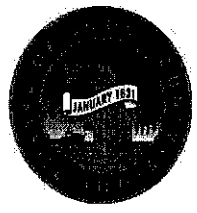


ORIGINAL

PROFESSIONAL SERVICES AGREEMENT
INTEGRATED PROPERTY TAX AND MASS APPRAISAL SYSTEM

BETWEEN



COOK COUNTY GOVERNMENT
BUREAU OF TECHNOLOGY

AND

TYLER TECHNOLOGIES, INC.

CONTRACT NO. 1490-13787

APPROVED BY BOARD OF
COOK COUNTY COMMISSIONERS

SEP 09 2015

PROFESSIONAL SERVICES AGREEMENT

TABLE OF CONTENTS

TERMS AND CONDITIONS	1
ARTICLE 1) INCORPORATION OF BACKGROUND	1
ARTICLE 2) DEFINITIONS.....	1
a) Definitions	1
b) Interpretation	3
c) Incorporation of Exhibits	3
ARTICLE 3) DUTIES AND RESPONSIBILITIES OF CONTRACTOR	4
a) Scope of Services.....	4
b) Deliverables	4
c) Standard of Performance.....	5
d) Personnel	6
e) Minority and Women Owned Business Enterprise Commitment.....	7
f) Insurance	7
g) Indemnification	10
h) Intellectual Property Infringement Indemnification	10
i) Limitation of Liability.....	11
j) Confidentiality and Ownership of Documents.....	12
k) Patents and Copyrights.....	15
l) Examination of Records and Audits.....	15
m) Subcontracting or Assignment of Contract or Contract Funds.....	16
n) Professional Social Service.....	17
ARTICLE 4) TERM OF PERFORMANCE.....	17
a) Term of Performance	17
b) Timeliness of Performance	17
c) Agreement Extension Option.....	18
ARTICLE 5) COMPENSATION	18
a) Consideration	
b) Basis of Payment.....	18
c) Method of Payment.....	19
d) Funding	20
e) Non-Appropriation.....	20
f) Taxes	20
g) Most Favored Customer	20
h) Price Reduction.....	21
i) Contractor Credits.....	21

ARTICLE 6)	DISPUTES	21
ARTICLE 7)	COOPERATION WITH INSPECTOR GENERAL AND COMPLIANCE WITH ALL LAWS	23
ARTICLE 8)	SPECIAL CONDITIONS	23
a)	General Warranties and Representations	23
b)	Ethics	24
c)	Joint and Several Liability	25
d)	Business Documents	25
e)	Conflicts of Interest.....	25
f)	Non-Liability of Public Officials.....	26
ARTICLE 9)	EVENTS OF DEFAULT, REMEDIES, TERMINATION, SUSPENSION AND RIGHT TO OFFSET	26
a)	Events of Default Defined	26
b)	Remedies	27
c)	Early Termination	29
d)	Suspension	29
e)	No Right to Offset.....	30
f)	Delays	30
g)	Liquidated Damages	31
h)	Pre-Paid Fees.....	31
i)	Incurred Expenses.....	31
ARTICLE 10)	GENERAL CONDITIONS	31
a)	Entire Agreement	31
b)	Counterparts	32
c)	Contract Amendments	32
d)	Governing Law and Jurisdiction.....	33
e)	Severability	33
f)	Assigns	33
g)	Cooperation	34
h)	Waiver	34
i)	Independent Contractor.....	34
j)	Governmental Joint Purchasing Agreement	34
k)	Comparable Government Procurement.....	34
l)	Force Majeure	35
ARTICLE 11)	NOTICES.....	35
ARTICLE 12)	AUTHORITY	36

List of Exhibits:

- Exhibit 1 Statement of Work (SOW) for Implementation of the Integrated Property Tax and Mass Appraisal System and Re-engineering of Related Property Tax Process
- Exhibit 2 Cook County Information Technology Special Conditions (ITSCs)
- Exhibit 3 Minority and Women Owned Business Enterprise Commitment and Utilization Plan
- Exhibit 4 Identification of Sub-contractor/Supplier/Sub-consultant Form
- Exhibit 5 Evidence of Insurance
- Exhibit 6 Board Authorization
- Exhibit 7 Economic Disclosure Statement (EDS)

AGREEMENT

This Agreement is made and entered into by and between the County of Cook, a public body corporate of the State of Illinois, on behalf of Office of the Chief Procurement Officer hereinafter referred to as "County" and Tyler Technologies, Inc., doing business as a(an) corporation of the State of Ohio hereinafter referred to as "Contractor", pursuant to authorization by the Cook County Board of Commissioners on September 9, 2015, as evidenced by Board Authorization letter attached hereto as EXHIBIT "6".

BACKGROUND

The County of Cook issued a Request for Proposals "RFP" for Implementation of the Integrated Property Tax and Mass Appraisal System and Re-Engineering of Related Property Tax Process. Proposals were evaluated in accordance with the evaluation criteria published in the RFP. The Contractor was selected based on the proposal submitted and evaluated by the County representatives.

Contractor represents that it has the professional experience and expertise to provide the necessary services and further warrants that it is ready, willing and able to perform in accordance with the terms and conditions as set forth in this Agreement.

NOW, THEREFORE, the County and Contractor agree as follows:

TERMS AND CONDITIONS

ARTICLE 1) INCORPORATION OF BACKGROUND

The Background information set forth above is incorporated by reference as if fully set forth herein.

ARTICLE 2) DEFINITIONS

a) Definitions

For purposes of this Agreement, the following words and phrases have the meanings provided herein. Unless otherwise provided in this Agreement, capitalized terms will have the meaning specified in Exhibit 1, Statement of Work:

"Additional Services" means those services which are within the general scope of Services of this Agreement, but beyond the description of services required under Article 3, or Exhibit 1, Statement of Work, and all services reasonably necessary to complete the Additional Services to the standards of performance required by this Agreement. Any Additional Services requested by the Using Agency require the approval of the Chief Procurement Officer in a written amendment to this Agreement before Contractor is obligated to perform those Additional Services and before the County becomes obligated to pay for those Additional Services.

"Agreement" means this Professional Services Agreement, including all exhibits attached to it and incorporated in it by reference, and all amendments, modifications or revisions made in accordance with its terms.

"Chief Procurement Officer" means the Chief Procurement Officer for the County of Cook and any representative duly authorized in writing to act on his behalf.

"Contractor's Software" means the Contractor's software modules described in Exhibit A of Exhibit 1, Statement of Work, Developed Software, including source code, object, executable or binary code, comments, screens, user interfaces, data structures, data libraries, definition libraries, templates, menus, buttons and icons.

"Deliverable" means any work product, such as written reviews, recommendations, reports and analyses, produced by Contractor for the County.

"Developed Software" has the same meaning as set forth in Exhibit 2, Cook County Information Technology Special Conditions.

"Intellectual Property" means any inventions, discoveries, designs, processes, software, documentation, reports, and works of authorship, drawings, specifications, formulae, databases, algorithms, models, methods, techniques, technical data, discoveries, know how, trade secrets, and other technical proprietary information and all patents, copyrights, mask works, trademarks, service marks, trade names, service names, industrial designs, brand names, brand marks, trade dress rights, Internet domain name registrations, Internet web sites and corporate names, and applications for the registration or recordation of any of the foregoing.

"Key Personnel" means those job titles and the persons assigned to those positions in accordance with the provisions of this Agreement.

"Lobbyist" means any person or entity who undertakes to influence any legislation or administrative action on behalf of any person or entity as set forth in Chapter 2, Article VII, Division 3, Section 2-622 of the Cook County Code of Ordinances.

"Risk Management Office" means the Risk Management Office, which is under the direction of the Director of Risk Management and is charged with reviewing and analyzing insurance and related liability matters for the County.

"Services" means, collectively, the services, duties and responsibilities of Contractor described in Article 3 of this Agreement, Exhibit 1, Statement of Work, and any and all work necessary to complete them or carry them out fully and to the standard of performance required in this Agreement.

"System" means the Integrated Property Tax and Mass Appraisal System that Contractor is required to provide pursuant to Exhibit 1, Statement of Work, inclusive of all modules, configurations, and customization delivered by Contractor.

"Subcontractor" means any person or entity with whom Contractor contracts to provide any part of the Services, of any tier, suppliers and materials providers, whether or not in privity with Contractor.

"Third Party" means a legal entity, company or person that is not a Party to the Agreement and is not a Using Agency, Subcontractor, affiliate of a Party, or other entity, company or person controlled by a Party.

"Using Agency" means the department or agency within Cook County including elected officials.

b) Interpretation

- i) The term **"include"** (in all its forms) means "include, without limitation" unless the context clearly states otherwise.
- ii) All references in this Agreement to Articles, Sections or Exhibits, unless otherwise expressed or indicated are to the Articles, Sections or Exhibits of this Agreement.
- iii) Words importing persons include firms, associations, partnerships, trusts, corporations and other legal entities, including public bodies, as well as natural persons.
- iv) Any headings preceding the text of the Articles and Sections of this Agreement, and any tables of contents or marginal notes appended to it are solely for convenience or reference and do not constitute a part of this Agreement, nor do they affect the meaning, construction or effect of this Agreement.
- v) Words importing the singular include the plural and vice versa. Words of the masculine gender include the correlative words of the feminine and neuter genders, and vice versa.
- vi) All references to a number of days mean calendar days, unless expressly stated otherwise.

c) Incorporation of Exhibits

The following attached Exhibits are made a part of this Agreement:

- Exhibit 1 Statement of Work (SOW) for Implementation of the Integrated Property Tax and Mass Appraisal System and Re-engineering of Related Property Tax Process
- Exhibit 2 Cook County Information Technology Special Conditions (ITSCs)

- Exhibit 3 Minority and Women Owned Business Enterprise Commitment and Utilization Plan
- Exhibit 4 Identification of Sub-contractor/Supplier/Sub-consultant Form
- Exhibit 5 Evidence of Insurance
- Exhibit 6 Board Authorization
- Exhibit 7 Economic Disclosure Statement (EDS)

d) Order of Precedence

Unless otherwise stated, this Contract shall be interpreted and construed based upon the following order of precedence of component parts. Such order of precedence shall govern to resolve all cases of conflict, ambiguity or inconsistency.

1. Articles 1 through 12 of this Agreement
2. Exhibit 2 Cook County Information Technology Special Conditions (ITSCs)
3. Exhibit 1 Statement of Work (SOW) for Implementation of the Integrated Property Tax and Mass Appraisal System and Re-engineering of Related Property Tax Process
4. Exhibit 3 Minority and Women Owned Business Enterprise Commitment
5. Exhibit 4 Identification of Sub-contractor/Supplier/Sub-consultant Form
6. Exhibit 5 Evidence of Insurance
7. Exhibit 6 Board Authorization
8. Exhibit 7 Economic Disclosure Statement (EDS)

ARTICLE 3) DUTIES AND RESPONSIBILITIES OF CONTRACTOR

a) Scope of Services

Contractor must provide the Services in accordance with the standards of performance set forth in Section 3c. The Services that Contractor must provide are those described in Exhibit 1, Statement of Work, which is attached to this Agreement and incorporated by reference as if fully set forth herein.

b) Deliverables

In carrying out its Services, Contractor must prepare or provide to the County various Deliverables more particularly described in Exhibit 1, Statement of Work.

The County may reject Deliverables that do not satisfy applicable acceptance criteria, which criteria must be mutually agreed upon by the parties, set forth in Exhibit 1, Statement of Work, or fail to include relevant information, data, documents or other materials specified in this Agreement and agreed upon by Contractor in writing as being reasonably necessary for the purpose for which the County made this Agreement as described above in the Background recital and Exhibit 1, Statement of Work. If the County determines that Contractor has failed to comply with the foregoing standards, it has thirty (30) days from the discovery to notify Contractor of its failure. If Contractor

and agrees that any substantial work effort required of Contractor as a result of IV&V will be considered Additional Services for which a Contract Amendment shall be required.

d) Personnel

i) Adequate Staffing

Contractor must, upon receiving a fully executed copy of this Agreement, assign and maintain during the term of this Agreement and any extension of it an adequate staff of competent personnel that is fully equipped, qualified, licensed as appropriate, and available as needed, as mutually determined by Contractor and County. Contractor must include among its staff the Key Personnel and positions as identified in Exhibit 1, Statement of Work. The level of staffing during the Implementation of the System (period of time before Go-Live) as defined in Exhibit 1, Statement of Work, may be revised from time to time as mutually determined by Contractor and County.

ii) Key Personnel

Contractor must not reassign or replace Key Personnel without the written consent of the County, which consent the County will not unreasonably withhold, except for the following reasons: termination of employment with Contractor, extreme illness, family leave, personal hardship or other similar material change in the employment circumstances of that Contractor's employee which is beyond Contractor's control. If necessary, Key Personnel will be reassigned or replaced in accordance with Section 4.2.1 of Exhibit 1, Statement of Work. A list of Key Personnel is found in Exhibit 1, Statement of Work (SOW) for Implementation of the Integrated Property Tax and Mass Appraisal System and Re-engineering of Related Property Tax Process.

iii) Salaries and Wages

Contractor and Subcontractors must pay all salaries and wages due all employees performing Services under this Agreement unconditionally and at least once a month without deduction or rebate on any account, except only for those payroll deductions that are mandatory by law or are permitted under applicable law and regulations. If in the performance of this Agreement Contractor underpays any such salaries or wages, the County shall notify Contractor, in writing, of such underpayment and Contractor shall have the right to (i) dispute the notice of underpayment or (ii) cure such underpayment, no later than fourteen (14) business days following Contractor's receipt of such notice. In the event Contractor fails to dispute or cure the notice of underpayment, Comptroller for the County may withhold, out of payments due to Contractor, an amount sufficient to pay to employees underpaid the difference between the salaries or wages required to be paid under this Agreement and the salaries or wages actually paid these employees for the total number of hours worked. The amounts withheld may be disbursed by the Comptroller for and on account of Contractor to the respective employees to whom they

does not correct the failure, if it is possible to do so, within thirty (30) days or such other time as agreed to by the parties after receipt of notice from the County specifying the failure, then the County, by written notice, may treat the failure as a default of this Agreement under Article 9. The provisions of Exhibit 1, Statement of Work shall determine the review, approval and sign-off process for Deliverables described in said Exhibit 1.

Partial or incomplete Deliverables may be accepted for review only when required for a specific and well-defined purpose and when consented to in advance by the County. Such Deliverables will not be considered as satisfying the requirements of this Agreement and partial or incomplete Deliverables in no way relieve Contractor of its obligations under this Agreement.

c) Standard of Performance

Contractor shall perform all Services required of it under this Agreement in a professional, workmanlike manner, consistent with industry standards. Contractor acknowledges that it is entrusted with or has access to valuable and confidential information and records of the County and with respect to that information. Contractor agrees to be held to the requirements of Section 3(j) below.

Contractor must assure that all Services that require the exercise of professional skills or judgment are accomplished by professionals qualified and competent in the applicable discipline and appropriately licensed, if required by law. Contractor must provide copies of any such licenses. Contractor remains responsible for all Services or Deliverables furnished, whether by Contractor or its Subcontractors or others on its behalf. All Deliverables must be prepared in a form and content that conform to Exhibit 1, Statement of Work, and shall be and delivered in a timely manner consistent with the requirements of this Agreement.

If Contractor fails to comply with the standards of performance described in the foregoing paragraphs of this Section, Contractor must perform again, at its own expense, all Services required to be re-performed as a direct or indirect result of that failure. Any review, approval, acceptance or payment for any of the Services by the County does not relieve Contractor of its responsibility for the delivery of its Services and Deliverables in accordance with the standards of performance described in the foregoing paragraphs of this Section. This provision in no way limits the County's rights against Contractor either under this Agreement, at law or in equity.

Contractor acknowledges the County, at its sole discretion and sole expense, may engage a Third Party to conduct an Independent Verification and Validation ("IV&V") to test the functionality of the System as set forth in Exhibit 1, Statement of Work, and that the Contractor shall fully cooperate with the County and the Third Party if the County conducts an IV&V. Notwithstanding the foregoing, the County and Contractor acknowledge that the IV&V is not a substitute for the testing and validation set forth in Exhibit 1, Statement of Work, Quality Assurance Phase Section. County acknowledges

are due. The parties acknowledge that this Section is solely for the benefit of the County and that it does not grant any third party beneficiary rights.

e) Minority and Women Owned Business Enterprise Commitment

In the performance of this Agreement, including the procurement and lease of materials or equipment, Contractor must abide by the minority and women owned business enterprise commitment requirements, Cook County, Ill., Code pt.1, ch. 34, art. IV., div. 8. except to the extent waived by the Compliance Director, as set forth in EXHIBIT 3. Contractor's completed MBE/WBE Utilization Plan evidencing its compliance with this requirement are a part of this Agreement, in Form 1 of the MBE/WBE Utilization Plan, upon acceptance by the Compliance Director. Contractor must utilize minority and women owned business enterprises at the greater of the amounts committed to by the Contractor for this Agreement in accordance with Form 1 of the MBE/WBE Utilization Plan.

f) Insurance

Prior to the effective date of this Contract, the Contractor, at its cost, shall secure and maintain at all times, unless specified otherwise, until completion of the term of this Contract the insurance specified below.

Nothing contained in these insurance requirements is to be construed as limiting the extent of the Contractor's responsibility for payment of damages resulting from its operations under this Contract.

Contractor shall require all Subcontractors to provide the insurance required in this Agreement, or Contractor may provide the coverages for Subcontractors. All Subcontractors are subject to the same insurance requirements as Contractor except paragraph (f) Umbrella/Excess Liability or as specified otherwise.

The Cook County Department of Risk Management maintains the right to modify, delete, alter or change these requirements, with the mutual agreement of the Contractor.

Coverages

(a) Workers Compensation Insurance

Workers' Compensation shall be in accordance with the laws of the State of Illinois or any other applicable jurisdiction.

The Workers Compensation policy shall also include the following provisions:

- (1) Employers' Liability coverage with a limit of
\$1,000,000 each Accident
\$1,000,000 each Employee
\$1,000,000 Policy Limit for Disease

(b) Commercial General Liability Insurance

The Commercial General Liability shall be on an occurrence form basis (ISO Form CG 0001 or equivalent) to cover bodily injury, personal injury and property damage.

Each Occurrence	\$ 1,000,000
General Aggregate	\$ 2,000,000
Completed Operations Aggregate	\$ 2,000,000

The General Liability policy shall include the following coverages:

- (a) All premises and operations;
- (b) Products/Completed Operations;
- (c) Severability of interest/separation of insureds clause

(c) Commercial Automobile Liability Insurance

When any vehicles are used in the performance of this contract, Contractor shall secure Automobile Liability Insurance for bodily injury and property damage arising from the Ownership, maintenance or use of owned, hired and non-owned vehicles with a limit no less than \$1,000,000 per accident.

(d) Professional Liability (Primary & Excess)

Contractor shall secure Professional Liability insurance for claims arising out of the performance or nonperformance of technology related professional services for the County under this Agreement.

This professional liability insurance shall remain in force for the life of the Contractor's obligations under this Agreement, and shall have a limit of liability of not less than \$5,000,000 in the aggregate. If any such policy is written on a claims made form, the retroactive date shall be prior to or coincident with the effective date of this contract. A claims-made policy which is not renewed or replaced must have an extended reporting period of 2 years.

Subcontractors performing services for the Contractor must maintain limits of not less than \$1,000,000 with the same terms in this section.

(e) Network Security and Privacy Liability (Primary and Excess)

Contractor shall secure Network Security and Privacy Liability insurance relating to claims arising from network risks and disclosure of private information. This Network Security and

is written on a claims made form, the retroactive date shall be prior to or coincident with the effective date of this contract. Claims made form coverage shall be maintained by the Contractor for a minimum of three years following the expiration or early termination of this contract and the Contractor shall annually provide the County with proof of renewal.

Subcontractors performing services for the Contractor must maintain limits of not less than \$1,000,000 with the same terms in this section.

(f) Umbrella/Excess Liability

Contractor shall secure coverage in excess of general liability, automobile liability, employers liability in the amount of a least \$5,000,000.

Subcontractors performing services for the Contractor must maintain limits of not less than \$1,000,000 with the same terms in this section.

Additional requirements

(a) Additional Insured

Cook County, its officials, employees and agents shall be listed as additional insureds under the Commercial General Liability insurance, Commercial Automobile Liability. The Commercial General Liability insurance shall be on a primary and non-contributory basis as between Contractor and Cook County for claims arising out of or connected either directly or indirectly to the work. Any insurance or self-insurance programs maintained by Cook County shall be excess. The full policy limits and scope of protection shall apply to Cook County as an additional insured even if they exceed the minimum insurance limits specified above.

(b) Qualification of Insurers

All insurance companies providing coverage shall be licensed or approved by the Department of Insurance, State of Illinois, and shall have a financial rating no lower than (A-) VII as listed in A.M. Best's Key Rating Guide, current edition or interim report. Companies with ratings lower than (A-) VII will be acceptable only upon written consent of the Cook County Department of Risk Management. The insurance limits required herein may be satisfied by a combination of primary, umbrella and/or excess liability insurance policies.

(c) Insurance Notices

Prior to the date on which Contractor commences performance of its part of the work, Contractor shall furnish to the Office of the Chief Procurement Officer certificates of insurance maintained by Contractor. The receipt of any certificate of insurance does not constitute agreement by the County that the insurance requirements have been fully met or that the insurance policies indicated on the certificate of insurance are in compliance with insurance required above.

Contractor shall provide the Office of the Chief Procurement Officer with thirty (30) days advance written notice in the event any required insurance will be cancelled, materially reduced (i.e. reduced below the minimum limits required herein) or non-renewed. Contractor shall secure replacement coverage to comply with the stated insurance requirements and provide new certificates of insurance to the Office of the Chief Procurement Officer.

In no event shall any failure of the County to receive certificates of insurance required hereof or to demand receipt of such Certificates of Insurance be construed as a waiver of Contractor's obligations to obtain insurance pursuant to these insurance requirements.

