

STATE OF MICHIGAN DEPARTMENT OF TREASURY LANSING

RICK SNYDER GOVERNOR NICK A. KHOURI STATE TREASURER

DATE:

December 20, 2018

TO:

The Honorable Dave Hildenbrand

The Honorable Laura Cox The Honorable Jim Stamas The Honorable Rob VerHeulen

Ellen Jeffries, Director, Senate Fiscal Agency Mary Ann Cleary, Director, House Fiscal Agency

John Walsh, State Budget Director

FROM:

Anne Wohlfert, Interim Deputy Treasurer

SUBJECT:

Principal Residence Exemption Feasibility Study

Attached please find one copy of the Principal Residence Exemption (PRE) Feasibility Study required by Public Act 207 of 2018, the General Government Appropriations Act. Section 940 of the Act provides as follows:

The department of treasury shall study the feasibility of requiring homeowners to file principal residence exemption documents directly with the department of treasury. The feasibility study shall include information regarding additional staffing and administrative resources necessary and a comparison to the cost of existing third-party validation services to implement the change. The department of treasury shall provide a report of its findings to the chairpersons of the senate and house of representatives standing committees on appropriations, the chairpersons of the senate and house of representatives standing committees on appropriations subcommittees on general government, the senate and house fiscal agencies, and the state budget director by January 1.

Attachments

cc: Ken Osborne, Director of Legislative Affairs

Edward B. Koryzno, Jr., Director, Bureau of Local Government Services

Heather S. Frick, Administrator, Property Services Division

MICHIGAN DEPARTMENT OF TREASURY LG-068/PRE FEASIBILITY STUDY PROJECT CONCEPT DOCUMENT DECEMBER 20, 2018

A. General Information

Project ID/Acronym:	LG-068	Date:	December 20, 2018
Controlling Agency:	DTMB	Modification Date:	December 20, 2018
Prepared by:	James Williams, IT Specialist, DTMB, Agency Services, Department of Treasury	Authorized by:	Lucy Pline, Business Relationship Manager, DTMB, Agency Services, Department of Treasury

Privacy Information

This document may contain information of a sensitive nature. This information should not be given to persons other than those who are involved with this system/project or who will become involved during its lifecycle.

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B. Synopsis

Background

The Michigan General Property Tax Act, Public Act 206 of 1893, as amended, specifically MCL 211.7cc, allows a principal residence to be exempt from the tax levied by a local school district for school operating purposes, up to 18 mills, if an owner of that principal residence claims an exemption. A person must own and occupy the property as his or her principal residence on or before June 1st to claim the exemption for the summer tax levy or November 1st for the winter tax levy.

To claim a principal residence exemption (PRE), the owner must file a Principal Residence Exemption Affidavit, Form 2368, (Affidavit) with the assessor for the city or township in which the property is located. When a person no longer owns or occupies the property as a principal residence, he or she must file a Request to Rescind a PRE, Form 2602, (Rescission) with the assessor for the city or township in which the property is located. Both the Affidavit and Rescission require the assessor to make changes to the assessment roll in order for the property to correctly reflect the PRE. Other PRE-related forms that may result in assessment roll changes include the Conditional Rescission, Form 4640; Active Duty Military, Form 4460; Foreclosure Entity, Form 4983; Local Unit Denial, Form 2742; and County Denial, Form 4075. In addition to these forms, the Department of Treasury (Treasury) is statutorily required to audit and issue PRE denials, which may also require assessment roll changes.

All assessment roll changes resulting from a PRE-related activity are made at the county or local unit level. Since fiscal year 2007, Treasury has audited these activities, as required under MCL 211.7cc, as part of the PRE Audit Program. Each year, the omnibus budget appropriation bill states that "the department of treasury may receive and expend principal residence audit fund revenue for administration of principal residence audits under the general property tax act..." As part of the administration of principal residence audits, Treasury has contracted with a third-party for PRE audit services since September 15, 2006, and has reported each year on this activity as required in the omnibus budget appropriations bill. Specifically, the bill states that "[t]he department of treasury shall submit a report for the immediately preceding fiscal year to the state budget director, the chairpersons of the relevant appropriations subcommittees, and the senate and house fiscal agencies not later than December 31 stating the amount of exemptions denied and the revenue received under the program."

Proposed Changes

Public Act 207 of 2018, requires that "[t]he department of treasury shall study the feasibility of requiring homeowners to file principal residence exemption documents directly with the department of treasury. The feasibility study shall include information regarding additional staffing and administrative resources necessary and a comparison to the cost of existing third-party validation services to implement the change. The department of treasury shall provide a report of its findings to the chairpersons of the senate and house of representatives standing committees on appropriations, the chairpersons of the senate and house of representatives standing committees on appropriations subcommittees on general government, the senate and house fiscal agencies, and the state budget director by January 1."

Requiring homeowners to file principal residence exemption documents directly with Treasury would be a dramatic change to the current property tax administration and assessment process. It would remove county and local unit control for granting PRE claims and other PRE-related activities and place that responsibility entirely on Treasury. Consequently, taking activities performed by approximately 83 counties and 1,500 different local units and shifting the administration and concentration of those activities to the state. The proposed changes would require all eight PRE-related forms to be directly submitted to Treasury where Treasury staff would then determine whether to grant a PRE, a Conditional Rescission, a Foreclosure Entity Conditional Rescission, or a PRE for Active Duty Military. The decision to grant or deny these claims would then need to be communicated to the local assessor in order for the assessment roll to be updated accordingly. Any decision made by Treasury staff would also need to be communicated back to the taxpayer. Treasury-related PRE denials would continue but would increase because Treasury would be solely responsible for denying new PRE claims rather than the local unit assessors. The receipt of Rescissions, Local Unit Denials, and County Denials would require the removal of a PRE which would also need to be communicated to the assessor. There is currently no information technology (IT) system or process in place that provides for sharing of data from the local unit database to the state or from the state to the local unit. Each form would require different levels of effort based on the complexity of the form and the circumstances involved for each individual taxpayer.

With 83 county offices, approximately 1,500 local units, and nearly 250,000 PRE-related forms submitted annually, the management of PRE activities at a centralized location would be a major change in the administration of property taxes which would require significant changes in current processes at various levels of government. To make the submission process manageable, an electronic submission would be required along with an electronic method for communicating back to the county, local unit, and taxpayers. Although an electronic method of submission would make the process changes more manageable, Treasury staff would still need to perform a review of the forms to determine what action is necessary. While this change in processing PRE forms may eliminate some incorrectly claimed PREs, the audit program currently in place would need to continue in order to find inappropriately claimed PREs where the owner's situation had changed after the initial claim had been filed. Although the proposed changes may find some new inappropriately claimed PREs, it would not eliminate the need for the current third-party audit to continue in order to discover prior claims that should be denied because the owner's situation has changed. Ultimately, the proposed changes would require a significant investment in IT resources and new Treasury staff, but would not eliminate incorrectly claimed PREs or the need for PRE audits.

Costs to include:

- Developing new Information Technology (IT) systems to support the Principle Residence Exemption (PRE) process. The IT systems will allow for:
 - o The management of collection of forms.
 - The management of collection of supporting data.
 - o The processing and management of collected forms and data.
 - o Provide the public access to the information.

- The management of interfaces to CAMA (Computerized Assessment Mass Appraisal) vendor.
- The managed synchronization between the various systems inbound and outbound data.
- Costs associated with the Computerized Assessment Mass Appraisal (CAMA) provider.
- Staffing and office space for call center and log-in support for stakeholders.
- Staffing and office space for daily processing of forms.
- Costs for supporting, hosting, and maintaining new IT systems and databases.
- Yearly third-party PRE Compliance Audit.

Factors or Problems

No current IT system exists to perform the functions necessary to efficiently and effectively manage PRE-related forms at the state level. This would be a very complex inititative and involves a significant amount of data. The overall process has many moving parts and requires interactions between many different stakeholders. Communication between 83 counties, 1,500 local units, an unlimited number of taxpayers, hundreds of title companies, and other stakeholders would require a very complex and interactive IT system. With the current CAMA provider in Michigan, Treasury would be required to make a significant yearly investment in order to ensure timely and accurate assessment rolls. Staffing levels at Treasury would need to be significantly increased in order to timely and effectively process the nearly 250,000 PRE-related forms received on an annual basis, while dealing with the expected increase in customer service related inquiries. Adequate office space for the needed staff would also be a challenge.

Areas Impacted

The Department of Treasury would be impacted significantly, along with IT resources from the Department of Management and Budget. County and local units of government would also be significantly impacted and coordination with them would be extremely important.

Is this a multi-agency project?	X	YES		NO
Are other governmental organizations involved in this initiative?	X	YES		NO
Does the initiative collaborate and coordinate effectively with related programs?		YES	X	NO

Project Objective

The project objective is to study the feasibility of requiring homeowners to file principal residence exemption documents directly with Treasury and the staffing and administrative resources needed to accomplish this process change. In addition, a comparison shall be made between the cost of

existing third-party validation services and the costs to implement the changes. The feasibility study will include:

- High level design content document for new IT systems to support the proposed changes.
- High level estimate for developing new IT systems to support the proposed changes.
- High level estimate of various staffing and administrative resources needed to support the proposed changes.
- A comparison of the existing third-party validation services (yearly third-party PRE Compliance Audit) to the proposed changes.

Product Description Statement

The IT solution will develop systems to provide the functionality for supporting the Principal Residence Exemption (PRE) processes by:

- Developing public-facing systems for submitting, viewing, and reporting the various PRE forms and the various supporting and CAMA data.
- Developing internal-facing systems for Treasury staff to process, manage, research, and report the PRE forms and supporting data.
- Developing synchronization system so that all systems work in real-time for submitting, viewing, processing, and reporting for the PRE forms and supporting data.
- The IT systems will provide full lifecycle management for the various PRE forms: submitting, processing, and reporting.
- The IT systems will be adaptable to the various changes in forms, supporting data, and legislation. The IT systems will be adaptable to changes in evaluation, messaging, and workflow.

C. Strategic Overview

Please answer the following questions by marking "Yes" or "No".

Is the project co	nsistent with the agency's Business Plan?			
Briefly state:	Improve Customer Service, Automation Efficiency Potential and Cost Reduction	YES	X	NO
Does the initiati programs?	ve collaborate and coordinate effectively with related	YES	X	NO
Is this a federal	or legislative mandate?	YES	X	NO

Has this plan been reviewed by the Project Board, if needed?	YES	X	NO
If yes, what is the date of the review?	•		

Business Functions Impacted (Check all appropriate functions.)

X	Document Tracking	X	Prograi Data	m-specific	X	Desk To Product		X	Workfl Manage	
X	Human Resources	X	Procure	ement		Help De	esk	X	Facilitie Manage	
X	Financial	X	Other	Assessment Admin.	X	Other	Local Units		Other	

Types of Technology Impacted (Identify technology areas that might apply to this project, if known at this time. Check all appropriate categories.)

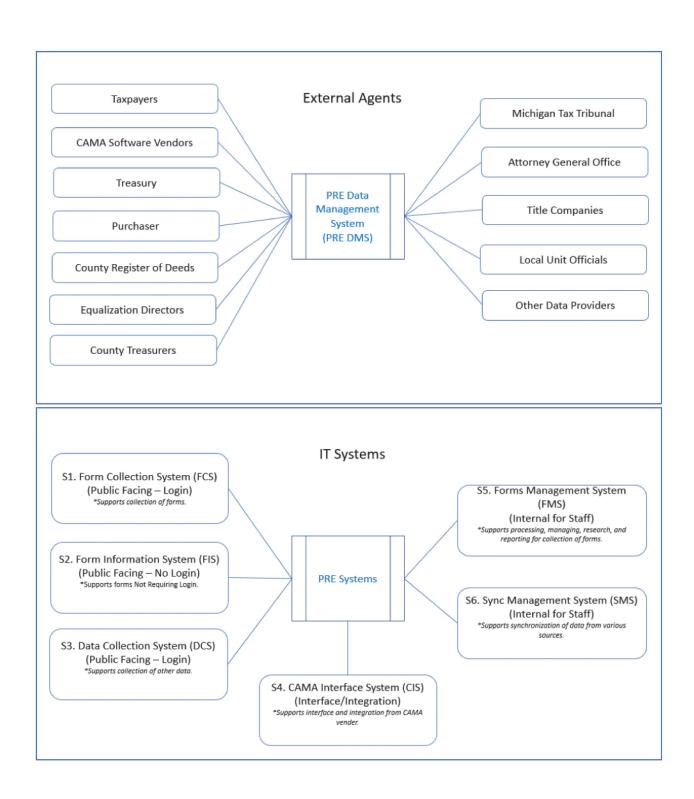
X	Client Server Architecture	X	Database	X	Expert S	System	X	LAN/W	AN
X	Electronic Data Interchange	X	Imaging	X	Intranet/	/Internet	X	Desktop Applicat	ion
X	Mainframe Solution	X	Real Time		CAD		X	Security Controls	
X	State or Federal Security Requirements	X	Disaster Recovery	X	Other	CAMA		Other	

