prepared by Definition (see related sections: 211)
407.379, field: NRHP Master Identity
407.380, field: NRHP Prepared by Identity
407.381, field: Organization Name
407.382, field: Name
407.383, field: Title
407.384, field: Email
407.385, field: Street
407.386, field: Municipality
407.387, field: State
407.388, field: Postal Code
407.389, NRHP Additional Documentation Definition (see related sections: 211)
407.390, field: NRHP Master Identity
407.391, field: NRHP Additional Documentation Identity
407.392, field: Document Name
407.393, field: Link to Document
407.394, NRHP Photographs Definition (see related sections: 211)
407.395, field: NRHP Master Identity
407.396, field: NRHP Photographs Identity
407.397, field: Explain
407.398, field: Explain
407.399, field: Type
407.400, field: Image
407.401, field: Type
407.402, field: Municipality
407.403, field: County
407.404, field: State
407.405, field: Photographer
407.406, field: Latitude
407.407, field: Longitude
407.408, field: Elevation
407.409, field: Elevation
407.410, NRHP Property Owner Definition (see related sections: 211)
407.411, field: NRHP Master Identity
407.412, field: NRHP Property Identity
407.413, field: Name
407.414, field: Street
407.415, field: Telephone
407.416, field: City
407.417, field: State
407.418, field: Zipcode

- 407.419, Historic Period Definition (see related sections: 213)
- 407.420, field: General Period Name
- 407.421, field: General Period Stylistic Name
- 407.422, field: Statement of Significance
- 407.423, field: Historic_Period_Definition's Importance
- 407.424, field: Begin Date
- 407.425, field: End Date
- 407.426, field: Representative Geographic Feature
- 407.427, field: Cultural Time Period
- 407.428, field: Architectural, construction or artistic time period
- 407.429, field: Populated or occupied by time period
- 407.430, field: Period related to an event
- 407.431, field: Period related to a person
- 407.432, field: General / stylistic / environmental Period
- 407.433, field: Relative period Importance (primary, secondary, tertiary)
- 407.434, Lexeme Definition (see related sections: 217)
- 407.435, field: Word or phrase
- 407.436, field: Definition

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 409, APPENDIX G - SOM RESOURCES
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- 409.1, this section is to make you aware of additional resources that are available for SoM systems.
- 409.2, The SoM has hosting facilities and infrastructure to host internet applications
- 409.3, The SoM has hosting facilities and infrastructure to host a platform
- 409.4, Use of these resources may require additional paid licensing.

- 409.5, Use of these resources will require coordination between more than one DTMB division.
- 409.6, The SoM has an enterprise license for Bing Maps
- 409.7, The SoM has an enterprise license for Office 2010
- 409.8, The SoM has an enterprise license for Enterprise SQL Server
- 409.9, The SoM has an enterprise license for Outlook

SCHEDULE B – Key Personnel

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SCHEDULE C – Data Security, Backup and Disaster Recovery

DATA SECURITY REQUIREMENTS

Microsoft provides a configurable security model in Microsoft Dynamics CRM Online to protect the data integrity and privacy in a Microsoft Dynamics CRM organization. The security model also promotes efficient data access and collaboration. The goals of the model are as follows:

- Provide a multi-tiered licensing model for users.
- Grant users access that allows only the levels of information required to do their jobs.
- Categorize users and teams by security role and restrict access based on those roles.
- Support data sharing so that users can be granted access to objects they do not own for a one-time collaborative effort.
- Prevent access to objects a user does not own or share.

The combination of business units, role-based security, record-based security, and field-based security to define the overall access to information that users have in your Microsoft Dynamics CRM organization.

Role-based security in Microsoft Dynamics CRM focuses on grouping a set of privileges together that describe the responsibilities (or tasks that can be performed) for a user. Microsoft Dynamics CRM includes a set of predefined security roles. Each aggregates a set of user rights to make user security management easier. Also, each application deployment can define its own roles to meet the needs of different users.

There are two roles that have very broad privileges: System Administrator and Customizer. To minimize misconfiguration, the use of these two roles should be limited to a few people in your organization responsible for administering and customizing Microsoft Dynamics CRM. Organizations can also customize existing roles and create its own roles to meet their needs.

- **Record-based security** in Microsoft Dynamics CRM focuses on access rights to specific records.
- **Field-level security** in Microsoft Dynamics CRM restricts access to specific high business impact fields in an entity only to specified users or teams.
- **User Ownership**, a particular user is recorded against a record as the owner of the record.

The user ownership model provides the granularity necessary to grant access to specific records by using security roles to define privileges that restrict users to see only the records that are owned by that user. For businesses in which individuals work independently on specific deals or on customer collaborations, this is a very effective and efficient model. For scenarios in which multiple people need to interact with specific deals or records, this is not a viable solution. The record's business unit is derived from the owner. An additional challenge therefore comes when the user owning records moves role within an organization, potentially forcing the ownership of that record to change to maintain the access that any other users may gain via the business unit of the record.

Team ownership introduces a solution pattern that can simplify many of the challenges associated with situations in which users own records directly. Instead of sharing individual records with specific users or teams, you can grant ownership of specific records to a team, which allows multiple users to gain access directly to the record through ownership. This also reduces the changes that are required when particular users need to have access granted or removed from a set of related records, which is now accomplished by adding them or removing them from the owning team rather than each record individually.

In this scenario, with records assigned directly to a team, records can be aligned with a business unit independently of the business unit to which the users accessing it belong. This then provides for access via security roles and business unit privileges, which allows the definition of rich access mechanisms.

Tribridge works with each organization during the design phase to configure the Dynamics CRM security model to fit the requirements for the implementation.

Scenarios that require individual records to be accessed by a specific group of individuals allow for a model in which ownership is used to define the group of individuals who should be granted access. This is done by specifying a team that is allowed to view only the records it owns and then by defining the users who should have access to that record as members of the team.

Although less common, there are also situations in which groups of users act on common types of deals or cases, having a team that owns multiple records can provide significant benefits over sharing.

It is important to remember, however, that with any modeling of direct access, whether through ownership or sharing, each record must be individually configured on creation or updated to apply the security rules to it. In addition, when access is evaluated, each team to which a user belongs must be checked for individual access, which increases the complexity of the security processing from a data and computational perspective.

Team ownership is limited to a single team owner per record however, so that it cannot be used to provide different levels of privilege to different groups of users to the same record. Using a combination of ownership to provide general access and sharing to offer additional privileges to smaller groups of users can work well here however, reducing the overall volume of sharing and providing an overall performance benefit.

DATA BACKUP REQUIREMENTS

Tribridge will deploy Scribe Online Replication Services (RS) which provides secure, fast data replication to a Microsoft hosted SQLServer instance running in Microsoft Azure to address periodic data backup requirements. Data is copied in entity format to facilitate recovery. Additionally, the replication is completely automated including scheduling options and auto-detection of changes. The backup process is configured via a simple wizard. Recovery procedures can restore to the last point based on the update frequency which will be determined during Disaster Recovery planning based on State needs.

BUSINESS CONTINUITY AND DISASTER RECOVERY PLAN

Disaster Recovery

Microsoft provides disaster recovery features with Microsoft Dynamics CRM Online to recover from a planned or unplanned service interruption. An example of a planned service interruption is regular and periodic datacenter system maintenance. An example of an unplanned service interruption is a failure of a key computer system or network component in a data center. For either case, you temporarily lose access to your organization's data and the Microsoft Dynamics CRM Online services.

Planned service interruptions are preceded by a public notice in the web application or Dynamics CRM for Outlook identifying the date and time of the service maintenance so that businesses can plan for the interruption in accessing their organization's data. Unplanned service interruptions result in a notice that the organization is currently undergoing unplanned maintenance.

When a failure or a disaster occurs, well-defined processes are applied by the administrators of the Microsoft Dynamics CRM Online data center to recover from a service interruption. The processes and software to recover from these service interruptions is known as *disaster recovery failover*. The Microsoft Dynamics CRM Online datacenter maintains a duplicate and synchronized (alternate) copy of your organization's data on a different server. Should a disaster occur in the data center where you no longer have access to your data, the administrators monitoring the datacenter can switch access from your primary organization to this alternate organization, thereby minimizing the service interruption. When the failure has been corrected, service access to your primary organization can be restored.

This recovery happens in the datacenter and is handled transparently to you and your .NET managed applications. However, there is one issue that application developers must deal with: data loss. When the Microsoft Dynamics CRM Online services encounter a failure, data change operations that your application performs using web service calls may not complete successfully. This can result in data loss. The following sections in this topic describe how you can write your applications to deal with data loss issues.

To minimize and/or prevent data loss, Tribridge will deploy Scribe Online Replication Services (RS) which provides secure, fast data replication to a Microsoft hosted SQLServer instance running in Microsoft Azure. Data is copied in entity format to facilitate recovery. Additionally, the replication is completely automated including scheduling options and auto-detection of changes. The backup process is configured via a simple wizard. Recovery procedures can restore to the last point based on the update frequency which will be determined during Disaster Recovery planning based on State needs.

Business Continuity Planning

During the planning phase of each project, the project team devises the Business Continuity plan to prescribe procedures for each application and appropriate measures to safeguard data based on the nature of the data. Because disaster recovery procedures have cost components associated with both

the required speed of recovery and the backup frequency, the Tribridge project team works with each customer to balance risk mitigation with the cost of maintaining a give disaster recovery protocol.

Disaster Recovery Procedures and Supporting Documentation

General Preparation: The Tribridge team verifies that the database permissions (DBO) exist). Permissions are granted through an AD group ID managed by the run organization. This is a standard procedure moving forward. Verify that the DBA performing the recovery is using their own admin account. This is a standard operating procedure and it is documented.

- Leverage the Testing Team’s functional testing scripts for centralized functionality
- Verify that a Recovery Farm is operational and locally available (same geographic location as the Production Farm).
- Select an existing site collection for use in the test execution.
- Check event logs on all machines in the environment before and after the execution of the each scenario.
- Check index and logs on the Index and Query Servers to verify that there are no errors.
 - Categories – All
 - Least Critical Event Log – Audit Failure
 - Least Critical Trace Log – High

Documentation – identify all available documentation including operations and technical manuals and/or help available online.

In addition to online resources for Microsoft Dynamics CRM which include the Microsoft Customer Portal, online training and videos by Microsoft, its partners and the Microsoft Developer Network; the downloadable SDK also provides significant resources including code samples. Additionally, Tribridge provides customized documentation for the specific deployment of CRM Online to include:

- Training Guides/Documentation
- Final Business Process Models
- Final System Configuration
- Final Custom Code Development
- Final Security Implementation
- Solution Testing (Process, Integration, and Data Acceptance) completed
- User Acceptance Test Scripts
- Final Production Environment Specification
- Final Integration and Interface Code Development
- Final Data Migration Code Development

SCHEDULE D – Customer Care / Support Agreement

Tribridge will support the following core application(s) and ISV's included in this agreement:

- Dynamics CRM Online
 - ADX Studio
- Scribe
- North52 Formula Manager
- EZ Territory

Tribridge will provide direct support for Microsoft products and ISV add-on modules directly because Tribridge has the necessary skills to answer most questions regarding these ISV's. In the event Tribridge cannot troubleshoot, we will contact the ISV on behalf of the customer to resolve any outstanding questions, and communicate the resolution back to the customer.

Scope of Customer Care - Services

SOM may request an unlimited number of support requests for the following services. These are offered in support of the application listed above. The examples provided under each of the following headings are intended to provide a list of reference activities for each heading. The lists are not meant to be all inclusive.

Processing Issue (break/fix)

This service ensures that we are responding to issues that arise during the normal course of business.