(d) Waiver of Subrogation Endorsements

All insurance policies, except the professional and network security and privacy liability policies must contain a Waiver of Subrogation Endorsement in favor of Cook County.

g) Indemnification

The Contractor covenants and agrees to indemnify and save harmless the County and its commissioners, officials, employees, agents and representatives, and their respective heirs, successors and assigns, from and against any and all costs, expenses, attorney's fees, losses, damages and liabilities incurred or suffered directly or indirectly from or attributable to any personal injury or property damage claims arising out of or incident to the performance or nonperformance of the Contract by the Contractor, or the acts or omissions of the officers, agents, employees, contractors, Subcontractors, licensees or invitees of the Contractor. The Contractor expressly understands and agrees that any insurance protection required of the Contractor, or otherwise provided by the Contractor, shall in no way limit the responsibility to indemnify the County as hereinabove provided.

h) Intellectual Property Infringement Indemnification

(1) Contractor will defend the County against any third party claim(s) that the Contractor's Software infringes that third party's patent, copyright, or trademark, or misappropriates its trade secrets, and will pay the amount of any resulting adverse final judgment (or settlement to which Contractor consents). The County will notify the Contractor promptly in writing of the claim and give Contractor sole control provided that Contractor obtains consent of the Cook County State's Attorney in accordance with 55 ILCS 5/3-9005 (2015) over its defense or settlement. The County agrees to provide the Contractor with reasonable assistance, cooperation, and information in defending the claim at Contractor's expense.

(2) Contractor's obligation to indemnify the County for claims set forth in (h)(1) above, will not apply to the extent the claim or adverse final judgment is based upon: (a) the County's use of a previous version of Contractor's Software and the claim would have been avoided if the County had installed and used the current version of the Contractor's Software; (b) combining the Contractor's Software with any Software, product or device not approved by Contractor; (c) altering or modifying the Contractor's

Software, including any modification by third parties at the County's direction or otherwise permitted by the County; (d) use of the Contractor's Software in contradiction of this Agreement, including with non-licensed third parties; or (e) willful infringement, including the use of the Contractor's Software after it notifies the County to discontinue use due to such a claim.

(3) If Contractor receives information concerning an infringement or misappropriation claim related to the Contractor's Software, then Contractor may, at its expense, and without obligation to do so either (a) procure for the County the right to continue its use; (b) modify it to make it non-infringing but shall ensure that any modifications meet the functional requirements set forth in Exhibit 1, Statement of Work; or (c) replace it with a functional equivalent, in which case the County will stop running the allegedly infringing Contractor's Software immediately.

(4) If, as a result of an infringement or misappropriation claim, the County's use of the Contractor's Software is enjoined by a court of competent jurisdiction, in addition to paying any adverse final judgement (or settlement to which the Contractor consents), the Contractor will, at Contractor's option, either (a) procure the right to continue its use; (b) modify it to make it non-infringing; (c) replace it with a functional equivalent; or (d) terminate the County's license and refund the fees paid for the infringing Contractor's Software. This section provides County's exclusive remedy for third party copyright, patent, or trademark infringement and trade secret misappropriation claims.

i) Limitation of Liability.

(1) EXCEPT FOR THE EXPRESS WARRANTIES PROVIDED IN THIS AGREEMENT AND TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, CONTRACTOR HEREBY DISCLAIMS ALL OTHER WARRANTIES AND CONDITIONS, WHETHER EXPRESS, IMPLIED, OR STATUTORY, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTIES, DUTIES, OR CONDITIONS OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

(2) EXCEPT AS OTHERWISE EXPRESSLY SET FORTH IN THIS AGREEMENT, CONTRACTOR'S LIABILITY FOR DIRECT DAMAGES ARISING OUT OF THIS AGREEMENT, WHETHER BASED ON A THEORY OF CONTRACT OR TORT, INCLUDING NEGLIGENCE AND STRICT LIABILITY, SHALL BE LIMITED AS FOLLOWS:

- a. DURING THE INITIAL TERM TO THE LESSER OF (A) COUNTY'S ACTUAL DIRECT DAMAGES OR (B) THE AMOUNTS PAYABLE UNDER THE INITIAL TERM OF THIS AGREEMENT AS SET FORTH IN ARTICLE 4(a). THE PRICES SET FORTH IN THIS AGREEMENT ARE SET IN RELIANCE UPON THIS LIMITATION OF LIABILITY. THE FOREGOING LIMITATION OF LIABILITY SHALL NOT APPLY TO CLAIMS THAT ARE SUBJECT TO ARTICLES 3(G) AND 3(H).**

- b. DURING EACH OPTIONAL THREE-YEAR RENEWAL TO THE LESSER OF (A) COUNTY'S ACTUAL DIRECT DAMAGES OR (B) THE AMOUNTS PAYABLE UNDER SUCH RENEWAL TERM OF THIS AGREEMENT AS SET FORTH IN ARTICLE 4(c). THE PRICES SET FORTH IN THIS AGREEMENT ARE SET IN RELIANCE UPON THIS LIMITATION OF LIABILITY. THE FOREGOING LIMITATION OF LIABILITY SHALL NOT APPLY TO CLAIMS THAT ARE SUBJECT TO ARTICLES 3(G) AND 3(H).

(3) **EXCLUSION OF CERTAIN DAMAGES.** TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW, IN NO EVENT SHALL CONTRACTOR OR COUNTY BE LIABLE FOR ANY SPECIAL, INCIDENTAL, PUNITIVE, INDIRECT, OR CONSEQUENTIAL DAMAGES WHATSOEVER, EVEN IF CONTRACTOR HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. FOR THE AVOIDANCE OF DOUBT, THE COUNTY AND CONTRACTOR AGREE THAT DAMAGES EITHER PARTY SUSTAINS DUE TO A BREACH OF CONFIDENTIAL INFORMATION BY THE OTHER PARTY SHALL NOT APPLY TO THIS ARTICLE 3(i)(3).

j) Confidentiality and Ownership of Documents

(1) The parties acknowledge and agree that their respective employees and agents, in the performance of this Agreement, may be exposed to information regarding the other party that is confidential and shall not be disclosed, directly, indirectly or by implication, or be used by the non-disclosing party in any way, whether during the term of this Contract or at any time thereafter, except solely as required in the course of performance hereunder or otherwise required by law. Confidential information is nonpublic information, including but not limited to unique account numbers used by Using Agencies, that a reasonable person would believe to be confidential and includes, without limitation, personal identifying information and trade secrets, each as defined by applicable state law. Each party shall comply with the applicable privacy laws and regulations and will not disclose any of the other party's records, materials, or other data to any third party and will take all reasonable and appropriate action to prevent such disclosure by its employees or agents. Contractor shall not have the right to compile and distribute statistical analyses and reports utilizing data derived from information or data obtained from County without the prior written approval of County. In the event such approval is given, any such reports published and distributed by Contractor shall be furnished to County without charge.

Notwithstanding the foregoing, the obligation of confidentiality will not apply to information that:

- (a) is in the public domain, either at the time of disclosure or afterwards, except by breach of this Agreement by a party or its employees or agents;
- (b) a party can establish by reasonable proof was in that party's possession at the time of

- initial disclosure;
- (c) a party receives from a third party who has a right to disclose it to the receiving party;
or
 - (d) a party is required to disclose pursuant to a court order or valid subpoena, except that, the disclosing party, unless otherwise prohibited by law, shall (i) advise the other party thereof prior to the disclosure, (ii) take such steps to limit the extent of the disclosure to the extent lawful and reasonably practical, (iii) afford the other party a reasonable opportunity to intervene in the proceedings, and (iv) comply with the other party's request as to the manner and terms of any such disclosure.

(2) Freedom of Information Act. In accordance with 5 ILCS 140, Freedom of Information Act (the "Freedom of Information Act"), County may maintain the confidentiality of, and not disclose, certain types of information described in 5 ILCS 140.7 et. seq. Such information may include trade secrets and commercial or financial information obtained by County from Contractor as described in 5 ILCS 140.7(g) and/or administrative or technical information as described in 5 ILCS 140.7(o), and other information exempted from the Freedom of Information Act pursuant to 5 ILCS 140 et seq.

Contractor hereby designates the following as information as confidential and exempt from disclosure under the Freedom of Information Act and by so designating, Contractor declares that it has formed a good faith opinion that the designated information meet the requirements of information which is exempted from disclosure under the Freedom of Information Act set forth above:

- (a) the Contractor's Software, Contractor's Software data dictionary, data definitions, , performed procedures, programmed or coded routines, the web code to run the Contractor's Software application, and the following objects in the Contractor's Software database layer: packages, package bodies, triggers (an object attached to a table and when an action occurs to that table it causes another action to happen, i.e. set up a value, update a field, and used primarily for data integrity), stored procedures, stored functions, Java Class and Java Source, some or all of which is stored or otherwise contained within the Contractor's Software database; and
- (b) documents, records and information which is marked or identified as "confidential", "proprietary" or "trade secret", and specifically including Tyler's responses to the System Requirements Matrix and all screen shots and architecture drawings labeled "Confidential and Proprietary" in Contractor's proposal submitted to County in response to Request for Proposals "RFP" for Implementation of the Integrated Property Tax and Mass Appraisal System and Re-Engineering of Related Property Tax Process", user guides to the Contractor's Software and any online or written documentation related to the use or functionality of the Contractor's Software that Contractor provides or otherwise make available to County.

If the County receives a request for any information which Tyler has designated or marked as "confidential", "proprietary" or "trade secret", the County shall redact or

withhold any information so designated or marked as “confidential”, “proprietary” or “trade secret”. If the requester challenges or objects to the County’s redaction or withholding of any information that the Contractor has designated or marked “confidential”, “proprietary” or “trade secret”, the County shall notify Contractor (i) if the requester has filed a request for review by the Public Access Counselor and/or (ii) if a requester files a lawsuit against the County.

In the event a third party files a lawsuit to compel disclosure of Contractor’s confidential information, County will tender all such material to the court for judicial determination of the issue of disclosure and Contractor agrees to intervene, where a court of competent jurisdiction determines such intervention is proper and/or allowed, in such lawsuit to protect and assert Contractor’s claims of exemption against disclosure of such material or waive the same. Contractor further agrees to defend, indemnify and save and hold harmless County, its officers, agents and employees, from any claim, damages, expense, loss or costs arising out of Contractor’s intervention to protect and assert Contractor’s claim of exemption from disclosure under this Section 3(j)(2) including but not limited to, prompt reimbursement to the County of all reasonable attorney fees, costs and damages that the County may incur directly or may be ordered to pay by such court.

(3) The Contractor acknowledges and agrees that certain information, including but not limited to any analytical or evaluative formula, pattern, compilation, program, method, technique, process, program, computer software/programming/code/source code and worksheet used by the Cook County Assessor’s Office (“Assessor”) to determine initial and post-appellate industrial and commercial property market value is confidential information. Assessor agrees to clearly identify or mark any such confidential information. The Contractor agrees that it shall hold and maintain all such Assessor confidential information in the strictest confidence for the sole purpose of performing the Services under this Agreement, carefully restrict access to such confidential information only to essential employees of the Contractor on a need-to-know basis, and shall require that Contractor employees who have access to such Assessor confidential information are aware of the requirements of confidentiality under this provision and agree to be bound by such requirements. The Contractor shall not publish, copy or otherwise disclose Assessor’s confidential information to Third Parties, except as hereinafter provided. Assessor acknowledges that it may provide certain calculation routines and algorithms to Contractor for purposes of Contractor’s use of such calculation routines and algorithms in providing Services under this Agreement. Assessor shall retain ownership of said calculation routines and algorithms. Contractor shall own all right, title and interest (including all associated Intellectual Property rights) in and to any modification or change that when made or added to the Contractor’s Software, changes its utility, efficiency, functional capability or application as specified by the Assessor to meet specific Assessor business requirements outlined in Exhibit 1, SOW, and which modification or change is contained in the Contractor’s Software. Contractor agrees to make all reasonable efforts in consultation with the Assessor to code any Contractor Software base code in such a way as to protect the Assessor’s calculation routines from reengineering by Third Parties. Contractor further agrees that critical data inputs and variables to Assessor calculations shall be stored in

County specific configurations in the user tables of the database of the Contractor Software and shall not be distributed to any Third Party. The Contractor shall neither use the confidential information for the Contractor's own benefit and shall take all reasonable efforts to restrict the use of the confidential information by anyone to the detriment of the Cook County Assessor's Office except as expressly permitted in writing by the Cook County Assessor or his authorized designee. The Contractor shall return to the Cook County Assessor's Office any and all records, notes, and other written, printed, or tangible materials in its possession pertaining to the confidential information immediately on the written request of the Cook County Assessor's Office. This Agreement and the Contractor's duty to hold the confidential information of the Cook County Assessor's Office in confidence shall remain in effect until the year 2115. The nondisclosure provisions of this Agreement shall survive the termination of any relationship between the Contractor and the Cook County Assessor's Office.

All documents, data, studies, and reports, created as a result of the performance of the Contract and which contain County specific data or Using Agency Data (the "Documents") shall be included in the Deliverables and shall be the property of the County of Cook, subject to Contractor's rights, if any, in its proprietary information contained in the Documents. It shall be a breach of this Contract for the Contractor to reproduce or use any Documents, data, studies, reports, or product obtained from the County of Cook or any Documents created hereby, whether such reproduction or use is for Contractor's own purposes or for those of any third party. During the performance of the Contract Contractor shall be responsible of any loss or damage to the Documents while they are in Contractor's possession, and any such loss or damage shall be restored at the expense of the Contractor. The County and its designees shall be afforded full access to the Documents and the work at all times.

k) Patents, Copyrights and Licenses

Contractor must provide the Contractor's Software in accordance with the terms set forth in EXHIBIT 2, Cook County Information Technology Special Conditions (ITSCs), which is attached to this Agreement and incorporated by reference as if fully set forth herein.

l) Examination of Records and Audits

The Contractor agrees that the Cook County Auditor or any of its duly authorized representatives shall have the right to audit Tyler's books and records directly relating to the Contract once per year, with advance written notice and at the County's resources, until expiration of three (3) years after the final payment under the Contract, have access and the right to examine any books, documents, papers, canceled checks, bank statements, purveyor's and other invoices, and records of the Contractor related to the Contract, or to Contractor's compliance with any term, condition or provision thereof. The Contractor shall be responsible for establishing and maintaining records sufficient to document the costs associated with performance under the terms of this Contract.

The Contractor further agrees that it shall include in all of its subcontracts hereunder a

provision to the effect that the Subcontractor agrees that the Cook County Auditor or any of its duly authorized representatives shall have the right to audit Subcontractor's books and records directly relating to the Contract once per year, with advance written notice and at the County's resources, until expiration of three (3) years after final payment under the subcontract, have access and the right to examine any books, documents, papers, canceled checks, bank statements, purveyor's and other invoices and records of such Subcontractor involving transactions relating to the subcontract, or to such Subcontractor compliance with any term, condition or provision thereunder or under the Contract.

In the event the Contractor receives payment under the Contract, reimbursement for which is later disputed by the County, the matter shall be settled in accordance with the dispute resolution procedures described in Section 6.

m) Subcontracting or Assignment of Contract or Contract Funds

Once awarded, this Contract shall not be subcontracted or assigned, in whole or in part, without the advance written approval of the Chief Procurement Officer, which approval shall be granted or withheld at the sole discretion of the Chief Procurement Officer, except that the consent of the Chief Procurement Officer is not required in the event Contractor has a change of control that Contractor is not permitted to disclose, as a publicly traded company subject to federal securities laws, prior to its becoming publicly available information. In no case, however, shall such approval relieve the Contractor from its obligations or change the terms of the Contract. The Contractor shall not transfer or assign any Contract funds or any interest therein due or to become due without providing advance written notice to the Chief Procurement Officer. The unauthorized subcontracting or assignment of the Contract, in whole or in part, or the unauthorized transfer or assignment of any Contract funds, either in whole or in part, or any interest therein, which shall be due or are to become due the Contractor shall have no effect on the County and are null and void.

Prior to the commencement of the Contract, the Contractor shall identify in writing to the Chief Procurement Officer the names of any and all Subcontractors it intends to use in the performance of the Contract by completing the Identification of Subcontractor/Supplier/Subcontractor Form ("ISF"). The Chief Procurement Officer shall have the right to disapprove any Subcontractor which has been disqualified under the Cook County Procurement Code Section 34-170. All Subcontractors shall be subject to the terms of this Contract. Contractor shall incorporate into all subcontracts all of the provisions of the Contract which affect such subcontract. Copies of subcontracts shall be provided to the Chief Procurement Officer upon request.

The Contractor must disclose the name and business address of each Subcontractor, attorney, lobbyist, accountant, Contractor and any other person or entity whom the Contractor has retained or expects to retain in connection with the Contract, as well as the nature of the relationship, and the total amount of the fees paid or estimated to be paid. The Contractor is not required to disclose employees who are paid or estimated to be paid. The Contractor is not required to disclose employees who are paid solely through the

Contractor's regular payroll. Lobbyist" means any person or entity who undertakes to influence any legislation or administrative action on behalf of any person or entity other than: (1) a not-for-profit entity, on an unpaid basis, or (2), himself.

"Lobbyist" also means any person or entity any part of whose duties as an employee of another includes undertaking to influence any legislative or administrative action. If the Contractor is uncertain whether a disclosure is required under this Section, the Contractor must either ask the County, whether disclosure is required or make the disclosure.

The County reserves the right to prohibit any person from entering any County facility for any lawful reason. All contractors and Subcontractors of the Contractor shall be accountable to the Chief Procurement Officer or his designee while on any County property and shall abide by all rules and regulations imposed by the County.

**n) Professional Social Services
(Intentionally Omitted)**

ARTICLE 4) TERM OF PERFORMANCE

a) Term of Performance

This Agreement takes effect when approved by the Cook County Board. The term of this Agreement shall begin on September 30, 2015 ("**Effective Date**") and continue for seven and one half (7 ½) years (the "Initial Term") until March 31, 2023 or until this Agreement is terminated in accordance with its terms, whichever occurs first.

b) Timeliness of Performance

- i) Contractor must provide the Services and Deliverables within the term and within the time limits required under this Agreement, pursuant to the provisions of Article 4, Section a and EXHIBIT 1.
- ii) County acknowledges that the implementation of the System is a cooperative process requiring the time and resources of County's personnel. County agrees to use all reasonable efforts to cooperate with and assist Contractor as may be reasonably required to meet the agreed upon project deadlines and other milestones for implementation of the System. This cooperation includes at least working with Contractor to schedule the implementation-related services County has contracted for. Contractor will not be liable for failure to meet any deadlines and milestones when such failure is due to Force Majeure or to the failure by County personnel to provide such cooperation and assistance (either through action or omission) provided that Contractor has provided written notice to the County Project Manager concerning any alleged failure of County personnel to provide cooperation and assistance. County acknowledges and agrees that only County is capable of executing its responsibilities in this Agreement and in Exhibit 1, Statement of Work and Contractor can in no way be held accountable

in the event of County non-performance.

- iii) The parties acknowledge that the terms and conditions of this Agreement are based on the laws, rules and regulations as of the Effective Date. In the event there are any substantive changes to any applicable laws, rules or regulations change so as to create additional work for Contractor not provided for in this Agreement, County shall allow Contractor a reasonable extension of time to complete the services and additional compensation as provided in Article 10(c) below, and Contractor shall not be subject to the Liquidated Damages provided in Article 9(h) below.
- iv) Neither Contractor nor Contractor's agents, employees nor Subcontractors are entitled to any damages from the County, nor is any party entitled to be reimbursed by the County, for damages incurred by Contractor by reason of delays or hindrances in the performance of the Services, whether or not caused by the County. If the County requests or causes a delay or hindrance in the performance of the Services and such delay or hindrance in performance last for a period of 15 business days or longer, the parties agree to work together to adjust the project schedule accordingly and/or to agree on the scope and compensation for Additional Services which Contractor will provide as a result of such delay or hindrance and project schedule adjustment.

c) Agreement Extension Option

The Chief Procurement Officer may at any time before this Agreement expires elect to renew this Agreement for up to three (3) additional three-year periods under the same terms and conditions as this original Agreement, except that any extension may be subject to Contractor's then current pricing unless otherwise agreed to by the Parties. After notification by the Chief Procurement Officer, this Agreement must be modified to reflect the time extension in accordance with the provisions of this Section.

ARTICLE 5) COMPENSATION

a) Consideration

In consideration for the satisfactory and timely performance of Services by the Contractor, the County shall pay the Contractor \$29,951,735.00 in accordance with the terms and provisions set forth in Exhibit 1.

b) Basis of Payment

The County will pay Contractor according to the provisions set forth in Exhibit 1, Statement of Work for the successful completion of services, and the license fees and maintenance fees.

All amounts to be paid the Contractor under the Agreement shall be due and payable net 60 days from the date of invoice.

d) Funding

Payments under this Agreement must not exceed \$29,951,735.00 without a written amendment in accordance with Section 10.c.

e) Non-Appropriation

If no funds or insufficient funds are appropriated and budgeted in any fiscal period of the County for payments to be made under this Agreement, then this Agreement shall terminate on thirty (30) days' prior written notice by the County to the Contractor. Payments for all products and Services delivered to the County or incurred by Contractor, prior to the effective date of termination will be made to Contractor.

f) Taxes

Federal Excise Tax does not apply to materials purchased by the County by virtue of Exemption Certificate No. 36-75-0038K. Illinois Retailers' Occupation Tax, Use Tax and Municipal Retailers' Occupation Tax do not apply to deliverables, materials or services purchased by the County by virtue of statute. The price or prices quoted herein shall include any and all other federal and/or state, direct and/or indirect taxes which apply to this Contract. The County's State of Illinois Sales Tax Exemption Identification No. is E-9998-2013-07.

g) Most Favored Customer

Contractor shall offer to the County, on a prospective basis only, Support and Maintenance prices for the Contractor's Software that are equivalent to or better than prices Contractor actually provides to any other public sector customer that (i) is of a similar size to the County based on population count (County's population count to be set as of the Effective Date at one million five hundred thousand people, and greater and measured as of the date Contractor enters into a written agreement with a customer for the equivalent or better prices) (ii) has entered into a software license arrangement with Contractor for the same product mix of Contractor's Software as the County, and having an initial Support and Maintenance term which is the same length as County's initial Support and Maintenance term, and (iii) has the same Support and Maintenance Agreement terms and support call process as the County (a "Similarly Situated Customers"). If during the term of this Agreement, Contractor enters into a binding contract with any other Similarly Situated Customer as described in (i), (ii) and (iii) providing more favorable prices for Support and Maintenance services than County's then current Support and Maintenance prices, Contractor shall notify the County and offer the same prices to the County. Contractor shall certify in writing to County's Chief Procurement Officer that it is in compliance with this provision within the first thirty (30) days of the term of the Agreement, and shall recertify annually, at time of invoicing. The purpose of this provision is to ensure the County

c) **Method of Payment**

All invoices submitted by the Contractor shall be in accordance with the cost provisions contained in the Agreement and shall contain a detailed description of the Deliverables, including the quantity of the Deliverables, for which payment is requested. All invoices for services shall include itemized entries indicating the date or time period in which the services were provided, the amount of time spent performing the services, and a detailed description of the services provided during the period of the invoice. All invoices shall reflect the amounts invoiced by and the amounts paid to the Contractor as of the date of the invoice. Invoices for new charges shall not include "past due" amounts, if any, which amounts must be set forth on a separate invoice. Contractor shall not be entitled to invoice the County for any late fees or other penalties. Notwithstanding the foregoing, Contractor shall be allowed to accrue interest at the statutorily allowed rate on past due amounts.