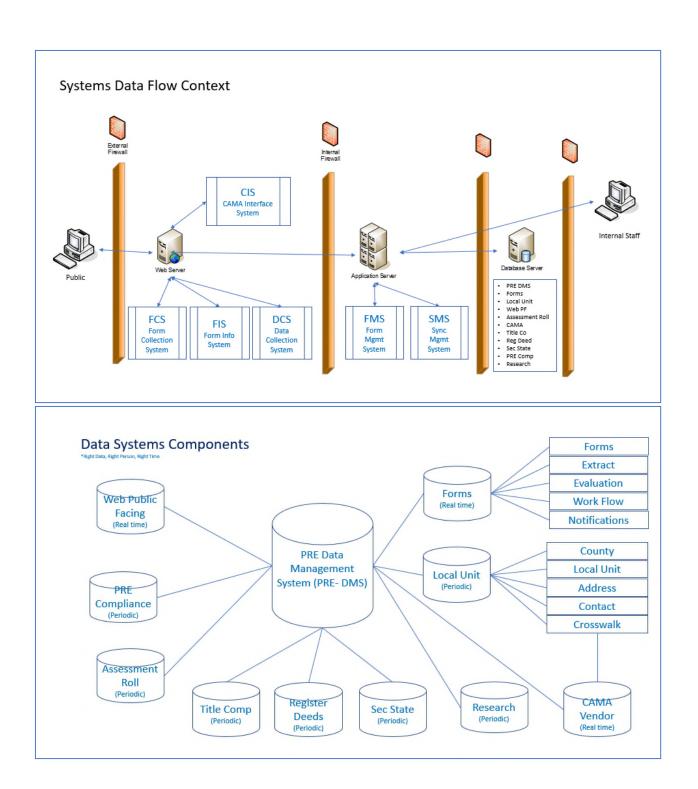
D. High-Level IT Solution

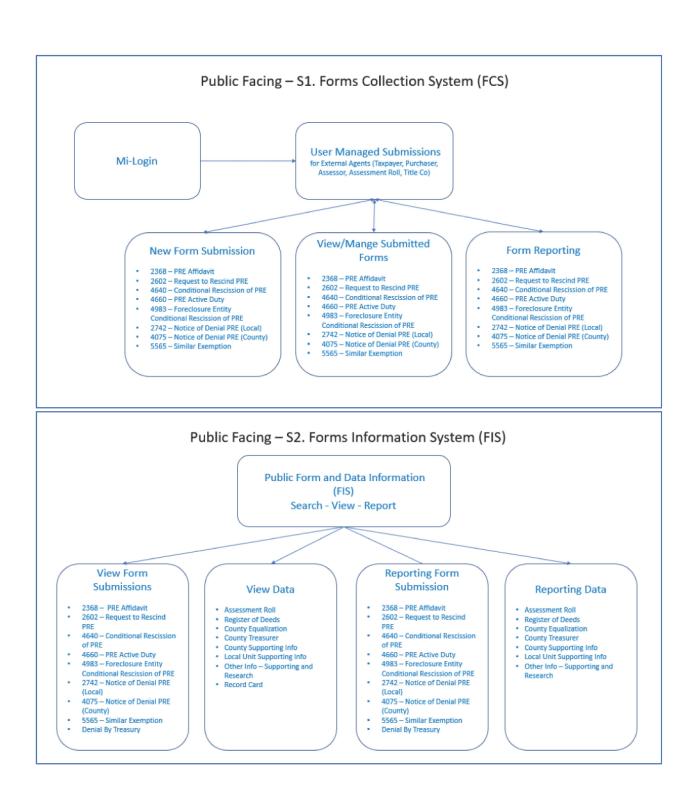
The high-level information technology solution involves creating systems for supporting the processes needed in the collection, evaluation, and management of the Principal Residence Exemption (PRE) forms. The solution will also provide for the collection of the necessary supporting information needed for evaluation, management, and research. This involves a system to manage the submission of forms and the form evaluation and processing for staff. A system for public viewing of PRE forms and data, along with a system to manage the collection of supporting data is needed. A system for managing the collection of CAMA (Computerized Assessment Mass Appraisal) data is required. Finally, a system to synchronize data between the various management systems is needed.

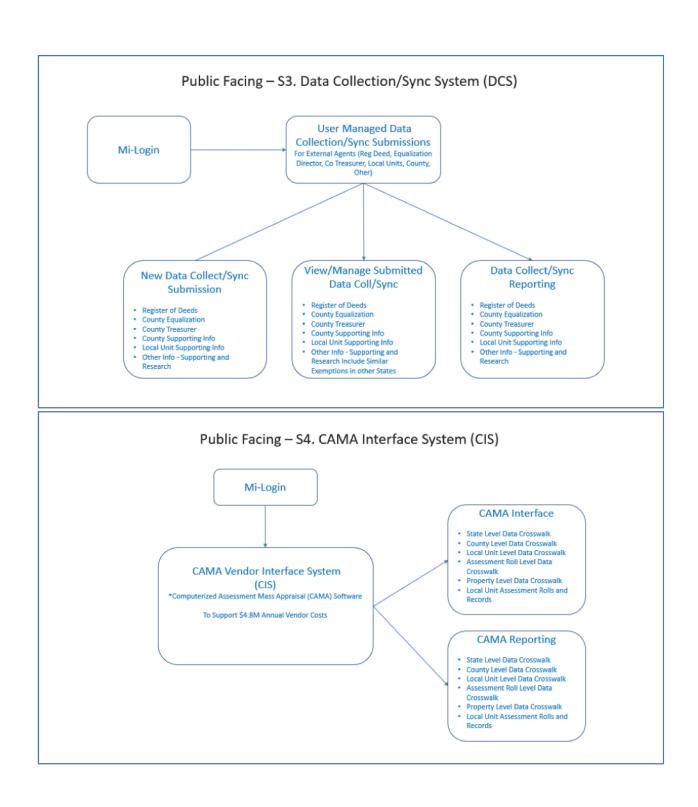
High-Level System Context:

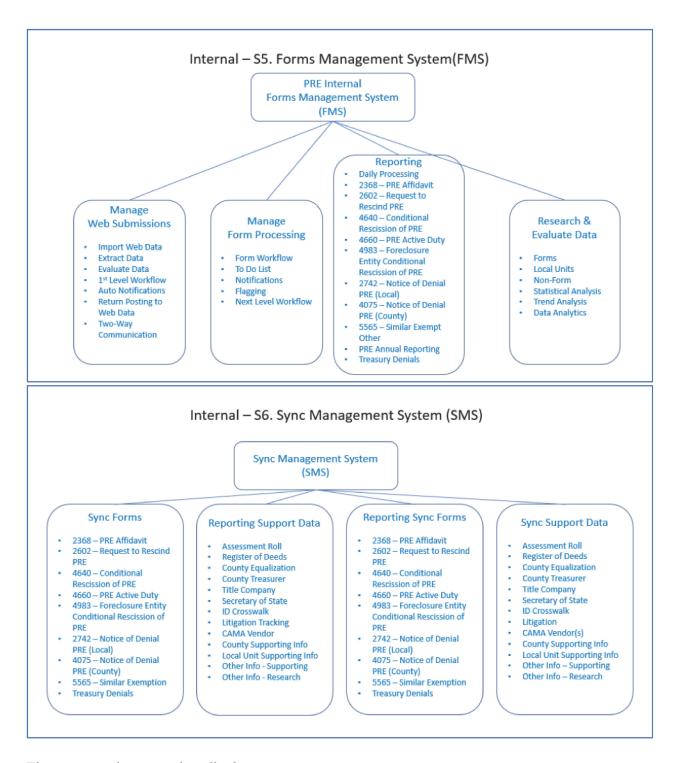
Describes at a high-level the Information Technology systems context.











The systems above are described as:

S1. Form Collection System (FCS):

This system will be public facing web. It will require login to validate users who can submit forms. It will be used to manage the form collection process for the users submitting forms. It will collect, manage, and report the forms for the form submitter role. It is accessible to the various external agents submitting PRE forms to Treasury. It will manage the submission lifecycle for forms, their

data, and supporting data by providing viewing and reporting of submitted forms as they move through the submission process.

It must be able to evaluate form types for completeness and accuracy to ensure that valid form types with valid data are submitted. Users submitting forms must be able to manage their own submissions. This includes: deleting forms that are not submitted; retracting of forms submitted but not accepted by Treasury; viewing of submissions; saving and continuation without having to submit in a single step; and provide reporting of submissions.

The forms it will initially support are:

- 2368 Principal Residence Exemption (PRE) Affidavit. Submitted by Taxpayer/Owner.
- 2602 Request to Rescind Principal Residence Exemption (PRE). Submitted by Taxpayer/Owner.
- 4640 Conditional Rescission of Principal Residence Exemption (PRE). Submitted by Taxpayer/Owner.
- 4660 Principal Residence Exemption (PRE) Active Duty Military Affidavit. Submitted by Taxpayer/Owner.
- 4983 Foreclosure Entity Conditional Rescission of a Principal Residence Exemption (PRE). Submitted by foreclosure entity.
- 2742 Notice of Denial Principal Residence Exemption (PRE) Local City-Township. Submitted by Assessor.
- 4075 Notice of Denial Principal Residence Exemption (PRE) County. Submitted by County Treasurer/Equalization Director.
- 5565 Principal Residence Exemption Affidavit for Similar Exemptions in Other States. Submitted by Taxpayer/Owner.

S2. Form Information System (FIS):

This system will be public facing web. It will not require login. It is used by the public to search, view, and report the PRE forms and supporting data.

The forms it will initially support are:

- 2368 Principal Residence Exemption (PRE) Affidavit
- 2602 Request to Rescind Principal Residence Exemption (PRE)
- 4640 Conditional Rescission of Principal Residence Exemption (PRE)
- 4660 Principal Residence Exemption (PRE) Active Duty Military Affidavit
- 4983 Foreclosure Entity Conditional Rescission of a Principal Residence Exemption (PRE)
- 2742 Notice of Denial Principal Residence Exemption (PRE) Local City-Township
- 4075 Notice of Denial Principal Residence Exemption (PRE) County
- 5565 Principal Residence Exemption Affidavit for Similar Exemptions in Other States.
- Department of Treasury Denials

The data reporting it will initially support are:

- Assessment Roll
- Register of Deeds

- County Equalization
- County Treasurer
- County Supporting Information
- Local Unit Supporting Information
- Other Information Supporting and Research
- Record Card

S3. Data Collection System (DCS).

This system will be public facing web. It will require login to validate users who can submit supporting data. It will be used to manage the periodic collection process for supporting data used in the PRE process. It will collect, manage, and report from the submitter role. It is accessible to the various external agents submitting supporting data to Treasury. It will manage the submission lifecycle for supporting data. It will provide submission and validation as well as viewing and reporting of supporting data as it moves the submission process.

The data collection it will initially support are:

- Assessment Roll
- Register of Deeds
- County Equalization
- County Treasurer
- County Supporting Information
- Local Unit Supporting Information
- Other Information Supporting and Research
- Record Card

S4. CAMA (Computerized Assessment Mass Appraisal) Vendor Interface System (CIS).

This system will be public facing web. It will require login to validate users who can submit CAMA data. It will be used to manage the periodic collection process for CAMA data used in the PRE process. It will collect, manage, and report from the submitter role. It is accessible to the CAMA vendors for the State of Michigan. It will manage the CAMA data lifecycle. The CAMA data crosswalks are extremely complex and require a largescale effort to construct and evaluate. This will also provide viewing and reporting of CAMA data.

S5. Forms Management System (FMS).

This system will be internal to Treasury Staff. It will require login to validate users who can process and manage the PRE form types. It will handle processing the various PRE form types listed below as well as changes to forms as required. It will manage the entire form lifecycle process for all of the various PRE form types. It will manage the incoming form submissions for the various PRE form types. It will manage the extraction of the form data for evaluation and reporting. It will manage the evaluation of the form data to determine the necessary workflow for each form. It will create the workflow process for each form type based on initial evaluation and subsequent evaluation for form type. It will manage the workflow process for each of the forms as they move through the entire form type lifecycle. It will manage two-way communication

between the form submitter and staff. It will provide automatic email notifications throughout the entire form type lifecycle. It will manage staff tasks, notifications, and flagging for each of the forms. It will provide reporting, research, evaluation, and analysis for all forms in the PRE form process. It will use role-based security to capture changes to records with posting to auditing logs.

The form types initially supported are:

- 2368 Principal Residence Exemption (PRE) Affidavit
- 2602 Reguest to Rescind Principal Residence Exemption (PRE)
- 4640 Conditional Rescission of Principal Residence Exemption (PRE)
- 4660 Principal Residence Exemption (PRE) Active Duty Military Affidavit
- 4983 Foreclosure Entity Conditional Rescission of a Principal Residence Exemption (PRE)
- 2742 Notice of Denial Principal Residence Exemption (PRE) Local City-Township
- 4075 Notice of Denial Principal Residence Exemption (PRE) County
- 5565 Principal Residence Exemption Affidavit for Similar Exemptions in Other States
- Department of Treasury Denials

The data reporting it will initially support are:

- CAMA Data
- Assessment Roll
- Register of Deeds
- County Equalization
- County Treasurer
- County Supporting Information
- Local Unit Supporting Information
- Other Information Supporting and Research
- Record Card

S6. Sync Management System (SMS).

This system will be internal to Treasury Staff. It will require login to validate users who can process and manage the data synchronization processes. It will manage the data synchronization processes for the PRE form types, supporting data, and CAMA data. It will manage the data synchronization processes to ensure the other systems have the right data, to the right person, at the right time. SMS will use role-based security to capture changes to records with posting to auditing logs. This involves highly complex processes involving bi-directional synchronization.

The systems initially synchronized are:

- S1 Forms Collection System (FCS)
- S2 Form Information System (FIS)
- S3 Data Collection System (DCS)
- S4 CAMA Interface System (CIS)
- S5 Forms Management System (FMS)

The forms it will initially support are:

• 2368 – Principal Residence Exemption (PRE) Affidavit

- 2602 Request to Rescind Principal Residence Exemption (PRE)
- 4640 Conditional Rescission of Principal Residence Exemption (PRE)
- 4660 Principal Residence Exemption (PRE) Active Duty Military Affidavit
- 4983 Foreclosure Entity Conditional Rescission of a Principal Residence Exemption (PRE)
- 2742 Notice of Denial Principal Residence Exemption (PRE) Local City-Township
- 4075 Notice of Denial Principal Residence Exemption (PRE) County.
- 5565 Principal Residence Exemption Affidavit for Similar Exemptions in Other States
- Department of Treasury Denials

The support data it will initially support are:

- CAMA data
- Assessment Roll
- Register of Deeds
- County Equalization
- County Treasurer
- County Supporting Information
- Local Unit Supporting Information
- Other Information Supporting and Research
- Record Card

E. IT Solution Cost Estimate Basis

Estimating is an iterative process. This is the initial high-level estimate for Information Technology (IT) systems and will, therefore, need to be revised when the requirements are finalized and approved. The estimate is based on implementing new IT systems and databases to support the Principal Residence Exemption (PRE) processes. The systems will manage the full lifecycle for processing and managing of each form type described above.

The systems initially implemented are:

- S1 Forms Collection System (FCS) used to submit the PRE form types.
- S2 Form Information System (FIS) use for public query of PRE form types and supporting data.
- S3 Data Collection System (DCS) use for collecting supporting data.
- S4 CAMA (Computerized Assessment Mass Appraisal) Interface System (CIS) used for collecting CAMA data.
- S5 Forms Management System (FMS) used to process and manage the submissions of the form types, supporting data, and CAMA data.
- S6 Sync Management System (SMS) used to manage the data synchronization between the above systems.

Basis of IT Estimates:

- Subject Matter Expert has previously designed and built the Bureau of Local Government systems for collection forms and form processing. This includes public facing for collection and internal systems for managing the data and processes. Based on the concepts of data extraction and data evaluation to determine and define the workflow based on form type and business rules. Management of the entire processes using workflow, notifications, tasks, flagging, and exception management.
- Using the concept of providing public facing system for collection of form types.
- Using the concept of providing public facing system for collection of supporting data.
- Using the concept of providing public facing system for query and reporting of forms and supporting data.
- Using the concept of CAMA (Computerized Assessment Mass Appraisal) vendor software.
- Using the concept of internal staff management and processing of submissions using data extraction and data validation to determine the workflow required for each individual form type based on the individual submission.
- Using the concept of synchronizing all data between the systems so that the data is real-time. Each system will have access to the same data at the same time.