Examples include but are not limited to the following topics:

- a) An error message is appearing in a window and the user cannot determine the root cause.
- b) A user cannot log in or lacks the appropriate security to complete a process.
- c) A user enters data and cannot save the data, or "saved" data appears to be missing.
- d) A print job or a workflow will not execute.
- e) An error message is appearing in a window and the user cannot determine the root cause.
- f) A user cannot log in or lacks the appropriate security to complete a process.
- g) A user enters data and cannot save the data, or "saved" data appears to be missing.

“How Do I...”

Tribridge will work with your users to answer generic, “out of the box” functional questions. Our goal is to assist your users with functional questions that will allow them to take advantage of inherent functionality within the application. Please note this is not meant to be “User Training”, nor is it meant to be “process engineering”. We have provided some common “How do I” questions below to set expectations for the type of questions that will be answered:

- a) How do I open or close a fiscal period? How do I book a wire transaction?
- b) How do I delete a stuck user? How do I change a user's permissions?

Database Restore from a Recent Backup

In the event of system data loss due to user error or some other event, Tribridge will work with SOM to perform a full database restore if the customer has a recent backup readily available.

Tribridge relies on SOM to provide a valid database backup. Any issues that result from the restoration of an invalid or corrupt database are the responsibility of SOM.

Out of Scope Services

Tribridge offers Project based professional services for your organization's Dynamics needs that are in excess of the scope of this agreement. In general, any services deemed to be too complex, risky or lengthy will be defined and performed under a separate Statement of Work.

Important Note - Professional Services required or requested outside the scope of this agreement may not be exchanged for services within this agreement.

1. SaaS Environment Service Packs, Hotfixes, Upgrades – Applying service packs, upgrades, and hotfixes to CRM Online and Azure. This will be performed by the software provider in the SaaS environments (e.g., Microsoft).
2. Enhancements - Any product enhancements to the system (e.g. screen or report changes, making fields required, building a workflow, creating an import/export routine, etc.) or any issue caused by a software publisher and SaaS software upgrade.
3. New Integrations - Any new integration that needs to be created requires design, build and test time, thereby resulting in an effort that is outside the scope of Customer Care.
4. Additional User Training - Any user training in excess of the “How do I” described above.
5. New Module Implementation - The process required to select, configure, train and implement any new module or ISV (e.g. Document Management).
6. Changes to Integrations not Built by Tribridge - Any integration that has not been designed, developed and tested by Tribridge will be supported by our Professional Services team on a “best effort” basis. Please note that situations may arise where documentation for the existing integration does not exist, and some level of documentation may needs to be created prior to making the change.
7. Resolving user generated data problems - Situations arise where a user has inadvertently affected data integrity or quality and remediation efforts need to take place. Often times the situation can only be resolved by running a Microsoft Dynamics utility, importing historical data, performing manual data entry, or by updating records via direct table changes in SQL. All of these remediation activities are beyond the scope of this agreement. The only exception is the “Data Restore from a Recent Backup” scenario listed in the “In Scope” section of this agreement.
8. Self-Upgrades - Remediation or system failures due to the customer performing a self-upgrade, service pack or hot fix.
9. Hosting / Cloud Computing - Any issues related to hosting or “cloud” computing environments.
10. Disaster Recovery Services – includes any data restoration activities with exception of the scenario described under “Data Restore from a Recent Backup”.
11. Database tuning and optimization
12. Workstation Installations
13. Server Operating System Installations

Assumptions

The following assumptions have been made in regard to this agreement:

1. Partner of Record - Tribridge is and will remain SOM 's Partner of Record for the Dynamics products listed above. If SOM intends to change the Partner of Record, Tribridge requires 30 days advance notice and requires that the terms presented in this agreement be re-evaluated at that time. If Tribridge is not the Partner of Record, we may not have access to information needed to resolve support issues in a timely manner.
2. Data Reconciliation and Validation - With client approval, Tribridge will perform steps to resolve issues using Microsoft recommended tools, SQL Scripts and best practice techniques. SOM is responsible for verifying the data upon completion of any changes to their system and reporting any issues to Tribridge within a 24 hour period following the support incident.
3. Microsoft and ISV Support – Tribridge may utilize Microsoft and ISV support incidents on behalf of SOM when required to resolve an issue.
4. Unsupported Versions – Tribridge will use a “best effort” approach to resolving issues with versions of the product that are no longer supported by Microsoft. Note the final resolution may require a work-around.
5. Source Code – SOM is responsible for maintaining copies of all source code if applicable and will make it available to Tribridge as needed. If source code changes have been made to the application we will assist SOM to the best of our ability but may not be able to effectively resolve your issues.
6. Third Party Changes - SOM will provide full disclosure to Tribridge if any third party provides Microsoft Dynamics related services to the State. Our ability to support your applications may be hindered if other third parties have made changes to your installation.
7. Remote Access - All work will be performed remotely. This agreement and the support services herein are contingent on SOM's permission to allow Tribridge to have secure remote access into SOM's network. Tribridge's remote support tools run via a downloaded applet over HTTP. Exceptions to use of this tool should be in place with your IT staff prior to your engagement with Tribridge.
8. On Line Portal - The Online Portal, including without limitation, all content, is the sole and exclusive property of Tribridge. Tribridge shall not be liable for any unauthorized access or use of the Support System or for any unauthorized access or use SOM's transmission facility, computer system, equipment or data. Tribridge reserves the right to update, modify, suspend access or discontinue the Support System, in whole or in part, from time-to-time.
9. Tribridge reserves the right to suspend services if payment in full is not made in accordance with the requirements of this Contract.

Authorized Contacts

SOM must select authorized representatives (“Authorized Contacts”) to work with the Tribridge Customer Care team. All support requests must route through these authorized contacts. SOM may select a new Authorized Contact by providing Tribridge their contact information with prior notice, and must immediately notify Tribridge, in writing, to deactivate any Authorized Contact from having access to the Online Portal. Additional Authorized Contacts may be requested.

SCHEDULE E – Pricing

This is a firm fixed price, deliverables-based contract. The tables below detail that pricing and the timing of payments.

Cost Table 1A: Project Cost Summary

Project Costs	(\$)
Initiation, Planning and Requirements Validation	335,424
Software Licenses*	36,075
Implementation	1,166,210
Training	74,630
Recurring Operations, Maintenance and Support**	528,300
Total Project Costs	\$2,140,639

*See Cost Table 3 for Year 1 Software License Detail

**See Cost Table 4 for Recurring Annual Costs Detail

Cost Table 1B: Project Cost plus Optional Future Enhancements

Item	(\$)
Project Costs	2,140,639
Optional Future Enhancements*	776,750
Total Contract Value	\$2,917,389

*See SOW section 1.104.G. regarding use of Optional Future Enhancement funding.

Cost Table 2: Project Cost Detail by Milestone

MILESTONE	DELIVERABLE	COST
Initiation, Planning and Requirements Validation	Documentation verifying and validating requirements	150,585
	Current Business Operations Document	32,462
	Conceptual Business Operations Document	76,142
	Conceptual Business Work Flow Diagram	36,830
	Final Project Plan	30,670
	Final Report Formats	8,735
	Final EASA	0
	Final DTMB 0170	0
Software Licenses	Microsoft Dynamics CRM Online Professional	EA Purchase
	Microsoft Dynamics CRM Online Non-Production Instances	EA Purchase
	Azure Servers	EA Purchase
	Bing Maps w/ Geo Coding	EA Purchase
	Premier Support Online	EA Purchase
	CRM Portal Add-on (Adxstudio)	EA Purchase
	Scribe Online w/Replication Services	11,400
	North52 Enterprise	4,995
	EasyTerritory	10,080
	EasyTerritory Public Access	9,600
Implementation	Data Conversion and Migration	247,352
	Configuration	336,021
	Customization: Adxstudios Portal	126,561
	Installation	7,063
	Testing	195,870
	Interfaces/Integration	139,775
Training	"Go-Live" / System Cutover	113,568
	End User training	48,140
	Technical training	11,014
	System Administrator training	11,014
Recurring Operations, Maintenance and Support	Train the Trainer training	4,462
	Year 2	132,075
	Year 3	132,075
	Year 4	132,075
	Year 5	132,075
TOTAL		\$2,140,639

Cost Table 3: Year 1 Software License Cost Breakdown

Software License(s)	Product Name and Version	License Type	Unit Cost (\$)	Number of Licenses	Total Cost (\$)	Comments
Software as a Service (SaaS) Licenses						All Microsoft Products will be procured through the State of Michigan Enterprise Agreement (EA) buying process. License types and quantities are provided in this table for reference purposes only.
Microsoft Dynamics CRM Online Professional	CRM2016 Professional USL	Individual		30		
Microsoft Dynamics CRM Online Non-Production Instances	CRM2016	Server		2		
Azure Servers	Azure	Server		2		
Bing Maps w/ Geo Coding	Bing Maps Internal Website 100K hits/month	Enterprise		1		
Premier Support Online	Professional Direct	Enterprise		1		
Adxstudio	CRM Add-on Portal	Enterprise		1		
SubTotal					N/A	
Third Party Licenses						Licensing is shown as annual cost and is due prior to beginning of each subscription year.
Scribe Online w/Replication Services	Scribe Online RS	Enterprise	11,400	1	11,400	
North52 Enterprise	North52 BPA Annual	Enterprise	4,995	1	4,995	
EasyTerritory	EasyTerritory User	Individual	336	30	10,080	
EasyTerritory Public Access	EasyTerritory Public Access	Enterprise	9,600	1	9,600	
SubTotal					36,075	
Total SaaS and Third Party					\$36,075	

Cost Table 4A: Recurring Annual Cost Breakdown: Years 2–5

Item	Year 2	Year 3	Year 4	Year 5	Total
Scribe Online w/RS	\$11,400	\$11,400	\$11,400	\$11,400	\$45,600
Third-Party License (list): North52 Business Process Automation	4,995	4,995	4,995	4,995	19,980
Third-Party License (list): EasyTerritory User	10,080	10,080	10,080	10,080	40,320
Third-Party License (list): EasyTerritory Public Access	9,600	9,600	9,600	9,600	38,400
Help Desk Support	96,000	96,000	96,000	96,000	384,000
Total	\$132,075	\$132,075	\$132,075	\$132,075	\$528,300

Cost Table 4B: Recurring Annual Cost Breakdown: Years 6-10 (Optional)

Item	Year 6	Year 7	Year 8	Year 9	Year 10	Total
Scribe Online w/RS	\$12,540	\$13,160	\$13,825	\$14,525	\$15,250	\$69,300
Third-Party License (list): North52 Business Process Automation	5,495	5,745	5,995	6,245	6,745	\$30,225
Third-Party License (list): EasyTerritory User	11,000	11,600	12,200	12,800	13,600	\$61,200
Third-Party License (list): EasyTerritory Public Access	11,000	11,600	12,200	12,800	13,600	\$61,200
Help Desk Support	98,900	102,000	105,000	108,500	111,500	\$525,900
Total	\$138,935	\$144,105	\$149,220	\$154,870	\$160,695	\$747,825

Cost Table 5: Itemized Customizations

Requirement	Cost
001.7	3406
101.16	3406
101.20	2610
101.22	5335
101.23	3406
101.24	2610
107.2	2610
107.3	2610
107.4	2610
107.5	2610
107.6	2610
107.7	2610
119.2	5335
119.5	5335
119.6	5335
119.7	3406
119.9	2610
119.10	2610
119.11	2610
119.12	3406
119.13	2610
119.14	2610
119.15	2610
119.16	3406
119.17	5335
119.18	5335
119.19	3406
119.20	3406
119.21	2610
119.22	3406
119.23	5335
119.24	5335
131.15	5335
201.8	5335
201.17	3406
TOTAL	\$126,561

Cost Table 6: Future Enhancements Rate Card

Staffing Category	Hourly Rate
Tribridge CRM Resource	\$205/hr.
EasyTerritory Resource	\$195/hr.
Mapping Go Data Platform Specialist	\$275/hr.

NOTE: For Option Years 6-10, rates may increase by no more than 4% per annum.