In accordance with the Cook County Procurement Code, the County shall have a right to set off and subtract from any invoice(s) or Contract price, a sum equal to any fines and penalties, including interest, for any tax or fee delinquency and any debt or obligation owed by the Contractor to the County. Cook County, Ill., Code pt.1, ch. 34, art. IV., div. 4, section 34-177; provided, however that the County has provided Contractor with at least thirty (30) days prior written notice of its intent to set off any such amounts, and Contractor has failed to cure such delinquency.

The Contractor acknowledges its duty to ensure the accuracy of all invoices submitted to the County for payment. By submitting the invoices, the Contractor certifies that all itemized entries set forth in the invoices are true and correct. The Contractor acknowledges that by submitting the invoices, it certifies that it has delivered the Deliverables, i.e., the goods, supplies, services or equipment set forth in the Agreement to the Using Agency, or that it has properly performed the services set forth in the Agreement. The invoice must also reflect the dates and amount of time expended in the provision of services under the Agreement. The Contractor acknowledges that any inaccurate statements or negligent or intentional misrepresentations in the invoices shall result in the County exercising all remedies available to it in law and equity including, but not limited to following the dispute resolution process described in Article 6 below, and reporting the matter to the Cook County Office of the Independent Inspector General.

When a Contractor receives any payment from the County for any supplies, equipment, goods, or services, it has provided to the County pursuant to its Agreement, the Contractor must make payment to its Subcontractors within 15 days after receipt of payment from the County, provided that such Subcontractor has satisfactorily provided the supplies, equipment, goods or services in accordance with the Contract and provided the Contractor with all of the documents and information required of the Contractor. The Contractor may delay or postpone payment to a Subcontractor when the Subcontractor's supplies, equipment, goods, or services do not comply with the requirements of the Contract, the Contractor is acting in good faith, and not in retaliation for a Subcontractor exercising legal or contractual rights.

receives favorable pricing on its maintenance and support fees which are payable by County after Contractor has entered into a binding contract with a Similarly Situated Customer to which this provision applies.

Furthermore, the annual percentage by which the Contractor may increase County's Support and Maintenance Fees during the term of this Agreement may be no greater than the percentage increase applied to any other Similarly Situated Customer. The foregoing provision will not apply to the extent that Tyler provides a Similarly Situated Customer a discount as a consequence of a force majeure or as a result of a settlement of dispute between Contractor and a Similarly Situated Customer. Additionally, to the extent that a Similarly Situated Customer enters into a multi-year support agreement with Tyler that is priced without transparent annual increases, Tyler may demonstrate to the County that the total rate incorporates annual increases across each year of the term, in which case the demonstrated value of the annual increase will be deemed applicable for the purpose of this subsection. For example, if an agreement with a Similarly Situated Customer other than the County provides that the charges for support and maintenance services were to increase by 1%, the County's annual support and maintenance fees may not be increased by more than 1%; whereas, if a different Similarly Situated Customer, in the same year, entered into a three year agreement with an annual maintenance payment calculated by averaging the pricing for the term assuming an increase of .5% per year included, the County's annual support and maintenance fees instead could not exceed .5% for such year. To avoid doubt, the foregoing does not apply to the extent a change in maintenance costs for a particular jurisdiction is affected by a change in product mix or service level.

Contractor represents that the fixed-price meets the requirements of this section.

Contractor shall, in each annual invoice for System Support Services and Maintenance Support, include a notarized certification that it is in compliance with this section.

h) Price Reduction. Purposely Omitted.

k) Contractor Credits

To the extent the Contractor gives credits toward future purchases of goods or services, financial incentives, discounts, value points or other benefits based on the purchase of the materials or services provided for under this Contract, such credits belong to the County and not any specific Using Agency. Contractor shall reflect any such credits on its invoices and in the amounts it invoices the County.

ARTICLE 6) DISPUTES

In the event of any dispute or claim arising under or in connection with the Agreement, including a dispute regarding an alleged breach of the Agreement, but excluding disputes concerning invoices, one party shall notify the other party in writing of the dispute (the "*Dispute*"). The parties shall work together in good faith first to resolve informally the Dispute internally by escalating it as necessary to progressively higher levels of the administrative structure.

Bona fide disputes shall be subject to the following. The dispute shall be filed by the complaining party in writing with the first tier and, unless resolved, will be escalated according to the time frame below.

CONTRACTOR	COUNTY	TIME TO ADDRESS
Project Manager	Project Manager	5 Business days
Associate General Counsel	Director of Application & Management, Cook County Bureau of Technology (or designee)	15 Business days
Individual designated by Contractor's President of Appraisal and Tax Division (Executive Dispute Level)	Chief Information Officer, Cook County Bureau of Technology	15 Business days

If the Contractor and the Using Agency have attempted, but been unable to resolve a disputed matter pursuant to the procedure described above, either party may submit a dispute to the Chief Procurement Officer. The complaining party shall submit the following to the Chief Procurement Officer: (i) a written statement detailing the dispute; (ii) the specific relevant Contract provision(s) underlying the dispute; (iii) all documentation or material which describes, supports and relates to the issues in dispute; and (iv) the identity of any person or persons or entities including Subcontractors, believed to be necessary to the resolution of the dispute. All meetings and discussions between senior representatives will be deemed confidential settlement discussions not subject to disclosure under Federal Rule of Evidence 408 or any similar applicable state rule.

Upon request of the Chief Procurement Officer, the party complained against shall respond to the complaint in writing within five business days, or such other time as may be extended, of receipt of such request. The party complained against shall have the right to respond to the dispute and submit any written information comparable to that described above. The Chief Procurement Officer may contact the Contractor and Using Agency to obtain written additional information or documentation or written clarification regarding their submissions, which shall be shared between the parties. If at any time the Chief Procurement Officer determines that obtaining written information or documentation from an additional person or entity is reasonable, desirable and necessary for resolution of the dispute, the Chief Procurement Officer will notify the Using Agency and Contractor, and provide copies of any documentation it receives from the additional person or entity to the Using Agency and Contractor.

The Chief Procurement Officer will reduce her decision to writing and mail or otherwise furnish a copy thereof to the Contractor. The decision of the Chief Procurement Officer will be the final level of administrative appeal process. Dispute resolution as provided herein shall be a condition precedent to any other action at law or in equity, and upon conclusion of the dispute resolution processes described above, either party may assert its respective rights and remedies in a court of competent jurisdiction. However, unless a notice is issued by the Chief Procurement Officer indicating that additional time is required to review a dispute, the parties may exercise their contractual remedies, if any, if no decision is made within sixty (60) days following notification to the Chief Procurement Officer of a dispute. No inference shall be drawn from the absence of a decision by the Chief Procurement Officer.

If the County disputes that the Services or Deliverables does not conform to the Agreement, the County will provide the Contractor with written notice within fifteen (15) days of the receipt of the applicable invoice. The written notice shall contain sufficient detail of the issues that the County contends are in dispute. Contractor shall provide a written response to the County that will include either a justification of the invoice, an adjustment to the invoice, or a proposal addressing the issues presented in the County's notice. The County and Contractor will work together as may be necessary to develop an action plan that outlines reasonable steps to be taken by each party to resolve any issues presented in the notice. The County agrees that it will only withhold payment of the amount(s) actually in dispute until the action items outlined in the action plan are completed. If Contractor is unable to complete the action items outlined in the action plan because of the County's failure to complete the items agreed to be performed by the County, within the time frame set forth in the action plan, the County will remit full payment of the invoice. Contractor reserves the right to suspend delivery of services, including maintenance and support services, if the County fails to pay an invoice which is not in dispute. Notwithstanding a dispute, Contractor shall continue to discharge all its obligations, duties and responsibilities set forth in the Contract during any dispute resolution proceeding unless otherwise agreed to by the County in writing.

ARTICLE 7) COOPERATION WITH INSPECTOR GENERAL AND COMPLIANCE WITH ALL LAWS

The Contractor, Subcontractor, licensees, grantees or persons or businesses who have a County contract, grant, license, or certification of eligibility for County contracts shall abide by all of the applicable provisions of the Office of the Independent Inspector General Ordinance. Cook County, Ill., Code pt.1, ch. 2, art. IV., div. 5, section 2-281 et seq.. Failure to cooperate as required may result in monetary and/or other penalties.

The Contractor shall observe and comply with the laws, ordinances, regulations and codes of the Federal, State, County and other local government agencies which may in any manner affect the performance of the Contract including, but not limited to, those County Ordinances set forth in the Certifications attached hereto and incorporated herein. Assurance of compliance with this requirement by the Contractor's employees, agents or Subcontractor shall be the responsibility of the Contractor.

The Contractor shall secure and pay for all federal, state and local licenses, permits and fees required of Contractor hereunder.

ARTICLE 8) SPECIAL CONDITIONS

a) General Warranties and Representations

In connection with signing and carrying out this Agreement, Contractor:

- i) Warrants that Contractor is appropriately licensed under Illinois law to perform

the Services required under this Agreement and will perform no Services for which a professional license is required by law and for which Contractor is not appropriately licensed;

- ii) Warrants it is financially solvent; it and each of its employees, agents and Subcontractors of any tier are competent to perform the Services required under this Agreement; and Contractor is legally authorized to execute and perform or cause to be performed this Agreement under the terms and conditions stated in this Agreement;
- iii) Warrants that it will not knowingly use the services of any Contractor or Subcontractor, which has been disqualified by Cook County, for any purpose in the performance of its Services under this Agreement;
- iv) Warrants that Contractor and its Subcontractors are not in default at the time this Agreement is signed, and has not been considered by the Chief Procurement Officer to have, within 5 years immediately preceding the date of this Agreement, been found to be in default on any contract awarded by the County;
- v) Represents that it has carefully examined and analyzed the provisions and requirements of this Agreement; it understands the nature of the Services required as described in Exhibit 1, Statement of Work; from its own analysis it has satisfied itself as to the nature of all things required to be provided or performed by Contractor during the provision of Services under Exhibit 1, Statement of Work under this Agreement; this Agreement is feasible of performance in accordance with all of its provisions and requirements, and Contractor warrants it can and will perform, or cause to be performed, the Services in material accordance with the provisions and requirements of this Agreement;
- vi) Represents that Contractor and, to the best of its knowledge, its Subcontractors are not in violation of the provisions of the Illinois Criminal Code, 720 ILCS 5/33E as amended; and
- vii) Acknowledges that any certification, affidavit or acknowledgment made under oath in connection with this Agreement is made under penalty of perjury and, if false, is also cause for termination under Sections 9.a and 9.c.

b) Ethics

- i) In addition to the foregoing warranties and representations, Contractor warrants:
 - (1) No officer, agent or employee of the County is employed by Contractor or has a financial interest directly or indirectly in this Agreement or the compensation to be paid under this Agreement except as may be permitted in writing by the Board of Ethics.

- (2) No payment, gratuity or offer of employment will be made in connection with this Agreement by or on behalf of any Subcontractors to the prime Contractor or higher tier Subcontractors or anyone associated with them, as an inducement for the award of a subcontract or order.

c) Joint and Several Liability

If Contractor, or its successors or assigns, if any, is comprised of more than one individual or other legal entity (or a combination of them), then under this Agreement, each and without limitation every obligation or undertaking in this Agreement to be fulfilled or performed by Contractor is the joint and several obligation or undertaking of each such individual or other legal entity.

d) Business Documents

At the request of the County, Contractor must provide copies of its latest articles of incorporation, by-laws and resolutions, or partnership or joint venture agreement, as applicable.

e) Conflicts of Interest

- i) No member of the governing body of the County or other unit of government and no other officer, employee or agent of the County or other unit of government who exercises any functions or responsibilities in connection with the Services to which this Agreement pertains is permitted to have any personal interest, direct or indirect, in this Agreement. No member of or delegate to the Congress of the United States or the Illinois General Assembly and no Commissioner of the Cook County Board or County employee is allowed to be admitted to any share or part of this Agreement or to any financial benefit to arise from it.
- ii) Contractor covenants that it, and to the best of its knowledge, its Subcontractors if any presently have no direct or indirect interest and will not acquire any interest, direct or indirect, in any project or contract that would conflict in any manner or degree with the performance of its Services under this Agreement.
- iii) Upon the request of the County, Contractor must disclose to the County its past client list and the names of any clients with whom it has an ongoing relationship, to the extent that Contractor is not prohibited from disclosure based on confidentiality provisions in the relevant agreements. Contractor is not permitted to perform any Services for the County on applications or other documents submitted to the County by any of Contractor's past or present clients. If Contractor becomes aware of a conflict, it must immediately notify the County and stop work on the assignment causing the conflict, if agreed to with the County.

- (a) Failure due to a reason or circumstances within Contractor's reasonable control to perform the Services with sufficient personnel and equipment or with sufficient material to ensure the performance of the Services;
 - (b) Inability to perform the Services satisfactorily as a result of insolvency, filing for bankruptcy or assignment for the benefit of creditors;
 - (c) Failure to promptly correct or re-perform within a reasonable time Services that were rejected as failing to conform to Exhibit 1, Statement of Work;
 - (d) Discontinuance of the Services for reasons within Contractor's reasonable control; and
 - (e) Failure to comply with any other material term of this Agreement, including the provisions concerning timeliness, insurance and nondiscrimination.
- iii) Any change in ownership or control of Contractor without written notice to the Chief Procurement Officer within a reasonable period of time following such change.
 - iv) Contractor's default under any other agreement it may presently have or may enter into with the County during the life of this Agreement Contractor acknowledges and agrees that in the event of a default under this Agreement the County may also declare a default under any such other Agreements.
 - v) Failure to comply with Article 7 in the performance of the Agreement.
 - vi) Contractor's repeated or continued violations of County ordinances unrelated to performance under the Agreement that in the opinion of the Chief Procurement Officer indicate a willful or reckless disregard for County laws and regulations.

Remedies

b) Remedies

In the event of a default by the Contractor, the County shall give Contractor an opportunity to cure the default within a certain period of time, which period of time shall be no less than 30 following Contractor's receipt of County's written notice, unless extended by the Chief Procurement Officer.

In the event of a default by Contractor, the Chief Procurement Officer will give Contractor written notice of the default, in the form of a cure notice ("**Cure Notice**"). If Consultant fails to affect a cure within the cure period given in a Cure Notice, the Chief Procurement Officer may terminate this Agreement.

- iv) Without limiting the foregoing, if the Contractor assists the County in determining the advisability or feasibility of a project or in recommending, researching, preparing, drafting or issuing a request for proposals or bid specifications for a project, the Contractor must not participate, directly or indirectly, as a prime, Subcontractor or joint venturer in that project or in the preparation of a proposal or bid for that project during the term of this Agreement or afterwards. The Contractor may, however, assist the County in reviewing the proposals or bids for the project if the Contractor does not have a relationship with the persons or entities that submitted the proposals or bids for that project.
- v) The Contractor further covenants that, in the performance of this Agreement, no person having any conflicting interest will be assigned to perform any Services or have access to any confidential information, as defined in Section 3.j of this Agreement. If the County, by the Chief Procurement Officer in his reasonable judgment, determines that any of Contractor's Services for others conflict with the Services Contractor is to render for the County under this Agreement, County shall provide Contractor with a written notice of such conflict and Contractor shall have no less than 15 business days to provide the Chief Procurement Officer with evidence that no conflict exists or that such conflict can be remediated to the reasonable satisfaction of the Chief Procurement Officer, or Contractor must terminate such other services upon mutual agreement of the County and Contractor.

f) Non-Liability of Public Officials

Contractor and any assignee or Subcontractor of Contractor must not charge any official, employee or agent of the County personally with any liability or expenses of defense or hold any official, employee or agent of the County personally liable to them under any term or provision of this Agreement or because of the County's execution, attempted execution or any breach of this Agreement.

ARTICLE 9) EVENTS OF DEFAULT, REMEDIES, TERMINATION, SUSPENSION AND RIGHT TO OFFSET

a) Events of Default Defined

The following constitute events of default:

- i) Any material misrepresentation, whether negligent or willful and whether in the inducement or in the performance, made by Contractor to the County.
- ii) Contractor's material failure to perform its Services in a professional, good, and workmanlike manner, consistent with industry standards, or the material failure of the Contractor's Software to conform to the warranties set forth in Agreement.

Notwithstanding the foregoing, if the County has issued three or more Notices to Cure to the Contractor, the County, at its sole option may declare the Contractor in default. Whether to declare the Contractor in default is within the sole, reasonable discretion of the Chief Procurement Officer and neither that decision nor the factual basis for it is subject to review or challenge under the Disputes provision of this Agreement.

If the Chief Procurement Officer gives a Default Notice, because of the Contractor's failure to affect a cure within the cure period given in a Cure Notice, or because the County has issued three or more Notices to Cure to the Contractor, he or she will also indicate any present intent to terminate this Agreement, and the decision to terminate (but not the decision not to terminate) is final and effective upon giving the notice.

When County terminates this Agreement, Contractor must discontinue any Services, unless otherwise directed in the notice, and deliver all materials accumulated in the performance of this Agreement, whether completed or in the process, to the County. After giving a Default Notice, the County may invoke any or all of the following remedies:

- i) The right to take over any support and maintenance services, or any part of them;
- ii) The right to terminate this Agreement as to any or all of the Services yet to be performed effective at a time specified by the County;
- iii) The right of specific performance, an injunction or any other appropriate equitable remedy;
- iv) The right to money damages, including the liquidated damages pursuant to Article 9;
- v) The right to consider Contractor non-responsible in future contracts to be awarded by the County.

If the Chief Procurement Officer considers it to be in the County's best interests, he/she may elect not to declare default or to terminate this Agreement. The parties acknowledge that this provision is solely for the benefit of the County and that if the County permits Contractor to continue to provide the Services despite one or more events of default, Contractor is in no way relieved of any of its responsibilities, duties or obligations under this Agreement, nor does the County waive or relinquish any of its rights.

The remedies under the terms of this Agreement are not intended to be exclusive of any other remedies provided, but each and every such remedy (except for the remedies provided to County under Article 3(h) and liquidated damages provided for under Article 9(h)) is cumulative and is in addition to any other remedies, existing now or later, at law, in equity or by statute. No delay or omission to exercise any right or power accruing upon any event of default impairs any such right or power, nor is it a waiver of any event

of default nor acquiescence in it, and every such right and power may be exercised from time to time and as often as the County considers expedient.

c) Early Termination

In addition to termination for default or any other reason resulting from Contractor's performance or non-performance, the County may terminate this Agreement, or all or any portion of the Services to be performed under it, at any time by giving thirty (30) days' advanced written notice to Contractor, in accordance with the provisions of Article 11. The effective date of termination will be the date the notice is received by Contractor or the date stated in the notice, whichever is later. If the County elects to terminate this Agreement in full, all Services to be provided under it must cease and all materials that may have been accumulated in performing this Agreement, whether completed or in the process, must be delivered to the County effective thirty (30) days after the date the notice is considered received as provided under Article 11 of this Agreement (if no date is given), or upon the effective date stated in the notice.

After the notice is received, Contractor must restrict its activities, and those of its Subcontractors, to winding down any reports, analyses, or other activities previously begun. No costs incurred after the effective date of the termination are allowed. Payment for any Services actually and satisfactorily performed and/or delivered before the effective date of the termination is on the same basis as set forth in Article 5. County agrees that it may not deem Services unsatisfactory on account of the Services being incomplete as of the effective date of termination, if such Services could not reasonably be completed within the period between the date the notice of termination is received and the termination date. No amount of compensation, however, is permitted for anticipated profits on unperformed Services. The County and Contractor must attempt to agree on the amount of compensation to be paid to Contractor, but if not agreed on, the dispute must be settled in accordance with Article 6 of this Agreement.

Contractor must include in its contracts with Subcontractors an early termination provision in form and substance equivalent to this early termination provision to prevent claims against the County arising from termination of subcontracts after the early termination. Contractor will not be entitled to make any early termination claims against the County resulting from any Subcontractor's claims against Contractor or the County to the extent inconsistent with this provision.

If the County's election to terminate this Agreement for default under Sections 9.a and 9.b is determined in a court of competent jurisdiction to have been wrongful, then in that case the termination is to be considered to be an early termination under this Section 9.c.

d) Suspension

The County may at any time request that Contractor suspend its Services, or any part of them, by giving thirty (30) days prior written notice to Contractor or upon informal oral, or even no notice, in the event of emergency. No costs incurred after the effective date of

such suspension are allowed. Contractor will resume its performance of the Services under the same terms and conditions as stated in this Agreement upon written notice by the Chief Procurement Officer, on a mutually agreed upon timetable, which in all events must be commercially reasonable. Any additional costs or expenses actually incurred by Contractor as a result of recommencing the Services must be treated in accordance with the compensation provisions under Article 5 of this Agreement.

No suspension of this Agreement is permitted in the aggregate to exceed a period of forty-five (45) days within any one year of this Agreement. If the total number of days of suspension exceeds forty-five (45) days, Contractor by written notice may treat the suspension as an early termination of this Agreement under Section 9.c.

e) **Right to Offset
(Intentionally Omitted)**

The County will not be entitled to a refund or offset of previously paid Software license and other fees.

f) **Intentionally Omitted.**

g) **Liquidated Damages**

The County and Contractor agree that quantifying the County's losses or damages arising from the Contractor's delay or failure to provide the Deliverables in accordance with this Agreement is inherently difficult insofar as the Contractor's failure may cause the County to provide essential and statutorily mandated government services, and the Contractor further stipulates that the agreed upon sums listed below are not a penalty, but rather a reasonable measure of damages, based upon the parties' experience in the integrated property tax system. If Contractor, solely attributable to its own performance, and subject to Article 4(b)(ii), fails to complete the specific Deliverables identified below in accordance with Exhibit 1, Statement of Work, the County will be entitled to the following liquidated damages:

- (i) \$25,000 per week, for each week commencing on the seventh (7th) day after the projected date for Go-Live set forth in Exhibit 1, Statement of Work, in the event that Tyler fails to transition to the new System in accordance with the project timeline, in lieu of termination for convenience.

Tyler's total liability for liquidated damages for failure to comply with time limits required under this Agreement shall not exceed \$600,000. This section provides County's exclusive remedy for Contractor's failure to comply with time limits required under this Agreement.