Constraints of IT Estimates:

- High-level design concept is limited in scope and effort. The details are at a high level and therefore assumptions are based on a high level. Missed individual details can impact estimates.
- The form types initially defined are the basis for the estimate. Changes to forms can impact estimates.
- Form type workflow is based on data evaluation. Changes to form data can impact estimates.
- Form submission rules and validations are done to ensure completeness and accuracy of individual submissions. Changes to rules and validation can impact estimates.
- This estimate is based on today's technology and security standards and policies. Changes as needed and required can impact estimates.

Assumptions of IT Estimates:

- Building of three new public facing systems for submission, collection, and processing for PRE form types and supporting data.
- Building of a new public facing system for CAMA (Computerized Assessment Mass Appraisal) vendor interface.
- Building of two new internal staff systems for managing and processing of the form types and their supporting data and to provide synchronized data between all systems.
- Building new databases to support the new systems.
- The new systems will need to be able to handle modifications to form types, supported data, and process requirements as changes are encountered.
- Technology, security, and policies are based on today's standards.

Risks of IT Estimates:

- Data needs to be classified to ensure proper accounting of the security controls needed to handle the data.
- Development of new systems need to follow defined methodologies utilized by the State of Michigan, Department of Technology, Management, and Budget.
- The PRE form types and processing are complex and involved.
- Developing new systems and databases to support the processes will also be complex and involved.
- Technology and security are changing to meet the constantly changing environment and risks. This estimate is based on today's standards and policies.
- Legislative changes may impact estimates.

F. High-Level Staffing Estimates

The high-level staffing estimates are based on the following assumptions made by Treasury:

A total of eight forms would be received by Treasury with an estimated volume of 249,410 forms submitted annually with various complexity/effort levels assigned to each form. The total staff hours needed to process these forms and handle all of the related activities would be approximately 80,909 hours. See Attachment #4 for a detailed breakdown for each form.

- Calculation for available hours per full-time employee:
 - o 2,080 available hours per year (80 hours * 26 pay periods)
 - Less 104 holiday hours
 - Less 104 annual leave hours (4 hours * 26 pay periods)
 - Less 104 sick leave hours (4 hours * 26 pay periods)
 - Less 130 administrative time (5 hours * 26 pay periods)
 - o 1,638 net available hours per full-time employee
- 50% of the required staff would be Departmental Technicians with an annual estimated cost of \$97,319.80 (includes salary, benefits, desktop charges, supplies, telecom, travel).
- 50% of the required staff would be Departmental Analysts with an annual estimated cost of \$122,966.20 (includes salary, benefits, desktop charges, supplies, telecom, travel).
- Treasury staff effort is based on the development of new IT systems. The new IT systems would handle:
 - Collection and evaluation of forms and submissions (via external website).
 - Real-time and periodic collection of supporting data for verification and validation for form lifecycle.
 - o Notification throughout entire form lifecycle.
 - o Base-line evaluation of forms and setting initial staff review requirements.
 - o Workflow management throughout entire form lifecycle.
 - o Daily tasking of forms during the lifecycle.
 - o Internal reporting of forms.
 - o Internal query for analysis and reporting.
 - o Posting to web for external use of querying and reporting of forms.
 - o Omission reporting.
 - o Audit reporting.
- Stakeholders would contact Treasury with all PRE-related questions, concerns, or inquiries rather than the 83 counties and 1,500 local units of government. This would significantly increase the number of phone calls, in-person visits, and other communications received by Treasury.

High-Level Staffing Requirements Estimate:

It is estimated, based on the assumptions above, that it would take approximately 80,909 hours per year for Treasury staff to accomplish the process change of requiring homeowners to file principal residence exemption documents directly with Treasury. The number of staff needed would be 49 full-time positions costing Treasury \$5,437,187 per year (See Attachment #4).

G. High-Level Planning Cost Summary

The cost summary table below covers the Information Technology (IT) costs for the initial development for the new system, the IT yearly hosting, and IT yearly maintenance. Also included

are additional costs for staffing requirements, Computerized Assessment Mass Appraisal (CAMA) yearly vendor costs, and yearly third-party PRE Compliance Audits.

	Project/Request Na	me:	LG-068/PRE	Fea	sibility Study	7	
		Cos	t Summary				
Line	Activity Description	I	nitial Cost	Y	early Costs	5-	Year Costs
	Development of New IT						
	Systems to Support Processes						
1	*See Attachment #1	\$	7,507,781		-		-
	Hosting Requirements						
2	*See Attachment #2	\$	418,272	\$	418,272	\$	2,091,360
	IT Maintenance and Support						
3	*See Attachment #3		-	\$	1,102,100	\$	5,510,500
	Staffing Estimates						
	*See Attachment #4						
4	*Provided by Treasury staff	\$	5,437,187	\$	5,437,187	\$	27,185,935
	CAMA Yearly Vendor						
	Contract						
5	*Provided by Treasury staff	\$	4,800,000	\$	4,800,000	\$	24,000,000
	Yearly Third-Party PRE						
	Compliance Audit						
6	*Provided by Treasury staff	\$	1,565,664	\$	1,565,664	\$	7,828,320
	Totals:	\$	19,728,904	\$	13,323,223	\$	66,616,115

^{*}For details see the 'J. Supporting Estimate Attachments' section.

H. Critical Success Factors

- Creating six new IT systems, their applications and databases, and ensuring that the data is synchronized in real-time. Supporting submission of PDF fillable forms with functionality to extract data via XML.
- CAMA provider's ability to provide the resources needed to integrate the data into the new IT systems to ensure standardization of data for crosswalk to the new IT systems.
- Adoption and implementation of the State Tax Commission's recommended CAMA data standards by local units of government.
- Staffing and office space to support processing the forms and providing adequate customer service that will shift from the local units to the state level.
- Cooperation from 83 counties and 1,500 different local units of government relying on broadband services at each county and local unit in order to reduce/eliminate the need for paper submission of forms.

- Extensive training and education of taxpayers and all stakeholders.
- Allocation of resources and funding for implementation.
- Legislative amendments required to provide for electronic filing of PRE-related forms.

I. Project Comparison to Current Third-Party Services

Requiring homeowners to file principal residence exemption (PRE) documents directly with Treasury would be a significant change in the administration of property taxes in the State of Michigan. Centralizing PRE activities would require a substantial investment in new IT resources along with other initial costs, as previously detailed, totaling \$19,728,904. The annual, ongoing, costs to Treasury are estimated at \$13,323,223. A majority of these costs would require General Fund resources. In fiscal year 2018, under the current PRE process, Treasury spent a total of \$2,870,771.97 on all PRE-related costs including third-party audit services. The current process is funded with restricted funds and no General Fund resources are utilized. There would be an insufficient amount of restricted funds to cover the entire yearly costs under the proposed changes. Consequently, after the initial costs to the General Fund, the proposed changes would cost the General Fund more than \$10,000,000 a year with minimal benefits to the taxpayer. (See table below for a cost comparison). Rather, it would remove local control of PRE activities by 83 counties and 1,500 local units of government and shift that control to the State of Michigan at an increased cost to the State.

Project/Req	uest]	Name: LG-0 Cost Comp		E Feasibility St	udy	
Activity Description		rrent Yearly E Program Costs	Prop	osts for the osed Changes First Year)	Prop	osts for the osed Changes econd Year)
Yearly Third-Party PRE Compliance Audit	\$	1,565,664	\$	1,565,664	\$	1,565,664
Current PRE Program Costs (Not Including Third-Party PRE Compliance Audit Contract)	\$	1,305,108		-		-
Development of New IT Systems to Support the Proposed Changes		-	\$	7,507,781		-
Staffing and Other Costs for the Proposed Changes (See Cost Summary in Section G Above - Not Including Third-Party PRE Compliance Audit Contract)		-	\$	11,757,559	\$	11,757,559
Totals:	\$	2,870,772	\$	20,831,004	\$	13,323,223

J. Supporting Estimate Attachments

The supporting attachments are estimates for the initial development costs for the new IT systems, the IT yearly hosting costs, the IT yearly maintenance costs, and staffing costs.

- Attachment #1 New IT Systems Initial Development Costs
 - O Attachment #1.0 Establishment of Framework and Engagement
 - Attachment #1.1 Individual Costs for S1 Forms Collection System (FCS)
 - Attachment #1.2 Individual Costs for S2 Forms Information System (FIS)
 - Attachment #1.3 Individual Costs for S3 Data Collection System (DCS)
 - Attachment #1.4 Individual Costs for S4 CAMA (Computerized Assessment Mass Appraisal) Interface System (CIS)
 - Attachment #1.5 Individual Costs for S5 Forms Management System (FMS)
 - Attachment #1.6 Individual Costs for S6 Sync Management System (SMS)
- Attachment #2 Yearly IT Hosting Costs
- Attachment #3 Yearly IT Maintenance Costs
- Attachment #4 Treasury Staffing Costs

ATTACHMENT #1 MICHIGAN DEPARTMENT OF TERASURY LG-068/PRE FEASIBILITY STUDY INITIAL IT DEVELOPMENT COSTS

No.	Part	Hours	Costs
1.0	Establish Framework and Engagement	1,840	\$ 187,814
1.1	S1 - Forms Collectio System (FCS)	12,818	\$ 1,239,199
1.2	S2 - Form Information System (FIS) NoLogin	13,606	\$ 1,318,586
1.3	S3 - Data Collection System (DCS)	11,102	\$ 1,076,159
1.4	S4 - CAMA Interface System (CIS)	10,847	\$ 1,062,032
1.5	S5 - Forms Management System (FMS)	11,990	\$ 1,166,342
1.6	S6 - Sync Management System (SMS)	15,266	\$ 1,457,649
	Initial IT Development Hours/Costs:	77,469	\$ 7,507,781

ATTACHMENT #1.0 MICHIGAN DEPARTMENT OF TREASURY LG-068/PRE FEASIBILITY STUDY ESTABLISHMENT OF FRAMEWORK AND ENGAGEMENT

Task	Description	Role	Level	SME Estimate	Cost
1	High Level Technical Design Confirmation to understand				
	and insure the opportunity and solution				
1.1	Technical architecture and	Technical Architect	ITS-15	24.00	\$2,737.20
	compliance Requirements				4 =,: 0: :=0
1.2	Assistance for EASA/ISR	Technical Architect	ITS-15	24.00	\$2,737.20
1.3	Coding Practices, Code	Technical Architect	ITS-15	24.00	\$2,737.20
	Review and Assistance Vulnerabilities				
1.4	Ensure and Recommend -	Technical Architect	ITS-15	24.00	\$2,737.20
	Test ,Implementation &				
	Maintenance Plan				
2	High Level Software Design	Design & Modeling			
	Solution Confirmation	Framework			
2.1	Requirements - Defines business	Systems Analyst	ITS-14	24.00	\$2,371.20
2.2	IE Data and Process Modeling and Architecture	Systems Analyst	ITS-14	24.00	\$2,371.20
2.3	Functional Design - Defines	Systems Analyst	ITS-14	24.00	\$2,371.20
2.4	solution System Design -Implements	Systems Analyst	ITS-14	24.00	\$2,371.20
2.4	business solution	Systems Analyst	113-14	24.00	φ2,37 1.2U
2.5	Testing planning - Defines	Systems Analyst	ITS-14	24.00	\$2,371.20
	software acceptance	Cyclonic 7 in any or			Ψ=,σ: ::=σ
2.6	Implemenation Planning -	Systems Analyst	ITS-14	24.00	\$2,371.20
	Defines enviroments				
3	Enterprise Level Compliance				
	and Assurance Engagement				
3.1	EASA - Enterprises	Business Analyst	ITPM-12	24.00	\$2,029.20
3.2	Keylight Security Plan	Business Analyst	ITPM-12	24.00	\$2,029.20
3.3	Disaster Recovery Plan	Business Analyst	ITPM-12	24.00	\$2,029.20
3.4	Application Scan	Business Analyst	ITPM-12	24.00	\$2,029.20
3.5	eMichigan Review and ADA	Business Analyst	ITPM-12	24.00	\$2,029.20
0.0	Compliance	D. days A. I. d	ITDM 40	04.00	#0.000.00
3.6	ATO - Authority To Operater	Business Analyst	ITPM-12	24.00	\$2,029.20
3.7	Application Manager Oversight	Systems Analyst	ITS-14	24.00	\$2,371.20
4	Establish Operations				
7	Framework Engagement				
4.1	Create New Databases				
•	Environments - Web Public				
	Facing				
4.1.1	Development	DBA	ITS-14	24.00	\$2,371.20
		Systems Analyst	ITS-14	24.00	\$2,371.20