Cost Table 7: Project and Payment Schedule

Action	Duration	Start	Finish	Payment
Software Activation	0 days	10/11/16	10/11/16	
Payment: 100% SaaS and Third Party Licenses	0 days	10/11/16	10/11/16	\$36,075
Software Installation	5 days	10/24/16	10/28/16	
Payment: Software Installation	0 days	10/28/16	10/28/16	\$7,063
Project Kickoff	1 day	10/12/16	10/12/16	
Requirements Workshops	20 days	10/17/16	11/11/16	
Business Process Review Workshops	20 days	11/7/16	12/9/16	
Final Project Plan Development	15 days	10/31/16	11/25/16	
Payment : Final Project Plan	0 days	11/22/16	11/25/16	\$39,405
Final Requirements Document Development	30 days	10/24/16	12/9/16	
Payment: Final Requirements Document	0 days	12/9/16	12/9/16	\$150,585
Final Current/Future Operations Document with Workflow Diagram Document Development	20 days	11/7/16	12/16/16	
Payment: Final Current/Future Operations Document with Workflow Diagram Document Development	0 days	12/16/16	12/16/16	\$145,434
Solution Design Workshops	30 days	12/19/16	1/27/17	
Solution Design Document Development	30 days	12/26/16	2/3/17	
Data Migration Planning Workshops	30 days	12/19/16	1/27/17	
Data Migration Plan Development	30 days	12/26/16	2/3/17	
Interfaces/Integration Design Workshops	30 days	12/19/16	1/27/17	
Interfaces/Integration Design Document Development	30 days	12/26/16	2/3/17	
Payment: Solution Design Document	0 days	2/3/17	2/3/17	\$112,007
Payment: Data Migration Plan Document	0 days	2/3/17	2/3/17	\$82,450
Payment: Interfaces/Integration Design Document	0 days	2/3/17	2/3/17	\$88,778
Solution Development	60 days	2/6/17	4/28/17	
Data Migration Development	40 days	3/6/17	4/28/17	
Interfaces/Integration Development	50 days	2/20/17	4/28/17	
Solution Build Review	40 days	3/6/17	4/28/17	
Data Migration Build Review	20 days	4/3/17	4/28/17	
Interfaces/Integration Build Review	30 days	3/20/17	4/28/17	
Train the Trainer Training Sessions	5 days	3/13/17	3/17/17	
Payment: Train the Trainer Training Complete	0 days	3/17/17	3/17/17	\$4,462
Payment: Solution Development Complete	0 days	4/28/17	4/28/17	\$224,014
Payment: Data Migration Development Complete	0 days	4/28/17	4/7/17	\$164,902
Payment: Interfaces/Integration Development Complete	0 days	4/28/17	4/7/17	\$177,558
System Testing	60 days	5/1/17	7/21/17	
Data Migration Testing/Data Validation	40 days	5/8/17	6/30/17	
Payment: System Testing Complete	0 days	7/21/17	7/21/17	\$195,870
Technical Training Sessions	5 days	7/24/17	7/28/17	
System Administrator Training Sessions	5 days	7/31/17	8/4/17	
End User Training Sessions	10 days	8/7/17	8/18/17	
Payment: Technical, System Administrator, End User Training Complete	0 days	8/18/17	8/18/17	\$70,168
Final Legacy Data Conversion/Migration	5 days	8/21/17	8/25/17	
Production Go-Live	10 days	8/21/17	9/1/17	
Post Go-Live Support	10 days	9/4/17	9/15/17	
Payment: Production Go Live	0 days	9/15/17	9/15/17	\$113,568
Payment: Software Maintenance & Support - Year 2	1yr Prepaid	9/16/17	9/15/18	\$132,075
Payment: Software Maintenance & Support - Year 3	1yr Prepaid	9/16/18	9/15/19	\$132,075
Payment: Software Maintenance & Support - Year 4	1yr Prepaid	9/16/19	9/15/20	\$132,075
Payment: Software Maintenance & Support - Year 5	1yr Prepaid	9/16/20	9/15/21	\$132,075
TOTAL				\$2,140,639

Microsoft Product Costs

Microsoft products will be purchased through the State's Microsoft Enterprise Agreement. Pricing shown below is based on the current Microsoft Enterprise Agreement (MS EA). The MS EA expires May 31, 2018. Pricing shown for dates after May 31, 2018 are estimates only and will be based on the pricing of the future MS EA.

Pricing: October 1, 2016 – May 31, 2017



Company
State of Michigan DTMB

Date	EA		End Date
9/19/2016	01E73218	4632510	5/31/2017

MFG. Part #	Description	Level	Qty	# of Months	Unit Price	Total Unit Price
Microsoft Subscription Products						
2RM-00001	DynCRMOL-PortalAddOn ShrdSvr ALNG SubsVL MVL Addon	D	1	8	\$ 388.59	\$ 3,108.69
DSD-00030	DynCRMOnlnPro ShrdSvr ALNG SubsVL MVL Restricted PerUsr	D	30	8	\$ 50.45	\$ 12,108.92
E5W-00001	DynCRMOnlnProDirSprt ShrdSvr ALNG SubsVL MVL PerUsr	D	30	8	\$ 9.39	\$ 2,254.21
T6V-00011	BingMapsIntrnlWbst ALNG SubsVL MVL Usage100KTrnsctns AddOn	D	1	8	\$ 645.01	\$ 5,160.09
U2V-00007	BingMapsEntPlatform ALNG SubsVL MVL Srvc	D	1	8	\$ 96.42	\$ 771.35
V6W-00001	DynCRMOnlnNonProdInst ShrdSvr ALNG SubsVL MVL Restricted Srvc	D	1	8	\$ 116.95	\$ 935.60
J5U-00001	AzureMonetaryCommit ShrdSvr ALNG SubsVL MVL Commit	D	6	8	\$ 101.00	\$ 4,848.00
Total						\$ 29,186.87

Pricing: June 1, 2017 – May 31, 2018



Company
State of Michigan DTMB

Date	EA		End Date
6/1/2017	01E73218	4632510	5/31/2018

MFG. Part #	Description	Level	Qty	# of Months	Unit Price	Total Unit Price
Microsoft Subscription Products						
2RM-00001	DynCRMOL-PortalAddOn ShrdSvr ALNG SubsVL MVL Addon	D	1	12	\$ 388.59	\$ 4,663.03
DSD-00030	DynCRMOnInPro ShrdSvr ALNG SubsVL MVL Restricted PerUsr	D	30	12	\$ 50.45	\$ 18,163.38
E5W-00001	DynCRMOnInProDirSprt ShrdSvr ALNG SubsVL MVL PerUsr	D	30	12	\$ 9.39	\$ 3,381.32
T6V-00011	BingMapsIntrnlWbst ALNG SubsVL MVL Usage100KTrnscnns AddOn	D	1	12	\$ 645.01	\$ 7,740.13
U2V-00007	BingMapsEntPlatform ALNG SubsVL MVL Srvcs	D	1	12	\$ 96.42	\$ 1,157.03
V6W-00001	DynCRMOnInNonProdInst ShrdSvr ALNG SubsVL MVL Restricted Srvcs	D	1	12	\$ 116.95	\$ 1,403.40
J5U-00001	AzureMonetaryCommit ShrdSvr ALNG SubsVL MVL Commit	D	6	12	\$ 101.00	\$ 7,272.00
Total						\$ 43,780.30

Pricing: June 1, 2018 – May 31, 2019



Microsoft

Company
State of Michigan DTMB

Date	EA		End Date
6/1/2018	01E73218	4632510	5/31/2019

**Note: pricing for budget purpose only, subject to change*

MFG. Part #	Description	Level	Qty	# of Months	Unit Price*	Total Unit Price
Microsoft Subscription Products						
2RM-00001	DynCRMOL-PortalAddOn ShrdSvr ALNG SubsVL MVL Addon	D	1	12	\$ 388.59	\$ 4,663.03
DSD-00030	DynCRMOnInPro ShrdSvr ALNG SubsVL MVL Restricted PerUsr	D	30	12	\$ 50.45	\$ 18,163.38
E5W-00001	DynCRMOnInProDirSprt ShrdSvr ALNG SubsVL MVL PerUsr	D	30	12	\$ 9.39	\$ 3,381.32
T6V-00011	BingMapsIntrnlWbst ALNG SubsVL MVL Usage100KTrnsctns AddOn	D	1	12	\$ 645.01	\$ 7,740.13
U2V-00007	BingMapsEntPlatform ALNG SubsVL MVL Srvcs	D	1	12	\$ 96.42	\$ 1,157.03
V6W-00001	DynCRMOnInNonProdInst ShrdSvr ALNG SubsVL MVL Restricted Srvcs	D	1	12	\$ 116.95	\$ 1,403.40
J5U-00001	AzureMonetaryCommit ShrdSvr ALNG SubsVL MVL Commit	D	6	12	\$ 101.00	\$ 7,272.00
Total						\$ 43,780.30

Pricing: June 1, 2019 – May 31, 2020



Microsoft

Company
State of Michigan DTMB

Date	EA		End Date
6/1/2019	01E73218	4632510	5/31/2020

**Note: pricing for budget purpose only, subject to change*

MFG. Part #	Description	Level	Qty	# of Months	Unit Price*	Total Unit Price
Microsoft Subscription Products						
2RM-00001	DynCRMOL-PortalAddOn ShrdSvr ALNG SubsVL MVL Addon	D	1	12	\$ 388.59	\$ 4,663.03
DSD-00030	DynCRMOnInPro ShrdSvr ALNG SubsVL MVL Restricted PerUsr	D	30	12	\$ 50.45	\$ 18,163.38
E5W-00001	DynCRMOnInProDirSprt ShrdSvr ALNG SubsVL MVL PerUsr	D	30	12	\$ 9.39	\$ 3,381.32
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V6W-00001	DynCRMOnInNonProdInst ShrdSvr ALNG SubsVL MVL Restricted Srvcs	D	1	12	\$ 116.95	\$ 1,403.40
J5U-00001	AzureMonetaryCommit ShrdSvr ALNG SubsVL MVL Commit	D	6	12	\$ 101.00	\$ 7,272.00
Total						\$ 43,780.30

Pricing: June 1, 2020 – May 31, 2021



Company
State of Michigan DTMB

Date	EA		End Date
6/1/2020	01E73218	4632510	5/31/2021

**Note: pricing for budget purpose only, subject to change*

MFG. Part #	Description	Level	Qty	# of Months	Unit Price*	Total Unit Price
Microsoft Subscription Products						
2RM-00001	DynCRMOL-PortalAddOn ShrdSvr ALNG SubsVL MVL Addon	D	1	12	\$ 388.59	\$ 4,663.03
DSD-00030	DynCRMOnInPro ShrdSvr ALNG SubsVL MVL Restricted PerUsr	D	30	12	\$ 50.45	\$ 18,163.38
E5W-00001	DynCRMOnInProDirSprt ShrdSvr ALNG SubsVL MVL PerUsr	D	30	12	\$ 9.39	\$ 3,381.32
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V6W-00001	DynCRMOnInNonProdInst ShrdSvr ALNG SubsVL MVL Restricted Srvcs	D	1	12	\$ 116.95	\$ 1,403.40
J5U-00001	AzureMonetaryCommit ShrdSvr ALNG SubsVL MVL Commit	D	6	12	\$ 101.00	\$ 7,272.00
Total						\$ 43,780.30

ASSUMPTIONS

Licensing Assumptions

1. Based on 30 internal users for Microsoft Professional CRM Licensing as add-on for Office365
2. Professional Direct Support Plan for Microsoft Dynamics CRM (up to 100 users)
3. Hosted by Microsoft using CRM Online licensing and Azure Cloud Services
4. Assumes no more than 100,000 geocoding calls to Bing Service each month.
5. Assumes one production and one development instance of Microsoft Dynamics CRM Online.
6. Assumes 100K external Bing map hits/month and 100K internal hits/month
7. Up to 5 data connections for Scribe Online with Replication Services
8. Azure Cloud Services for Reporting and Storage
9. State will buy Microsoft Licensing and Services through Enterprise Agreement (cost estimates are not provided in this proposal)

Support Assumptions

- f. Microsoft Professional Direct Support for CRM Online (outlined in Maintenance and Support Section)
- g. Tribridge Customer Care Unlimited Options (other options for pre-paid hours may be available at a lower annual fee)

Scope Assumptions

10. Tribridge assumes that this is a fixed bid proposal with limited ability to change pricing once the project has commenced. Consequently, Tribridge has allocated risk reserve and contingencies based on interpretation of the RFP. Further discovery, beyond the scope of the normal question and answer process associated with procurement efforts, may reduce the perceived risks and corresponding level of effort estimates.
11. Blended cost for labor resources for each provider given scoping uncertainty referenced above

Project Assumptions

The following assumptions provide specific details associated with the implementation of the proposed solution and have been made in regard to this project. These assumptions are critical to SHPO's understanding of the services to be delivered by Tribridge and the expectations associated with the successful delivery of the project.