County agrees to comply with the terms of Article 6, Disputes, in the event the County wishes to exercise the remedies provided for under this Section 9(g).

h) Prepaid Fees

In the event this Contract is terminated by either party, for cause or otherwise, and the County has prepaid for any Deliverables, Contractor shall refund to the County, on a prorated basis to the effective date of termination, the prorated amount prepaid for Deliverables not actually provided as of the effective date of the termination. The refund shall be made within fourteen (14) days of the effective date of termination. County acknowledges and agrees that County is not entitled to a refund of previously paid Contractor-Provided Software license fees.

i) Incurred Expenses

The County will make payment to the Contractor for all undisputed expenses delivered and/or incurred and accepted prior to the effective date of termination. No costs incurred after the effective date of the termination are allowed. Payment for any costs incurred before the effective date of the termination is on the same basis as set forth in Article 5. No amount of compensation, however, is permitted for anticipated profits on unperformed Services. Prior to the effective date of termination, the County and Contractor must attempt to agree on the amount of compensation to be paid to Contractor, but if not agreed on, the dispute must be settled in accordance with Article 6 of this Agreement. If the County and Contractor agree on the amount of compensation, the payment so made to Contractor is in full settlement for all Services satisfactorily performed under this Agreement.

ARTICLE 10) GENERAL CONDITIONS

a) Entire Agreement

i) General

This Agreement, and the exhibits attached to it and incorporated in it, constitute the entire agreement between the parties and no other warranties, inducements, considerations, promises or interpretations are implied or impressed upon this Agreement that are not expressly addressed in this Agreement.

ii) No Collateral Agreements

Contractor acknowledges that, except only for those representations, statements or promises expressly contained in this Agreement and any exhibits attached to it and incorporated by reference in it, no representation, statement or promise, oral or in writing, of any kind whatsoever, by the County, its officials, agents or employees, has induced Contractor to enter into this Agreement or has been relied upon by Contractor, including any with reference to:

- (a) The meaning, correctness, suitability or completeness of any provisions or

requirements of this Agreement;

- (b) The nature of the Services to be performed;
- (c) The nature, quantity, quality or volume of any materials, equipment, labor and other facilities needed for the performance of this Agreement;
- (d) The general conditions which may in any way affect this Agreement or its performance;
- (e) The compensation provisions of this Agreement; or
- (f) Any other matters, whether similar to or different from those referred to in (a) through (e) immediately above, affecting or having any connection with this Agreement, its negotiation, any discussions of its performance or those employed or connected or concerned with it.

iii) **No Omissions**

Each party acknowledge that it was given an opportunity to review all documents forming this Agreement before signing this Agreement in order that it might request inclusion in this Agreement of any statement, representation, promise or provision that it desired or on that it wished to place reliance. Each party did so review those documents, and either every such statement, representation, promise or provision has been included in this Agreement or else, if omitted, the party relinquishes the benefit of any such omitted statement, representation, promise or provision and is willing to perform this Agreement in its entirety without claiming reliance on it or making any other claim on account of its omission.

b) **Counterparts**

This Agreement is comprised of several identical counterparts, each to be fully signed by the parties and each to be considered an original having identical legal effect.

c) **Contract Amendments**

The parties may during the term of the Contract make amendments to the Contract but only as provided in this section. Such amendments shall only be made by mutual agreement in writing.

In the case of Contracts not approved by the Board, the Chief Procurement Officer may amend a contract provided that any such amendment does not extend the Contract by more than one (1) year, and further provided that the total cost of all such amendments does not increase the total amount of the Contract beyond \$150,000. Such action may only be made with the advance written approval of the Chief Procurement Officer. If the amendment extends the Contract beyond one (1) year or increases the total award amount beyond

\$150,000, then Board approval will be required.

In the event of extreme inflation (Consumer Price Index All Urban Consumers calculated on year over year change basis), defined as ten percent or greater per year, the County agrees that it may renegotiate the rates for this Contract.

No Using Agency or employee thereof has authority to make any amendments to this Contract. Any amendments to this Contract made without the express written approval of the Chief Procurement Officer is void and unenforceable.

Contractor is hereby notified that, except for amendments which are made in accordance with this Section. Contract Amendments, no Using Agency or employee thereof has authority to make any amendment to this Contract.

d) Governing Law and Jurisdiction

This Contract shall be governed by and construed under the laws of the State of Illinois. The Contractor irrevocably agrees that, subject to the County's sole and absolute election to the contrary, any action or proceeding in any way, manner or respect arising out of the Contract, or arising from any dispute or controversy arising in connection with or related to the Contract, shall be litigated only in courts within the Circuit Court of Cook County, State of Illinois, or the United States Northern District of Illinois, Eastern Division, and the Contractor consents and submits to the jurisdiction thereof. In accordance with these provisions, Contractor waives any right it may have to transfer or change the venue of any litigation brought against it by the County pursuant to this Contract.

e) Severability

If any provision of this Agreement is held or considered to be or is in fact invalid, illegal, inoperative or unenforceable as applied in any particular case in any jurisdiction or in all cases because it conflicts with any other provision or provisions of this Agreement or of any constitution, statute, ordinance, rule of law or public policy, or for any other reason, those circumstances do not have the effect of rendering the provision in question invalid, illegal, inoperative or unenforceable in any other case or circumstances, or of rendering any other provision or provisions in this Agreement invalid, illegal, inoperative or unenforceable to any extent whatsoever. The invalidity, illegality, inoperativeness or unenforceability of any one or more phrases, sentences, clauses or sections in this Agreement does not affect the remaining portions of this Agreement or any part of it.

f) Assigns

All of the terms and conditions of this Agreement are binding upon and inure to the benefit of the parties and their respective legal representatives, successors and assigns.

g) Cooperation

Contractor must at all times cooperate fully with the County and act in the County's best interests. If this Agreement is terminated for any reason, or if it is to expire on its own terms, Contractor must make reasonable efforts, prior to such termination, to assure an orderly transition to another provider of the Services, if any, orderly demobilization of its own operations in connection with the Services, uninterrupted provision of Services prior to termination and must otherwise comply with the reasonable requests and requirements of the Using Agency in connection with the termination or expiration. Transitional assistance post-termination will be billed to the County at mutually agreeable negotiated rates.

h) Waiver

Nothing in this Agreement authorizes the waiver of a requirement or condition contrary to law or ordinance or that would result in or promote the violation of any federal, state or local law or ordinance.

Whenever under this Agreement the County by a proper authority waives Contractor's performance in any respect or waives a requirement or condition to either the County's or Contractor's performance, the waiver so granted, whether express or implied, only applies to the particular instance and is not a waiver forever or for subsequent instances of the performance, requirement or condition. No such waiver is a modification of this Agreement regardless of the number of times the County may have waived the performance, requirement or condition. Such waivers must be provided to Contractor in writing.

i) Independent Contractor

This Agreement is not intended to and will not constitute, create, give rise to, or otherwise recognize a joint venture, partnership, corporation or other formal business association or organization of any kind between Contractor and the County. The rights and the obligations of the parties are only those expressly set forth in this Agreement. Contractor must perform under this Agreement as an independent Contractor and not as a representative, employee, agent, or partner of the County.

This Agreement is between the County and an independent Contractor and, if Contractor is an individual, nothing provided for under this Agreement constitutes or implies an employer-employee relationship such that:

- i) The County will not be liable under or by reason of this Agreement for the payment of any compensation award or damages in connection with the Contractor performing the Services required under this Agreement.
- ii) Contractor is not entitled to membership in the County Pension Fund, Group Medical Insurance Program, Group Dental Program, Group Vision Care, Group

Life Insurance Program, Deferred Income Program, vacation, sick leave, extended sick leave, or any other benefits ordinarily provided to individuals employed and paid through the regular payrolls of the County.

- iii) The County is not required to deduct or withhold any taxes, FICA or other deductions from any compensation provided to the Contractor.

j) Governmental Joint Purchasing Agreement

Pursuant to Section 4 of the Illinois Governmental Joint Purchasing Act, 30 ILCS 525, and the Joint Purchase Agreement approved by the Cook County Board of Commissioners (April 9, 1965), other units of government may purchase goods or services under this contract, provided that the terms and conditions, including pricing and project documents are customized for the other units of local government.

In the event that other agencies participate in a joint procurement, the County reserves the right to renegotiate the price to accommodate the larger volume.

k) Comparable Government Procurement

As permitted by the County of Cook, other government entities, if authorized by law, may wish to purchase the goods, supplies, services or equipment under the same terms and conditions contained in this Contract (i.e., comparable government procurement); provided that the terms and conditions, including pricing and project documents, shall be based on the specific needs of the purchasing entity at the time of purchase. Each entity wishing to reference this Contract must have prior authorization from the County of Cook and the Contractor, will place its own order(s) directly with Contractor and will be required to execute a separate contract with Tyler. If such participation is authorized, all purchase orders will be issued directly from and shipped directly to the entity requiring the goods, supplies, equipment or services supplies/services. The County shall not be held responsible for any orders placed, deliveries made or payment for the goods, supplies, equipment or services supplies/services ordered by these entities. Each entity reserves the right to determine the amount of goods, supplies, equipment or services it wishes to purchase under this Contract.

l) Force Majeure

Neither Contractor nor County shall be liable for failing to fulfill any obligation under this Contract if such failure is caused by an event beyond such party's reasonable control and which is not caused by such party's fault or negligence. Such events shall be limited to acts of God, acts of war, fires, lightning, floods, epidemics, or riots, and such other similar types of events.

ARTICLE 11) NOTICES

All notices required pursuant to this Contract shall be in writing and addressed to the

parties at their respective addresses set forth below. All such notices shall be deemed duly given if hand delivered or if deposited in the United States mail, postage prepaid, registered or certified, return receipt requested. Notice as provided herein does not waive service of summons or process.

If to the County: Bureau of Technology, Cook County
69 West Washington
Suite 2700
Chicago, Illinois 60602
Attention: Chief Information Officer

and

Cook County Chief Procurement Officer
118 North Clark Street. Room 1018
Chicago, Illinois 60602
(Include County Contract Number on all notices)

If to Contractor: Tyler Technologies, Inc.
4100 Miller-Valentine Court
Dayton, OH 45439 Attention: Gus Tenhundfeld, Inside Sales
Manager

Changes in these addresses must be in writing and delivered in accordance with the provisions of this Article. Notices delivered by mail are considered received three days after mailing in accordance with this Article. Notices delivered personally are considered effective upon receipt. Refusal to accept delivery has the same effect as receipt.

ARTICLE 12) AUTHORITY

Execution of this Agreement by each party is authorized by a resolution of its Board of Directors, if a corporation, or similar governing document. The County is authorized to enter into this Agreement based upon the authorization of the Cook County Board on September 9, 2015. The signature(s) on behalf of Contractor has been made with complete and full authority to commit Contractor to all terms and conditions of this Agreement, including each and every representation, certification and warranty contained in it, including the representations, certifications and warranties collectively incorporated by reference in it.

EXHIBIT 1

Statement of Work (SOW) for Implementation of the Integrated Property Tax and
Mass Appraisal System and Re-engineering of Related Property Tax Process



COOK COUNTY GOVERNMENT

Office of the Chief Procurement Officer

Statement of Work (SOW) for

**Implementation of the Integrated Property Tax and Mass Appraisal
System and Re-engineering of Related Property Tax Process**

Contract Number: 1390-13787

Contract Term: September 30, 2015 through March 31, 2023

Vendor: Tyler Technologies

Date: July 29, 2015

Table of Contents

1.	Background.....	6
1.1	Business Goals and Objectives	6
2.	Scope Overview	7
3.	System Solution.....	8
3.1	Overview – Diagrams.....	8
3.2	Hardware Environment	8
	Production Environment	9
	Staging Environment	13
	Test Environment	18
	Development Environment	22
3.2.1	Hardware provisioning responsibilities.....	26
3.3	Tyler Solution and Specific Software Functionality Required by Cook County	26
3.3.1	Business Process Requirements	27
3.3.2	System Requirements.....	30
3.3.3	System Requirements – Clarifications.....	50
3.4	System Response and Data Throughput	54
3.5	Data Conversion/Migration.....	55
3.5.1	Tyler’s Standard File Format for Conversion	55
3.5.2	Monitoring of Data Conversion Activities	55
3.5.3	Cleansing of Data.....	55
3.5.4	Error Detection and Correction	55
3.5.5	Tyler Migration Responsibilities	55
3.5.6	Cook County Migration Responsibilities	58
3.5.7	Deliverables	59
3.6	Integration.....	59
3.6.1	Deliverables	61
3.7	Data Security and Compliance	61
3.8	Development and Configuration Practices	62
3.9	Network.....	64
4.	Project Management Approach and Implementation Methodology	64

4.1 Overview of the Implementation Methodology 64

 4.1.1 High Level Effort Estimates..... 65

 4.1.2 Deliverables 67

4.2 Resources 67

 4.2.1 Resource Plan 67

 4.2.2 Tyler Team Chart 70

 4.2.3 Client Roles and Responsibilities 71

 4.2.4 Project Executive Steering Committee Meetings..... 76

4.3 Project Management..... 76

 4.3.1 General 76

 4.3.2 Project Task List and Timeline 77

 4.3.3 Detail Project Plan and Task List..... 78

 4.3.4 Deliverable Acceptance Process..... 90

 4.3.5 Scope Change Management..... 90

 4.3.6 Deliverables 90

4.4 Organizational Change Management..... 91

 4.4.1 Audience Profile (Addresses Ability) 91

 4.4.2 Employees as Supporters (Addresses Reinforcement and Awareness)..... 91

 4.4.3 Written Communication Types (Addresses Awareness) 92

 4.4.4 Implement “Lunch-and-Learn” Sessions (Addresses Knowledge) 92

 4.4.5 Conduct a Training Pilot Session (Addresses Knowledge)..... 92

 4.4.6 Go-Live Training Kickoff (Addresses Knowledge, Ability, and Awareness) 92

 4.4.7 Evaluation of Learner Outcomes (Addresses Ability and Reinforcement)..... 92

 4.4.8 Post Go-Live Support 93

 4.4.9 Deliverables 93

4.5 Discovery and/or Assessment Approach..... 93

 4.5.1 Deliverables 94

4.6 Reengineering Approach and System Design..... 94

 4.6.1 Deliverables 95

4.7 System Set up, Configuration and Development 96

 4.7.1 System Configuration Procedures 97

 4.7.2 Deliverables 97

4.8 Quality Assurance (QA) 97

 4.8.1 Promotion process: 98

 4.8.2 Unit Testing 98

 4.8.3 Integration Testing 98

 4.8.4 Migration Testing 98

 4.8.5 Alpha Testing 98

 4.8.6 User Acceptance Testing 98

 4.8.7 Bug/Discrepancy Fixing 99

 4.8.8 Regression Testing..... 99

 4.8.9 Deliverables 99

4.9 Knowledge Transfer and Training..... 100

 4.9.1 Formal Training Approach 100

 4.9.2 Training Analysis and Design 101

 4.9.3 Knowledge Transfer..... 101

 4.9.4 Pilot Training Program..... 102

 4.9.5 Debrief the Pilot Training 102

 4.9.6 Instructor-led training (classroom training) 102

 4.9.7 Evaluation of Learner Outcomes..... 103

 4.9.8 Training Videos..... 103

 4.9.9 E-Learning Module 104

 4.9.10 OCM Activities 104

 4.9.11 Deliverables 104

4.10 Transition/Cutover Approach..... 104

4.11 Go –Live and Rollout Support..... 105

4.12 System Warranty Period 106

4.13 Support and Maintenance..... 106

 4.12.1. Standard Help Desk Support 107

 4.13.2 Managed Services..... 109

 4.13.3 Online Knowledgebase 110

 4.13.4 Escalation Procedure 110

 4.13.5 Support Reporting 111

4.14 Backup and Disaster Recovery 111

4.15 Contract Performance Review and Acceptance.....	112
Pricing.....	112
Main.....	113
Support and Maintenance.....	113
Software.....	114
Professional Services.....	115
Payment Schedule.....	116
Exhibits.....	117
A. Tyler Software Modules – Generic Descriptions.....	117
B. Project Lessons Learned Document.....	121
C. Deliverable Acceptance Form.....	123
D. Post Implementation Evaluation Form.....	125
E. Project –Final Acceptance Form.....	127
F. Appraisal & Tax Solutions iasWorld 7.1 Client Workstation Requirements and Configuration.....	128

1. Background

Cook County Government (The County) manages the property tax process for 1.8 million properties. As mandated by the State of Illinois Property Tax Code and other State Statutes and Cook County Ordinances, various County Agencies have unique and distinct roles and responsibilities in this critical process. The work product and workflow are facilitated by multiple stand-alone databases (mostly Microsoft Access), paper forms and some complex systems (IBM AS/400 Series), but all work culminates in the mainframe system (IBM Z900 Series).

On June 30, 2014, the Office of the Chief Procurement Officer ("OCPO") issued an RFP (No. 1490-13787) to implement an integrated property tax and mass appraisal system and secure all related services to reengineer the current state process, automate the future state processes, and prepare Cook County staff for the transition to a new integrated solution. The RFP also required system and process support and maintenance. Tyler Technologies Inc., (Tyler) was selected for contract award and this document describes their Statement of Work (SOW).

1.1 Business Goals and Objectives

Tyler shall deliver a succinct strategy to evaluate the property tax current state processes, determine which of these processes are candidates for reengineering and which will be replicated as is in the new Solution, and automate identified reengineered processes, integrate with existing technologies, migrate all necessary data from the mainframe, replicate and enhance all necessary mainframe mathematical logic and replace all necessary disconnected databases affecting the property tax process. Tyler's plan shall include sufficient activities and time for the expansion of the existing Tyler Solution functionality to address limitations identified during the evaluation process. Mainly, Tyler demonstrated a base CAMA and Property Tax System, robust enough to add all other County required functionality that the Tyler system currently does not have. Therefore, Tyler acknowledges that a large amount of the Clerk's Office functionality and some of the functionality required by other County Offices to perform critical Property Tax functions (identified during demonstrations and written responses), does not currently exist within the Tyler's Solution and related modules and, that in order to achieve the stated business goals and objectives, Tyler shall, as agreed, configure and/or customize the required functionality on the proposed software and software modules. Examples of such limitations include but are not limited to functionality around Tax Extension, Portal, Bond, Tax Redemptions, Refunds, Certificates of Error, etc.

Tyler and the County acknowledge that the process maps and requirements released in the RFP and included here as reference, provided "just enough information" for Vendors to define strategies and estimate project pricing, and that Proposers with experience (such as Tyler), were required to estimate contingency levels necessary to identify and configure a certain percentage of unknown information that cannot be provided in a RFP. The County went as far as to state during the pre-proposal conference that for a project of this size, the County would expect vendors to estimate approximately 30% contingency to address the process details, but that the level of effort required to address the unknown information is determined and estimated by Vendors with experience in this industry. Experience in this industry was evaluated and Tyler was deemed to have said industry experience. Tyler acknowledges that in preparing its proposal, it included sufficient time and effort to identify unknown information and perform the work necessary to effectively complete the property tax functions.

Tyler shall methodically document the requirements that are in-scope, "potentially out-of-scope," candidates for a later phase, etc., during the Assessment and Reengineering phases. The procedure to classify and validate these requirements with Cook County is described in the Reengineering Section of this document. Should Tyler suspect that certain work is outside of the normal scope of work, it shall validate with the County each identified potential change

that may be out of scope, and if agreed, follow the Scope Change Management Procedure described in this document. Furthermore, Tyler shall implement an on premise property tax and mass appraisal solution that is secure, stable and fully configured for backup and recovery.

The terms of this contract shall be seven and a half (7½) years (4 ½ years for the implementation and three years of support and maintenance), with up to three (3) 3-year-extension options.

Upon completing the implementation, Tyler's deliverables shall enable the County to meet the following business goals and objectives:

- A. Transition out of the mainframe and AS/400 systems;
- B. Timely and accurately integrate with the GIS system to import the annual PIN and Tax Code list required for taxation;
- C. Timely and accurately issue assessment notices to property owners;
- D. Timely and accurately validate Taxing District input and calculate tax rates per PIN;
- E. Provide data for and mechanism to produce timely and accurate tax bills for over 1.8 million PINs;
- F. Timely and accurately collect and distribute taxes;
- G. Effectively manage and recover uncollected (delinquent) taxes;
- H. Eliminate stand-alone information/databases;
- I. Provide real-time information across all agencies;
- J. Reengineer and automate the current process with a strong focus on workflow automation, including document management and GIS integration, and standardize business functions around a common PIN-based system;
- K. Enhance customer service (property owners, attorneys, Taxing Districts);
- L. Reduce customers' physical visits by increasing effective online information exchange;
- M. Reduce repetitive work;
- N. Reduce human error;
- O. Reduce cost and quantity of manual work and paper printing;
- P. Increase transparency to management and the citizens of Cook County;
- Q. Increase efficiency.

2. Scope Overview

Tyler shall provide software (**System Solution**) to automate all the necessary property tax related processes. The software solution shall at minimum include a) all the necessary functionality required in the System Requirement Matrix (SRM), b) all functionality required but not existing (that may require customizations) in the Tyler Solution as identified during the Evaluation Process, c) functionality listed in the System Requirements Clarifications Section of this Document, and d) detailed functionality not explicitly specified in the SRM but necessary to successfully complete the Property Tax cycle as identified by Tyler during the Project Assessment Phase and as approved by the County. Tyler shall also provide all **Implementation Services** in collaboration with its partners The William Everett Group and Diversified Technology Inc. After the system is successfully implemented, Tyler shall provide support and maintenance services and periodically report Contract Performance to the County.

3. System Solution

3.1 Overview - Diagrams

Tyler shall create detail diagrams depicting the planned (future state) system architecture design including all related logical and physical components. Upon completion of the installation and configuration, Tyler should update all system configuration documentation including the diagrams to reflect the installed and configured solution. Tyler shall at minimum include highly detailed diagrams depicting:

- a. Number of environments per location with, at minimum, development, testing, staging, production; Cook County is requesting hardware setup at two (2) distinct data centers, with the primary data center in the downtown campus and the secondary location at a Cook County distant address;
- b. Front end and Backend components;
- c. Virtualization components;
- d. Security components;
- e. Network transmission security;
- f. Redundancy components;
- g. Backup and recovery components;
- h. Key modules/functionality;
- i. Interfaces/integration (see Integrations Section of this SOW document);
- j. 3rd party tools;
- k. Data partitions;
- l. Specific configurations for each County Office;
- m. Other key elements that would help Cook County better understand the system design (or the system as-built after configuration).