ATTACHMENT #1.0 MICHIGAN DEPARTMENT OF TREASURY LG-068/PRE FEASIBILITY STUDY ESTABLISHMENT OF FRAMEWORK AND ENGAGEMENT

4.1.2	User Acceptance Testing	DBA	ITS-14	24.00	\$2,371.20
4.1.2	Oser Acceptance resting	Systems Analyst	ITS-14	24.00	\$2,371.20
4.1.3	Production	DBA	ITS-14	24.00	\$2,371.20
4.1.0	1 Toddetion	Systems Analyst	ITS-14	24.00	\$2,371.20
4.2	Create New Databases	Oysterns Analyst	110-14	24.00	Ψ2,57 1.20
4.2	Environments - Internal				
4.2.1	Development	DBA	ITS-14	24.00	\$2,371.20
		Systems Analyst	ITS-14	24.00	\$2,371.20
4.2.2	User Acceptance Testing	DBA	ITS-14	24.00	\$2,371.20
		Systems Analyst	ITS-14	24.00	\$2,371.20
4.2.3	Production	DBA	ITS-14	24.00	\$2,371.20
		Systems Analyst	ITS-14	24.00	\$2,371.20
					·
5	Create New .Net System				
	Environment Engagement				
5.1	Web Public Facing				
5.1.1	Development	Programmer	ITS-14	24.00	\$2,371.20
5.1.2	User Acceptance Testing	Programmer	ITS-14	24.00	\$2,371.20
5.1.3	Production	Programmer	ITS-14	24.00	\$2,371.20
5.2	Internal				
5.2.1	Development	Programmer	ITS-14	24.00	\$2,371.20
5.2.2	User Acceptance Testing	Programmer	ITS-14	24.00	\$2,371.20
5.2.3	Production	Programmer	ITS-14	24.00	\$2,371.20
6	Creat New TFS Deployment				
6	Creat New TFS Deployment Packages Engagement				
6.1	Packages Engagement				
		Programmer	ITS-14	24.00	\$2,371.20
6.1	Packages Engagement Web Public Facing	Programmer Systems Analyst	ITS-14 ITS-14	24.00 24.00	\$2,371.20 \$2,371.20
6.1	Packages Engagement Web Public Facing				
6.1 6.1.1	Packages Engagement Web Public Facing Development	Systems Analyst	ITS-14	24.00	\$2,371.20
6.1 6.1.1	Packages Engagement Web Public Facing Development	Systems Analyst Programmer	ITS-14 ITS-14	24.00 24.00	\$2,371.20 \$2,371.20
6.1 6.1.1 6.1.2	Packages Engagement Web Public Facing Development User Acceptance Testing	Systems Analyst Programmer Systems Analyst	ITS-14 ITS-14 ITS-14	24.00 24.00 24.00	\$2,371.20 \$2,371.20 \$2,371.20
6.1 6.1.1 6.1.2 6.1.3	Packages Engagement Web Public Facing Development User Acceptance Testing	Systems Analyst Programmer Systems Analyst Programmer Systems Analyst	ITS-14 ITS-14 ITS-14 ITS-14 ITS-14	24.00 24.00 24.00 24.00 24.00	\$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20
6.1.1 6.1.2 6.1.3	Packages Engagement Web Public Facing Development User Acceptance Testing Production	Systems Analyst Programmer Systems Analyst Programmer Systems Analyst Programmer	ITS-14 ITS-14 ITS-14 ITS-14 ITS-14	24.00 24.00 24.00 24.00 24.00	\$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20
6.1.1 6.1.2 6.1.3 6.2 6.2.1	Packages Engagement Web Public Facing Development User Acceptance Testing Production Internal Development	Systems Analyst Programmer Systems Analyst Programmer Systems Analyst Programmer Systems Analyst	ITS-14 ITS-14 ITS-14 ITS-14 ITS-14 ITS-14	24.00 24.00 24.00 24.00 24.00 24.00 24.00	\$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20
6.1 6.1.1 6.1.2 6.1.3	Packages Engagement Web Public Facing Development User Acceptance Testing Production Internal	Systems Analyst Programmer Systems Analyst Programmer Systems Analyst Programmer Systems Analyst Programmer Systems Analyst Programmer	ITS-14 ITS-14 ITS-14 ITS-14 ITS-14 ITS-14 ITS-14	24.00 24.00 24.00 24.00 24.00 24.00 24.00 24.00	\$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20
6.1.1 6.1.2 6.1.3 6.2 6.2.1 6.2.2	Packages Engagement Web Public Facing Development User Acceptance Testing Production Internal Development User Acceptance Testing	Systems Analyst Programmer Systems Analyst Programmer Systems Analyst Programmer Systems Analyst Programmer Systems Analyst Programmer Systems Analyst	ITS-14 ITS-14 ITS-14 ITS-14 ITS-14 ITS-14 ITS-14 ITS-14	24.00 24.00 24.00 24.00 24.00 24.00 24.00 24.00 24.00	\$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20
6.1.1 6.1.2 6.1.3 6.2 6.2.1	Packages Engagement Web Public Facing Development User Acceptance Testing Production Internal Development	Systems Analyst Programmer Systems Analyst Programmer Systems Analyst Programmer Systems Analyst Programmer Systems Analyst Programmer Systems Analyst Programmer	ITS-14 ITS-14 ITS-14 ITS-14 ITS-14 ITS-14 ITS-14 ITS-14 ITS-14 ITS-14	24.00 24.00 24.00 24.00 24.00 24.00 24.00 24.00 24.00 24.00	\$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20
6.1.1 6.1.2 6.1.3 6.2 6.2.1 6.2.2	Packages Engagement Web Public Facing Development User Acceptance Testing Production Internal Development User Acceptance Testing	Systems Analyst Programmer Systems Analyst Programmer Systems Analyst Programmer Systems Analyst Programmer Systems Analyst Programmer Systems Analyst	ITS-14 ITS-14 ITS-14 ITS-14 ITS-14 ITS-14 ITS-14 ITS-14	24.00 24.00 24.00 24.00 24.00 24.00 24.00 24.00 24.00	\$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20
6.1.6.1.1 6.1.2 6.1.3 6.2 6.2.1 6.2.2 6.2.3	Packages Engagement Web Public Facing Development User Acceptance Testing Production Internal Development User Acceptance Testing Production	Systems Analyst Programmer Systems Analyst Programmer Systems Analyst Programmer Systems Analyst Programmer Systems Analyst Programmer Systems Analyst Programmer	ITS-14 ITS-14 ITS-14 ITS-14 ITS-14 ITS-14 ITS-14 ITS-14 ITS-14 ITS-14	24.00 24.00 24.00 24.00 24.00 24.00 24.00 24.00 24.00 24.00	\$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20
6.1.1 6.1.2 6.1.3 6.2 6.2.1 6.2.2	Packages Engagement Web Public Facing Development User Acceptance Testing Production Internal Development User Acceptance Testing Production MiLogin Intergration	Systems Analyst Programmer Systems Analyst Programmer Systems Analyst Programmer Systems Analyst Programmer Systems Analyst Programmer Systems Analyst Programmer	ITS-14 ITS-14 ITS-14 ITS-14 ITS-14 ITS-14 ITS-14 ITS-14 ITS-14 ITS-14	24.00 24.00 24.00 24.00 24.00 24.00 24.00 24.00 24.00 24.00	\$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20
6.1 6.1.1 6.1.2 6.1.3 6.2 6.2.1 6.2.2	Packages Engagement Web Public Facing Development User Acceptance Testing Production Internal Development User Acceptance Testing Production MiLogin Intergration Engagement	Systems Analyst Programmer Systems Analyst Programmer Systems Analyst Programmer Systems Analyst Programmer Systems Analyst Programmer Systems Analyst Programmer	ITS-14 ITS-14 ITS-14 ITS-14 ITS-14 ITS-14 ITS-14 ITS-14 ITS-14 ITS-14	24.00 24.00 24.00 24.00 24.00 24.00 24.00 24.00 24.00 24.00	\$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20
6.1 6.1.2 6.1.3 6.2 6.2.1 6.2.2 7	Packages Engagement Web Public Facing Development User Acceptance Testing Production Internal Development User Acceptance Testing Production MiLogin Intergration Engagement Web Public Facing	Systems Analyst Programmer Systems Analyst Programmer Systems Analyst Programmer Systems Analyst Programmer Systems Analyst Programmer Systems Analyst Programmer Systems Analyst Programmer Systems Analyst	ITS-14	24.00 24.00 24.00 24.00 24.00 24.00 24.00 24.00 24.00 24.00	\$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20
6.1 6.1.1 6.1.2 6.1.3 6.2 6.2.1 6.2.2	Packages Engagement Web Public Facing Development User Acceptance Testing Production Internal Development User Acceptance Testing Production MiLogin Intergration Engagement	Systems Analyst Programmer Systems Analyst	ITS-14 ITS-15	24.00 24.00 24.00 24.00 24.00 24.00 24.00 24.00 24.00 24.00 24.00	\$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20
6.1 6.1.1 6.1.2 6.1.3 6.2 6.2.1 6.2.2 6.2.3	Packages Engagement Web Public Facing Development User Acceptance Testing Production Internal Development User Acceptance Testing Production MiLogin Intergration Engagement Web Public Facing Development	Systems Analyst Programmer Technical Architect Programmer	ITS-14 ITS-15 ITS-15	24.00 24.00 24.00 24.00 24.00 24.00 24.00 24.00 24.00 24.00 24.00 24.00	\$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20
6.1 6.1.2 6.1.3 6.2 6.2.1 6.2.2 7	Packages Engagement Web Public Facing Development User Acceptance Testing Production Internal Development User Acceptance Testing Production MiLogin Intergration Engagement Web Public Facing	Systems Analyst Programmer Technical Architect Programmer Technical Architect	ITS-14 ITS-14 ITS-14 ITS-14 ITS-14 ITS-14 ITS-14 ITS-14 ITS-14 ITS-15 ITS-15 ITPA-12 ITS-15	24.00 24.00 24.00 24.00 24.00 24.00 24.00 24.00 24.00 24.00 24.00 24.00 24.00	\$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20
6.1 6.1.1 6.1.2 6.1.3 6.2 6.2.1 6.2.2 6.2.3	Packages Engagement Web Public Facing Development User Acceptance Testing Production Internal Development User Acceptance Testing Production MiLogin Intergration Engagement Web Public Facing Development	Systems Analyst Programmer Technical Architect Programmer	ITS-14 ITS-15 ITS-15	24.00 24.00 24.00 24.00 24.00 24.00 24.00 24.00 24.00 24.00 24.00 24.00	\$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20 \$2,371.20

ATTACHMENT #1.0 MICHIGAN DEPARTMENT OF TREASURY LG-068/PRE FEASIBILITY STUDY ESTABLISHMENT OF FRAMEWORK AND ENGAGEMENT

7.2	Internal				
7.1.1	Development	Technical Architect	ITS-15	24.00	\$2,737.20
		Programmer	ITPA-12	24.00	\$2,029.20
7.1.2	User Acceptance Testing	Technical Architect	ITS-15	24.00	\$2,737.20
		Programmer	ITPA-12	24.00	\$2,029.20
7.1.3	Production	Technical Architect	ITS-15	24.00	\$2,737.20
		Programmer	ITPA-12	24.00	\$2,029.20
	Project Management				
	Project Manager	Project Manager	ITS-15	424.00	\$48,357.20
	Total Hours/Cost		1,840	\$187,814	

Task	Description	Role	Level	SME Estimate	Cost
1	High Level Technical Design Confirmation to understand and insure the opportunity and solution				
1.1	Technical architecture and compliance Requirements	Technical Architect	ITS-15	40.00	\$4,562.00
1.2	Assistance for EASA/ISR	Technical Architect	ITS-15	40.00	\$4,562.00
1.3	Coding Practices, Code Review and Assistance Vulnerabilities	Technical Architect	ITS-15	40.00	\$4,562.00
1.4	Ensure and Recommend - Test ,Implementation & Maintenance Plan	Technical Architect	ITS-15	40.00	\$4,562.00
1.5	High Level Software Solution Confirmation and Design & Modeling Framework				
1.6	SUITE Requirements Definition	Systems Analyst	ITS-14	200.00	\$19,760.00
1.7	Info Frameworkering - Architecture Modeling	Systems Analyst	ITS-14	200.00	\$19,760.00
1.7.1	Info Frameworkering - Data Modeling	Systems Analyst	ITS-14	200.00	\$19,760.00
1.7.2	Info Frameworkering - Process Modeling	Systems Analyst	ITS-14	200.00	\$19,760.00
1.8	SUITE Functional Design - Defines solution	Systems Analyst	ITS-14	200.00	\$19,760.00
1.8.1	SUITE System Design - Implements business solution	Systems Analyst	ITS-14	200.00	\$19,760.00
1.8.2	SUITE Testing planning - Defines software acceptance	Systems Analyst	ITS-14	200.00	\$19,760.00
1.8.3	SUITE Implemenation Planning - Defines enviroments	Systems Analyst	ITS-14	200.00	\$19,760.00

1.9	Enterprise Level Compliance and Assurance				
1.9.1	EASA - Enterprises	Business Analyst	ITPM-12	80.00	\$6,764.00
1.9.2	Keylight Security Plan	Business Analyst	ITPM-12	200.00	\$16,910.00
1.9.3	Disaster Recovery Plan	Business Analyst	ITPM-12	80.00	\$6,764.00
1.9.4	Application Scan	Business Analyst	ITPM-12	20.00	\$1,691.00
1.9.5	eMichigan Review and ADA Compliance	Business Analyst	ITPM-12	120.00	\$10,146.00
1.9.6	ATO - Authority To Operater	Business Analyst	ITPM-12	120.00	\$10,146.00
1.9.7	Application Manager Oversight	Systems Analyst	ITS-14	200.00	\$19,760.00
2	Establish Operations				
2	Framework				
2.1	Create New Databases Environments - Web Public Facing				
2.1.1	Development	DBA	ITS-14	24.00	\$2,371.20
		Systems Analyst	ITS-14	200.00	\$19,760.00
2.1.2	User Acceptance Testing	DBA	ITS-14	24.00	\$2,371.20
		Systems Analyst	ITS-14	200.00	\$19,760.00
2.1.3	Production	DBA	ITS-14	24.00	\$2,371.20
		Systems Analyst	ITS-14	200.00	\$19,760.00
2.2	Create New .Net System Environment - Web Public Facing				
2.2.1	Development	Programmer	ITS-14	24.00	\$2,371.20
2.2.2	User Acceptance Testing	Programmer	ITS-14	24.00	\$2,371.20
2.2.3	Production	Programmer	ITS-14	24.00	\$2,371.20
	•	1			
			+		
2.3	Creat New TFS Deployment Packages (6)				

		Systems Analyst	ITS-14	200.00	\$19,760.00
2.3.2	User Acceptance Testing	Programmer	ITS-14	24.00	\$2,371.20
	1	Systems Analyst	ITS-14	200.00	\$19,760.00
2.3.3	Production	Programmer	ITS-14	24.00	\$2,371.20
		Systems Analyst	ITS-14	200.00	\$19,760.00
2.4	EWA MiLogin Intergration				
2.4.1	Development	Technical Architect	ITS-15	24.00	\$2,737.20
		Programmer	ITPA-12	24.00	\$2,029.20
2.4.2	User Acceptance Testing	Technical Architect	ITS-15	24.00	\$2,737.20
		Programmer	ITPA-12	24.00	\$2,029.20
2.4.3	Production	Technical Architect	ITS-15	24.00	\$2,737.20
		Programmer	ITPA-12	24.00	\$2,029.20
3	S1 - EWA User Managed Submissions Components				
3.1	Tax Payer	Systems Analyst	ITS-14	120.00	\$11,856.00
		Programmer	ITPA-12	120.00	
3.2	Assessors	Systems Analyst	ITS-14	120.00	\$11,856.00
		Programmer	ITPA-12	120.00	\$10,146.00
3.3	Assessment Roll	Systems Analyst	ITS-14	120.00	\$11,856.00
		Programmer	ITPA-12	120.00	\$10,146.00
3.4	Lenders	Systems Analyst	ITS-14	120.00	\$11,856.00
		Programmer	ITPA-12	120.00	\$10,146.00
3.5	Local Units	Systems Analyst	ITS-14	120.00	\$11,856.00
		Programmer	ITPA-12	120.00	\$10,146.00
3.6	Title Providers	Systems Analyst	ITS-14	120.00	\$11,856.00
		Programmer	ITPA-12	120.00	\$10,146.00
3.7	Other Data Providers	Systems Analyst	ITS-14	120.00	\$11,856.00
		Programmer	ITPA-12	120.00	\$10,146.00
4	S1 - EWA Form Submission Components				
4.1	Form Submission Rules Framework	Systems Analyst	ITS-14	160.00	\$15,808.00
		Programmer	ITPA-12	160.00	\$13,528.00