General Assumptions:

Management Commitment. Our experience shows that successful projects require strong management commitment. Executive sponsorship of this project is essential. Our implementation experience has proven that projects with strong executive involvement go more smoothly, produce expected budget results, and have strong client satisfaction. Accordingly, a Steering Committee will be put in place to assist with critical design and procedural decisions.

- Project Team Commitment. To keep the project on schedule, we expect the core MiSHPO project team to be dedicated to the project for key activities such as functional system mapping sessions, pilot testing, system testing, training and “Go Live” activities. The timeframe outlined assumes we are able to effectively coordinate the schedules of SHPO. We will keep you informed when scheduling issues have the potential to impact the milestone dates or costs.

We have assumed that each project manager will assist with the coordination of Project Team member schedules and will participate in all areas of the project alongside the Project Team. In addition, each project manager will communicate with the Tribridge team regarding any changes in the MiSHPO Project Team, team member commitment, team member capabilities, and/or scheduling issues that may impact the milestone dates. The MiSHPO Project Manager will also serve as the point person to resolve issues where there is conflicting input from the MiSHPO team (e.g., two different thoughts on how a process should work).

- Internal IT Support. We expect that SHPO will identify an internal resource, typically an IT team member, as the Dynamics CRM technical lead. Our experience shows that this person should be identified as early in the project as possible in order to learn as much as possible from the Tribridge team. It is our expectation that this person will be required to spend approximately 50 percent of his/her time on this engagement.
- Changes to Scope. Any material changes to project scope as outlined in the Scope and Assumptions section of this document will be formally documented and expedited to the Steering Committee for review. Accordingly, the project team will not add or remove items from the scope of work without authorization from the Steering Committee.
- Communication Plan. Change management activities and communication planning and delivery can be very important during a software implementation project. Tribridge can assist in this area if needed, but we have not included time to provide these items during this implementation. SHPO personnel will be responsible for creating the messages and executing all tasks in the communication plan on a timely basis.
- Project Management. Unless the parties agree that weekly meetings would be beneficial, we will conduct bi-weekly status meetings with the project team and Steering Committee meetings, as needed, throughout the project. We will prepare written status reports detailing accomplishments, next steps, and outstanding issues. Additionally, we will review key decisions, budget, project timeline, and issues for resolution. We will present these status updates in a discussion format so that the MiSHPO project team and management remain actively involved in the project, and so that all questions and issues are addressed in a timely manner.

- Quality Assurance. Tribridge has included time in the project to follow quality assurance disciplines and practices throughout all phases of the implementation, including deliverable reviews and regular executive touch.
- Site Accommodations. Tribridge will perform key tasks onsite at offices at your specified location such as design sessions, testing, training, and deployment. A work area/project room will be dedicated for the duration of the project with ample workstations and ports to allow access to the application and Internet. Remote secured access (VPN) will be required to allow us to perform some tasks from our office. Ongoing Tribridge support requires usage of Tribridge remote support assistance tools (i.e. Team Viewer, LogMeIn, over HTTP, etc.). Tribridge understands that it must maintain an Office 365 license for the duration of this Contract.
- Tribridge Team Availability. In order to provide the strongest team possible to this and every project, Tribridge believes that supporting our team members is a crucial component of our delivery. Therefore, it is important to understand that our team (or individual team members) will not be available at certain times during the expected timeframe of this project to accommodate Tribridge holidays, scheduled Tribridge team meetings, and scheduled team member commitments, training, and/or vacation dates. We will work with you to ensure you are aware of these dates during the course of the project as part of our ongoing planning and status meetings.
- Projected Project Duration. Once we receive the signed contracts, deposit, and payment for Software, we will work with you to determine a project start date that both meets your business objectives and allows us to staff the project effectively. We anticipate this project to take approximately 8 months to complete and we have based our estimates on this timeline. Any changes to the project start date (once agreed by both parties) and timeline may also impact the estimated cost of the project as resources may need to be held for the project or ramp down/ramp up when needed. This change will be handled as per the change management process.

Design Assumptions:

- Business Requirements & Reference Materials. SHPO will provide reference materials such as existing process flows, sample reports, screen shots, spreadsheets, and requirements lists that will assist Tribridge in gaining an initial understanding of your business and to aid in facilitating the design sessions. Tribridge will conduct the following requirements and discovery related sessions in coordination with the SHPO staff over a four (4) week period utilizing up to two (2) Tribridge resources:
 - 1.1.1.1.1** Business Discovery
 - 1.1.1.1.2** Data Migration Discovery
 - 1.1.1.1.3** Integration Discovery
 - 1.1.1.1.4** Application Development Discovery
 - 1.1.1.1.5** Report/Dashboard Discovery

- System Design Documentation. As a result of the requirements and discovery related sessions, Tribridge will provide the following system design documentation:
 - Traceability Matrix
 - Functional Design Document
 - Technical Design Document
 - Data Migration Design Document
 - Integration Design Document

- Standard Functionality. Throughout this review, we have assumed that the standard functionality provided by Dynamics CRM will satisfy SHPO's requirements to accomplish key functions. Exactly how those functions are accomplished is always open to design. As organizations move into a new packaged software environment, it is typical for them to alter their processes and procedures in order to accommodate the methods by which the software packages accomplish particular functions. Accordingly, we have identified which functions are supported by Dynamics CRM, but we have assumed that SHPO is willing to reasonably modify its business processes and procedures to work within the standard functionality of the software, unless otherwise specifically identified. If SHPO is unwilling to accept this standard functionality, and customizations or modifications of the software are required beyond what is specified, this will be viewed as a change in scope which may require additional time or consulting fees to be incurred.

- Functional System Design & Prototyping. Tribridge will lead and assume responsibility for mapping the business process functionality with the Dynamics CRM functions, including screen configuration, security requirements, reports, and workflows. Tribridge will develop prototypes based upon the approved requirements and Customer feedback. Tribridge will provide prototype reviews, to offer functional business users the ability to visualize the system's functionality, provide final feedback and freeze the design. The success of this step is imperative to ensure successful deployment. Although prototyping will help visualize the future system, it does not demonstrate the system in a production-ready state. Based on the documented requirements, Tribridge will develop a system design document, which serves as a guide for the configuration of the solution throughout the project's life cycle. Tribridge will obtain approval and sign-off from Customer prior to moving forward. Tribridge has included time to conduct four (4) prototype reviews.

- System Architecture Review. One of the key elements to a successful implementation is ensuring the infrastructure is thoroughly planned to meet performance needs, ensure system availability, and provide scalability for future growth. Tribridge will provide Customer with server and configuration recommendations based on business requirements to ensure an optimal environment.

Build & Test Assumptions:

- Install. Tribridge will perform the install of Microsoft Dynamics CRM Online, North52 Business Process Automation, EasyTerritory and Scribe Online in a total of up to three (3) environments.
- Software Configuration/Customization. Tribridge will lead and assume responsibility for the design, build, test and implementation of Dynamics CRM software configurations/customizations. When reasonably necessary, Tribridge will recommend alternatives to existing processes to more easily adapt to the application platform. During this step, system parameters are defined and created, and Dynamics CRM screens are configured using the Microsoft Dynamics CRM Customization tool and/or application development tools. Tribridge has included time to configure the Dynamics CRM core application entities to meet the needs of SHPO.
- North52 Formula Manager. Tribridge has included time to configure up to twenty-five (25) business automation rules using North52 Formula Manager.
- Ad studio. Tribridge has included time to configure up to four (4) portal pages using Ad studio.
- SDK Customizations. The development platform is the heart of Dynamics CRM and allows for robust web development tools. When you use the Microsoft Dynamics CRM SDK, you are building on top of this system. Microsoft includes out of box product configuration for creation of entities, forms, and fields including built in security management. Further customizations, integrations and interfaces can be built using Microsoft .NET and web service technologies. Tribridge has not included time for the development of custom functionality that would require the use of Microsoft.NET, web service technologies or the use of the Dynamics CRM SDK. If additional requirements are identified not included in the scope of work described herein, Tribridge will provide an updated cost via a Change Order.
- Entity Auditing. Tribridge has included time to configure up to ten (10) entities for auditing. Tribridge will train SHPO to configure additional auditing as needed, as referenced in the Technical Training Assumption.
- Duplicate Detection Rules. Tribridge has included time to configure up to ten (10) duplicate detection rules. Tribridge will train SHPO to configure additional duplicate detection rules as needed, as referenced in the Technical Training Assumption.
- Security Roles & Teams. Tribridge has included time to configure up to four (4) security roles. Tribridge will train SHPO to configure additional roles as needed, as referenced in the Technical Training Assumption.

- Custom Entities. Tribridge has included time to configure up to ten (10) custom entities to track the following information within Microsoft Dynamics CRM. Tribridge will train SHPO how to configure additional entities within the system, as needed, as referenced in the Technical Training Assumption.
 - 1.1.1.1.1.6** Historic Place Register
 - 1.1.1.1.1.7** Assets
 - 1.1.1.1.1.8** Bibliography Register
 - 1.1.1.1.1.9** Document Register
 - 1.1.1.1.1.10** Historic Person Register
 - 1.1.1.1.1.11** Photographic Register
 - 1.1.1.1.1.12** Historic Period Register
 - 1.1.1.1.1.13** Lexicon Register
 - 1.1.1.1.1.14** General Register

- Main Forms. Tribridge has included time to configure the main form on each entity used within Microsoft Dynamics CRM. Tribridge will train SHPO on how to configure additional forms within the system, as needed, as referenced in the Technical Training Assumption.

- Workflow. Tribridge has included time to create up to twenty (20) workflows to address primary business processes. To support the creation of additional workflows, Tribridge will provide technical training for MiSHPO team members on how to implement workflows.

- Templates. Tribridge has not included time to email and Word mail merge templates. To support the creation of templates, Tribridge will provide technical training for MiSHPO team members on how to develop templates.

- System Testing. SHPO will document user test scenarios to assist with the system testing effort. The majority of tasks in the system testing will be performed by SHPO with Tribridge's guidance. Generation of test scripts will be performed by SHPO. Tribridge and SHPO will test of all end-to-end processes, integrations, and migrated data. Tribridge will not be involved in development or execution of User Acceptance Testing, except in a consultative capacity or in the event of an unexpected result. Results of the activities are compared against the expected results and where necessary, changes are made to the system and the scenario is repeated. Tribridge will work jointly with SHPO to define requirements, and develop a plan/process for executing the system testing processes. Tribridge will conduct the following testing and remediation sessions over a seven (7) week period utilizing up to two (2) Tribridge resources:

- 1** Business Process Testing – 2 weeks
- 2** System Testing – 3 weeks
- 3** User Acceptance Testing – 2 weeks

Reporting & Dashboards Assumptions:

- Custom Reports. Tribridge and Customer will utilize Microsoft Dynamics CRM's native ad hoc query functionality wherever possible. Additionally, Tribridge will lead the design, build, test, and deployment of up to five (5) custom SQL Services Reporting Services (SSRS) reports and two (2) dashboards.