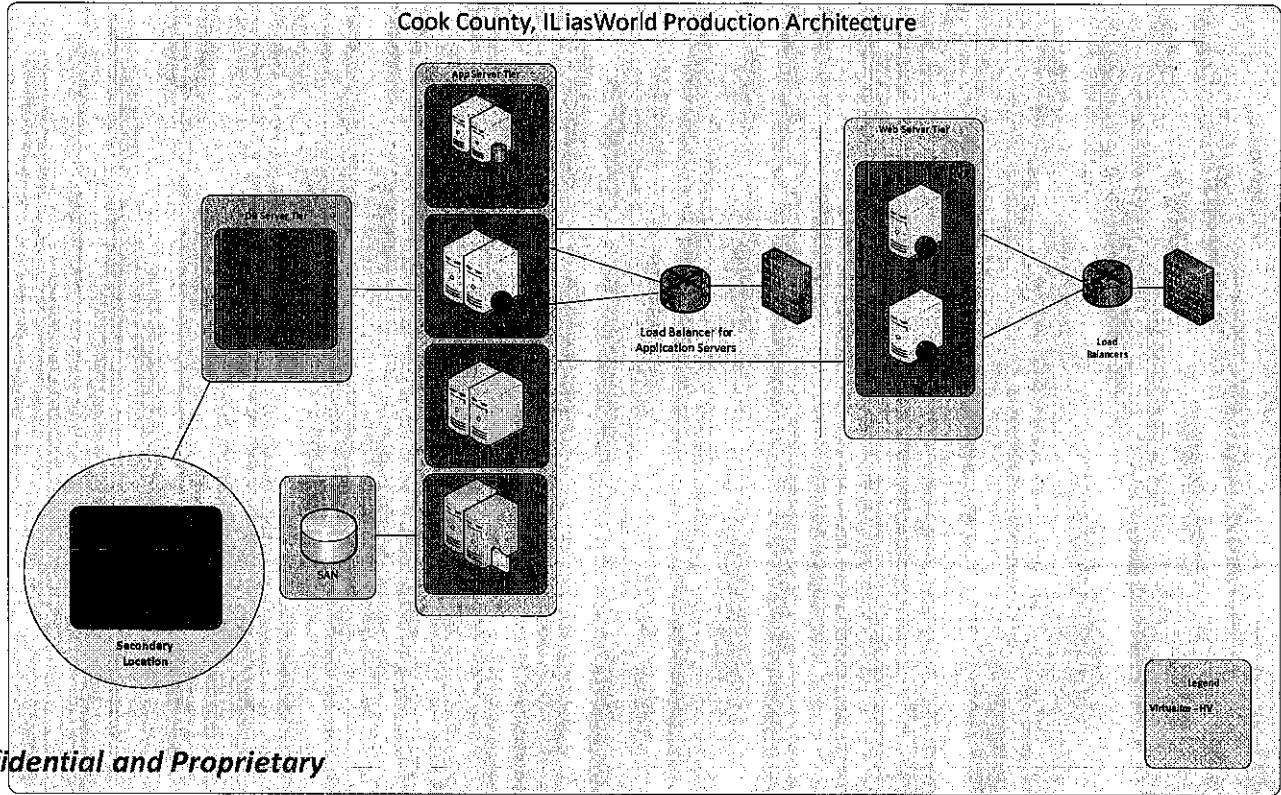
3.2 Hardware Environment

The County will procure the required hardware via its countywide hardware contract. Tyler shall assist the County with the installation of the recommended hardware environments consistent with Tyler's recommended hardware architecture. The County shall install the base Microsoft Server Operating System for all identified servers per the requirements provided by Tyler. The County shall install Microsoft SQL Server per the requirements provided by Tyler. The County shall ensure all Microsoft Server Operating Systems and Microsoft SQL Servers meet Tyler's required Microsoft service pack and update levels. However, Tyler shall install all non-Microsoft Server Operating Systems on the virtual or physical servers provided by Cook County. Tyler shall install and configure all software (iasWorld and databases) on the hardware infrastructure for the System Solution on all environments. Tyler shall work with the County and its hardware vendor to ensure a smooth delivery and setup of the required hardware.

Tyler shall monitor latency and identify any latency issues (such as server, network and/or database) after installation of the application on the hardware and throughout the implementation, especially after the County's data is loaded to the production environment and prior to go-live. Tyler shall ensure that performance monitoring utilities and application tracing are properly configured for monitoring during and after the implementation.

Tyler shall update the architecture diagrams and hardware specification tables below upon completing the initial assessment of the existing infrastructure and finalizing the future state system design.

Production Environment



Confidential and Proprietary

1	Hardware Specs (per server)	Proposers must state the recommended configuration for each proposed component.
1.1	Server Role	Production Web Server – Web Server Tier - x2
1.2	Location in network	Internal
1.3	CPU	2
1.4	Cores	4
1.5	Memory	4 GB
1.6	Disk space	146 GB
2	Server Applications and Licensing	
2.1	Database Software	No
2.2.	OS	Windows 2012 Server
2.3	Support tools	IIS7.5
2.4	Virtualization Software (Hyper-V is the County's standard)	Yes

1	Hardware Specs (per server)	Proposers must state the recommended configuration for each proposed component.
1.1	Server Role	Production Application Server – App Server Tier x2
1.2	Location in network	Internal
1.3	CPU	2
1.4	Cores	4
1.5	Memory	4 GB
1.6	Disk space	146 GB
2	Server Applications and Licensing	
2.1	Database Software	No
2.2.	OS	Windows 2012 Server
2.3	Support tools	Oracle 12c Client, IIS7.5
2.4	Virtualization Software (Hyper-V is the County's standard)	Yes

1	Hardware Specs (per server)	Proposers must state the recommended configuration for each proposed component.
1.1	Server Role	Production Reports Server – App Server Tier x2
1.2	Location in network	Internal
1.3	CPU	2
1.4	Cores	4
1.5	Memory	4 GB
1.6	Disk space	300 GB
2	Server Applications and Licensing	
2.1	Database Software	No
2.2.	OS	Windows 2012 Server
2.3	Support tools	Oracle 12c Client, Oracle Reports Services, IIS7.5
2.4	Virtualization Software (Hyper-V is the County's standard)	Yes

1	Hardware Specs (per server)	Proposers must state the recommended configuration for each proposed component.
1.1	Server Role	Production Image Server – App Server Tier x2
1.2	Location in network	Internal
1.3	CPU	2
1.4	Cores	4
1.5	Memory	4 GB
1.6	Disk space	146 GB
2	Server Applications and Licensing	
2.1	Database Software	No
2.2.	OS	Windows 2012 Server
2.3	Support tools	IIS7.5, Oracle 12c Client
2.4	Virtualization Software (Hyper-V is the County's standard)	Yes

1	Hardware Specs (per server)	Proposers must state the recommended configuration for each proposed component.
1.1	Server Role	Production Tyler WorkFlow Server & SQL Server – App Server Tier x2
1.2	Location in network	Internal
1.3	CPU	2
1.4	Cores	4
1.5	Memory	4 GB
1.6	Disk space	146 GB
2	Server Applications and Licensing	
2.1	Database Software	SQL Server 2008 R2
2.2.	OS	Windows 2012 Server
2.3	Support tools	PowerShell 3.0, IIS7

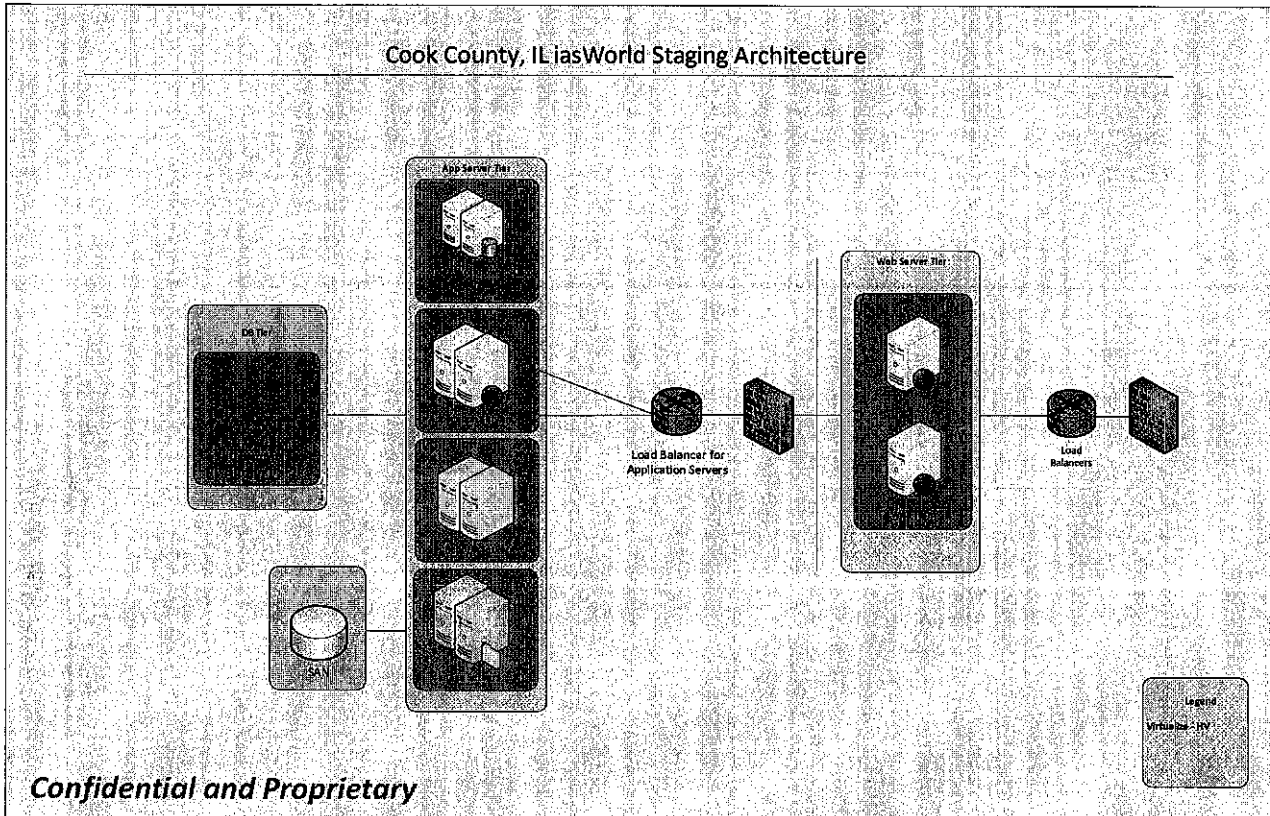
2.4	Virtualization Software (Hyper-V is the County's standard)	Yes
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1	Hardware Specs (per server)	Proposers must state the recommended configuration for each proposed component.
1.1	Server Role	Production – Storage Area Network – Storage for servers
1.2	Location in network	Internal
1.3	CPU	
1.4	Cores	
1.5	Memory	
1.6	Disk space	
2	Server Applications and Licensing	
2.1	Database Software	No
2.2	OS	No
2.3	Support tools	NO
2.4	Virtualization Software (Hyper-V is the County's standard)	No

1	Hardware Specs (per server)	Proposers must state the recommended configuration for each proposed component.
1.1	Server Role	Production – Oracle Database Appliance (Database Server for iasWorld database)
1.2	Location in network	Internal
1.3	CPU	12-core Intel Xeon E5-2697 v2 processors
1.4	Cores	12
1.5	Memory	256 GB
1.6	Disk space	18 TB of raw storage (double or triple-mirrored)
2	Server Applications and Licensing	
2.1	Database Software	Oracle RDBMS

2.2.	OS	Linux
2.3	Support tools	Oracle Enterprise Manager
2.4	Virtualization Software (Hyper-V is the County's standard)	No

Staging Environment



1	Hardware Specs (per server)	Proposers must state the recommended configuration for each proposed component.
1.1	Server Role	Staging Web Server – Web Server Tier x2
1.2	Location in network	Internal
1.3	CPU	2
1.4	Cores	4
1.5	Memory	4 GB
1.6	Disk space	146 GB
2	Server Applications and Licensing	

2.1	Database Software	No
2.2.	OS	Windows 2012 Server
2.3	Support tools	IIS7.5
2.4	Virtualization Software (Hyper-V is the County's standard)	Yes

1	Hardware Specs (per server)	Proposers must state the recommended configuration for each proposed component.
1.1	Server Role	Staging Application Server – App Server Tier x2
1.2	Location in network	Internal
1.3	CPU	2
1.4	Cores	4
1.5	Memory	4 GB
1.6	Disk space	146 GB
772	Server Applications and Licensing	
2.1	Database Software	No
2.2.	OS	Windows 2012 Server
2.3	Support tools	IIS7.5, Oracle 12c Client
2.4	Virtualization Software (Hyper-V is the County's standard)	Yes

1	Hardware Specs (per server)	Proposers must state the recommended configuration for each proposed component.
1.1	Server Role	Staging Reports Server – App Server Tier x2
1.2	Location in network	Internal
1.3	CPU	2
1.4	Cores	4
1.5	Memory	4 GB
1.6	Disk space	300 GB
2	Server Applications and Licensing	
2.1	Database Software	No
2.2.	OS	Windows 2012 Server
2.3	Support tools	IIS7.5, Oracle 12c Client, Oracle Reports Services
2.4	Virtualization Software (Hyper-V is the County's standard)	Yes

1	Hardware Specs (per server)	Proposers must state the recommended configuration for each proposed component.
1.1	Server Role	Staging Image Server – App Server Tier x2
1.2	Location in network	Internal
1.3	CPU	2
1.4	Cores	4
1.5	Memory	4 GB
1.6	Disk space	146 GB
2	Server Applications and Licensing	
2.1	Database Software	No
2.2.	OS	Windows 2012 Server
2.3	Support tools	IIS7.5, Oracle 12c Client
2.4	Virtualization Software (Hyper-V is the County's standard)	Yes

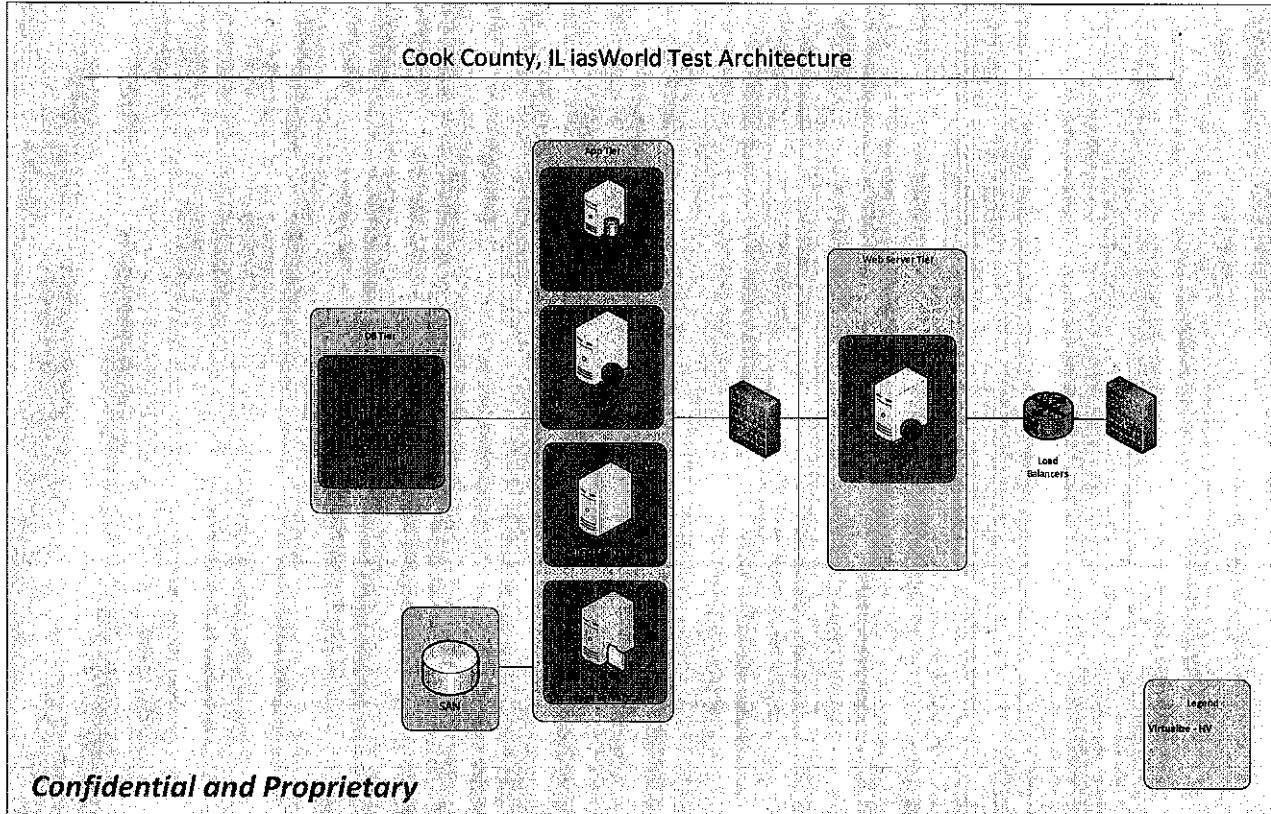
1	Hardware Specs (per server)	Proposers must state the recommended configuration for each proposed component.
1.1	Server Role	Staging Tyler WorkFlow & SQL Server – App Server Tier x2
1.2	Location in network	Internal
1.3	CPU	2
1.4	Cores	4
1.5	Memory	4 GB
1.6	Disk space	146 GB
2	Server Applications and Licensing	
2.1	Database Software	SQL Server 2008 R2
2.2.	OS	Windows 2012 Server
2.3	Support tools	PowerShell 3.0, IIS7
2.4	Virtualization Software (Hyper-V is the County's standard)	Yes

1	Hardware Specs (per server)	Proposers must state the recommended configuration for each proposed component.
1.1	Server Role	Staging – Storage Area Network – Storage for non-Oracle database servers.
1.2	Location in network	Internal
1.3	CPU	
1.4	Cores	
1.5	Memory	
1.6	Disk space	
2	Server Applications and Licensing	
2.1	Database Software	No No No

2.2.	OS	No
2.3	Support tools	No
2.4	Virtualization Software (Hyper-V is the County's standard)	No

1	Hardware Specs (per server)	Proposers must state the recommended configuration for each proposed component.
1.1	Server Role	Staging – Oracle Database Appliance (Database Server for iasWorld database)
1.2	Location in network	Internal
1.3	CPU	12-core Intel Xeon E5-2697 v2 processors
1.4	Cores	12
1.5	Memory	256 GB
1.6	Disk space	18 TB of raw storage (double or triple-mirrored)
2	Server Applications and Licensing	
2.1	Database Software	Oracle RDBMS
2.2.	OS	Linux
2.3	Support tools	Oracle Enterprise Manager
2.4	Virtualization Software (Hyper-V is the County's standard)	No

Test Environment



Confidential and Proprietary

1	Hardware Specs (per server)	Proposers must state the recommended configuration for each proposed component.
1.1	Server Role	Test Web Server – Web Server Tier
1.2	Location in network	Internal
1.3	CPU	2
1.4	Cores	4
1.5	Memory	4 GB
1.6	Disk space	146 GB
2	Server Applications and Licensing	
2.1	Database Software	No
2.2.	OS	Windows 2012 Server
2.3	Support tools	IIS7.5
2.4	Virtualization Software (Hyper-V is the County's standard)	Yes

1	Hardware Specs (per server)	Proposers must state the recommended configuration for each proposed component.
1.1	Server Role	Test Application Server – App Server Tier
1.2	Location in network	Internal
1.3	CPU	2
1.4	Cores	4
1.5	Memory	4 GB
1.6	Disk space	146 GB
2	Server Applications and Licensing	
2.1	Database Software	No
2.2.	OS	Windows 2012 Server
2.3	Support tools	IIS7.5, Oracle 12c Client
2.4	Virtualization Software (Hyper-V is the County's standard)	Yes

1	Hardware Specs (per server)	Proposers must state the recommended configuration for each proposed component.
1.1	Server Role	Test Reports Server – App Server Tier
1.2	Location in network	Internal
1.3	CPU	2
1.4	Cores	4
1.5	Memory	4 GB
1.6	Disk space	300 GB
2	Server Applications and Licensing	
2.1	Database Software	No
2.2.	OS	Windows 2012 Server
2.3	Support tools	IIS7.5, Oracle 12c Client, Oracle Reports Services
2.4	Virtualization Software (Hyper-V is the County's standard)	Yes

1	Hardware Specs (per server)	Proposers must state the recommended configuration for each proposed component.
1.1	Server Role	Test Image Server – App Server Tier
1.2	Location in network	Internal
1.3	CPU	2
1.4	Cores	4
1.5	Memory	4 GB
1.6	Disk space	146 GB
2	Server Applications and Licensing	
2.1	Database Software	No
2.2.	OS	Windows 2012 Server
2.3	Support tools	IIS7.5 Oracle 12c Client
2.4	Virtualization Software (Hyper-V is the County's standard)	Yes

1	Hardware Specs (per server)	Proposers must state the recommended configuration for each proposed component.
1.1	Server Role	Test Tyler WorkFlow Server & SQL Server – App Server Tier
1.2	Location in network	Internal
1.3	CPU	2
1.4	Cores	4
1.5	Memory	4 GB
1.6	Disk space	146 GB
2	Server Applications and Licensing	
2.1	Database Software	SQL Server 2008 R2
2.2.	OS	Windows 2012 Server
2.3	Support tools	PowerShell 3.0, IIS7