	Form Upload and Scan Framework	Systems Analyst	ITS-14	160.00	\$15,808.00
		Programmer	ITPA-12	160.00	\$13,528.00
4.3	Form Attachment Upload and Scan Framework	Systems Analyst	ITS-14	160.00	\$15,808.00
		Programmer	ITPA-12	160.00	\$13,528.00
4.4	Form Data XML Extract Framework	Systems Analyst	ITS-14	160.00	\$15,808.00
		Programmer	ITPA-12	160.00	\$13,528.00
4.5	Form Validation Framework	Systems Analyst	ITS-14	160.00	\$15,808.00
		Programmer	ITPA-12	160.00	\$13,528.00
	Form Specific Processing:				
4.6	2368 - PRE Affidavit	Business Analyst	ITPM-12	80.00	\$6,764.00
		Programmer	ITPA-12	80.00	\$6,764.00
4.7	2602 - Request to Rescind PRE	Business Analyst	ITPM-12	80.00	\$6,764.00
		Programmer	ITPA-12	80.00	\$6,764.00
4.8	4640 - Conditional Rescission of PRE	Business Analyst	ITPM-12	80.00	\$6,764.00
		Programmer	ITPA-12	80.00	\$6,764.00
4.9	4660 - PRE Active Duty	Business Analyst	ITPM-12	80.00	\$6,764.00
		Programmer	ITPA-12	80.00	\$6,764.00
4.10	4983 - Foreclousre Entity Conditional Rescission of PRE	Business Analyst	ITPM-12	80.00	\$6,764.00
		Programmer	ITPA-12	80.00	\$6,764.00
4.11	2742 - Notice of Denial PRE (Local)	Business Analyst	ITPM-12	80.00	\$6,764.00
		Programmer	ITPA-12	80.00	\$6,764.00
4.12	4075 - Notice of Denial PRE (County)	Business Analyst	ITPM-12	80.00	\$6,764.00
		Programmer	ITPA-12	80.00	\$6,764.00
4.13	5565 – Similar Exempt Other	Business Analyst	ITPM-12	80.00	\$6,764.00
		Programmer	ITPA-12	80.00	\$6,764.00
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5	S1 - EWA - Reporting User Reporting Framework				

5.2	User Reporting for:				
	Tax Payer	Business Analyst	ITPM-12	60.00	\$5,073.00
		Programmer	ITPA-12	60.00	\$5,073.00
5.3	Assessors	Business Analyst	ITPM-12	60.00	\$5,073.00
		Programmer	ITPA-12	60.00	\$5,073.00
5.4	Assessment Roll Owner	Business Analyst	ITPM-12	60.00	\$5,073.00
		Programmer	ITPA-12	60.00	\$5,073.00
5.5	Lenders	Business Analyst	ITPM-12	60.00	\$5,073.00
		Programmer	ITPA-12	60.00	\$5,073.00
5.6	Local Units	Business Analyst	ITPM-12	60.00	\$5,073.00
		Programmer	ITPA-12	60.00	\$5,073.00
5.7	Other Data Providers	Business Analyst	ITPM-12	60.00	\$5,073.00
		Programmer	ITPA-12	60.00	\$5,073.00
5.8	Other Data Providers	Business Analyst	ITPM-12	60.00	\$5,073.00
		Programmer	ITPA-12	60.00	\$5,073.00
6	Project Management				
	Project Manager	Project Manager	ITS-15	2958.00	\$337,359.90
	Total Hours/Costs	:		12,818	\$1,239,199

Task	Description	Role	Level	SME Estimate	Cost
1	High Level Technical				
	Design Confirmation to				
	understand and insure the				
	opportunity and solution				
1.1	Technical architecture and	Technical	ITS-15	40.00	\$4,562.00
	compliance Requirements	Architect			
1.2	Assistance for EASA/ISR	Technical	ITS-15	40.00	\$4,562.00
		Architect			
1.3	Coding Practices, Code	Technical	ITS-15	40.00	\$4,562.00
	Review and Assistance	Architect			
	Vulnerabilities				
1.4	Ensure and Recommend -	Technical	ITS-15	40.00	\$4,562.00
	Test ,Implementation &	Architect			
	Maintenance Plan				
1.5	High Level Software				
1.5	Solution Confirmation				
	and Design & Modeling				
	Framework				
1.6	SUITE Requirements	Systems Analyst	ITS-14	200.00	\$19,760.00
1.0	Definition		11011	200.00	Ψ13,700.00
1.7	Info Frameworkering -	Systems Analyst	ITS-14	200.00	\$19,760.00
11,	Architecture Modeling	2 9 5 0 4 11 11 11 11 11 15 1	11011	_00.00	Ψ12,7°00.00
1.7.1	Info Frameworkering - Data	Systems Analyst	ITS-14	200.00	\$19,760.00
	Modeling				4-2,000
1.7.2	Info Frameworkering -	Systems Analyst	ITS-14	200.00	\$19,760.00
	Process Modeling				·
1.8	SUITE Functional Design -	Systems Analyst	ITS-14	200.00	\$19,760.00
	Defines solution				·
1.8.1	SUITE System Design -	Systems Analyst	ITS-14	200.00	\$19,760.00
	Implements business				·
	solution				
1.8.2	SUITE Testing planning -	Systems Analyst	ITS-14	200.00	\$19,760.00
	Defines software				
	acceptance				
1.8.3	SUITE Implemenation	Systems Analyst	ITS-14	200.00	\$19,760.00
	Planning - Defines				
	enviroments				

1.9	Enterprise Level Compliance and				
	Assurance				
1.9.1	EASA - Enterprises	Business Analyst	ITPM-12	80.00	\$6,764.00
1.9.2	Keylight Security Plan	Business Analyst	ITPM-12	200.00	\$16,910.00
1.9.3	Disaster Recovery Plan	Business Analyst	ITPM-12	80.00	\$6,764.00
1.9.4	Application Scan	Business Analyst	ITPM-12	20.00	\$1,691.00
1.9.5	eMichigan Review and ADA Compliance	Business Analyst	ITPM-12	120.00	\$10,146.00
1.9.6	ATO - Authority To Operater	Business Analyst	ITPM-12	120.00	\$10,146.00
1.9.7	Application Manager Oversight	Systems Analyst	ITS-14	200.00	\$19,760.00
2	Establish Operations				
_	Framework				
2.1	Create New Databases Environments - Web Public Facing				
2.1.1	Development	DBA	ITS-14	24.00	\$2,371.20
		Systems Analyst	ITS-14	200.00	\$19,760.00
2.1.2	User Acceptance Testing	DBA	ITS-14	24.00	\$2,371.20
		Systems Analyst	ITS-14	200.00	\$19,760.00
2.1.3	Production	DBA	ITS-14	24.00	\$2,371.20
		Systems Analyst	ITS-14	200.00	\$19,760.00
	G AN NAGA				
2.2	Create New .Net System Environment - Web Public Facing				
2.2.1	Development	Programmer	ITS-14	24.00	\$2,371.20
2.2.2	User Acceptance Testing	Programmer	ITS-14	24.00	\$2,371.20
2.2.3	Production	Programmer	ITS-14	24.00	\$2,371.20
	G (N) FFFG				
2.3	Creat New TFS Deployment Packages (6)				
		1			

	1	Crystoms Analyst	ITS-14	200.00	\$10.760.00
222	I I an A acoutous Testing	Systems Analyst			\$19,760.00
2.3.2	User Acceptance Testing	Programmer	ITS-14	24.00	\$2,371.20
2.2.2	D 1 .:	Systems Analyst	ITS-14	200.00	\$19,760.00
2.3.3	Production	Programmer	ITS-14	24.00	\$2,371.20
		Systems Analyst	ITS-14	200.00	\$19,760.00
2.4	EWA MiLogin				
	Intergration				
2.4.1	Development	Technical	ITS-15	24.00	\$2,737.20
		Architect			
		Programmer	ITPA-12	24.00	\$2,029.20
2.4.2	User Acceptance Testing	Technical	ITS-15	24.00	\$2,737.20
		Architect			
		Programmer	ITPA-12	24.00	\$2,029.20
2.4.3	Production	Technical	ITS-15	24.00	\$2,737.20
		Architect			
		Programmer	ITPA-12	24.00	\$2,029.20
		Ü			
3	S2 - EWA View Form				
	Submissions				
3.1	User View Framework	Systems Analyst	ITS-14	160.00	\$15,808.00
		Programmer	ITPA-12	160.00	\$13,528.00
3.2	2368 - PRE Affidavit	Business Analyst	ITPM-12	80.00	\$6,764.00
3.2	2500 TRE ATTIGUVIT	Business i maryst		00.00	ψο, το 1.00
		Programmer	ITPA-12	80.00	\$6,764.00
3.3	2602 - Request to Rescind	Business Analyst	ITPM-12	80.00	\$6,764.00
3.3	PRE	Business Analyst	111111-12	80.00	\$0,704.00
	FRE	Duo cura como como	ITDA 12	90.00	¢6.764.00
2.4	4640 Co. 1:4: 1	Programmer A naturate	ITPA-12	80.00	\$6,764.00
3.4	4640 - Conditional	Business Analyst	11 PWI-12	80.00	\$6,764.00
	Rescission of PRE	D	TED 4 12	00.00	Φ.C. 7 . (1.00
		Programmer	ITPA-12	80.00	\$6,764.00
3.5	4660 - PRE Active Duty	Business Analyst	ITPM-12	80.00	\$6,764.00
		Programmer	ITPA-12	80.00	\$6,764.00
3.6	4983 - Foreclousre Entity	Business Analyst	ITPM-12	80.00	\$6,764.00
	Conditional Rescission of				
	PRE		<u> </u>		
		Programmer	ITPA-12	80.00	\$6,764.00
3.7	2742 - Notice of Denial	1		80.00	\$6,764.00
3.7	2742 - Notice of Denial PRE (Local)	Business Analyst	ITPM-12		\$6,764.00

3.8	4075 - Notice of Denial PRE (County)	Business Analyst	ITPM-12	80.00	\$6,764.00
		Programmer	ITPA-12	80.00	\$6,764.00
3.9	5565 – Similar Exempt Other	Business Analyst	ITPM-12	80.00	\$6,764.00
		Programmer	ITPA-12	80.00	\$6,764.00
3.10	Denial By Treasury	Business Analyst	ITPM-12	80.00	\$6,764.00
		Programmer	ITPA-12	80.00	\$6,764.00
4	S2 - EWA View Data Submissions				
4.1	User View Framework	Systems Analyst	ITS-14	160.00	\$15,808.00
		Programmer	ITPA-12	160.00	\$13,528.00
4.2	Assessment Roll	Systems Analyst	ITS-14	80.00	\$7,904.00
		Programmer	ITPA-12	80.00	\$6,764.00
4.3	Register Of Deeds	Systems Analyst	ITS-14	80.00	\$7,904.00
		Programmer	ITPA-12	80.00	\$6,764.00
4.4	County Equalization	Systems Analyst	ITS-14	80.00	\$7,904.00
		Programmer	ITPA-12	80.00	\$6,764.00
4.5	Lenders	Systems Analyst	ITS-14	80.00	\$7,904.00
		Programmer	ITPA-12	80.00	\$6,764.00
4.6	Local Units	Systems Analyst	ITS-14	80.00	\$7,904.00
		Programmer	ITPA-12	80.00	\$6,764.00
4.7	Title Providers	Systems Analyst	ITS-14	80.00	\$7,904.00
		Programmer	ITPA-12	80.00	\$6,764.00
4.8	Other Data Providers	Systems Analyst	ITS-14	80.00	\$7,904.00
		Programmer	ITPA-12	80.00	\$6,764.00
5	S2 - EWA Reporting Forms				
5.1	User Reporting Framework	Systems Analyst	ITS-14	160.00	\$15,808.00
		Programmer	ITPA-12	160.00	\$13,528.00
5.2	2368 - PRE Affidavit	Business Analyst	ITPM-12	80.00	\$6,764.00
		Programmer	ITPA-12	80.00	\$6,764.00
5.3	2602 - Request to Rescind PRE	Business Analyst	ITPM-12	80.00	\$6,764.00
		Programmer	ITPA-12	80.00	\$6,764.00
5.4	4640 - Conditional Rescission of PRE	Business Analyst	ITPM-12	80.00	\$6,764.00
		Programmer	ITPA-12	80.00	\$6,764.00

ATTACHMENT #1.2 MICHIGAN DEPARTMENT OF TREASURY LG-068/PRE FEASIBILITY STUDY S2 - FORM INFORMATION SYSTEM (FIS) NO LOGIN

5.5	4660 - PRE Active Duty	Business Analyst	ITPM-12	80.00	\$6,764.00
		Programmer	ITPA-12	80.00	\$6,764.00
5.6	4983 - Foreclousre Entity Conditional Rescission of PRE	Business Analyst	ITPM-12	80.00	\$6,764.00
		Programmer	ITPA-12	80.00	\$6,764.00
5.7	2742 - Notice of Denial PRE (Local)	Business Analyst	ITPM-12	80.00	\$6,764.00
		Programmer	ITPA-12	80.00	\$6,764.00
5.8	4075 - Notice of Denial PRE (County)	Business Analyst	ITPM-12	80.00	\$6,764.00
		Programmer	ITPA-12	80.00	\$6,764.00
5.9	5565 – Similar Exempt Other	Business Analyst	ITPM-12	80.00	\$6,764.00
		Programmer	ITPA-12	80.00	\$6,764.00
5.10	Denial By Treasury	Business Analyst	ITPM-12	80.00	\$6,764.00
		Programmer	ITPA-12	80.00	\$6,764.00
6	S2 - EWA Reporting Data				
6.1	User Reporting Framework	Systems Analyst	ITS-14	160.00	\$15,808.00
		Programmer	ITPA-12	160.00	\$13,528.00
6.2	Assessment Roll	Systems Analyst	ITS-14	80.00	\$7,904.00
		Programmer	ITPA-12	80.00	\$6,764.00
6.3	Register Of Deeds	Systems Analyst	ITS-14	80.00	\$7,904.00
		Programmer	ITPA-12	80.00	\$6,764.00
6.4	County Equalization	Systems Analyst	ITS-14	80.00	\$7,904.00
		Programmer	ITPA-12	80.00	\$6,764.00
6.5	Lenders	Systems Analyst	ITS-14	80.00	\$7,904.00
		Programmer	ITPA-12	80.00	\$6,764.00
6.6	Local Units	Systems Analyst	ITS-14	80.00	\$7,904.00
		Programmer	ITPA-12	80.00	\$6,764.00
6.7	Title Providers	Systems Analyst	ITS-14	80.00	\$7,904.00
		Programmer	ITPA-12	80.00	\$6,764.00
6.8	Other Data Providers	Systems Analyst	ITS-14	80.00	\$7,904.00
		Programmer	ITPA-12	80.00	\$6,764.00
	During Man				
7	Project Management	D : 43.5	ITC 1.5	2066.00	Ф240 <i>(</i> 22 20
	Project Manager	Project Manager	ITS-15	3066.00	\$349,677.30