Training Assumptions:

- Functional Training – End Users. Training is a key element which contributes to the success of the project through user adoption of the system. Functional training will be provided to the end users to enable pilot and system testing over a two (2) week period utilizing up to two (2) Tribridge resources. Designated project team members will become 'super users' of the system, and learn those aspects of the Microsoft Dynamics CRM solution that is relevant to the MiSHPO solution. Tribridge will conduct training onsite at the SHPO offices.
- Administrative & Technical Training. Tribridge will train the administrative and technical team. Tribridge has included up to one (1) week of administrative and technical training sessions utilizing one (1) Tribridge resource. Tribridge will provide standard Microsoft system documentation as part of the project. This training will cover the following areas:
 - ✓ Microsoft Dynamics CRM Processes
 - Workflow
 - Dialogs
 - Business Process Flows
 - ✓ Reporting Capabilities
 - Report Wizard
 - Dashboard Management
 - Advanced Find Query Tool
 - ✓ Administration
 - Security Roles
 - User Maintenance
 - Teams
 - Field Level Security
 - ✓ Microsoft Dynamics CRM Configuration Tool
 - Configuration of Forms & Views (add a field to the database, add a value to a pick list, change a label name, add/ change a view, etc.)
 - Business Rules
 - ✓ Auditing
 - ✓ Duplicate Detection Rules
 - ✓ Mail Merge Templates
 - ✓ Scribe Online Administrative Overview

Data Migration and Integration Assumptions:

- Data Cleansing and Data Conversion Approach. The source of the historical data to be converted into Dynamics CRM is the Argus database. SHPO will produce files for export of all source data for Dynamics CRM that have a neutral file format (e.g. fixed-length consecutive text file format) to flat files and provide those to Tribridge to import into Dynamics CRM. These exports will be formatted, and the data will be filtered and cleaned by SHPO before being provided to Tribridge. We would request that “mock” data be provided in advance of the actual conversion. Personnel will be onsite during the actual “Go-Live” conversion to provide any needed assistance. Tribridge will utilize the Scribe tool for migrating data. SHPO will be responsible for all manual data entry, data clean up, and data validation, as well as for migrating data from other data sources identified during requirements and design sessions. Tribridge will perform data migration for up to ten (10) tables, and twenty (20) lookup tables.
- Data Integrations. Data Integrations. Tribridge will interface the following systems with Dynamics CRM. Each interface can contain a maximum of ten (10) tables and up to fifty (50) fields.
 - EasyTerritory

Support Assumptions:

- “Go-Live” Support. Tribridge has included four (4) weeks of “Go-Live” support in which Tribridge will work with SHPO to stabilize your Microsoft Dynamics CRM environment.
- Post “Go-Live” Support. Tribridge will provide post go-live support of the solution proposed as described in our warranty and in our maintenance and support agreement attached as Schedule D, which offers options to SHPO for support via email, phone and web.

SCHEDULE F – Third-Party License Agreements

The license agreements for the Microsoft Corporation software products that Contractor will use in this solution will be governed by the State’s Microsoft Enterprise Agreement, as may be amended from time to time. The license agreements for all other software products that Contractor will use in this solution are attached below.

EASYTERRITORY LICENSE

**IMAGER SOFTWARE, INC. (ISC), DBA EASYTERRITORY
ONLINE SERVICES AGREEMENT FOR EASYTERRITORY
Last Update: March 5, 2015**

PLEASE READ THIS ONLINE SERVICES AGREEMENT (“AGREEMENT”) CAREFULLY BEFORE USING EASYTERRITORY. BY USING EASYTERRITORY THE LICENSEE (“YOU” OR “YOUR” OR “CUSTOMER”) AGREES TO BE BOUND BY THE TERMS OF THIS AGREEMENT. IF YOU DO NOT AGREE TO THE TERMS OF THIS AGREEMENT, DO NOT USE EASYTERRITORY. BY AGREEING TO THESE TERMS AND CONDITIONS, YOU ALSO AGREE TO ENSURE THAT ANY PERSON ENTITLED TO USE EASYTERRITORY, SUCH AS YOUR EMPLOYEES AND/OR CONSULTANTS, WILL ALSO ABIDE BY THE TERMS OF THIS AGREEMENT.

1. DEFINITIONS

- a. “Confidential Information” of a Party means any information in a tangible form that is disclosed by that Party pursuant to this Agreement and that (a) is identified “Confidential,” “Proprietary” or in some other manner to indicate its confidential nature; or (b) would reasonably be considered to be confidential.
- b. “Documentation” means any standard ISC documentation distributed by ISC as a part of the Software.
- c. “Malicious Code” means viruses, worms, time bombs, Trojan horses and other harmful or malicious code, files, scripts, agents or programs.
- d. “EasyTerritory Services” includes but is not limited to software; data; images, photographs, animations, video, audio, or music; text, scripts, or markup code; service packs, patches, or technical support in response to requests; web services; publicly available APIs or JavaScript libraries; documentation; or other information, electronic resource, or service provided in the EasyTerritory Cloud.
- e. “EasyTerritory Cloud” is the EasyTerritory Services located at or below the universal resource location [http: \(or https\)//www.easyterritory.com](http://(or https)//www.easyterritory.com)
- f. “Proprietary Rights” means all rights to the Software, Documentation, and ISC’s Confidential Information, including, but not limited to, patents, copyrights, trademarks, trade names, trade secrets, or rights to apply for any of the same, irrespective of whether such rights arise under Canadian, U.S., or international laws
- g. “Support Services” shall have the meaning set forth in Section 4.

- h. "Subscriber Data" means any electronic data provided by Subscriber to ISC via the EasyTerritory Services.
- i. "Subscription" shall have the meaning set forth in Section 11.
- j. "Subscription Fees" means the fees payable by Subscriber for the Subscription.
- k. "Subscription Term" means the period of time for which Subscriber paid the Subscription Fees.
- l. "User" means each person who is authorized by Subscriber to access or use EasyTerritory Services, directly or indirectly.

2. GRANT OF LICENSE

- a. License. Subject to the terms and conditions of this Agreement, ISC agrees to provide Subscriber the subscription services ("Subscription"). ISC grants to Subscriber as part of the Subscription, a non-exclusive, nontransferable right to use EasyTerritory Services. Subject to the terms of this Agreement, Subscriber may allow its employees and independent consultants to use EasyTerritory Services solely for the benefit of Subscriber; provided, however, Subscriber remains responsible for any breach of this Agreement.
- b. Restriction on Use. Use of EasyTerritory Services shall be only for Subscriber's own internal business operations (not for the benefit of any other person or entity) for the duration of the Subscription Term, provided Subscriber has and continues to pay the applicable Subscription Fees. Access to EasyTerritory Services is only for the maximum number of authorized Users for whom Subscriber has paid the Subscriber Fees. All fees paid for EasyTerritory Services are nonrefundable. Subscriber may only exceed the number of ordered Users if Subscriber increases its order and pays additional Subscription Fees. Other than as expressly authorized in this Section 2 or as expressly permitted by applicable law, Subscriber may not: (a) copy the Software or any portion thereof; (b) use the Software to store or transmit Malicious Code, or infringing, tortious or otherwise unlawful materials; or (c) interfere with the business or operations of ISC.
- c. Audit Rights. ISC may request written certification from Subscriber regarding Subscriber's use of the EasyTerritory Services. Customer agrees to respond to any such request within 15 business days of such request. If Subscriber's use is greater than contracted, Subscriber shall be invoiced for any unlicensed use, and the unpaid subscriber fees shall be payable in accordance with Section 2b of this Agreement. Payment under this provision shall be EasyTerritory's sole and exclusive remedy to cure these issues. Unless specifically authorized in writing in advance by ISC, Subscriber may not rent, lease or timeshare the EasyTerritory Services or provide subscription services for the EasyTerritory Services or permit others to do so.

3. PRICES AND PAYMENTS.

- a. Prices. Pricing for the EasyTerritory Services shall be as set forth in the Subscriber's Purchase Order.
- b. Payment. All payments (including fees for additional Software, support, training, taxes, etc.) shall be due within 30 days of the date of ISC invoice.

- c. Pricing Changes. ISC shall have the right to change the fees and prices for the EasyTerritory Services at any time. Prices shall be effective as of the date they are posted on the Website. Notwithstanding the foregoing, Price changes shall not affect the Subscriber's then current Subscription fees and shall only come into effect at the time of renewal of the Subscription.
- d. Taxes. All Subscriber Fees are exclusive of any export, withholding, federal, state and local taxes and duties and Subscriber is responsible for paying all taxes it is required to pay by law.
- e. Late Payments. All amounts that are not paid by Subscriber by the date required by this Agreement shall be subject to a late charge equal to the lesser of one and one-half percent (1.5%) per month and the maximum allowed by applicable law. In the event that any payment due under this Agreement is overdue, ISC reserves the right to suspend the rights granted under this Agreement until such delinquency is corrected.
- f. Refunds. All charges are non-refundable unless expressly stated otherwise, or otherwise provided by law.

4. SUPPORT SERVICES.

- a. Updates and Upgrades. ISC may from time to time conduct updates and upgrades to the EasyTerritory Services, which may temporarily affect the use of the Software. To the extent that the use of the Software will be affected during such ISC updates and upgrades, ISC will provide prior notice of such updates and upgrades to Subscriber and will, to the extent possible, be conducted outside of regular business hours.
- b. Technical Support. Subscribers may contact ISC through the EasyTerritory portal or via email for technical support provided during the operation hours of 8:00 AM EST to 5:00 PM EST, Monday through Friday excluding nationally recognized holidays.
- c. Azure SLA Dependency. EasyTerritory Services are hosted in Microsoft Windows Azure ("Third-party Hosting Environment") and are bound by their SLA (<http://azure.microsoft.com/en-us/support/legal/sla/>) YOU EXPRESSLY ACKNOWLEDGE AND AGREE ISC MAY NOT BE ABLE TO REMEDY ISSUES WITHIN A THIRD-PARTY HOSTING ENVIRONMENT

5. PROPRIETARY RIGHTS AND PROTECTION THEREOF.

- a. Acknowledgment. The Software is licensed as a subscription, not sold, by ISC to Subscriber, and nothing in this Agreement will be interpreted or construed as a sale or purchase of the Software. ISC and Subscriber acknowledge and agree that, as between ISC and Subscriber, ISC owns and will own all rights, title, and interest, including all intellectual property rights therein and thereto, in and to the Software and Documentation, and no title to the Proprietary Rights is transferred to Subscriber. The use by Subscriber of the Proprietary Rights is authorized only for the purposes set forth herein and, upon termination of this Agreement for any reason, such authorization will cease. Subscriber will not have any rights in or to the Software except as expressly granted in this Agreement. ISC reserves to itself all rights to the Software not expressly granted to Subscriber under this Agreement.

- b. No Other Rights. Subscriber may not, directly or through any person or entity, in any form or manner, decompile, reverse engineer, disassemble or otherwise attempt to derive source code or object code from the Software, except as explicitly permitted under this Agreement or expressly permitted by applicable law.
- c. Subscriber Data. ISC acknowledges that all Subscriber Data belongs to Subscriber and that other than specifically provided herein, ISC acquires no rights, title or interest thereto. ISC shall maintain commercially reasonable safeguards for the protection and security of Subscriber Data. Other than as specifically permitted by Subscriber in writing, ISC shall not: (a) modify the Subscriber Data; (b) disclosed the Subscriber Data unless compelled by law; or (c) access the Subscriber Data.
- d. Comments and Suggestions Should Subscriber provide ISC with comments or suggestions for the modification, correction, improvement or enhancement of the Documents or services related thereto, Subscriber grants to ISC a non-exclusive, irrevocable, worldwide, royalty-free license, with the right to sublicense, the rights to use and disclose such comments and suggestions in any manner ISC chooses, without reference to the source.