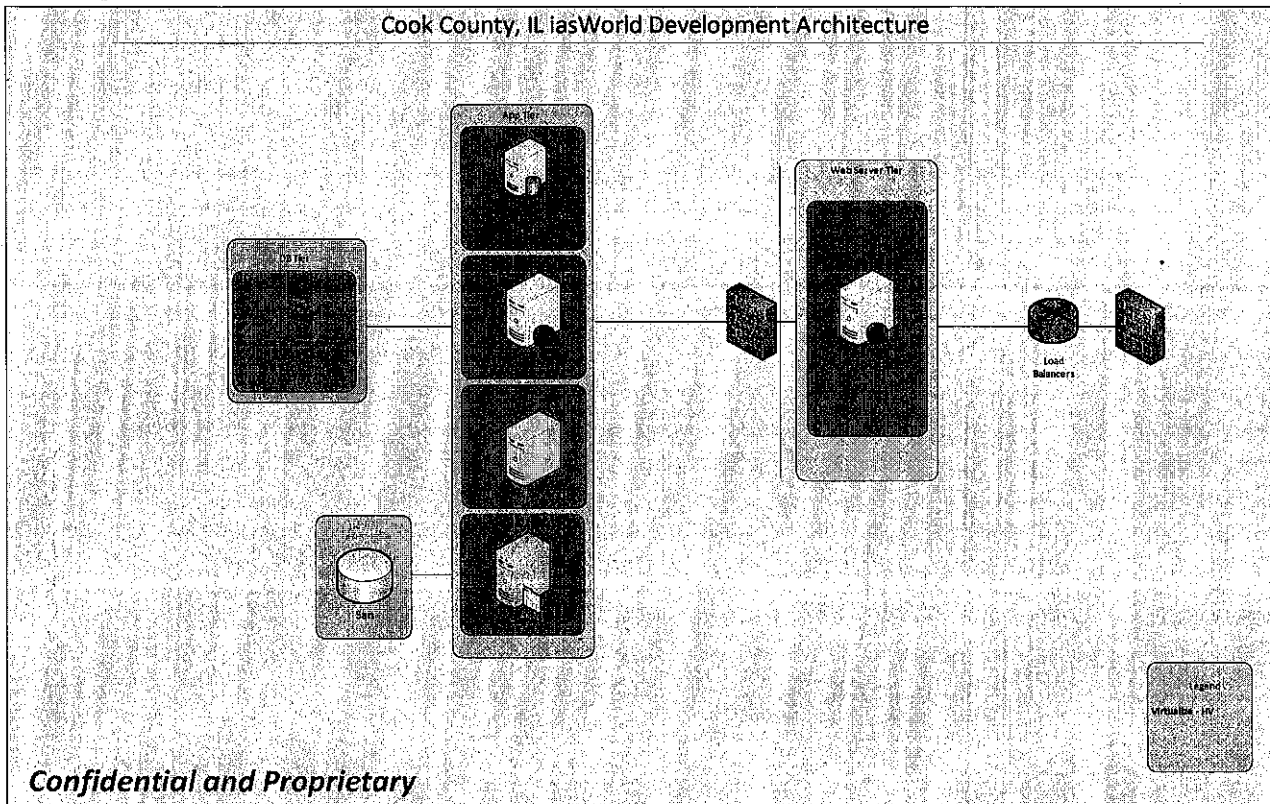
2.4	Virtualization Software (Hyper-V is the County's standard)	Yes
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1	Hardware Specs (per server)	Proposers must state the recommended configuration for each proposed component.
1.1	Server Role	Test – Storage Area Network – Storage for non-Oracle database servers.
1.2	Location in network	Internal
1.3	CPU	
1.4	Cores	
1.5	Memory	
1.6	Disk space	
2	Server Applications and Licensing	
2.1	Database Software	No
2.2	OS	No
2.3	Support tools	No
2.4	Virtualization Software (Hyper-V is the County's standard)	No

1	Hardware Specs (per server)	Proposers must state the recommended configuration for each proposed component.
1.1	Server Role	Test – Oracle Database Appliance (Database Server for iasWorld database)
1.2	Location in network	Internal
1.3	CPU	12-core Intel Xeon E5-2697 v2 processors
1.4	Cores	12
1.5	Memory	256 GB
1.6	Disk space	18 TB of raw storage (double or triple-mirrored)
2	Server Applications and Licensing	
2.1	Database Software	Oracle RDBMS

2.2.	OS	Linux
2.3	Support tools	Oracle Enterprise Manager
2.4	Virtualization Software (Hyper-V is the County's standard)	N/A

Development Environment



1	Hardware Specs (per server)	Proposers must state the recommended configuration for each proposed component.
1.1	Server Role	Development Web Server – Web Server Tier
1.2	Location in network	Internal
1.3	CPU	2
1.4	Cores	4
1.5	Memory	4 GB
1.6	Disk space	146 GB
2	Server Applications and Licensing	

2.1	Database Software	No
2.2.	OS	Windows 2012 Server
2.3	Support tools	IIS7.5
2.4	Virtualization Software (Hyper-V is the County's standard)	Yes

1	Hardware Specs (per server)	Proposers must state the recommended configuration for each proposed component.
1.1	Server Role	Development Application Server – App Server Tier
1.2	Location in network	Internal
1.3	CPU	2
1.4	Cores	4
1.5	Memory	4 GB
1.6	Disk space	146 GB
2	Server Applications and Licensing	
2.1	Database Software	No
2.2.	OS	Windows 2012 Server
2.3	Support tools	IIS7.5, Oracle 12c Client
2.4	Virtualization Software (Hyper-V is the County's standard)	Yes

1	Hardware Specs (per server)	Proposers must state the recommended configuration for each proposed component.
1.1	Server Role	Development Reports Server – App Server Tier
1.2	Location in network	Internal
1.3	CPU	2
1.4	Cores	4
1.5	Memory	4 GB
1.6	Disk space	300 GB
2	Server Applications and Licensing	

2.1	Database Software	No
2.2.	OS	Windows 2012 Server
2.3	Support tools	IIS7.5, Oracle 12c Client, Oracle Reports Services
2.4	Virtualization Software (Hyper-V is the County's standard)	Yes

1	Hardware Specs (per server)	Proposers must state the recommended configuration for each proposed component.
1.1	Server Role	Development Image Server – App Server Tier
1.2	Location in network	Internal
1.3	CPU	2
1.4	Cores	4
1.5	Memory	4 GB
1.6	Disk space	146 GB
2	Server Applications and Licensing	
2.1	Database Software	No
2.2.	OS	Windows 2012 Server
2.3	Support tools	IIS7.5 Oracle 12c Client
2.4	Virtualization Software (Hyper-V is the County's standard)	Yes

1	Hardware Specs (per server)	Proposers must state the recommended configuration for each proposed component.
1.1	Server Role	Development Tyler WorkFlow Server & SQL Server – App Server Tier
1.2	Location in network	Internal
1.3	CPU	2
1.4	Cores	4
1.5	Memory	4 GB
1.6	Disk space	146 GB

2	Server Applications and Licensing	
2.1	Database Software	SQL Server 2008 R2
2.2.	OS	Windows 2012 Server
2.3	Support tools	PowerShell 3.0, IIS7
2.4	Virtualization Software (Hyper-V is the County's standard)	Yes

1	Hardware Specs (per server)	Proposers must state the recommended configuration for each proposed component.
1.1	Server Role	Development – Storage Area Network – Storage for non-Oracle database servers.
1.2	Location in network	Internal
1.3	CPU	
1.4	Cores	
1.5	Memory	
1.6	Disk space	
2	Server Applications and Licensing	
2.1	Database Software	No
2.2.	OS	No
2.3	Support tools	No
2.4	Virtualization Software (Hyper-V is the County's standard)	No

1	Hardware Specs (per server)	Proposers must state the recommended configuration for each proposed component.
1.1	Server Role	Development – Oracle Database Appliance (Database Server for iasWorld database)
1.2	Location in network	Internal
1.3	CPU	12-core Intel Xeon E5-2697 v2 processors
1.4	Cores	12
1.5	Memory	256 GB

1.6	Disk space	18 TB of raw storage (double or triple-mirrored)
2	Server Applications and Licensing	
2.1	Database Software	Oracle RDBMS
2.2.	OS	Linux
2.3	Support tools	Oracle Enterprise Manager
2.4	Virtualization Software (Hyper-V is the County's standard)	N/A

3.2.1 Hardware provisioning responsibilities

Tyler shall further define responsibilities in the project's RACI chart, and review with the County.

Role	Owner
a. Specify hardware needs	Tyler
b. Procure hardware	Cook County
c. Provision hardware	Cook County (Windows) & Tyler (Linux)
d. Install hardware software	Cook County
e. Install application software on hardware	Tyler
f. Test hardware after software installation	Tyler
g. Accept hardware configurations and overall infrastructure architecture.	Cook County

3.3 Tyler Solution and Specific Software Functionality Required by Cook County

Tyler shall provide, install, configure and customize the Tyler Solution (software) as necessary to meet the County's Property Tax needs. Tyler shall provide at least the following software modules to meet the County's requirements:

1. CAMA;
2. Exemptions;
3. Tax Billing and Collection;
4. Inquiry and Appeals;
5. Field Mobile;
6. E-file;
7. Public Access;
8. Cashiering;
9. Content Management;
10. Analyze;
11. Activity Center;

See the Exhibit Section in this SOW document for a generic description of each Tyler software module.

Tyler shall deliver a succinct strategy to evaluate the property tax current state processes, determine which of these processes are candidates for reengineering and which will be replicated as is in the new Solution, and automate identified reengineered processes, integrate with existing technologies, migrate all necessary data from the mainframe, replicate and enhance all necessary mainframe mathematical logic and replace all necessary disconnected databases affecting the property tax process. Tyler's plan shall include sufficient activities and time for the expansion of the existing Tyler Solution functionality to address limitations identified during the evaluation process. Mainly, Tyler demonstrated a base CAMA and Property Tax System, robust enough to add all other County required functionality that the Tyler system currently does not have. Therefore, Tyler acknowledges that a large amount of the Clerk's Office functionality and some of the functionality required by other County Offices to perform critical Property Tax functions (identified during demonstrations and written responses), does not currently exist within the Tyler's Solution and related modules and, that in order to achieve the stated business goals and objectives, Tyler shall, as agreed, configure and/or customize the required functionality on the proposed software and software modules. Examples of such limitations include but are not limited to functionality around Tax Extension, Portal, Bond, Tax Redemptions, Refunds, Certificates of Error, etc. Tyler shall clearly identify, in collaboration with the County, all the **business process requirements** and all the **system requirements (functional and technical)**. See the Discovery, Assessment, and Reengineering Sections of this SOW document for further details about Tyler approach to perform this work.

3.3.1 Business Process Requirements

Tyler shall deliver a succinct strategy, which the County shall review and approve, to evaluate the current state processes, determine which of these processes are candidates for reengineering and which will be replicated as is in the new Solution, and automate all the identified reengineered processes, integrate with existing technologies, migrate all necessary data from the mainframe, replicate and enhance necessary mainframe mathematical logic, eliminate the need for disconnected databases and migrate all necessary data affecting the property tax process, and replicate functionality available in the disconnected databases. Tyler shall clearly define this strategy in the initial planning weeks of the project.

Tyler's work shall include sufficient activities and time for the expansion of the existing Tyler Solution functionality to address limitations identified during the solution evaluations process. Mainly, Tyler demonstrated a base set of software modules, robust enough to add other County required functionality that the Tyler modules currently do not have.

Therefore, Tyler acknowledges that a large amount of the Clerk's Office functionality and some of the functionality required by other County Offices to perform critical Property Tax functions (identified during demonstrations and written responses), does not currently exist within the Tyler's Solution and related modules and, that in order to achieve the stated business goals and objectives, Tyler shall, as agreed, configure and/or customize the required functionality on the proposed software and software modules. Examples of such limitations include but are not limited to functionality around Tax Extension, Portal, Bond, Tax Redemptions, Refunds, Certificates of Error, etc.

In addition, the County clarified during the RFP process that all the RFP information (Use Cases, Addenda, volumes, etc.) was intended to provide sufficient information for Proposers to a) understand the complexity of Cook County's environment and system, and b) estimate the appropriate level of effort. The County further clarified that vendors with experience in this industry must know and understand that the RFP information accounted for only a percentage (e.g. 60%) of information necessary to determine end-to-end requirements, and that the remainder (e.g. 40%) information, process and requirements (details) would have to be identified by the **Selected Proposer** during its initial assessment. **Tyler is the Selected Proposer** and as such, Tyler shall validate the current state, document the complete end-to-end

property tax process and detail requirements, and identify necessary information. Each business process owner shall review and approve all documented future state processes and requirements captured by Tyler.

Tyler shall therefore utilize the business process documents (Use Cases) as base information needing additional details. Tyler shall validate the business processes defined in the next sub sections and shall capture additional needed information, including undocumented property tax business processes.

Business processes (Use Case files) are listed below as provided in the RFP, and intended for reference purposes only, not final future state design documents.

3.3.1.1 CL Tax Extension Process (Bond-Update)

CL Tax Extension Process includes but is not limited to the following key information and/or sub-processes.

1. New PINs/Parcels and Tax Codes.
2. Annexations and Disconnections.
3. New and Disconnecting Agencies.
4. Tax Increment Financing programs (TIFs).
5. All PIN Abatements programs.
6. Overlapping Districts Assessment information.
7. Referenda.
8. Railroad Assessed Values (by IDOR).
9. Air Pollution Assessed Values (by IDOR).
10. Percentage of Burden (by IDOR).
11. Consumer Price Index (CPI).
12. Expired Incentives.
13. Recovered TIF Value.
14. Parent Child Agencies.
15. Connecting Agencies.
16. Levy Management.
17. Bond Management.
18. Home rule indicator.
19. Tax Rate Calculation.
20. Other property tax related processes.

3.3.1.2 AS Assessment Business Processes

Assessor Business Processes include but are not limited to the following key information and/or sub-processes (in alphabetical order).

1. Abatement.
2. Appeals - Industrial Commercial (IC).
3. Appeals - Residential (Res).
4. Assessment by Legal.
5. Certificate of Error (COE) and the many associated tax bill creation sub processes.
6. Divisions.
7. Exemptions.

8. Field Operations.
9. Incentives - Classes 6, 7, 8, C, and L.
10. Incentives Class 9.
11. Incentives - Affordable Housing.
12. Incentives - Exempt & Omitted Assessment.
13. Incentives – Landmarks.
14. Permits.
15. PTAB.
16. Sales.
17. Tech Review.
18. Valuations IC.
19. Valuations Res.
20. Freedom of Information Act (FOIA).
21. Records Management (RM) processes.
22. Other property tax related processes.

Most of the steps to print the Assessment Notices are facilitated/assisted by the use of an Access Database or the AS/400. Tyler shall carefully assess and automate the semi-manual work listed in these steps, and integrate it all into a single solution. All of these processes are in-scope unless otherwise stated.

3.3.1.3 TR Billing Process

Business processes are provided as exhibits to this SOW as reference documents and may include other property tax related processes.

3.3.1.4 TR Collections Process

Business processes are provided as exhibits to this SOW as reference documents and may include other property tax related processes.

3.3.1.5 TR Distributions Process

Business processes are provided as exhibits to this SOW as reference documents and may include other property tax related processes.

3.3.1.6 TR Refunds/Legal Items Process

Business processes are provided as exhibits to this SOW as reference documents and include but are not limited to the following.

Refunds (potential credit or refund):

1. Manual;
2. PTAB;
3. COE;
4. Specific Objections;
5. Sale in Error;

6. Duplicates and Overpayments;
7. Illegal Rates;
8. Transfers;
9. Miscellaneous;
10. Other property tax related processes.

Legal Items (potential credit or refund):

1. Condemnations;
2. Tax Injunctions;
3. Bankruptcies;
4. Mergers into Deeds;
5. Judgment Refused;
6. Other property tax related processes.

3.3.1.7 TR/CL Delinquent Taxes Process

Business processes are provided as exhibits to this SOW as reference documents and include but are not limited to the following.

1. Annual Tax Sale;
2. Scavenger Tax Sale;
3. Forfeiture Tax Sale;
4. Other Special Bills;
5. Other property tax related processes.

3.3.1.8 BOR Process

The Board of Review is currently automating its processes via OnBase Software, thus Tyler shall identify and build all BOR interfaces with OnBase and document said interfaces in the Integration Plan.

3.3.1.9 Recorder of Deeds

The ROD's is currently automating its processes via a 3rd Party Software, thus Tyler shall identify and build the required interfaces to the ROD system and document said interfaces in the Integration Plan.

3.3.2 System Requirements

Tyler shall provide all functionality in-scope. The functionality listed below corresponds to the requirements identified by business process owners in the Uses Cases, which Tyler shall validate.

No.	Requirements	Module or Solution Name	In-scope?
1.001	System has portal (external user access) functionality.	iasWorld Public Access	Yes
1.002	System has Tax Extension functionality.	Tax Billing & Collection (TB&C)	Yes
1.003	System has mass appraisal functionality.	CAMA	Yes
1.004	System has permitting functionality.	Field Mobile	Yes
1.005	System has field inspection functionality.	Field Mobile	Yes
1.006	System has appeals process functionality.	Inquiry and	Yes

No.	Requirements	Module or Solution Name	In-scope?
		Appeals Tracking	
1.007	System has billing functionality.	TB&C	Yes
1.008	System has Collections functionality.	TB&C	Yes
1.009	System has Distributions functionality.	TB&C	Yes
1.010	System has Delinquent Tax functionality.	TB&C	Yes
1.011	System has content management functionality.	Tyler Content Manager	Yes
1.012			
1.013	Intentionally left blank.		
1.014			
1.015			
1.016	System has cashiering functionality or cashiering module to process property related payments.	Tyler Cashiering	yes
1.017	System has business intelligence functionality.	Inquire	Yes
1.018	Intentionally left blank.		
1.019	System has Real Estate Sales tracking functionality.	CAMA	Yes
1.020	System has electronic Warrant Book functionality (web page with all appropriate PIN history in one organized user friendly view). See sample warrant pages for required fields, and note that the CL and TR are in the process of converting the current paper books to electronic format. Should proposers be able to enable "Warrant/Judgment/Scavenger Books," provide details in the response and comments column).		Yes
1.021	System has electronic Judgment Book functionality.		Yes
1.022	System has electronic Scavenger Book functionality.		Yes
2.001	System is PIN based.	iasWorld	Yes
2.002	System can replicate and improve all necessary mathematic logic currently configured on the mainframe to achieve the desired outputs, currently achieved by the mainframe, and effectively calculate all property tax functions (E.g. Tax Extensions). Please note that this does not infer that the County wants to mirror the current mainframe limitations.		Yes
2.003	System allows users to add a new PIN to an old PIN – this is accomplished in GIS but the new system should have the related functionality to accept and apply the modifications.	Maintain	Yes
2.004	System allows users to query the status of a single or multiple townships.	Inquire	Yes
2.005	System allows users to view the status of a PIN.	Property Records Management (PRM)	Yes
2.006	System allows users to view the status of a set of PINs.	PRM	Yes
2.007	System allows users to view status of a PIN including its current location and completed reviews.	PRM	Yes
2.008	System allows authorized users to modify single or multiple records.	Maintain	Yes
2.009	System can auto-populate data based on entry of related data. For instance, entry of a reason code can automatically populate the reason description , or entry of a PIN automatically populates the full address.	Maintain	Yes

No.	Requirements	Module or Solution Name	In-scope?
2.010	System can capture validation points via checkbox and text boxes across the complete process. For instance, analyst can select a checkbox to select "Property is in Good Condition" and enter a description in a related text box.	Maintain	Yes
2.011	System has built in property assessment calculators. Please describe options available.	Assessment/CAMA	Yes
2.012	System can automatically calculate values based on business rules (e.g. data keyed in by Valuations Dept. is automatically calculated based on applicable formulas used by Cook County and the State of Illinois).	CAMA	Yes
2.013	System can run regression calculations.	CAMA	Yes
2.014	System can automatically apply factors and variables defined and approved by the appropriate users groups (e.g. Clerk determines and approves the final tax rate, the State of IL dictates the Equalization Factor but this is entered by BOT).	Maintain	Yes
2.015	System has built-in controls to ensure that closing of Valuations for both Residential and IC do not occur separately (one before the other).	Maintain	Yes
2.016	System can automatically update the appropriate year based on business rules (e.g. prepare for next year after mailing of Assessment Notice).	Maintain	Yes
2.017	System can run valuations for multiple years at the same time.	Maintain	Yes
2.018	System can automatically reference the data sets required for the appropriate assessment year (E.g. if 2013, system points to 2012, 2011, 2010 data sets).	Maintain	Yes
2.019	System has built-in data accuracy checks/procedures (built-in error checks). Proposers must describe the functionality available in the RFP response (Software Section).	Maintain	Yes
2.020	System allows authorized users to overwrite settings and make manual corrections.	Maintain	Yes
2.021	System allows authorized users to make calculation modifications (manual overwrites) to normally fixed data.	Maintain	Yes
2.022	Intentionally left blank.		
2.023			
2.024	System automatically sets applications reminders for incentives annual or triennial affidavits. See Incentives Business Process.	iasWorld	Yes
2.025	System allows users to flag and filter PINs with special indicators based on Countywide rules (e.g. PIN with abatement, TIF, incentive, bankruptcy or other indicator).	Maintain/Inquire	Yes
2.026	System can create a bankruptcy schedule with variable interest rates, payment schedules, and payment amounts.	TB&C	Yes
2.027	System allows users to capture/track bankruptcy information including payments.	TB&C	Yes
2.028	System allows full indexing and searching of all information including uploaded documents.	iasWorld	Yes
2.029	System has robust search and retrieve functionality that allows users to search by a single word, PIN, Case/file number, etc.	iasWorld	Yes
2.030	System can retrieve single and multiple records.	iasWorld	Yes

No.	Requirements	Module or Solution Name	In-scope?
2.031	System allows analyst to sort PIN's by unique characteristics such as "Class type," "open space," "railroad" "vacancies", etc.	iasWorld	Yes
2.032	System can automatically warn users when duplicates or duplicate data exist.	Maintain	Yes
2.033	System can automatically determine if another homeowner exemption application has been submitted for a PIN, and decline new application.	Maintain	Yes
2.034	System can update information across the system real time – including information entered in remote branches.	iasWorld	Yes
2.035	System can track an application intake location (e.g. online, walk in to main office, or walk in to one of 4 branches, mailed to PO Box).	Maintain	Yes
2.036	System can apply multiple records retention policies based on business rules (e.g. permits file should be retain for 10 years, while other department or document may require seven, or twenty year retention period).	iasWorld	Yes
2.037	System can apply records retention polices to purge expired documents as dictated by the Local Records Act.		Yes
2.038	System uses industry standard units of measure for property assessments.	CAMA	Yes
2.039	System allows authorized users to make minor customizations to units of measure (e.g. add some new).	CAMA	Yes
2.040	System prompts/alerts analysts when a property has Incentives that would impact a calculation.	Maintain	Yes
2.041	System allows authorized users to update PINs with incentives all year, apply changes real-time and immediately flag data errors (e.g. duplicate entries.).	TB&C	Yes
2.042	System allows authorized user to view scanned images.	iasWorld	Yes
2.043	System automatically populates captured data to all forms and screens where the same data is required. E.g. Fund numbers should auto populate to all places that use the same fund number.	iasWorld	Yes
2.044	System can calculate TIFs impacted by State assessed property based on business rules.	TB&C	Yes
2.045	System can automatically apply Cook County's various number rounding conventions.	iasWorld	Yes
2.046	System automatically performs data check/validation for final rounding calculation.	iasWorld	Yes
2.047	System has the flexibility to customize the tax bill to include itemized values such as air pollution, but keep railroad a separate bill.	TB&C	Yes
2.048	System can create the print files required to generate current year tax bills.	TB&C	Yes
2.049	System can accommodate Cook County's segregation of funds.	TB&C	Yes
2.050	System allows segregation of funds on tax bill.	TB&C	Yes
2.051	System can track (flag) 'returned' tax bills.	TB&C	Yes
2.052	System allows taxation on PINs based on calculations other than AV (E.g. based on front footage, or other defined criteria).	TB&C	Yes
2.053	System can generate mailing lists in standard mailing formats.	iasWorld	Yes
2.054	System can handle special assessments.	TB&C	Yes
2.055	System can automatically make PINs available over the counter when not sold at Annual Tax Sale.		Yes