ATTACHMENT #1.2 MICHIGAN DEPARTMENT OF TREASURY LG-068/PRE FEASIBILITY STUDY S2 - FORM INFORMATION SYSTEM (FIS) NO LOGIN

Total Hours/Costs:		13,606	\$1,318,586

Task	Description	Role	Level	SME Estimate	Cost
1	High Level Technical Design Confirmation to understand and insure the opportunity and solution				
1.1	Technical architecture and compliance Requirements	Technical Architect	ITS-15	40.00	\$4,562.00
1.2	Assistance for EASA/ISR	Technical Architect	ITS-15	40.00	\$4,562.00
1.3	Coding Practices, Code Review and Assistance Vulnerabilities	Technical Architect	ITS-15	40.00	\$4,562.00
1.4	Ensure and Recommend - Test ,Implementation & Maintenance Plan	Technical Architect	ITS-15	40.00	\$4,562.00
1.5	High Level Software Solution Confirmation and Design & Modeling Framework				
1.6	SUITE Requirements Definition	Systems Analyst	ITS-14	200.00	\$19,760.00
1.7	Info Frameworkering - Architecture Modeling	Systems Analyst	ITS-14	200.00	\$19,760.00
1.7.1	Info Frameworkering - Data Modeling	Systems Analyst	ITS-14	200.00	\$19,760.00
1.7.2	Info Frameworkering - Process Modeling	Systems Analyst	ITS-14	200.00	\$19,760.00
1.8	SUITE Functional Design - Defines solution	Systems Analyst	ITS-14	200.00	\$19,760.00
1.8.1	SUITE System Design -Implements business solution	Systems Analyst	ITS-14	200.00	\$19,760.00
1.8.2	SUITE Testing planning - Defines software acceptance	Systems Analyst	ITS-14	200.00	\$19,760.00
1.8.3	SUITE Implemenation Planning - Defines enviroments	Systems Analyst	ITS-14	200.00	\$19,760.00
1.9	Enterprise Level Compliance and Assurance				
1.9.1	EASA - Enterprises	Business Analyst	ITPM-12	80.00	\$6,764.00
1.9.2	Keylight Security Plan	Business Analyst	ITPM-12	200.00	\$16,910.00
1.9.3	Disaster Recovery Plan	Business Analyst	ITPM-12	80.00	\$6,764.00
1.9.4	Application Scan	Business Analyst	ITPM-12	20.00	\$1,691.00
1.9.5	eMichigan Review and ADA Compliance	Business Analyst	ITPM-12	120.00	\$10,146.00
1.9.6	ATO - Authority To Operater	Business Analyst	ITPM-12	120.00	\$10,146.00
1.9.7	Application Manager Oversight	Systems Analyst	ITS-14	200.00	\$19,760.00

2	Establish Operations Framework				
2.1	Create New Databases Environments -				
0.1.1	Web Public Facing		TTPG 1.4	24.00	***
2.1.1	Development	DBA	ITS-14	24.00	\$2,371.20
		Systems Analyst	ITS-14	200.00	\$19,760.00
2.1.2	User Acceptance Testing	DBA	ITS-14	24.00	\$2,371.20
		Systems Analyst	ITS-14	200.00	\$19,760.00
2.1.3	Production	DBA	ITS-14	24.00	\$2,371.20
		Systems Analyst	ITS-14	200.00	\$19,760.00
2.2	Create New .Net System Environment - Web Public Facing				
2.2.1	Development	Programmer	ITS-14	24.00	\$2,371.20
2.2.2	User Acceptance Testing	Programmer	ITS-14	24.00	\$2,371.20
2.2.3	Production	Programmer	ITS-14	24.00	\$2,371.20
2.3	Creat New TFS Deployment Packages (6)				
2.3.1	Development	Programmer	ITS-14	24.00	\$2,371.20
	-	Systems Analyst	ITS-14	200.00	\$19,760.00
2.3.2	User Acceptance Testing	Programmer	ITS-14	24.00	\$2,371.20
		Systems Analyst	ITS-14	200.00	\$19,760.00
2.3.3	Production	Programmer	ITS-14	24.00	\$2,371.20
		Systems Analyst	ITS-14	200.00	\$19,760.00
2.4	EWA MiLogin Intergration				
2.4.1	Development	Technical Architect	ITS-15	24.00	\$2,737.20
		Programmer	ITPA-12	24.00	\$2,029.20
2.4.2	User Acceptance Testing	Technical Architect	ITS-15	24.00	\$2,737.20
		Programmer	ITPA-12	24.00	\$2,029.20
2.4.3	Production	Technical	ITS-15	24.00	\$2,737.20
		Architect			, ,,, = ,,= ,
		Programmer	ITPA-12	24.00	\$2,029.20
3	S1 - EWA User Managed Submissions				
3	Components				
3.1	Register Of Deeds	Systems Analyst	ITS-14	120.00	\$11,856.00
J.1	2.00.000	Programmer	ITPA-12	120.00	\$11,000.00

3.2	County Equalization	Systems Analyst	ITS-14	120.00	\$11,856.00
		Programmer	ITPA-12	120.00	\$10,146.00
3.3	County Treasurer	Systems Analyst	ITS-14	120.00	\$11,856.00
		Programmer	ITPA-12	120.00	\$10,146.00
3.4	County Supporting Info	Systems Analyst	ITS-14	120.00	\$11,856.00
	o safe constants	Programmer	ITPA-12	120.00	\$10,146.00
3.5	Local Unit Supporting Info	Systems Analyst	ITS-14	120.00	\$11,856.00
		Programmer	ITPA-12	120.00	\$10,146.00
3.6	Other Data Providers	Systems Analyst	ITS-14	120.00	\$11,856.00
		Programmer	ITPA-12	120.00	\$10,146.00
					, , ,
4	S1 - EWA Data Submission				
	Components				
4.1	Data Upload and Scan Framework	Systems Analyst	ITS-14	160.00	\$15,808.00
		Programmer	ITPA-12	160.00	\$13,528.00
4.2	Data Extract/Parse Framework	Systems Analyst	ITS-14	160.00	\$15,808.00
		Programmer	ITPA-12	160.00	\$13,528.00
4.3	Data Validation Framework	Systems Analyst	ITS-14	160.00	\$15,808.00
		Programmer	ITPA-12	160.00	\$13,528.00
4.4	Register Of Deeds	Business Analyst	ITPM-12	80.00	\$6,764.00
		Programmer	ITPA-12	80.00	\$6,764.00
4.5	County Equalization	Business Analyst	ITPM-12	80.00	\$6,764.00
		Programmer	ITPA-12	80.00	\$6,764.00
4.6	County Treasurer	Business Analyst	ITPM-12	80.00	\$6,764.00
		Programmer	ITPA-12	80.00	\$6,764.00
4.7	County Supporting Info	Business Analyst	ITPM-12	80.00	\$6,764.00
		Programmer	ITPA-12	80.00	\$6,764.00
4.8	Local Unit Supporting Info	Business Analyst	ITPM-12	80.00	\$6,764.00
		Programmer	ITPA-12	80.00	\$6,764.00
4.9	Other Data Providers	Business Analyst	ITPM-12	80.00	\$6,764.00
		Programmer	ITPA-12	80.00	\$6,764.00
5	S1 - EWA - Reporting				
5.1	User Reporting Framework	Systems Analyst	ITS-14	160.00	\$15,808.00
٥,1	Coor responding Financial	Programmer	ITPA-12	160.00	\$13,528.00
5.2	Register Of Deeds	Business Analyst		60.00	\$5,073.00
5.2	Tregional Of Deeds	Programmer	ITPA-12	60.00	\$5,073.00
5.3	County Equalization	Business Analyst	ITPM-12	60.00	\$5,073.00
<i>-</i>	County Equalization	Programmer	ITPA-12	60.00	\$5,073.00
5.4	County Treasurer	Business Analyst		60.00	\$5,073.00
<u> </u>		Programmer	ITPA-12	60.00	\$5,073.00
5.5	County Supporting Info	Business Analyst		60.00	\$5,073.00

		Programmer	ITPA-12	60.00	\$5,073.00
5.6	Local Unit Supporting Info	Business Analyst	ITPM-12	60.00	\$5,073.00
		Programmer	ITPA-12	60.00	\$5,073.00
5.7	Other Data Providers	Business Analyst	ITPM-12	60.00	\$5,073.00
		Programmer	ITPA-12	60.00	\$5,073.00
6	Project Management				
	Project Manager	Project Manager	ITS-15	2562.00	\$292,196.10
	Total Hours/Costs:			11,102	\$1,076,159

Task	Description	Role	Level	SME Estimate	Cost
1	High Level Technical Design				
	Confirmation to understand				
	and insure the opportunity and				
	solution				
1.1	Technical architecture and	Technical	ITS-15	40.00	\$4,562.00
	compliance Requirements	Architect			
1.2	Assistance for EASA/ISR	Technical	ITS-15	40.00	\$4,562.00
		Architect			
1.3	Coding Practices, Code Review	Technical	ITS-15	40.00	\$4,562.00
	and Assistance Vulnerabilities	Architect			
1.4	Ensure and Recommend - Test	Technical	ITS-15	40.00	\$4,562.00
	,Implementation & Maintenance	Architect			
	Plan				
1.5	High Level Software Solution				
	Confirmation and Design &				
	Modeling Framework				
1.6	SUITE Requirements Definition	Systems Analyst	ITS-14	200.00	\$19,760.00
1.7	Info Frameworkering -	Systems Analyst	ITS-14	200.00	\$19,760.00
	Architecture Modeling				
1.7.1	Info Frameworkering - Data	Systems Analyst	ITS-14	200.00	\$19,760.00
	Modeling				
1.7.2	Info Frameworkering - Process	Systems Analyst	ITS-14	200.00	\$19,760.00
	Modeling				
1.8	SUITE Functional Design -	Systems Analyst	ITS-14	200.00	\$19,760.00
	Defines solution				
1.8.1	SUITE System Design -	Systems Analyst	ITS-14	200.00	\$19,760.00
	Implements business solution				
1.8.2	SUITE Testing planning -	Systems Analyst	ITS-14	200.00	\$19,760.00
	Defines software acceptance				
1.8.3	SUITE Implemenation Planning -	Systems Analyst	ITS-14	200.00	\$19,760.00
	Defines enviroments				
1.9	Enterprise Level Compliance				
	and Assurance				
1.9.1	EASA - Enterprises	Business Analyst	ITPM-12	80.00	\$6,764.00
1.9.2	Keylight Security Plan	Business Analyst	ITPM-12	200.00	\$16,910.00

1.9.3	Disaster Recovery Plan	Business Analyst	ITPM-12	80.00	\$6,764.00
1.9.4	Application Scan	Business Analyst	ITPM-12	20.00	\$1,691.00
1.9.5	eMichigan Review and ADA Compliance	Business Analyst	ITPM-12	120.00	\$10,146.00
1.9.6	ATO - Authority To Operater	Business Analyst	ITPM-12	120.00	\$10,146.00
1.9.7	Application Manager Oversight	Systems Analyst	ITS-14	200.00	\$19,760.00
2	Establish Operations Framework				
2.1	Create New Databases Environments - Web Public Facing				
2.1.1	Development	DBA	ITS-14	24.00	\$2,371.20
		Systems Analyst	ITS-14	200.00	\$19,760.00
2.1.2	User Acceptance Testing	DBA	ITS-14	24.00	\$2,371.20
		Systems Analyst	ITS-14	200.00	\$19,760.00
2.1.3	Production	DBA	ITS-14	24.00	\$2,371.20
		Systems Analyst	ITS-14	200.00	\$19,760.00
2.2	Create New .Net System Environment - Web Public Facing				
2.2.1	Development	Programmer	ITS-14	24.00	\$2,371.20
2.2.2	User Acceptance Testing	Programmer	ITS-14	24.00	\$2,371.20
2.2.3	Production	Programmer	ITS-14	24.00	\$2,371.20
2.3	Creat New TFS Deployment Packages (6)				
2.3.1	Development	Programmer	ITS-14	24.00	\$2,371.20
		Systems Analyst	ITS-14	200.00	\$19,760.00
2.3.2	User Acceptance Testing	Programmer	ITS-14	24.00	\$2,371.20
		Systems Analyst	ITS-14	200.00	\$19,760.00
2.3.3	Production	Programmer	ITS-14	24.00	\$2,371.20
		Systems Analyst	ITS-14	200.00	\$19,760.00
2.4	EWA MiLogin Intergration				
2.4.1	Development	Technical Architect	ITS-15	24.00	\$2,737.20

		Programmer	ITPA-12	24.00	\$2,029.20
2.4.2	User Acceptance Testing	Technical	ITS-15	24.00	\$2,737.20
		Architect			, in the second second
		Programmer	ITPA-12	24.00	\$2,029.20
2.4.3	Production	Technical	ITS-15	24.00	\$2,737.20
		Architect			
		Programmer	ITPA-12	24.00	\$2,029.20
					·
3	EWA CAMA Inteface				
	Components				
3.1	CAMA Interface Framework	Systems Analyst	ITS-14	200.00	\$19,760.00
		Programmer	ITPA-12	200.00	\$16,910.00
3.2	State Level Data Crosswalk	Systems Analyst	ITS-14	200.00	\$19,760.00
		Programmer	ITPA-12	200.00	\$16,910.00
3.3	County Level Data Crosswalk	Systems Analyst	ITS-14	200.00	\$19,760.00
		Programmer	ITPA-12	200.00	\$16,910.00
3.4	Local Unit Level Data Crosswalk	Systems Analyst	ITS-14	200.00	\$19,760.00
		Programmer	ITPA-12	200.00	\$16,910.00
3.5	Assessment Roll Data Crosswalk	Systems Analyst	ITS-14	200.00	\$19,760.00
		Programmer	ITPA-12	200.00	\$16,910.00
3.6	Assessment Record Level Data	Systems Analyst	ITS-14	200.00	\$19,760.00
	Crosswalk				
		Programmer	ITPA-12	200.00	\$16,910.00
4	EWA - CAMA Reporting				
4.1	CAMA Reporting Framework	Systems Analyst	ITS-14	160.00	\$15,808.00
		Programmer	ITPA-12	160.00	\$13,528.00
4.2	State Level Data Crosswalk	Systems Analyst	ITS-14	200.00	\$19,760.00
		Programmer	ITPA-12	200.00	\$16,910.00
4.3	County Level Data Crosswalk	Systems Analyst	ITS-14	200.00	\$19,760.00
		Programmer	ITPA-12	200.00	\$16,910.00
4.4	Local Unit Level Data Crosswalk	Systems Analyst	ITS-14	200.00	\$19,760.00
		Programmer	ITPA-12	200.00	\$16,910.00
4.5	Assessment Roll Data Crosswalk	Systems Analyst	ITS-14	200.00	\$19,760.00
		Programmer	ITPA-12	200.00	\$16,910.00
4.6	Assessment Record Level Data Crosswalk	Systems Analyst	ITS-14	200.00	\$19,760.00