6. CONFIDENTIALITY.

- a. Nondisclosure. To the extent permitted by law, each Party shall treat as confidential all Confidential Information of the other Party, shall not use such Confidential Information except as set forth in this Agreement, and shall use best efforts not to disclose such Confidential Information to any third party unless otherwise required by law. Without limiting the foregoing, each of the Parties shall use at least the same degree of care that it uses to prevent the disclosure of its own Confidential Information of like importance to prevent the disclosure of Confidential Information disclosed to it by the other Party under this Agreement. Each Party shall promptly notify the other Party of any actual or suspected misuse or unauthorized disclosure of the other Party's Confidential Information.
- b. Exceptions. Notwithstanding Section 6.1, neither Party shall have liability to the other with regard to any Confidential Information of the other that the receiving Party can prove: (a) was in the public domain at the time it was disclosed or has since entered the public domain through no fault of the receiving Party; (b) was known to the receiving Party, without restriction, at the time of disclosure, as demonstrated by files in existence at the time of disclosure; (c) is disclosed with the prior written approval of the disclosing Party; (d) was independently developed by the receiving Party without any use of the Confidential Information, as demonstrated by files created at the time of such independent development; (e) becomes known to the receiving Party, without restriction, from a source other than the disclosing Party without breach of this Agreement by the receiving Party and otherwise not in violation of the disclosing Party's rights; or (f) is disclosed as required by law.

- c. Return of Confidential Information. To the extent permitted by law or applicable records retention policies, upon expiration or termination of this Agreement, each Party shall return all Confidential Information received from the other Party.
 - d. Remedies. Any breach of the restrictions contained in this Section 6 is a breach of this Agreement that may cause irreparable harm to the non-breaching Party. Any such breach shall entitle the non-breaching Party to injunctive relief in addition to all other legal remedies.
7. TERMINATION. This AGREEMENT is effective until terminated. YOUR rights under this AGREEMENT will terminate with thirty (30) days written notice to cure if YOU fail to comply with any term(s) of this AGREEMENT. Upon the termination of this AGREEMENT, YOU shall cease all use of EasyTerritory Services. YOU may similarly terminate for breach upon thirty (30) days written notice to cure. YOU may terminate this Agreement at any time and without penalty, with 5 days written notice to EasyTerritory, in the event of budget shortfalls or non-appropriation of funds.
8. DISCLAIMER OF WARRANTIES. YOU EXPRESSLY ACKNOWLEDGE AND AGREE THAT USE OF EASYTERRITORY (AS DEFINED ABOVE) IS AT YOUR SOLE RISK AND THAT THE ENTIRE RISK AS TO SATISFACTORY QUALITY, PERFORMANCE, ACCURACY AND EFFORT IS WITH YOU. EASYTERRITORY IS PROVIDED "AS IS", WITH ALL FAULTS AND WITHOUT WARRANTY OF ANY KIND, AND ISC HEREBY DISCLAIMS ALL WARRANTIES AND CONDITIONS WITH RESPECT TO EASYTERRITORY, EITHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES AND/OR CONDITIONS OF MERCHANTABILITY, OF SATISFACTORY QUALITY, OF FITNESS FOR A PARTICULAR PURPOSE, OF ACCURACY, AND NON-INFRINGEMENT OF THIRD PARTY RIGHTS. ISC DOES NOT WARRANT AGAINST INTERFERENCE WITH YOUR ENJOYMENT OF EASYTERRITORY THAT THE FUNCTIONS CONTAINED IN EASYTERRITORY WILL MEET YOUR REQUIREMENTS, THAT THE OPERATION OF EASYTERRITORY WILL BE UNINTERRUPTED OR ERROR-FREE, OR THAT DEFECTS IN EASYTERRITORY WILL BE CORRECTED. NO ORAL OR WRITTEN INFORMATION OR ADVICE GIVEN BY ISC OR AN ISC AUTHORIZED REPRESENTATIVE SHALL CREATE A WARRANTY. SOME JURISDICTIONS DO NOT ALLOW THE EXCLUSION OF IMPLIED WARRANTIES OR LIMITATIONS ON APPLICABLE STATUTORY RIGHTS OF A CONSUMER, SO THE ABOVE EXCLUSION AND LIMITATIONS MAY NOT APPLY TO YOU.
9. INTELLECTUAL PROPERTY INDEMNIFICATION. ISC warrants to the LICENSEE that EasyTerritory does not infringe the intellectual property rights of a third party in the United States. ISC shall indemnify, defend and hold LICENSEE harmless from all claims, losses, liabilities, costs and expenses attributable to any allegation of intellectual property infringement in the United States arising out of this Agreement.

10. **LIMITATION OF LIABILITY.** EXCEPT IN INSTANCES OF THIRD PARTY INFRINGEMENT ACTIONS SET FORTH IN SECTION 6, TO THE EXTENT NOT PROHIBITED BY LAW, IN NO EVENT SHALL ISC BE LIABLE FOR PERSONAL INJURY, OR ANY INCIDENTAL, SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES WHATSOEVER, INCLUDING, WITHOUT LIMITATION, DAMAGES FOR LOSS OF PROFITS, LOSS OF DATA, BUSINESS INTERRUPTION OR ANY OTHER COMMERCIAL DAMAGES OR LOSSES, ARISING OUT OF OR RELATED TO YOUR USE OR INABILITY TO USE EASYTERRITORY, HOWEVER CAUSED, REGARDLESS OF THE THEORY OF LIABILITY (CONTRACT, TORT OR OTHERWISE) AND EVEN IF ISC HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. SOME JURISDICTIONS DO NOT ALLOW THE LIMITATION OF LIABILITY FOR PERSONAL INJURY, OR OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THIS LIMITATION MAY NOT APPLY TO YOU. EXCEPT FOR DAMAGES RESULTING FROM SECTION 6, IN NO EVENT SHALL ISC'S TOTAL LIABILITY TO YOU FOR ALL DAMAGES (OTHER THAN AS MAY BE REQUIRED BY APPLICABLE LAW IN CASES INVOLVING PERSONAL INJURY) EXCEED THE AMOUNT OF THE PURCHASE PRICE OF EASYTERRITORY. THE FOREGOING LIMITATIONS WILL APPLY EVEN IF THE ABOVE STATED REMEDY FAILS OF ITS ESSENTIAL PURPOSE.
11. **ANNUAL SUBSCRIPTION FEE.** Customers are required to pay an annual subscription fee in order to obtain and hold a Subscription to EasyTerritory Services and receive upgrades. Annual Subscription Fees must be paid in accordance with ISC payment terms (Addendum I).
12. **SUBSCRIPTION.** Customers who pay Annual Subscription Fees in accordance with ISC payment terms (Addendum I) have an active "Subscription." Pursuant to 4a, ISC reserves the right to upgrade EasyTerritory at its sole discretion and make upgrades available to those customers who have an active Subscription.
13. **CONTROLLING LAW AND SEVERABILITY.** This AGREEMENT shall not be governed by the United Nations Convention on Contracts for the International Sale of Goods, the application of which is expressly excluded. This AGREEMENT, and all of the parties' respective rights and duties in connection herewith, shall be governed by and construed in accordance with the laws of the State of Michigan without giving effect to conflicts of laws and any action or similar proceeding that might arise from or in connection with this Agreement or its subject matter may be neither commenced nor maintained except in the courts located in Ingham County, Michigan. Any action against Subscriber related to this agreement must be brought in the Michigan Court of Claims.
14. **COMPLETE AGREEMENT AND GOVERNING LANGUAGE.** This AGREEMENT constitutes the entire agreement between the parties with respect to the use of EasyTerritory licensed hereunder and supersedes all prior or contemporaneous understandings regarding such subject matter. No amendment to or modification of this AGREEMENT will be binding unless in writing and signed by both parties. Any translation of this AGREEMENT is done for local requirements and in the event of a dispute between the English and any non-English versions, the English version of this AGREEMENT shall govern.

Addendum I

In the event the customer chooses to deploy EasyTerritory Enterprise on-premises, ISC will apply a credit for the prorated amount of the price difference to the following year's subscription cost.

SOFTWARE SERVICE – TERMS AND CONDITIONS

All capitalized terms used in this paragraph have the meaning set forth in Article 1 below. Customer's use of the Service is subject to this Agreement. If Customer does not agree to this Agreement, Customer may not use or access the Service. If you are an individual agreeing to this Agreement on behalf of a company or other legal entity, you represent that you have the authority to bind such entity to this Agreement and such entity shall be the Customer. Customer's registration for, or use of, the Service shall be deemed to be its acceptance of this Agreement.

Article 1 – Definitions

1.1 "Agreement" means these Terms and Conditions and any Order Form referencing these Terms and Conditions.

1.2 "Authorized User" means employees and agents of, and contractors to, Customer and authorized by Customer to access and use the Service solely for the benefit of Customer as provided herein, subject to any limit in number stated in the Order Form

1.3 "Confidential Information" means any information of a party in any form marked or noted as confidential or proprietary or information or materials which a reasonable person should conclude is proprietary information of the disclosing party. In the case of SCRIBE, such information would include without limitation (i) computer software (object and source codes), programming techniques and programming concepts, methods of processing, system designs embodied in the Service; (ii) Documentation, benchmark results, program listings, data structures, logic diagrams, functional specifications, file formats; and (iii) system infrastructure, security/architecture design and/or operations processes (iv) discoveries, inventions, concepts, designs, flow charts, documentation, product specifications, application program interface specifications, techniques and processes relating to the Service; (iii) technical drawings, algorithms, processes, ideas, techniques, formulas, data, schematics, trade secrets, know-how, improvements, marketing plans, forecasts and strategies. In the case of Customer, such information would include without limitation Customer Data.

1.4 "Customer" means the entity or individual that has consented to this Agreement by execution of this Agreement.

1.5 "Customer Data" means any materials, data and information provided by Customer or its Authorized Users to SCRIBE in the course of using the Service.

1.6 "Documentation" means SCRIBE's electronic documentation made available to Customer as part of the Service under this Agreement.

1.7 “Order Form” means the written order form or other ordering documentation (including a registration Webpage or Website) entered into by SCRIBE and Customer which references these General Terms and Conditions.

1.8 “SCRIBE” means Scribe Software Corporation, 150 Dow Street, Suite 543A, Manchester, NH 03104, the entity providing the Service to Customer and a party to this Agreement.

1.9 “Service” means the SCRIBE software as a service described in the Order Form, including, if applicable, any SCRIBE software (and all updates, revisions, enhancements or releases thereof) required to be downloaded by Customer to use the Service (such software to be used solely in connection with the Service).

Article 2 – Service Usage Rights

2.1 Subject to the terms of this Agreement, SCRIBE grants to Customer the nontransferable and nonexclusive right during the term stated in the Order Form to permit Authorized Users to access and use the Service solely for Customer’s own internal business purposes as permitted by this Agreement and the Documentation.

2.2 Customer shall not license, sell, lease, rent, outsource, host, use as a service bureau (e.g. perform data migration or data integration work as a billable service) or otherwise make available the Service or any part thereof to third parties, other than Authorized Users. Customer shall be responsible for the acts and omissions of its Authorized Users as if they were the acts and omissions of Customer.

2.3 Customer shall only make copies of any software delivered as part of the Service as stated in the Order Form. Customer shall not remove notices in the Service or any part thereof (e.g. downloaded software) that refers to copyrights, trademark rights, patent rights and other intellectual property rights. SCRIBE or its licensors owns all right, title and interest in any and all patent rights, copyrights, trademark rights and other rights in the Service and all parts thereof, as well as any improvements, updates, revisions, design contributions or derivative works conceived or created by either party in or to the Service. Except for the limited rights expressly granted herein, this Agreement does not transfer from SCRIBE any proprietary right or interest in the Service. All rights not expressly granted to Customer hereunder in the Service are reserved to SCRIBE and its licensors.