No.	Requirements	Module or Solution Name	In-scope?
2.056	System allows authorized users to encrypt and download files for transmission to external entities (e.g. banks).		Yes
2.057	System provides uniform look and feel across the entire system.	iasWorld	Yes
2.058	System provides high data throughput and fast system response times while supporting 2,000+ simultaneous users (200+ internal and 1500+ external users). If more volumes are possible, please describe.	iasWorld	Yes
2.059	System can perform single-property appraisals (instead of mass appraisals), allowing authorized users to enter necessary data and assumptions to calculate a single property appraisal.	CAMA	Yes
2.060	System allows authorized users to upload data from external files (external entities such text files from the State).	iasWorld	Yes
2.061	System displays the PIN number and other key metadata across multiple screens.	iasWorld	Yes
2.062	System allows user to apply values in mass (e.g. apply one adjustment value to many PINs).	iasWorld	Yes
2.063	System can handle leap years.	iasWorld	Yes
3.001	System has robust workflow functionality to secure reviews and approvals.	Activity Center	Yes
3.002	System can automatically generate and assign unique identifiers such as appeal numbers, case numbers, or any other process number (appeal, COE, permit, application, control, or any other process related number, etc.).	iasWorld	Yes
3.003	System can associate unique identifiers/numbers to one PIN or multiple PINs.	iasWorld	Yes
3.004	System can capture supporting documents.	iasWorld	Yes
3.005	System can associate captured/attached documents to a PIN or multiple PINs real-time.	iasWorld	Yes
3.006	System prompts users to enter or upload missing information or documents.	iasWorld	Yes
3.007	System has data validation/checks to prevent submission of incomplete information.	iasWorld	Yes
3.008	System can prevent entering of new information and alert users when action is not valid. E.g. system should flag an error when a PIN is added to a TIF district and the PIN is already in an EZA or the PIN does not correspond to that TIF.	iasWorld	Yes
3.009	System has electronic "foldering" functionality. For instance, an internal staff may access a COE folder and see all related documentation and information in a single location.		Yes
3.010	System allows users to select typical list options from pull-down menus (e.g. reason codes, fund types, disposition codes, denial codes, and other typical lists of actions).	iasWorld	Yes
3.011	System allows authorized users to easily maintain list of actions used by department (e.g. reason codes, fund types, bond type, disposition codes, denial codes, and other typical lists of actions).	iasWorld	Yes
3.012	System allows authorized system administrators to easily modify fields to accommodate ordinance changes.	iasWorld	Yes
3.013	System allows authorized users to easily add new pull-down or check-box options (e.g. if new bond type, it is easy to create a new bond type).	iasWorld	Yes
3.014	System allows authorized users to manually correct system logic to	iasWorld	Yes

No.	Requirements	Module or Solution Name	In-scope?
	arrive to the correct final amounts.		
3.015	System allows users to enter progress notes/comments throughout the process. Describe number of characters limitations.	iasWorld	Yes
3.016	System allows users to view but not edit comments by other reviewers.	iasWorld	Yes
3.017	System allows users to post notes to a PIN/file/case.	iasWorld	Yes
3.018	System allows analyst to enter notes or record activity about a PIN, including work performed on a case (e.g. recording of phone calls and in-person assistance related to an incentives application).	iasWorld	Yes
3.019	System allows users (analysts) to view prior year values for the process in question (e.g. analyst can see a COE year information and also see prior years for comparison).	iasWorld	Yes
3.020	System can present all relevant PIN information for an analyst to make a decision during tri-annual assessment, including permit and field operations information.	iasWorld	Yes
3.021	System can present all relevant historic PIN information for an analyst to make a decision (e.g. during first/second pass, or re-review).	iasWorld	Yes
3.022	System allows analyst to view and compare valuation data for as many prior years as possible (mainframe holds valuation data back to 1994).	iasWorld	Yes
3.023	System can track and update the PIN's History (all years).	iasWorld	Yes
3.024	System can present a PIN Historic View including all legal events in a user friendly format (this is the intention of the electronic Warrant Book).	iasWorld (PRM)	Yes
3.025	System can automatically apply the correct information per redemption to the new Judgment and Warrant book (see sample warrant pages for required fields, and note that the CL and TR are in the process of converting the current paper books to electronic format. Should proposers be able to build "Warrant/Judgment/Delinquent Tax Books," provide details in the response and comments column).	TB&C	Yes
3.026	System provides clear indicators of values from prior year, and only populates final assessment year values when all approvals and values have been finalized. E.g. in the current state property owners may call internal staff to inquire about the assessed value, the staff may accidentally confirm the prior year value.	iasWorld	Yes
3.027	System has check-in and check-out functionality to prevent accidental overwrite of records or information while work is in progress.	Maintain	Yes
3.028	System can automatically merge data from multiple sources without overwriting key department values.	iasWorld	Yes
3.029	System has versioning control (user can revert to previous data sets/information).	Maintain	Yes
3.030	System has built in spelling and grammar checks.		No
3.031	System allows users to work offline (when network is not available) and uploads data when connectivity is established.		Yes
3.032	System can lock analysts' reviews and calculations and allow other users to view but not edit other reviews.		Yes
3.033	System allows users to save entered data prior to final submission.	Maintain	Yes
3.034	System allows users to commit/submit single or multiple "electronic dockets."	Maintain	Yes

No.	Requirements	Module or Solution Name	In-scope?
3.035	System can automatically flag type of work/case and distribute work accordingly (E.g. COE, Residential, or IC analyst).	Activity Center	Yes
3.036	System can automatically route work and send alerts based on business rules. For example if a COE application = [\$100,000.00 + I/C], it must be reviewed by BOR and State's Attorney's Office.	Activity Center	Yes
3.037	System allows authorized users to provide electronic approvals.	Activity Center	Yes
3.038	System can track all internal reviews and approvals.	Activity Center	Yes
3.039	System allows users to review status per PIN (under review by X. vs. finalized)	Activity Center	Yes
3.040	System allows authorized users to view the status/progress of reviews by internal resources.	Activity Center	Yes
3.041	System allows authorized users to assign work.	Activity Center	Yes
3.042	System can place work in a queue.	Activity Center	Yes
3.043	System can hold files on hold/queue until township opens.		Yes
3.044	System can alert internal resources when work is assigned.	Activity Center	Yes
3.045	System can automatically escalate work based on business rules.	Activity Center	Yes
3.046	System allows analyst to request action by other internal departments and route accordingly (E.g. analyst may request a field check).	Activity Center	Yes
3.047	System allows authorized users to overwrite assignments.	Activity Center	Yes
3.048	System can track the location/status of work at all times in the process.		Yes
3.049	System can automatically alert key users when work is ready (e.g. abatement values are ready for the abatement analyst, or incentives which are PINs with unique characteristics)	Activity Center	Yes
3.050	System provides automatic email notifications at key milestones.	Activity Center	Yes
3.051	System provides automatic system notifications (pop-out on screen at login).	Activity Center	Yes
3.052	System allows authorized users to subscribe themselves and others to receive automatic notifications.	Activity Center	Yes
3.053	System allows authorized users to void or cancel an ongoing/active review (e.g. COE in progress).	Activity Center	Yes
3.054	System can automatically, real time, alert all impacted users or prevent further action (e.g. Treasurer Refunds Department users are alerted and prevented from doing work on a COE case that has been cancelled or voided - to prevent issuance of refund).	Activity Center	Yes
3.055	System automatically alerts analyst and its supervisor when key deadlines are approaching.	Activity Center	Yes
3.056	System provides conditional routing/processing (e.g. property owner may select "Assessor Appeal" or "Assessor re-review." All these appeal types follow a slightly different process).	Activity Center	Yes
3.057	System can manage mass mail printing including the following:		Yes
3.058	Validates correct language per notification type (templates)		Yes
3.059	Validates correct data on notification (data source/fields)		Yes
3.060	Validates correct notification destination (printer or email)		Yes
3.061	System can automatically generate required letters, bills, and summary reports, populating all required information upon approval by authorized users.	iasWorld	Yes
3.062	System automatically populates annual affidavit information to a form	iasWorld	Yes

No.	Requirements	Module or Solution Name	In-scope?
	or email upon reaching a milestone (annual renewal date) and sends email reminder to property owner, or prompts analyst to send to printer.		
3.063	System allows authorized users to review and approve automatic batch printing.	iasWorld	Yes
3.064	System provides quality assurance tools or mechanisms that allow authorized users to perform random quality checks prior to mass printing (or finalizing file for mass mailing vendor).	iasWorld	Yes
3.065	System can automatically create all mailing files (for mass mailing vendor) upon approval by authorized user.	iasWorld	Yes
3.066	System can automatically trigger print jobs based on business rules.		Yes
3.067	System can generate email notifications AND provide related data/content or a link to view such content. For example, at completion of first pass, email goes to Smith, Perez, Lopez, and Jones* with the following content (or link to view this summary): -Town -Mailing date -Appeal Deadline -Certification Date -Published Date -Status (1st pass, 2nd pass, or Board) *Fictitious names.	Activity Center	Yes
3.068	Intentionally left blank		
3.069			
3.070	System can automatically print required documents and labels - if applicable in the future. Note that while the current practice is to print dockets and labels, dockets will likely be replaced by "electronic dockets." However, the need for some printed forms and labels may persist. Proposers must clarify their recommendations based on their experience.	iasWorld	Yes
3.071	System can calculate refund or credit based on business rules (E.g. Delinquent Taxes, outstanding payments, scavenger sales, and any other applicable variable must be calculated in a refund/credit calculation to avoid over payments).	TB&C	Yes
3.072	System can automatically calculate interest based on business rules (E.g. If a certificate of error results in an exemption not previously allowed, the county collector shall pay the taxpayer interest on the amount of taxes paid that are attributable to the amount of the additional allowance, at the rate of 6% per year)	TB&C	Yes
3.073	System allows authorized users to validate supporting information, and approve deletion of Exemption PINs when applicable (e.g. upon the submission of Certificate of Death and Letter from Executor, PIN can be removed from exemptions list).	Maintain	Yes
3.074	System can prevent entry of exemptions based on business rules (e.g. a Senior Prime Application must exist to apply for a Senior Renewal or Senior Freeze Exemption).	Maintain	Yes
3.075	System allows the submission of senior exemptions applications all year, and holds information on queue until application processing period begins.	Maintain	Yes
3.076	System can automatically identify the "one PIN to a co-op" condition, and request the next required validation field (birthday).	Maintain	Yes

No.	Requirements	Module or Solution Name	In-scope?
3.077	System can automatically remove and update all system information and values upon removal of a PIN from exemptions lists.	Maintain	Yes
3.078	System can automatically apply all applicable exemptions when submitting applications (e.g. If a taxpayer qualifies for the Senior Freeze Exemption, the taxpayer also automatically qualifies for the Senior and Homeowner Exemptions).	Maintain	Yes
3.079	System can automatically apply the appropriate % increase rate for exemptions based on income levels (e.g. if long time occupant = yes, and income level = \$75,000.01 to \$100,000.00, then increase = 10%).	Maintain	Yes
3.080	System has built in logic to prevent creation of a record based on business rules (e.g. Senior Exemption can only be allowed if 65+ years of age and proof of residence = PIN in question).	Maintain	Yes
3.081	System can track the complete permit cycle.	Maintain	Yes
3.082	System can track payments made.	TB&C	Yes
3.083	System can apply a current payment based on a predetermined order of precedence.	TB&C	Yes
3.084	System can handle partial payments.	TB&C	Yes
3.085	System can associate payments to applications and related PINs.	TB&C	Yes
3.086	System can associate payment attachments to PIN numbers by tax year and warrant year.	TB&C	Yes
3.087	System has the ability to perform fund transfers between accounts and tax years	TB&C	Yes
3.088	System can identify, and STOP double payments.	TB&C	Yes
3.089	System can process multiple refund types.	TB&C	Yes
3.090	System can receive wire transfer payment information into system.	TB&C	Yes
3.091	System can apply payment and liability.	TB&C	Yes
3.092	System can process multiple incentive applications for the same PIN (see Incentives Process).	Maintain	Yes
3.093	System allows multiple class types on a single PIN. For example, a building may be used for both commercial and industrial purposes.	CAMA	Yes
3.094	System can process one Class Application for multiple PINs.	Maintain	Yes
3.095	System can associate historic control numbers to new cases (requires migration of existing control number from Excel or Access).	Maintain	Yes
3.096	System can, upon review of initial Class Applications, populate acknowledgment letters for regular mail applicants (see Incentives Process).	Maintain	Yes
3.097	System can associate old PINs to New Divisions and corresponding new PINs and Parts-of (see Exempt Incentives).	Maintain	Yes
3.098	System can automatically calculate and apply incentives business rules. For example it could automatically remove tax incentives for PINs with "Class 6B + total vacancy indicators after 12 months" (and provides the appropriate alerts to authorized users).	Maintain	Yes
3.099	System can automatically apply level of assessment based on business rules e.g. as dictated by Ordinance. For example Class 7A may receive a reduce level of assessment of 10%, 15% and 20% for the first 10 years, on the eleven year and on the twelve year respectively)	Maintain	Yes
3.100	System can automatically set the base year for an incentive, based on approved Class type.	Maintain	Yes
3.101	System automatically calculates an incentive life span and related	Maintain	Yes

No.	Requirements	Module or Solution Name	In-scope?
	reminders (E.g. Class 9 incentives expire after year 10 years from approval without renewal option).		
3.102	System allows authorized users to enter full program life cycles including details for each of the total number of years in the program. For example Bonds may be 20 years and TIFs may be up to 35 years (programs can end earlier). Note that the life of a program changes based on Statute.	Maintain	Yes
3.103	System can automatically calculate program values per year based on business rules (e.g. system can set the frozen EAV for TIFs. System calculates and applies the correct EAV for EZA)	Maintain	Yes
3.104	System allows authorized users to modify EZA amounts per year regardless of the program schedule (See Tax Extension Process).	Maintain	Yes
3.105	System can automatically calculate abatement values (amounts) based on authorized user input.	Maintain	Yes
3.106	System can automatically apply abatement values to accurately calculate taxable amount of AV.	Maintain	Yes
3.107	System is able to manage multiple improvements and multiple schedules per incentive type.	Maintain	Yes
3.108	System allows analysts to apply a value from an existing list of available values. E.g. if the prior year value remains the same or is needed in a new calculation, system allows analyst to apply that value.	Maintain	Yes
3.109	The system has the ability to do standard calculations and apply only the analyst approved calculation(s) to summary reports.	Maintain	Yes
3.110	System can automatically validate/"flag" property incentives eligibility based on Ordinance requirements (has anything been reported on the affidavits that change eligibility? Is the property still meeting the requirements?)	Maintain	Yes
3.111	System allows analyst to review and accept part of an application, and after the appeal is submitted, system allows analyst to review new or changed data, and accept/reject new changes. In the current state, an analyst re-reviews all information during appeals, including information previously submitted and reviewed because there is no way to know the difference unless manually revised.	Maintain	Yes
3.112	System can automatically request additional information when property owner selects "change" in tri-annual affidavit. (See Incentives Process, Tri-annual Affidavit).	TB&C	Yes
3.113	System allows authorized user to manually apply the approved level of assessment (e.g. based on % dictated by Court Order or IDOR Certification).	Maintain	Yes
3.114	System allows users (analysts) to set the base value for a landmark.	Maintain	Yes
3.115	System automatically calculates landmark aging (Landmarks exemptions expire after year 8).	Maintain	Yes
3.116	System can automatically calculate distribution percentages for each PIN. Percentages are calculated based on the tax amount due to each Taxing District (including TIFS) from each PIN.	Maintain	Yes
3.117	System can automatically calculate overlapping district values.	TB&C	Yes
3.118	System can retain all prior overlapping district values.	TB&C	Yes
3.119	System can automatically calculate overlapping extension minus debt information.	TB&C	Yes

No.	Requirements	Module or Solution Name	In-scope?
3.120	System can retain all overlapping extension minus debt information.	TB&C	Yes
3.121	System allows users to view and leverage history of overlapping district information in the creation of Tax Extension Certifications and Extension Debt Certifications.	TB&C	Yes
3.122	System can automatically determine when the Equalization Factor (EF) is applicable to a calculation (e.g. EF does not apply to any State Assessed Real Estate such as air pollution and railroad)	Maintain	Yes
3.123	System can automatically calculate Taxing District limitations based on designation (e.g. Home-ruled are PTELL exempt thus, tax rate ceiling for home-ruled = 0).	TB&C	Yes
3.124	System allows authorized users to enable and disable PTELL calculations on individual funds.	TB&C	Yes
3.125	System allows authorized users to electronically certify one or multiple records/cases (e.g. COE cases).	TB&C	Yes
3.126	System can capture certification of information among internal users (e.g. the Assessor and BOR certify Assessed Values, the Clerk certifies final EAVs).	TB&C	Yes
3.127	System can, upon approval by an authorized user, generate electronic certifications of data sets, information and/or reports.	TB&C	Yes
3.128	System disables ability to modify or make changes to data in a given process (key milestones) after certification is captured.	TB&C	Yes
3.129	System can calculate all the appropriate back taxes, fees, special assessments, correct delinquent amounts per tax year and installment, all credits and debits, interest, etc., per PIN.	TB&C	Yes
3.130	System can automatically refresh the distribution percentages and amounts to Taxing Districts as a result of the Delinquent Tax Process (see Collections and Tax Extension Process).	TB&C	Yes
3.131	System can generate tax searches in electronic Recommended Order Forms (ROF).	TB&C	Yes
3.132	System can trigger the auto population of information for Take Notice Mailings, Extension Postings.	TB&C	Yes
3.133			
3.134	System can automatically differentiate and apply redemption rules for different tax sales (Annual, Scavenger and Forfeiture).	TB&C	Yes
3.135	System can reflect changes to a delinquent PIN real time across the organization including, exempt, deeded or redeemed status changes.	TB&C	Yes
3.136	System allows authorize users to add messages (text) to the tax bill prior to printing	TB&C	Yes
3.137	System allows authorized users to export printing file to standard printing formats such as excel, cvs, text file, etc.	Inquire	Yes
3.138	System can accurately calculate and automatically populate the appropriate information on tax bills, including fees.	TB&C	Yes
3.139	System has the ability to display the outstanding (i.e., unpaid) tax liability information for a tax bill as the net of a tax bill's calculated tax liability amount + any applicable penalties, costs, interests, or fees – any full, partial, or bankruptcy payments received.	TB&C	Yes
3.140	System has built-in address verification functionality	iasWorld	Yes
3.141	System can calculate all types of tax bills (annual sale, scavenger, forfeiture, open item, forfeiture bill, forfeited special assessments, duplicate/proof of payment, specialty, etc.)	TB&C	Yes

No.	Requirements	Module or Solution Name	In-scope?
3.142	System allows authorized users to print all types of tax bills (annual sale, scavenger, forfeiture, open item, forfeiture bill, forfeited special assessments, duplicate/proof of payment, specialty, etc.) for current or prior years.	TB&C	Yes
3.143	System allows authorized user to generate ad-hoc bills as needed (e.g. help desk staff may print 1 or multiple bills as needed).	TB&C	Yes
3.144	System allows authorized user to print batch request for duplicate bills (e.g. the TR may have to print 100 to 300 duplicate bills).	TB&C	Yes
3.145	System can validate, process, reconcile, and balance the daily tax collections.	TB&C	Yes
3.146	System can calculate distribution percentages, by PIN, based on the final amount (after abatements) of money taxed by each Taxing District and reflect this information on the tax bill. This information may also include Taxing Districts segregation orders and statutorily required segregations (escrow accounts). See Distributions Process.	TB&C	Yes
3.147	System can automatically populate the information required on a Certificate of Sale	TB&C	Yes
3.148	System can capture and apply all appropriate values when authorized users void a certificate of purchase (See Delinquent Tax Process).	TB&C	Yes
3.149	System can flag the type of tax payer per payment (tax buyer or taxpayer).	TB&C	Yes
3.150	System can apply, upon authorized user approval, certified stamp/seal or electronic signature.	iasWorld	Yes
3.151	System can apply all the appropriate stamps to key documentation.	iasWorld	Yes
3.152	System allows authorized users to select "warrant book" data per PIN (PIN History) to print a certified copy per PIN.	TB&C	Yes
3.153	System can automatically calculate, by PIN, the EAV that Taxing District can access.	TB&C	Yes
3.154	System can flag Taxing Districts that do not have an identified tax rate/distribution %	TB&C	Yes
3.155	System calculates and recalculates distribution percentages every time an external or internal action affects a PIN based on business rules. For example, for TIF PINs, system can recalculate distributions percentages after COE or court order reduces the EAV.	TB&C	Yes
3.156	System calculates adjustment of 1st installment distributions before 2nd installment is distributed.	TB&C	Yes
3.157	System can adjust distributions to make sure credits are in the distributions to Taxing Districts.	TB&C	Yes
3.158	System can automatically calculate distributions and alert users when data discrepancies exist.	TB&C	Yes
3.159	System can validate PIN calculation upon payment, to prevent tax payer overpayments (refunds) based on business rules (including calculation of all applicable fees).	TB&C	Yes
3.160	System can refresh data real-time across the system as soon as payments are confirmed.	iasWorld	Yes
3.161	System allows users to filter by Tax Sale eligible PINs (Tax Sale List -see Delinquent Tax Process).	Inquire	Yes
3.162	System allows tax buyer to make multiple payments including both current and current delinquent taxes	TB&C	Yes
3.163	System can prevent refunds resulting from disconnected data at time of tax sales.	TB&C	Yes