		Programmer	ITPA-12	200.00	\$16,910.00
5	Project Management				
	Project Manager	Project Manager	ITS-15	1987.00	\$226,617.35
	Total Hours/Costs:			10,847	\$1,062,032

Task	Description	Role	Level	SME Estimate	Cost
1	High Level Technical Design				
	Confirmation to understand and				
	insure the opportunity and				
	solution				
1.1	Technical architecture and	Technical	ITS-15	40.00	\$4,562.00
	compliance Requirements	Architect			
1.2	Assistance for EASA/ISR	Technical	ITS-15	40.00	\$4,562.00
		Architect			
1.3	Coding Practices, Code Review	Technical	ITS-15	40.00	\$4,562.00
	and Assistance Vulnerabilities	Architect			
1.4	Ensure and Recommend - Test	Technical	ITS-15	40.00	\$4,562.00
	,Implementation & Maintenance	Architect			
	Plan				
1.5	High Level Software Solution				
1.3	Confirmation and Design &				
	Modeling Framework				
1.6	SUITE Requirements Definition	Systems Analyst	ITS-14	200.00	\$19,760.00
1.7	Info Frameworkering -	Systems Analyst	ITS-14	200.00	\$19,760.00
1.7	Architecture Modeling	Systems / maryst	115-14	200.00	\$17,700.00
1.7.1	Info Frameworkering - Data	Systems Analyst	ITS-14	200.00	\$19,760.00
1.7.1	Modeling Bata	Systems / maryst	115 14	200.00	\$17,700.00
1.7.2	Info Frameworkering - Process	Systems Analyst	ITS-14	200.00	\$19,760.00
	Modeling				
1.8	SUITE Functional Design -	Systems Analyst	ITS-14	200.00	\$19,760.00
	Defines solution				
1.8.1	SUITE System Design -	Systems Analyst	ITS-14	200.00	\$19,760.00
	Implements business solution				
1.8.2	SUITE Testing planning - Defines	Systems Analyst	ITS-14	200.00	\$19,760.00
	software acceptance				
1.8.3	SUITE Implemenation Planning -	Systems Analyst	ITS-14	200.00	\$19,760.00
	Defines enviroments				
1.0					
1.9	Enterprise Level Compliance				
1.0.1	and Assurance	Dunimana Amalaust	ITDM 12	90.00	¢(7(4 00
1.9.1	EASA - Enterprises	Business Analyst	ITPM-12	80.00	\$6,764.00
1.9.2	Keylight Security Plan	Business Analyst	ITPM-12	200.00	\$16,910.00

1.9.3	Disaster Recovery Plan	Business Analyst	ITPM-12	80.00	\$6,764.00
1.9.4	Application Scan	Business Analyst	ITPM-12	20.00	\$1,691.00
1.9.5	eMichigan Review and ADA Compliance	Business Analyst	ITPM-12	120.00	\$10,146.00
1.9.6	ATO - Authority To Operater	Business Analyst	ITPM-12	120.00	\$10,146.00
1.9.7	Application Manager Oversight	Systems Analyst	ITS-14	200.00	\$19,760.00
2	Establish Operations Framework				
2.1	Create New Databases Environments - Web Public Facing				
2.1.1	Development	DBA	ITS-14	24.00	\$2,371.20
		Systems Analyst	ITS-14	200.00	\$19,760.00
2.1.2	User Acceptance Testing	DBA	ITS-14	24.00	\$2,371.20
		Systems Analyst	ITS-14	200.00	\$19,760.00
2.1.3	Production	DBA	ITS-14	24.00	\$2,371.20
	_	Systems Analyst	ITS-14	200.00	\$19,760.00
2.2	Create New .Net System Environment - Web Public Facing				
2.2.1	Development	Programmer	ITS-14	24.00	\$2,371.20
2.2.2	User Acceptance Testing	Programmer	ITS-14	24.00	\$2,371.20
2.2.3	Production	Programmer	ITS-14	24.00	\$2,371.20
2.3	Creat New TFS Deployment Packages (6)				
2.3.1	Development	Programmer	ITS-14	24.00	\$2,371.20
		Systems Analyst	ITS-14	200.00	\$19,760.00
2.3.2	User Acceptance Testing	Programmer	ITS-14	24.00	\$2,371.20
		Systems Analyst	ITS-14	200.00	\$19,760.00
2.3.3	Production	Programmer	ITS-14	24.00	\$2,371.20
_		Systems Analyst	ITS-14	200.00	\$19,760.00
2.4	IA MiLogin Intergration				
2.4.1	Development Development	Technical	ITS-15	24.00	\$2,737.20
4. 1. 1	20, cropinone	Architect		21.00	Ψ2,737.20

		Programmer	ITPA-12	24.00	\$2,029.20
2.4.2	User Acceptance Testing	Technical	ITS-15	24.00	\$2,737.20
		Architect			
		Programmer	ITPA-12	24.00	\$2,029.20
2.4.3	Production	Technical	ITS-15	24.00	\$2,737.20
		Architect			
		Programmer	ITPA-12	24.00	\$2,029.20
3	IA - Manage Web Submission				
3.1	Import from Web	Systems Analyst	ITS-14	80.00	\$7,904.00
	F	Programmer	ITPA-12	80.00	\$6,764.00
3.2	Extract Data	Systems Analyst	ITS-14	80.00	\$7,904.00
		Programmer	ITPA-12	80.00	\$6,764.00
3.3	Evalulate Data	Systems Analyst	ITS-14	80.00	\$7,904.00
		Programmer	ITPA-12	80.00	\$6,764.00
3.4	1st Level Workflow	Systems Analyst	ITS-14	80.00	\$7,904.00
		Programmer	ITPA-12	80.00	\$6,764.00
3.5	Auto Notifications	Systems Analyst	ITS-14	80.00	\$7,904.00
		Programmer	ITPA-12	80.00	\$6,764.00
3.6	Return Posting	Systems Analyst	ITS-14	80.00	\$7,904.00
		Programmer	ITPA-12	80.00	\$6,764.00
4	IA - Manage Form Processing				
4.1	Form Workflow	Systems Analyst	ITS-14	80.00	\$7,904.00
		Programmer	ITPA-12	80.00	\$6,764.00
4.2	To Do List (Today)	Systems Analyst	ITS-14	80.00	\$7,904.00
	, , , , , , , , , , , , , , , , , , ,	Programmer	ITPA-12	80.00	\$6,764.00
4.3	Notifications	Systems Analyst	ITS-14	80.00	\$7,904.00
		Programmer	ITPA-12	80.00	\$6,764.00
4.4	Flagging	Systems Analyst	ITS-14	80.00	\$7,904.00
		Programmer	ITPA-12	80.00	\$6,764.00
4.5	Next Level Workflow	Systems Analyst	ITS-14	80.00	\$7,904.00
		Programmer	ITPA-12	80.00	\$6,764.00
5	IA - Reporting		+		
5.1	Reporting Framework	Systems Analyst	ITS-14	160.00	\$15,808.00
	<u> </u>	Programmer	ITPA-12	160.00	\$13,528.00
5.2	Daily Processing	Business Analyst	ITPM-12	80.00	\$6,764.00
		Programmer	ITPA-12	80.00	\$6,764.00

5.3	2368 - PRE Affidavit	Business Analyst	ITPM-12	80.00	\$6,764.00
3.3	2508 - FRE Affidavit	Business Analyst	111111-12	80.00	\$0,704.00
		Programmer	ITPA-12	80.00	\$6,764.00
5.4	2602 - Request to Rescind PRE	Business Analyst	ITPM-12	80.00	\$6,764.00
		Programmer	ITPA-12	80.00	\$6,764.00
5.5	4640 - Conditional Rescission of PRE	Business Analyst	ITPM-12	80.00	\$6,764.00
		Programmer	ITPA-12	80.00	\$6,764.00
5.6	4660 - PRE Active Duty	Business Analyst	ITPM-12	80.00	\$6,764.00
		Programmer	ITPA-12	80.00	\$6,764.00
5.7	4983 - Foreclousre Entity Conditional Rescission of PRE	Business Analyst	ITPM-12	80.00	\$6,764.00
		Programmer	ITPA-12	80.00	\$6,764.00
5.8	2742 - Notice of Denial PRE (Local)	Business Analyst	ITPM-12	80.00	\$6,764.00
		Programmer	ITPA-12	80.00	\$6,764.00
5.9	4075 - Notice of Denial PRE (County)	Business Analyst	ITPM-12	80.00	\$6,764.00
		Programmer	ITPA-12	80.00	\$6,764.00
5.10	5565 - Notice of Denial By Treasury	Business Analyst	ITPM-12	80.00	\$6,764.00
		Programmer	ITPA-12	80.00	\$6,764.00
5.11	Denial By Treasury	Business Analyst	ITPM-12	80.00	\$6,764.00
		Programmer	ITPA-12	80.00	\$6,764.00
5.12	PRE Annual Report	Business Analyst	ITPM-12	80.00	\$6,764.00
		Programmer	ITPA-12	80.00	\$6,764.00
6	IA - Research & Evaluate Data				
6.1	Research Framework	Systems Analyst	ITS-14	160.00	\$15,808.00
		Programmer	ITPA-12	160.00	\$13,528.00
6.2	Forms	Business Analyst	ITPM-12	80.00	\$6,764.00
	<u> </u>	Programmer	ITPA-12	80.00	\$6,764.00
		1 1051 anninci	11111111	00.00	

		Programmer	ITPA-12	80.00	\$6,764.00
6.4	Non-Form Data	Business Analyst	ITPM-12	80.00	\$6,764.00
		Programmer	ITPA-12	80.00	\$6,764.00
6.5	Statistical Analysis	Business Analyst	· ·		\$6,764.00
		Programmer	ITPA-12	80.00	\$6,764.00
6.6	Trend Analysis	Systems Analyst	ITS-14	80.00	\$7,904.00
		Programmer	ITPA-12	80.00	\$6,764.00
6.7	Data Analytics	Systems Analyst	ITS-14	80.00	\$7,904.00
		Programmer	ITPA-12	80.00	\$6,764.00
8	Project Management				
	Project Management Project Manager	Project Manager	ITS-15	2730.00	\$311,356.50
8.1	r roject Manager	Froject Manager	113-13	2/30.00	φ311,330.30
	Total Hours/Costs:			11,990	\$1,166,342

Task	Description	Role	Level	SME Estimate	Cost
1	High Level Technical Design Confirmation to understand and				
1 1	insure the opportunity and solution	Technical	ITS-15	40.00	\$4.562.00
1.1	Technical architecture and compliance	Architect	118-13	40.00	\$4,562.00
1.2	Requirements Assistance for EASA/ISR	Technical	ITS-15	40.00	\$4,562.00
1.2	Assistance for EASA/ISK	Architect	113-13	40.00	\$4,302.00
1.3	Coding Practices, Code Review and	Technical	ITS-15	40.00	\$4,562.00
1.5	Assistance Vulnerabilities	Architect	115 15	40.00	ψ+,502.00
1.4	Ensure and Recommend - Test	Technical	ITS-15	40.00	\$4,562.00
1,7	Implementation & Maintenance Plan	Architect	115-15	40.00	ψ+,502.00
	, implementation & Maintenance Fian	Arcintect			
1.5	High Level Software Solution				
	Confirmation and Design &				
	Modeling Framework				
1.6	SUITE Requirements Definition	Systems Analyst	ITS-14	200.00	\$19,760.00
1.7	Info Frameworkering - Architecture	Systems Analyst	ITS-14	200.00	\$19,760.00
	Modeling				
1.7.1	Info Frameworkering - Data Modeling	Systems Analyst	ITS-14	200.00	\$19,760.00
1.7.2	Info Frameworkering - Process	Systems Analyst	ITS-14	200.00	\$19,760.00
	Modeling				
1.8	SUITE Functional Design - Defines	Systems Analyst	ITS-14	200.00	\$19,760.00
	solution				
1.8.1	SUITE System Design -Implements	Systems Analyst	ITS-14	200.00	\$19,760.00
	business solution				
1.8.2	SUITE Testing planning - Defines	Systems Analyst	ITS-14	200.00	\$19,760.00
	software acceptance				
1.8.3	SUITE Implemenation Planning -	Systems Analyst	ITS-14	200.00	\$19,760.00
	Defines enviroments				
4.0					
1.9	Enterprise Level Compliance and				
1.0.1	Assurance	D 1 1 1	ITEDA 5 10	00.00	0676400
1.9.1	EASA - Enterprises	Business Analyst	ITPM-12	80.00	\$6,764.00
1.9.2	Keylight Security Plan	Business Analyst	ITPM-12	200.00	\$16,910.00
1.9.2	Treyingin Security I fair	Dusiness Analyst	1111111-12	200.00	ψ10,210.00
1.9.3	Disaster Recovery Plan	Business Analyst	ITPM-12	80.00	\$6,764.00
					, , , , , , , , , , , , , , , , , , ,
1.9.4	Application Scan	Business Analyst	ITPM-12	20.00	\$1,691.00
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1.9.5	eMichigan Review and ADA Compliance	Business Analyst	ITPM-12	120.00	\$10,146.00
1.9.6	ATO - Authority To Operater	Business Analyst	ITPM-12	120.00	\$10,146.00
1.9.7	Application Manager Oversight	Systems Analyst	ITS-14	200.00	\$19,760.00
2	Establish Operations Framework				
2.1	Create New Databases Environments - Web Public Facing				
2.1.1	Development	DBA	ITS-14	24.00	\$2,371.20
		Systems Analyst	ITS-14	200.00	\$19,760.00
2.1.2	User Acceptance Testing	DBA	ITS-14	24.00	\$2,371.20
		Systems Analyst	ITS-14	200.00	\$19,760.00
2.1.3	Production	DBA	ITS-14	24.00	\$2,371.20
		Systems Analyst	ITS-14	200.00	\$19,760.00
2.2	Create New .Net System Environment - Web Public Facing				
2.2.1	Development	Programmer	ITS-14	24.00	\$2,371.20
2.2.2	User Acceptance Testing	Programmer	ITS-14	24.00	\$2,371.20
2.2.3	Production	Programmer	ITS-14	24.00	\$2,371.20
2.3	Creat New TFS Deployment Packages (6)				
2.3.1	Development	Programmer	ITS-14	24.00	\$2,371.20
		Systems Analyst	ITS-14	200.00	\$19,760.00
2.3.2	User Acceptance Testing	Programmer	ITS-14	24.00	\$2,371.20
		Systems Analyst	ITS-14	200.00	\$19,760.00
2.3.3	Production	Programmer	ITS-14	24.00	\$2,371.20
		Systems Analyst	ITS-14	200.00	\$19,760.00
2.4	IA MiLogin Intergration				
2.4.1	Development	Technical Architect	ITS-15	24.00	\$2,737.20
		Programmer	ITPA-12	24.00	\$2,029.20
2.4.2	User Acceptance Testing	Technical Architect	ITS-15	24.00	\$2,737.20
	+	Programmer	ITPA-12	24.00	\$2,029.20
2.4.3	Production	Technical	ITS-15	24.00	\$2,737.20
	1	Architect			+-,. c ,. -
		Programmer	ITPA-12	24.00	\$2,029.20