2.4 When using the Service, Customer shall not and shall ensure that Authorized Users do not: (a) modify, translate, decompile, reverse-engineer or otherwise attempt to derive the source materials of the Service or any part thereof; (b) interfere with or disrupt the SCRIBE software and systems used to host and provide the Service, other equipment or networks connected to the Service, or disobey any requirements, procedures, policies or regulations of networks connected to the Service made known to Customer; (c) circumvent the user authentication or security of the Service or any host, network, or account related thereto; (d) make any use of the Service that violates any applicable local, state, national, international or foreign law; (e) fail to use commercially reasonable efforts to prevent the unauthorized license, reproduction, sale, transfer, lease, transmission, distribution or other disclosure of the Service or any part thereof, or (f) except for rights provided to Authorized Users as expressly stated in this Agreement, allow any third party to use any user identification(s), code(s), password(s), procedure(s) and user keys issued to, or selected by, Customer for access to the Service.

2.5 SCRIBE may request written certification from Customer regarding Customer's use of the Service. Customer agrees to respond to any such request within 15 business days of such request. If Customer's use is greater than contracted, Customer shall be invoiced for any unlicensed use of the Services and the unpaid fees shall be payable in accordance with this Agreement. Payment under this provision shall be SCRIBE's sole and exclusive remedy to cure these issues. Subject to Section 4.1, SCRIBE may utilize the information concerning Customer's use of the Service to improve SCRIBE products and services and to provide Customer with reports on its use of the Service.

2.6 SCRIBE may change or modify the Service at any time. SCRIBE will only be required to notify Customer of a change or modification to the Service in advance if the change or modification (i) is not within industrial standards and/or customary in the industry and (ii) does not extend and/or enhance the functionalities or architecture of the Service. If SCRIBE notifies Customer of a change and Customer does not wish to use the Service after notification of such change, Customer may within thirty (30) days of SCRIBE notification provide SCRIBE with written notice of termination of the Agreement thirty (30) days thereafter. Upon such termination, SCRIBE's sole liability will be to refund any prepaid and unearned fees.

2.7 If Customer is granted a license under this Agreement to a free version of the Service, to the extent permitted by applicable law, Customer agrees that (i) SCRIBE has no obligation to provide any particular service level or support services, and (ii) SCRIBE may cease providing the Service at any time without notice. This Section 2.7 supersedes any conflicting term of this Agreement.

2.8 Upon termination of the Service, Customer agrees to delete or otherwise destroy all copies of any SCRIBE software downloaded by it as part of the Service.

Article 3 – Support, Set up and Security

3.1 SCRIBE will provide support for the Service as may be described in the Order Form or a schedule to the Order Form.

3.2 SCRIBE will use commercially reasonable security technologies (such as encryption, password protection and firewall protection) in providing the Service, and Customer shall comply with the applicable SCRIBE security guidelines and procedures made known to Customer through the Service or otherwise. However, SCRIBE does not control the transfer of data, including but not limited to Customer Data, over telecommunications facilities, including the Internet, and SCRIBE does not warrant secure operation of the Service or that such security technologies will be able to prevent third party disruptions of the Service.

Article 4 – Customer Responsibilities and Obligations

4.1 Customer grants to SCRIBE the nonexclusive right to use Customer Data for the sole purpose of and only to the extent necessary for SCRIBE to provide the Service. SCRIBE shall use all Customer Data in accordance with the foregoing and all applicable laws and regulations, including those related to data privacy.

4.2 Customer shall be responsible for entering its Customer Data into the Service and Customer shall be responsible for the maintenance of the Customer Data supplied by it. Customer hereby represents and warrants to SCRIBE that the Customer Data is free of all viruses, Trojan horses, and comparable elements which could harm the systems or software, including Agency Software, used by SCRIBE or its subcontractors to provide the Service.

4.3 Customer shall limit the use and disclosure of all passwords used to access the Service to Authorized Users. Should Customer learn of a third party having obtained knowledge of a password, Customer shall inform SCRIBE thereof without undue delay and promptly change the password.

4.4 Customer is responsible for the connection to the Service, including the Internet connection. SCRIBE shall not be responsible for any failure to meet its obligations under this Agreement which result from or relate to the connection to the Service.

Article 5 – Prices and Terms of Payment

5.1 Customer shall pay to SCRIBE the fees for the Service as set forth in the applicable Order Form within thirty (30) days of the date of invoice.

5.2 Upon the renewal of the then-current term of an Order Form for which renewal is permitted, SCRIBE shall have the right to unilaterally increase any prices specified in the Order Form to SCRIBE's then-current fees for the applicable Service based on the length of the renewal term. SCRIBE shall notify Customer of such increase prior to the date upon which Customer must notify SCRIBE that it intends not to renew the Order Form, and any such increase shall automatically become effective on the renewal date if the Order Form is renewed.

5.3 Customer shall have no right to withhold or reduce fees under this Agreement or set off any amount against fees owed for alleged defects in the Service.

5.4 Fees do not include federal, state or local sales, foreign withholding, use, property, excise, service, or similar taxes ("Tax(es)") on payments hereunder, now or hereafter levied, all of which shall be Customer's responsibility.

Article 6 – Term, Termination and Termination Support

6.1 The term of this Agreement begins on the Effective Date set forth in the Order Form and shall continue in effect as described in the Order Form.

6.2 Notwithstanding the foregoing, a party may terminate this Agreement in the event of a breach of any provision of the Agreement which is not cured by the other party within thirty (30) days of notification by the non-breaching party. Customer may terminate this Agreement at any time and without penalty, with 15 days written notice to SCRIBE, in the event of budget shortfalls or non-appropriation of funds. Except for termination by reason of the breach hereof by SCRIBE or for termination by the Customer in the event of budget shortfalls or non-appropriation of funds, termination will not relieve Customer from the obligation to pay fees that remain unpaid. SCRIBE shall also have the right to suspend the provision of the Service to Customer upon notice (i) in the event of any delinquency in payment of amounts owed

by Customer, or (ii) SCRIBE reasonably believes that Customer's continued use of the Service may result in harm to the Service (including the systems used to provide the Service) or other SCRIBE customers, or result in a violation of applicable law, regulation, legal obligation or legal rights of another.

Article 7- Warranties by SCRIBE

7.1 SCRIBE warrants that the Service shall perform in accordance, in all material respects, with the functional specifications described in the Documentation. The warranty shall not apply: (i) if the Service is not used in accordance with this Agreement and the Documentation; or (ii) to free (no fee) or trial licenses of the Service.

7.2 Customer shall report any defects to SCRIBE in writing without undue delay through an SCRIBE approved support channel, submitting a detailed description of the problem and any information useful for rectification of the defect.

7.3 Customer's sole and exclusive remedies for any breach of the warranty contained in Section 8.1 shall be, at SCRIBE's option: (i) to bring the performance of the Service into compliance in all material respects with the functional specifications stated in the Documentation; or (ii) return of an appropriate portion of any payment made by Customer with respect to the affected portion of the applicable Service during the period of defect.

7.4 EXCEPT AS EXPRESSLY PROVIDED IN ARTICLE 8.1, SCRIBE DISCLAIMS ANY AND ALL REPRESENTATIONS OR WARRANTIES, EXPRESS OR IMPLIED, REGARDING ANY MATTER, INCLUDING THE MERCHANTABILITY, SUITABILITY, ORIGINALITY, OR FITNESS FOR A PARTICULAR USE OR PURPOSE, OR RESULTS TO BE DERIVED FROM THE USE OF THE SERVICE, OR ANY INFORMATION TECHNOLOGY SERVICES, SOFTWARE, HARDWARE OR OTHER MATERIALS PROVIDED UNDER THIS AGREEMENT, OR THAT THE OPERATION OF ANY SUCH SERVICE, SOFTWARE, HARDWARE OR OTHER MATERIAL WILL BE UNINTERRUPTED OR ERROR FREE.

Article 8- Confidential Information

8.1 Confidential Information shall not be used or reproduced in any form except as required to accomplish the intent of this Agreement. Any reproduction of any Confidential Information of the other shall remain the property of the disclosing party and shall contain any and all confidential or proprietary notices or legends which appear on the original. With respect to the Confidential Information of the other, each party shall take all reasonable steps (defined below) to keep all Confidential Information strictly confidential, provided each party may disclose Confidential Information to its bona fide individuals whose access is necessary to enable it to exercise its rights hereunder. As used herein "reasonable steps" means those steps the receiving party takes to protect its own similar proprietary and confidential information, which shall not be less than a reasonable standard of care. Confidential Information of either party disclosed prior to execution of this Agreement shall be subject to the protections afforded hereunder.

8.2 The above restrictions on the use or disclosure of the Confidential Information shall not apply to any Confidential Information that: (a) is independently developed by the receiving party without reference to the Confidential Information, or is lawfully received free of restriction from a third party having the right to furnish such Confidential Information; (b) has become generally available to the public without breach of this Agreement by the receiving party; (c) at the time of disclosure, was known to the receiving party free of restriction; (d) the disclosing party agrees in writing is free of such restrictions; or (e) is otherwise required to be disclosed by law or court order.

Article 9 – Indemnification

9.1 Scribe shall defend Customer against any claim that all or any part of the Service infringes any United States patent rights, any copyright rights in any country that is a party to the Berne Convention for the Protection of Literary and Artistic Works, or any trade secret of any third party (a “Scribe Infringement Claim”), provided Customer gives prompt notice to Scribe in writing of any Scribe Infringement Claim. Customer is entitled to: (i) regular updates on proceeding status; (ii) participate in the defense of the proceeding; (iii) employ its own counsel; and to (iv) retain control of the defense, all at its own expense, if Customer deems necessary. SCRIBE will not, without Customer’s prior written consent (not to be unreasonably withheld), settle, compromise, or consent to the entry of any judgment in or otherwise seek to terminate any claim, action, or proceeding. Any litigation activity on behalf Customer or any of its subdivisions, under this **Section 9.1**, must be coordinated with the Department of Attorney General. An attorney designated to represent Customer may not do so until approved by the Michigan Attorney General and appointed as a Special Assistant Attorney General. Scribe shall pay any settlement made by it of such Scribe Infringement Claim and shall pay and indemnify Customer against any damages awarded against Customer as the result of a judgment rendered in such Scribe Infringement Claim defended by Scribe. Scribe shall have no liability for any infringement based on (i) the modification of any Covered Materials by any party other than Scribe (or a third party under Scribe’s direction or control); or (ii) the combination or use of any Covered Materials with other technology, items, or processes not furnished by Scribe if such infringement would have been avoided by the use of the Covered Materials alone. If the use of any Covered Materials by Customer is enjoined or threatened pursuant to a Scribe Infringement Claim, then Scribe may do one or more of the following, at its option: (i) procure for Customer the right or license to use such Covered Materials as delivered; (ii) modify the such Covered Materials so as to render them non-infringing without loss of material functionality; or (iii) terminate this Agreement upon notice to Customer, provided that it shall provide a refund of any prepaid and unearned fees for the Service hereunder. **THIS SECTION STATES SCRIBE’S ENTIRE OBLIGATION AND CUSTOMER’S SOLE REMEDY WITH RESPECT TO ANY INFRINGEMENT CLAIM RELATING TO THE SERVICES.**

Article 10 – Limitations of Liability

10.1 Except for claims arising under Article 9, under no circumstances shall SCRIBE be liable to Customer or any other person or entity by reason of this Agreement or the subject hereof for an amount of damages in excess of the amount of fees paid to it for the Service in the twelve (12) month period preceding the date on which the claim of action first arose.

10.2 EXCLUDING ANY CLAIM OF BREACH BY EITHER PARTY OF ARTICLE 2 OR OTHER VIOLATION OF ITS CONFIDENTIAL INFORMATION OR INTELLECTUAL PROPERTY

RIGHTS, UNDER NO CIRCUMSTANCES SHALL SCRIBE OR CUSTOMER BE LIABLE IN ANY AMOUNT FOR SPECIAL, INCIDENTAL, EXEMPLARY, PUNITIVE, CONSEQUENTIAL, OR INDIRECT DAMAGES, LOSS OF GOOD WILL, PROFITS OR DATA, WITHOUT REGARD TO WHETHER SUCH DAMAGES OR LOSSES WERE FORSEEABLE.

Article 11 – Miscellaneous

11.1 If for any reason a court of competent jurisdiction finds any provision of this Agreement, or portion thereof, to be unenforceable, that provision of the Agreement shall be enforced to the maximum extent permissible so as to effect the intent of the parties, and the remainder of this Agreement shall continue in full force and effect.

11.2 If either party should waive any breach of any provision of this Agreement, it shall not thereby be deemed to have waived any preceding or succeeding breach of the same or any other provision hereof.

11.3 This Agreement shall be governed by and construed under the laws of the State of Michigan without reference to its conflicts of law principles. The United Nations Convention on Contracts for the International Sale of Goods shall not apply to this Agreement.

11.4 All notices or reports which are required or may be given pursuant to this Agreement shall be in writing and shall be deemed duly given when delivered to the respective executive offices of SCRIBE and Customer at the addresses first set forth in any Order Form, registration form or the preamble to these General Terms and Conditions. Where in this Article 11.4 or elsewhere in this Agreement written form is required, that requirement can be met by facsimile transmission, exchange of letters or other written form.

11.5 Excluding payment obligations, any delay or nonperformance of any provision of this Agreement caused by conditions beyond the reasonable control of the performing party shall not constitute a breach of this Agreement, and the time for performance of such provision, if any, shall be deemed to be extended for a period equal to the duration of the conditions preventing performance.

11.6 This Agreement constitutes the complete and exclusive statement of the agreement between SCRIBE and Customer, and all previous representations, discussions, and writings are merged in, and superseded by this Agreement. This Agreement may be modified only by a writing signed by both parties. This Agreement shall prevail over any additional, conflicting, or inconsistent terms and conditions which may appear on any purchase. This Agreement shall not be assigned by Customer unless required by operation of law or Executive Order.

11.7 The following order of precedence shall be applied in the event of conflict or inconsistency between provisions of the components of this Agreement: (i) the Order Form; and (ii) and these Terms and Conditions.

NORTH52 LICENSE

PLEASE READ THE TERMS OF THIS SOFTWARE LICENSE AGREEMENT ('AGREEMENT') CAREFULLY AS IT GOVERNS YOUR ('YOU') USE OF NORTH52 SOFTWARE APPLICATIONS LIMITED's ('NORTH52') SOFTWARE ('SOFTWARE'). BY CLICKING ON THE 'REQUEST DOWNLOAD' or 'ACCEPT' BUTTON AND INSTALLING THE SOFTWARE YOU AGREE TO THE TERMS OF THIS AGREEMENT AND ARE FORMING A CONTRACT WITH NORTH52. REFERENCE TO 'YOU' AND 'YOUR' ARE TO YOU AS A GOVERNMENT USER ONLY ACTING IN THE COURSE OF YOUR GOVERNMENTAL DUTIES AND YOU ACCEPT THE TERMS AND CONDITIONS OF THIS AGREEMENT ON BEHALF OF THE STATE OF MICHIGAN.

IF YOU DO NOT WISH TO BE BOUND BY THE TERMS OF THIS AGREEMENT THEN DO NOT DOWNLOAD OR USE THE SOFTWARE.

1. SERVICES

This Agreement allows You (which expression shall include your departments, divisions, agencies, offices, commissions, officers, and employees) to use the Software and to receive agreed customer support and such other services as may be agreed ('Services') and to use the Software (as defined above) and any Third Party Software (as defined below) under the terms of this Agreement, the use of the Software and Third Part Software and the Services together shall mean the 'System'.

2. SOFTWARE

As used herein, the term 'Software' shall mean the applications accessible via the internet as part of the Services and all later versions and improvements as well as all accompanying documentation (as applicable) and shall include any third party software ('Third Party Software'). Any Third Party Software shall be supplied subject to the additional terms and conditions that may be attached to them (and please see clause 3.3 below) and You hereby acknowledge that You have inspected such terms and conditions and confirm that You will act in accordance with them.

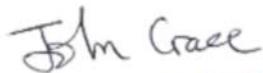
3. GRANT OF LICENCE TO USE AND TERM

3.1 In consideration of your agreement to the terms of this license and payment of all fees North52 HEREBY agrees to provide You with the System and to provide You with a non-exclusive, non-transferable licence to use the Software and a non-exclusive, non-transferable right to use the Third Party Software under the terms of this Agreement.

3.2 You are strictly prohibited from reverse engineering or decompiling any of the Software, or making derivative works incorporating any of the elements of the Software, or modifying, adapting or copying any of the Software in any way, save as is expressly permitted by this Agreement or required to be permitted by law. Title to and ownership of the Software shall at all times remain with North52 and/or its licensors (as applicable).

3.3 Details of open source software which are incorporated into the Software and their accompanying licenses (which are hereby specifically incorporated into this Agreement) are hereby licensed to You under the terms of this Agreement and can be found here:
www.north52.com/formulamanagertirdparty.html.

3.4 The term granted to use the Software and the Services (as applicable) shall be as set out under North52's website, see here for full details: www.north52.com/formulamanagerpricing.html.



25-AUG-2016

4. SECURITY

As applicable, the Services must be used in conjunction with a unique ID supplied by North52 to You, which You must keep safe and confidential - You are also responsible for taking such steps as may be necessary to back up any data stored with the aid of the Services.

5. SCOPE OF USE

5.1 You agree not to use the System for any purpose for which You are not authorised, or for any illegal, immoral or offensive purpose, or for any purpose which infringes a third party's rights and agree to not use the System to communicate any material which is obscene, defamatory, offensive, abusive, illegal, in breach of a third party's rights or otherwise unacceptable to North52, or for spamming. North52 reserves the right to immediately suspend the Services and without notice to You if it discovers any such activity.

5.2 Except as expressly agreed in writing between us You are not permitted to sub-license the use of, nor to permit any person to use, the Software or any accompanying documentation

6. DATA

You agree at all times to comply with all data protection, privacy or similar legislation in force from time to time within the jurisdiction(s) that You use the Services.

7. CUSTOMER SUPPORT

7.1 Customer support services may be included within the Services and shall consist of operational assistance and technical support to be rendered via an email/telephone helpdesk and additional services such as training are available by agreement. Please see here for full details:
www.north52.com/support.html

7.2 Please note that North52 makes no warranty that it will solve all issues of which it may be notified.

8. CHARGES

8.1 You must pay all fees for use of the Software and Services. All invoices shall be paid net 45 days following the date of the invoice.

8.2 Undisputed invoices that are more than 30 days past due shall be subject to a finance charge at a rate of interest the lesser of 1% per month or maximum permissible legal rate.

8.3 You consent to us monitoring remotely whether or not such fees have been paid in respect of the Software. This monitoring may be by way of issuing a license key or remote activation mechanism ONLY. Furthermore, You hereby consent to such communication and to the transfer of data for the purposes stated.



25-AUG-2016

8.4 In addition to the above, both parties hereby agree that North52 reserves the right to request written certification from You regarding Your use of the the Software for the sole purpose of verifying compliance with this Agreement.. You agree to respond to any such request within 15 business days of such request. If Your use is greater than contracted, You shall be invoiced for any unlicensed use (and related support), and the unpaid license and support fees shall be payable in accordance with this Agreement. Payment under this provision shall be North52's sole and exclusive remedy to cure these issues.

9. ASSIGNMENT

With the exception of transfers to other state agencies or departments as required by law or Executive Order, you may not transfer this Agreement to a third party without the prior written permission of North52.

10. TERMINATION

10.1 Either party may terminate this Agreement forthwith by written notice to the other if the other becomes insolvent or if bankruptcy, winding up, receivership or similar proceedings are commenced or issued by or against if, or if it is a partnership, against all or any of its partners or the partnership as a whole. The State of Michigan may terminate this Agreement at any time and without penalty, with 5 days written notice to North52, in the event of budget shortfalls or non-appropriation of funds.

10.2 The following events shall give North52 the right (without affecting any other remedy for breach of contract) at anytime thereafter by written notice to terminate this Agreement and all licences granted hereunder:

- (a) any unlicensed use or copyright infringing use of the Software (or modification thereof) made or condoned by You; or
- (b) any other breach by You of any of the terms and conditions of this Agreement (including non-payment of fees due), following written notice from North52 of such breach, if the breach is not cured within 7 (seven) days of receiving such notice.

10.3 Either party may terminate this Agreement on 1 (one) months notice to the other on or after the first anniversary of this Agreement.

10.4 Upon termination for any reason, You shall immediately cease using the System and destroy all supporting documentation, to the extent permitted by law.

10.5 In the event of any termination of this Agreement other than by You under clause 10.1, then any fees payable hereunder shall continue to be payable for the remainder of the term of this Agreement.

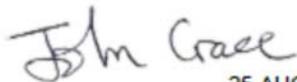
11. WARRANTIES

11.1 North52 warrants that it has title or authority to provide the licence granted under this Agreement and that the Services will be provided using all reasonable care and skill.

11.2 You acknowledge that:

- (a) the Software has not been produced to meet your individual specifications;
- (b) it is not possible to produce Software known to be error-free in all circumstances;

11.3 North52 recommends and will provide, if so requested, support for the Software.



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11.4 North52 requires and will provide, software assurance for the Software.

12. LIABILITY

12.1 The System is made available on an 'as is' basis and in no event will North52 be liable to You or any other party whether in contract, tort (including negligence) or otherwise:

- (a) for any indirect or consequential loss, or any loss of time, business, money, goodwill or data, or any failure to process data adequately or at all; or
- (b) for any other loss relating to this Agreement or the System, in an amount exceeding the fees received by North52 from You in relation thereto in the twelve months preceding the date on which such liability arose.

12.2 Liability for death or personal injury caused by the negligence of North52 is not excluded and the parties hereby agree that the above limitations are fair and reasonable.

13. FORCE MAJEURE AND ENTIRE AGREEMENT

13.1 If circumstances beyond the reasonable control of the parties (including, but not limited to Acts of God, severe weather, strikes, telecommunications or other service failures or natural disasters) shall temporarily make it impossible for either or both of them to perform their obligations under this Agreement, then the obligations of the parties will be temporarily suspended during the force majeure period to such extent as is reasonable in the circumstances and they will not be liable to the other party to that extent.

13.2 This Agreement embraces the full and complete understanding of the parties as to the subject matter hereof and may not be altered or modified, except by written amendment which expressly refers to this Agreement and which is duly executed by both parties. Any other terms or representations put forward by either party are excluded unless expressly incorporated into this Agreement. In the event that any provision or part of a provision herein is held to be illegal, void or unenforceable then the remainder of the Agreement shall remain in force to the maximum extent possible.

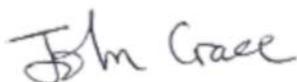
14. WAIVER AND EXPORT CONTROL

14.1 Any delay or failure by either party in exercising any right arising under this Agreement shall not constitute a waiver of such right. Any notice to be given under this Agreement shall be sent to the relevant party's registered office, or such other address as is notified for this purpose, by post. Notices will be deemed received three working days after posting.

14.2 The Software may not be exported or transferred, either directly or indirectly, to any country which is prohibited by UK or US export laws and regulations.

15. LAW AND JURISDICTION

This Agreement shall be governed and construed in accordance with Michigan law and the exclusive jurisdiction of the Michigan Court of Claims (if against the State of Michigan) in connection with the determination of all disputes arising under this Agreement.



25-AUG-2016