3	IA - Sync Forms				
3.1	Sync Form Framework	Systems Analyst	ITS-14	200.00	\$19,760.00
		Programmer	ITPA-12	200.00	\$16,910.00
3.2	2368 - PRE Affidavit		ITPM-12	80.00	\$6,764.00
		Programmer	ITPA-12	80.00	\$6,764.00
3.3	2602 - Request to Rescind PRE	Business Analyst	ITPM-12	80.00	\$6,764.00
		Programmer	ITPA-12	80.00	\$6,764.00
3.4	4640 - Conditional Rescission of PRE	Business Analyst	ITPM-12	80.00	\$6,764.00
		Programmer	ITPA-12	80.00	\$6,764.00
3.5	4660 - PRE Active Duty	Business Analyst	ITPM-12	80.00	\$6,764.00
		Programmer	ITPA-12	80.00	\$6,764.00
3.6	4983 - Foreclousre Entity Conditional Rescission of PRE	Business Analyst	ITPM-12	80.00	\$6,764.00
		Programmer	ITPA-12	80.00	\$6,764.00
3.7	2742 - Notice of Denial PRE (Local)	Business Analyst	ITPM-12	80.00	\$6,764.00
		Programmer	ITPA-12	80.00	\$6,764.00
3.8	4075 - Notice of Denial PRE (County)	Business Analyst	ITPM-12	80.00	\$6,764.00
		Programmer	ITPA-12	80.00	\$6,764.00
3.9	5565 – Similar Exempt Other	Business Analyst	ITPM-12	80.00	\$6,764.00
		Programmer	ITPA-12	80.00	\$6,764.00
3.10	Denial By Treasury	Business Analyst	ITPM-12	80.00	\$6,764.00
		Programmer	ITPA-12	80.00	\$6,764.00
4	IA - Sync Support Data				
4.1	Sync Support Data Framework	Systems Analyst	ITS-14	200.00	\$19,760.00
		Programmer	ITPA-12	200.00	\$16,910.00
4.2	Assessment Roll	Business Analyst	ITPM-12	80.00	\$6,764.00
		Programmer	ITPA-12	80.00	\$6,764.00
4.3	Register of Deeds	Business Analyst	ITPM-12	80.00	\$6,764.00
		Programmer	ITPA-12	80.00	\$6,764.00

4.4	County Equalization	Business Analyst	ITPM-12	80.00	\$6,764.00
		Programmer	ITPA-12	80.00	\$6,764.00
4.5	County Treasurer	Business Analyst	ITPM-12	80.00	\$6,764.00
		Programmer	ITPA-12	80.00	\$6,764.00
4.6	Title Company	Business Analyst	ITPM-12	80.00	\$6,764.00
		Programmer	ITPA-12	80.00	\$6,764.00
4.7	Secretary of State	Business Analyst	ITPM-12	80.00	\$6,764.00
		Programmer	ITPA-12	80.00	\$6,764.00
4.8	ID Crosswalks	Business Analyst	ITPM-12	80.00	\$6,764.00
		Programmer	ITPA-12	80.00	\$6,764.00
4.9	Litigator	Business Analyst	ITPM-12	80.00	\$6,764.00
		Programmer	ITPA-12	80.00	\$6,764.00
4.10	CAMA Vendor	Business Analyst	ITPM-12	80.00	\$6,764.00
		Programmer	ITPA-12	80.00	\$6,764.00
4.11	County Supporting Info	Business Analyst	ITPM-12	80.00	\$6,764.00
		Programmer	ITPA-12	80.00	\$6,764.00
4.12	Local Unit Supporting Info	Business Analyst	ITPM-12	80.00	\$6,764.00
		Programmer	ITPA-12	80.00	\$6,764.00
4.13	Other Info - Supporting	Business Analyst	ITPM-12	80.00	\$6,764.00
		Programmer	ITPA-12	80.00	\$6,764.00
4.14	Other Info - Research	Business Analyst	ITPM-12	80.00	\$6,764.00
		Programmer	ITPA-12	80.00	\$6,764.00
5	IA - Reporting Sync Form				
5.1	Reporting Sync Form Framework	Systems Analyst	ITS-14	200.00	\$19,760.00
		Programmer	ITPA-12	200.00	\$16,910.00
5.2	2368 - PRE Affidavit	Business Analyst		60.00	\$5,073.00
		Programmer	ITPA-12	60.00	\$5,073.00
5.3	2602 - Request to Rescind PRE	Business Analyst	ITPM-12	60.00	\$5,073.00

		Programmer	ITPA-12	60.00	\$5,073.00
5.4	4640 - Conditional Rescission of PRE	Business Analyst	ITPM-12	60.00	\$5,073.00
		Programmer	ITPA-12	60.00	\$5,073.00
5.5	4660 - PRE Active Duty	Business Analyst	ITPM-12	60.00	\$5,073.00
		Programmer	ITPA-12	60.00	\$5,073.00
5.6	4983 - Foreclousre Entity Conditional Rescission of PRE	Business Analyst	ITPM-12	60.00	\$5,073.00
		Programmer	ITPA-12	60.00	\$5,073.00
5.7	2742 - Notice of Denial PRE (Local)	Business Analyst	ITPM-12	60.00	\$5,073.00
		Programmer	ITPA-12	60.00	\$5,073.00
5.8	4075 - Notice of Denial PRE (County)	Business Analyst	ITPM-12	60.00	\$5,073.00
		Programmer	ITPA-12	60.00	\$5,073.00
5.9	5565 – Similar Exempt Other	Business Analyst	ITPM-12	60.00	\$5,073.00
		Programmer	ITPA-12	60.00	\$5,073.00
6	IA - Reporting Sync Supporting Data				
6.1	Reporting Support Data Framework	Systems Analyst	ITS-14	200.00	\$19,760.00
		Programmer	ITPA-12	200.00	\$16,910.00
6.2	Assessment Roll	Business Analyst	ITPM-12	60.00	\$5,073.00
		Programmer	ITPA-12	60.00	\$5,073.00
6.3	Register of Deeds	Business Analyst	ITPM-12	60.00	\$5,073.00
		Programmer	ITPA-12	60.00	\$5,073.00
6.4	County Equalization	Business Analyst	ITPM-12	60.00	\$5,073.00
		Programmer	ITPA-12	60.00	\$5,073.00
6.5	County Treasurer	Business Analyst	ITPM-12	60.00	\$5,073.00
		Programmer	ITPA-12	60.00	\$5,073.00
6.6	Title Company	Business Analyst	ITPM-12	60.00	\$5,073.00
		Programmer	ITPA-12	60.00	\$5,073.00
6.7	Secretary of State	Business Analyst	ITPM-12	60.00	\$5,073.00

	Total Hours/Costs:			15,266	\$1,457,649
	<i>y</i>	i jara a a a a			,
8.1	Project Manager	Project Manager	ITS-15	3486.00	\$397,578.30
8	Project Management				
		Programmer	ITPA-12	60.00	\$5,073.00
-					. ,
6.14	Other Info - Research	Business Analyst	ITPM-12	60.00	\$5,073.00
		Programmer	ITPA-12	60.00	\$5,073.00
6.13	Other Info - Supporting	Business Analyst	ITPM-12	60.00	\$5,073.00
		Programmer	ITPA-12	60.00	\$5,073.00
0.12	Local Unit Supporting Info	Business Analyst	11 PWI-12	60.00	\$5,075.00
6.12	Local Unit Commenting Info	Programmer Programmer	ITPM-12	60.00	\$5,073.00 \$5,073.00
		Duo onomeno on	ITPA-12	60.00	¢5 072 00
6.11	County Supporting Info	Business Analyst	ITPM-12	60.00	\$5,073.00
		Programmer	ITPA-12	60.00	\$5,073.00
6.10	CAMA Vendor	Business Analyst	ITPM-12	60.00	\$5,073.00
		Programmer	ITPA-12	60.00	\$5,073.00
0.9	Litigator	Business Analyst			
6.9	Litigator	Programmer Business Analyst	ITPM-12	60.00	\$5,073.00
		Duo ouomo ou	ITPA-12	60.00	\$5,073.00
6.8	ID Crosswalks	Business Analyst	ITPM-12	60.00	\$5,073.00
		Programmer	ITPA-12	60.00	\$5,073.00

ATTACHMENT #2 MICHIGAN DEPARTMENT OF TREASURY LG-068/PRE FEASIBILITY STUDY YEARLY IT HOSTING COSTS

Line	Yearly Hosting Cost	Qty	Unit			Total
1	NGDI Web Hosting	6	\$	11,112	\$	66,672
2	MILogin SSO Login	5	\$	45,000	\$	225,000
3	Symantec	6	\$	4,200	\$	25,200
4	Filenet - User	1	\$	5,500	\$	5,500
5	FileNet - Storage	1	\$	5,900	\$	5,900
6	E-Michigan ADA Scan	6	\$	15,000	\$	90,000
	Total Yearly Hosting Costs:					418,272

ATTACHMENT #3 MICHIGAN DEPARTMENT OF TREASURY LG-068/PRE FEASIBILITY STUDY YEARLY IT MINTENANCE COSTS

Task	Description	Role	Level	SME Estimate	Cost
1	Project Manager	Project Manager	ITS-15	1,600.00	\$ 182,480.00
2	Technical Architect Support	Technical Architect	ITS-15	400.00	\$ 45,620.00
3	System Design Support	Systems Analyst	ITS-14	1,600.00	\$ 158,080.00
4.1	Design Support (1)	Business Analyst	ITPM-12	1,600.00	\$ 135,280.00
4.2	Design Support (2)	Business Analyst	ITPM-12	1,600.00	\$ 135,280.00
4.3	Design Support (3)	Business Analyst	ITPM-12	800.00	\$ 67,640.00
5.1	Programming Support (1)	Programmer	ITPA-12	1,600.00	\$ 135,280.00
5.2	Programming Support (2)	Programmer	ITPA-12	1,600.00	\$ 135,280.00
5.3	Programming Support (3)	Programmer	ITPA-12	800.00	\$ 67,640.00
5.4	Database Administrative Support	DBA	ITS-14	400.00	\$ 39,520.00
	Total Yearly Maintenance Hou	ırs/Costs:		12,000	\$1,102,100

ATTACHMENT #4 MICHIGAN DEPARTMENT OF TREASURY LG-068/PRE FEASIBILITY STUDY STAFFING COSTS

Form #	Form Title	Complexity	Volume (# of Forms)	Percentage	Effort Hours	Staff Effort (Hours)	# of Staff (1639 Hours Per Staff)
		1- Simple	0	0%	0.1	0	0.0000
		2- Easy	26,250	25%	0.25	6,563	4.0040
2368	PRE Affidavit	3- Moderate	52,500	50%	0.5	26,250	16.0159
		4- Complex	26,250	25%	1	26,250	16.0159
		Total	105,000	100%	-	59,063	36.0357
		1- Simple	105,000	100%	0.1	10,500	6.4063
		2- Easy	0	0%	0.25	0	0.0000
2602	Request to Rescind	3- Moderate	0	0%	0.5	0	0.0000
		4- Complex	0	0%	1	0	0.0000
		Total	105,000	100%	-	10,500	6.4063
		1- Simple	0	0%	0.1	0	0.0000
	Conditional	2- Easy	656.5	25%	0.25	164	0.1001
4640	Rescission	3- Moderate	1314	50%	0.5	657	0.4009
	Rescission	4- Complex	656.5	25%	1	657	0.4005
		Total	2,627	100%	-	1,478	0.9015
		1- Simple	0	0	0.1	0	0.0000
		2- Easy	6	25%	0.25	2	0.0009
4660	PRE Active Duty	3- Moderate	12	50%	0.5	6	0.0037
		4- Complex	6	25%	1	2	0.0009
		Total	24	100%	-	9	0.0055
		1- Simple	0	0	0.1	0	0.0000
	Foreclosure Entity	2- Easy	7.2	90%	0.25	0	0.0001
4983	Conditional	3- Moderate	0.8	10%	0.5	0	0.0000
	Rescission	4- Complex	0	0%	1	0	0.0000
		Total	8	100%	-	0	0.0002
		1- Simple	12,000	100%	0.1	1,200	0.7322
	Notice of Denial	2- Easy	0	0%	0.25	0	0.0000
2742	(Local)	3- Moderate	0	0%	0.5	0	0.0000
	(Local)	4- Complex	0	0%	1	0	0.0000
		Total	12,000	100%	-	1,200	0.7322
		1- Simple	12,000	100%	0.1	1,200	0.7322
	Notice of Denial	2- Easy	0	0%	0.25	0	0.0000
4075	(County)	3- Moderate	0	0%	0.5	0	0.0000
	(County)	4- Complex	0	0%	1	0	0.0000
		Total	12,000	100%	-	1,200	0.7322
		1- Simple	1275	10%	0.1	128	0.0778
No	Notice of Denial	2- Easy	2550	20%	0.25	638	0.3890
Form #	(Treasury)	3- Moderate	4,463	35%	0.5	2,232	1.3615
1 01111 π	(Treasury)	4- Complex	4,463	35%	1	4,463	2.7230
		Total	12,751	100%	-	7,460	4.5513
Tota	l Staffing Effort:		249,410			80,909	49.3648

Departmental Technicians:	\$97,319.80	\$2,402,086.02
Departmental Analysts:	\$122,966.20	\$3,035,100.66
Yearly Staffing Costs:		\$5,437,186.68