No.	Requirements	Module or Solution Name	In-scope?
3.164	System can calculate refunds and related distribution adjustments for up to 20 years (Court Orders may be for up to 20 years).	TB&C	Yes
3.165	System can automatically calculate all information needed for Refunds including interest rates.	TB&C	Yes
3.166	System can calculate all due amounts, including pro-rated taxes, interest, subsequent taxes, fees, credits, etc. upon entry of court decision.	TB&C	Yes
3.167	System can, upon entry of court decisions, automatically generate approve/denial letters	TB&C	Yes
3.168	System can track all Legal activity on a PIN, including reviews and approvals, missing information, etc.	iasWorld	Yes
3.169	System can prevent PINs from going into Annual or Scavenger Sales based on the appropriate Legal flag (e.g. a condemnation that does not have Open Taxes, should not be listed in the Delinquent Taxes).	TB&C	Yes
3.170	System has the ability to update queue characteristics to hand-review. See the Valuations Process.	Activity Center	Yes
3.171	System can fully automate the delinquent tax workflow. Proposers must list expected limitations in the notes/comments column.	Activity Center	Yes
3.172	System allows authorized user to deactivate unused codes, lists, or pull-down menu options.	iasWorld	Yes
4.001	System provides analysis tools.	Inquire	Yes
4.002	System has robust role-based dashboard functionality.	Digital Dashboard	Yes
4.003	System has robust and dynamic analytics functionality.	Inquire	Yes
4.004	System has robust standard reporting functionality.	iasWorld	Yes
4.005	System has robust ad-hoc reporting functionality.	Inquire	Yes
4.006			
4.007	System allows authorized users to view and save custom reports.	iasWorld	Yes
4.008	System can automatically generate periodic reports (e.g. Tax Extension key outputs) in predefined formats (PDF, excel, etc.).	iasWorld	Yes
4.009	System allows users to run queries and reports on any, and all, data captured and processed by the new system, including 3rd party components.	Inquire	Yes
4.010	System can replicate and enhance currently used reports in all operational functions/business processes.	iasWorld	Yes
4.011	System can automatically track and report the status of any outstanding work.	iasWorld	Yes
4.012	System supports exporting report files in multiple formats including Portable Document Format (PDF), Microsoft Excel, and Comma Separated Values (CSV) file.	iasWorld	Yes
4.013	System allows analysts to view and compare valuation data for prior years - describe data limits, if any, in the comments column.	iasWorld	Yes
4.014	System has built in valuation property comparison functionality.	CAMA	Yes
4.015	System has enhanced multiple regression analysis capabilities.	CAMA	Yes
4.016	System allows user to include or exclude any number of variables.	CAMA	Yes
4.017	System allows user to filter and sort Delinquent Tax PINs in preparation for Tax Sale.	Inquire	Yes
4.018	System leverages market data to assist in valuation calculations – please describe data sources/options available.	CAMA	Yes

No.	Requirements	Module or Solution Name	In-scope?
4.019	System provides real-time, configurable, dashboard functionality, summarizing key metrics.	Digital Dashboard	Yes
4.020	System has robust dashboard functionality to allow authorized users to view PINs with associated abatements and respective abatement amounts.	Inquire	Yes
4.021	System has robust dashboard functionality to allow process owners and key stakeholder to see appropriate processes and data sets status on a graphical interface.	Digital Dashboard	Yes
4.022	System provides management dashboard allowing graphical views to standard performance metrics such as analyst workload, application status, application trends, typical times to completion, etc.	Digital Dashboard	Yes
4.023	System can generate annual internal trends (e.g. processing of IC appeals average X number of days, Analyst X averages X number of review per day/week/month).	Activity Center	Yes
4.024	System can generate annual external trends (e.g. increase in number of appeals for X reason).	iasWorld	Yes
4.025	System allows authorized users to view the processing volumes for internal resources.	Activity Center	Yes
4.026	System allows analyst to view and compare in-system historic market values to determine estimated market values, rent values, and trends.	iasWorld	Yes
4.027	System provides data analytics to allow analysts to drag and drop data to determine property market trends.		No
4.028	System can track the electronic folder status (including review location such as Dept. X and Analysts Y since 12/12/12 at 9:45 a.m.).		Yes
4.029	System allows analyst to dynamically view data, review and make changes without needing to print extensive reports.	Inquire	Yes
4.030	System has the ability to sort and filter Hand-Review by all fields available on screen (e.g. sales, years, construction, square footage, age, etc.). See the Valuations Process.	Activity Center	Yes
4.031	System allows user to run extensive data querying and report generation during normal business hours without impact to system performance.	iasWorld	Yes
5.001	System is compatible with USPS NCOA.		YES
5.002	System can integrate via an Enterprise Service Bus (ESB).	iasWorld	Yes
5.003	System can integrate with Service Oriented Architecture (SOA) based and point to point interfaces.	iasWorld	Yes
5.004	System can interface with standard printer software via standard APIs.	iasWorld	Yes
5.005	System interfaces with standard high volume printers (see Technical Environment in the RFP main document).	iasWorld	Yes
5.006	System can interface with real estate market research tools such as COSTAR.	iasWorld	Yes
5.007	System can interface with real estate market research tools such as Marshall Swift.	iasWorld	Yes
5.008	System can interface with real estate market research tools such as Zillow and MLS.	iasWorld	Yes
5.009	System can interface with comparable tools and other market tools to determine rent values (list any native functionality available in the proposed system).	iasWorld	Yes
5.010	System can interface with Lexis Nexis (Cook County's Credit Card Processing vendor), or other industry credit card processing vendor	iasWorld	Yes

No.	Requirements	Module or Solution Name	In-scope?
	systems.		
5.011	System can capture credit card and e-check payments through the receipt of an interface file from external source (i.e., banks, credit card processors)	iasWorld	Yes
5.012	System can access Board of Review (BOR) review process finalized results from Onbase software.	iasWorld	Yes
5.013	System can interface with OnBase to present all relevant BOR PIN information for an analyst to make a decision.	iasWorld	Yes
5.014	System can associate (link) location of document in OnBase to a PIN.	iasWorld	Yes
5.015	System interfaces with the BOR OnBase system to pull the PTAB data and update the refunds values.	iasWorld	Yes
5.016	System can automatically populate data to the key websites (Assessor, Treasurer, and Clerk).	iasWorld	Yes
5.017	System can seamlessly interface with standard accounting systems to push payment data and seek balance confirmation (e.g. ERP Systems).	iasWorld	Yes
5.018	System can seamlessly interface with ERP systems to push the appropriate refund or credit amounts (See Refunds and Legal Items Business Processes).	iasWorld	Yes
5.019	System can interface with standard ERP system financial modules to push G/L entries.	iasWorld	Yes
5.020	System can interface with ESRI ArcGIS (GIS).	iasWorld	Yes
5.021	System can interface with GIS to automatically attach/link to submitted documents such as blue prints.	iasWorld	Yes
5.022	System can interface with GIS to automatically feed the Divisions Report information to the permit screens on the new system.	iasWorld	Yes
5.023	System can interface with GIS to automatically attach/link the tax map associated with the PIN on a Permit.	iasWorld	Yes
5.024	System has the ability to interface with GIS to provide more dynamic GIS functionality for Regression analysis. E.g. automatic neighborhood code updates.	iasWorld	Yes
5.025	System interfaces with GIS to import map data for true and dynamic analytics including TIF PINs and Districts.	iasWorld	Yes
5.026	System can flag new and terminated Taxing Districts (interface with GIS required).	iasWorld	Yes
5.027	System interfaces with Outlook to link PIN/Control Number and application related emails.	iasWorld	Yes
5.028	System seamlessly interfaces with Microsoft Office.	iasWorld	Yes
5.029	System can interface with standard barcode technologies.	iasWorld	Yes
5.030	System can interface with the Recorder of Deeds system to automatically pull and flag PIN numbers with incentives when sold.	iasWorld	Yes
5.031	System can automatically update the status of a sold property (based on data from the Recorder of Deed's system or EZDec), based on Property Deed exemption status, from "Exempt to Assessed" and, automatically re-calculate assessment levels.	iasWorld	Yes
5.032	System can automatically pull the necessary data from the IDOR MyTax/EZ Dec system.	iasWorld	Yes
5.033	System can interface with the ROD system to pull the appropriate PTAX data and view appropriate images.	iasWorld	Yes
5.034	System can interface with the Recorder of Deeds system to automatically pull "foreclosure" indicators.	iasWorld	Yes

No.	Requirements	Module or Solution Name	In-scope?
5.035	System can interface with the ROD system to pull updated Name and Address per PIN. (ACS System).	iasWorld	Yes
5.036	System can automatically post periodic reports to a website upon authorized user approval.	iasWorld	Yes
5.037	System allows authorized users to publish Taxing Agency Reports on the website: http://www.cookcountyclerk.com/tsd/taxagencyreports/Pages/default.aspx - additional documents such as levies, budgets, financial reports, bonds. See Portal requirements. If Portal functionality is offered by the proposer, a link to the Portal would suffice.	iasWorld	Yes
5.038	System can interface with IVR technologies (Cook County is currently migrating its IVR to an Interactive Intelligence platform, and has other Avaya telephony components).	iasWorld	Yes
5.039	System allows authorized users to easily create necessary day to day interfaces, for instance, the IVR system may need a new data feed, or point to a new data feed.	iasWorld	Yes
5.040	System interfaces with standard electronic auction technologies. If built-in e-auctioning functionality is being offered by the proposer, this item is not required.	iasWorld	Yes
5.041	System can import data feeds from electronic auction technologies and update all pertinent tables.	iasWorld	Yes
5.042	System can automatically track and refresh balances based on 3rd party electronic auction activity.	iasWorld	Yes
5.043	System can upon user action pull winner bidder information from Auction tool.	iasWorld	Yes
5.044	System can interface with standard 3rd party e-auction tools to refresh data per PIN from Annual Tax Sale to consolidate invoice with payment data.	iasWorld	Yes
5.045	System can seamless integrate with SPSS. See the Valuations Process.	iasWorld	Yes
5.046	System can seamlessly interface with Microsoft Dynamics (CL cashiering system). If the proposed solution has cashiering functionality, interfacing is not needed.	iasWorld	Yes
5.047	System can interface with MyRevenue Collector (TR cashiering system); If the proposed solution has cashiering functionality, interfacing is not needed.	Tyler Cashiering	Yes
5.048	System can interface with the Delinquency Search Portal (20 years of history), unless the new system can provide this functionality in the portal section.	iasWorld	Yes
5.049	System allows authorized users to perform flat file extracts/downloads (to upload to other systems).	iasWorld	Yes
5.050	System has the ability to process lockbox payments through the receipt of an interface file from the lockbox vendor.	iasWorld	Yes
5.051	System can accept payments from external sources (i.e., banks, mortgage companies).	iasWorld	Yes
5.052	System has the ability to review, and modify duplicate/over payment information.	iasWorld	Yes
5.053	System can capture wire transfer information through the receipt of a data interface from a bank.	iasWorld	Yes
5.054	System interfaces with typical mass mailing applications via standard APIs (e.g. Pitney Bowes).	iasWorld	Yes

No.	Requirements	Module or Solution Name	In-scope?
5.055	System interfaces with common industry databases	iasWorld	Yes
5.056	System seamlessly interfaces with GIS to pull all PIN related data, including all Taxing District identifiers, boundaries per district, PIN legal description, and related topography (building vs. vacant land).	iasWorld	Yes
5.057	System allows authorized users to create links to internal application facets such as GIS map for specific PINs or Districts.	iasWorld	Yes
5.058	System can interface with Cadastral/Parcel Maps (future state, the County is in the process of implementing a Cadastral project).	iasWorld	Yes
6.001	System interfaces with external directory services for security and authentication, such as Windows Active Directory (AD).	iasWorld	Yes
6.002	System performs automated system assurance routines (e.g., data integrity verification reports) as part of standard processing cycles.	iasWorld	Yes
6.003	System leverages standard access control protocols to manage rights to edit, read, approve, review, etc.	iasWorld	Yes
6.004	System provides security controls at multiple levels including:	iasWorld	Yes
6.005	Overall system	iasWorld	Yes
6.006	Specific functions (e.g., inquiry, update)	iasWorld	Yes
6.007	System modules	iasWorld	Yes
6.008	Specific departments	iasWorld	Yes
6.009	Screen/transaction level	iasWorld	Yes
6.010	Data fields	iasWorld	Yes
6.011	System has multiple user security levels for system authorization.	iasWorld	Yes
6.012	System allows authorized users to test scenarios in a sandbox environment. For instance authorized users may modify the EAV, and see the results of the system's automatic recalculation of exemption amounts overall impact to the County's revenue.	iasWorld	Yes
6.013	System allows system administrator to administer access rights.	iasWorld	Yes
6.014	System is PCI compliant - only if cashiering functionality is proposed.	Cashiering	Yes
6.015	Intentionally left blank.		
6.016	System has built-in data validation functionality to accurately consolidate payment collections, with distributions and refunds per PIN, based on tax extension rates.	iasWorld	Yes
6.017	System supports automatic workstation time-out (requires password re-entering)	iasWorld	Yes
6.018	System allows authorized users to receive security violations alerts.	iasWorld	Yes
6.019	System allows authorized users to view complete audit reports.	iasWorld	Yes
6.020	System supports automatic switchover to backup site based on business rules.	iasWorld	Yes
6.021	System can perform virus scans on uploaded documents prior to acceptance into the system.		Yes
6.022	System can conceal fields (by user) based on business rules (e.g. income, social security number, medical disability, etc.).	iasWorld	Yes
6.023	System is flexible and scalable to allow the database administrator to build additional tables and database structures.	iasWorld	Yes
6.024	System permits the execution of batch modules through either on-demand invocation or job scheduling.	iasWorld	Yes
6.025	System allows for a complete range of batch scheduling options.	iasWorld	Yes

No.	Requirements	Module or Solution Name	In-scope?
6.026	System can accommodate network access control	iasWorld	Yes
6.027	System provides role-based access to all applications associated with the system.	iasWorld	Yes
6.028	System allows authorized users to schedule batch processing based on business rules in order to limit batch processing during regular business hours (e.g. schedule large data imports from banks during after-hours and weekends).	iasWorld	Yes
7.001	System allows property owners to view the status of their property tax assessment online.	Public Access(PA)	Yes
7.002	System can email progress notifications based on business rules to property owners (e.g. alert me when decision has been finalized).	Public Access(PA)	Yes
7.003	System allows property owners to subscribe to receive email notifications (e.g. time to submit annual affidavit).	Public Access(PA)	Yes
7.004	System allows property owners to subscribe to receive email notifications and discontinue paper notifications.	Public Access(PA)	Yes
7.005	System allows property owners to subscribe to receive electronic tax bills.	Public Access(PA)	Yes
7.006	System allows property owners to revert to standard mail/paper notifications and bills.	Public Access(PA)	Yes
7.007	System allows property owners to appeal property tax values with the Assessor's Office.	eFile	Yes
7.008	System allows property owners to requests for re-review of property tax values with the Assessor's Office.	eFile	Yes
7.009	System allows property owners to attach/upload supporting documents from a local drive.	eFile	Yes
7.010	System allows property owners and internal users to attach optional and required documents.	eFile	Yes
7.011	System can automatically associate supporting documents to a PIN and related process (appeal, re-view, BOR appeal, etc.).	eFile	Yes
7.012	System allows authorized subscribers of information to access their appropriate data sets.	iasWorld	Yes
7.013	System allows property owners to file COEs online (web portal).	eFile	Yes
7.014	System prompts users to enter or upload missing information or documents.	eFile	Yes
7.015	System can automatically segregate information for email notification subscribers and regular mail notifications.	iasWorld	Yes
7.016	System can trigger the appropriate print jobs and email delivery jobs based on property owner preferences.	iasWorld	Yes
7.017	System allows property owners to submit all types of exemption applications online.	eFile	Yes
7.018	System can capture electronic signatures (note that multiple documents require original signatures).	eFile	Yes
7.019	System can prevent submission of homeowner exemption applications when application deadlines have passed.	eFile	Yes
7.020	System can provide available options when applicant misses deadline (e.g. an applicant may apply for a Certificate of Error or "COE")	eFile	Yes
7.021	System can automatically determine if online applicant meets minimum requirements.	eFile	Yes
7.022	System allows property owners to submit incentive applications online (public portal).	eFile	Yes

No.	Requirements	Module or Solution Name	In-scope?
7.023	System allows property owners to submit multiple incentive applications for the same PIN	eFile	Yes
7.024	System allows property owners to submit one Class Application for multiple PIN numbers.	eFile	Yes
7.025	System allows property owners to view status of their incentives application online.	Public Access/eFile	Yes
7.026	System can, upon approval of initial application(s) or case(s), trigger email acknowledgment of receipt including list of missing items, if any, for online applicants.	eFile	Yes
7.027	System can send email reminders to online incentive applicants to start the Appeal Process.	eFile	Yes
7.028	System allows property owners to upload required documents, save, but not submit.	eFile	Yes
7.029	System allows property owners to amend an ongoing PIN review such appeal type, or division, based on business rules.		Yes
7.030	System allows property owners to submit affidavits online.	eFile	Yes
7.031	System can automatically request additional information when property owner selects "change" in tri-annual affidavit. (See page 2 of the Tri-annual Affidavit).	eFile	Yes
7.032	System allows property owners to update property owner information online.	eFile	Yes
7.033	System can hold files submitted by property owner on hold/queue until township opens.		Yes
7.034	System can update public portal data real-time.	Public Access	Yes
7.035	System allows Taxing Districts to submit levies, budgets, financial reports, bonds and other documents via secure portal.	eFile	Yes
7.036	System automatically populates a Taxing District's existing data and allows the Taxing District user to edit. E.g. for bonds Taxing Districts may increase or decrease existing levy amounts.	eFile	Yes
7.037	System can manage Taxing Districts (and/or representatives) profiles, including self-serve password resets.	eFile	Yes
7.038	System allows Taxing Districts to select options from available list of options (e.g. pull down menus or check boxes) or key "other" (free text).	eFile	Yes
7.039	System allows Taxing Districts to file annexations and disconnections via secure portal	eFile	Yes
7.040	System allows Taxing Districts to specify specific PTELL reductions on their levies and bonds (e.g. by amount, by %, floor amount, proportionally).	eFile	Yes
7.041	System allows Taxing Districts to save work and only submit when ready.	eFile	Yes
7.042	System allows the holder of records (Clerk) to manage other Taxing District filed documents.	eFile	Yes
7.043	System allows authorized users to approve and then automatically post files to a website/portal.	eFile	Yes
7.044	System has built in logic to prevent input of invalid data.	eFile	Yes
7.045	System prompts user to upload, enter, or correct information/attachments. E.g. if floor amounts not the same as the levy amount, prompt Taxing District to correct, if Taxing District needs assistance making determination, allow the entry and prompt for	eFile	Yes

Cook County Government
Implementation of the Integrated Property Tax and Mass Appraisal System and Re-engineering of Related Property Tax Process
Statement of Work

No.	Requirements	Module or Solution Name	In-scope?
	explanation notes.		
7.046	System generates all internal and external email notifications at predefined milestones (e.g. Levies submitted, work ready for internal review, Levy report ready for review, final approval, etc.)	eFile	Yes
7.047	System allows Taxing Districts to download and upload documents (e.g. Taxing District may download a district levy report to apply hand signature and upload again).	eFile	Yes
7.048	System allows Taxing Districts to review, edit, signoff of first review and final review Tax Levy Reports.	eFile	Yes
7.049	System allows overlapping Counties to submit shared property data via portal (and allow internal authorized user to enter this data locally for paper submissions).	eFile	Yes
7.050	System allows authorized user to certify information for posting on a public portal.	eFile	Yes
7.051	System can automatically run preliminary Tax Extension related calculations and present results to the submitter (Taxing District).	eFile	Yes
7.052	System allows internal authorized users to review submissions and modify calculations.	eFile	Yes
7.053	System allows tax buyers to request tax searches online.	eFile	Yes
7.054	System can capture/process all document requests via portal, for instance external users typically request Certificates of payment, G Receipts, Redemption Receipts and copies of the Warrant and Judgment Books.	eFile	Yes
7.055	System allows external users to query and view court orders and associated documents (documents are loaded by internal staff).	eFile	Yes
7.056	System allows authorized external users (with an account) to submit all tax sale's optional, or required documents. For example, Take Notice Mailings, Extension Postings and Court Orders.	eFile	Yes
7.057	System allows external users to purchase taxes online for available "over the counter" PINs any time during the year.	eFile	Yes
7.058	System allows IDOR to access special reports via portal.	eFile	Yes
7.059	System allows Housing Authorities to provide data/excel upload via portal or other future interface.	eFile	Yes
7.060	System can automatically update the portal information per Taxing District.	eFile	Yes
7.061	System can present Taxing District Distributions in a friendly viewing format.	eFile	Yes
7.062	System can alert Taxing Districts when Distributions data is ready for viewing.	eFile	Yes
7.063	System allows external user (property owners) to update name and address (and automatically populate changes to all appropriate date sets, including the billing data set).	eFile	Yes
7.064	System allows attorneys (external users) to provide case information via secure Portal	eFile	Yes
7.065	System allows authorized user to approve or request more information via secure portal	eFile	Yes
7.066	System allows attorneys (external users) to provide case information via secure Portal	eFile	Yes
7.067	System allows authorized user to approve or request more information via secure portal	eFile	Yes

No.	Requirements	Module or Solution Name	In-scope?
7.068	System can update Taxing District Portal and send email notifications when Refunds have modified Distributions.	eFile	Yes
7.069	System can, upon authorized user approval, post final reports to secure portal.	eFile	Yes
7.070	System allows Taxing Districts to submit segregation orders via secure portal	eFile	Yes
7.071	System can automatically process external user request for Certified Copy of a PIN History and direct user to provide payment.	eFile	Yes
7.072	System can redirect external user (e.g. the buyer of Certified Copy of PIN History) to a County approved Credit Card processing site (e.g. LexisNexis)	eFile	Yes
7.073	System allows users to search tax delinquencies via portal (20 years of history). If this is not possible, the new system must interface with the existing delinquent tax search on the Clerk's website.	eFile	Yes
8.001	System has built-in mobile functionality for remote workers.	Field Mobile	Yes
8.002	System has field inspection functionality.	Field Mobile	Yes
8.003	System has the ability to update data real-time to/from remote workers.	Field Mobile	Yes
8.004	System allows mobile workers to capture information offline and upload changes when reconnected to the internet.	Field Mobile	Yes
8.005	System can provide PIN information for mobile users.	Field Mobile	Yes

3.3.3 System Requirements – Clarifications

Tyler shall configure and/or customized all in-scope functionality identified by the County via Addenda or clarifying questions/communications including at minimum the following, but also inclusive of email or written commitment that Tyler might have provided to the County and/or County representatives.

- A. Tyler shall validate, configure and test the system based on the specifications captured by Tyler and approved by the County.
- B. Tyler shall build all necessary functionality related to the Bonds Process as a sub process of the Tax Extension Process. The County updated the Tax Extension Process and related requirements and provided said Tax Extension Use Case file to Tyler emphasizing the need to build the Bonds functionality. Tyler shall validate the requirements, as defined in the Assessment Approach section of this document, prior to configuring the following functionality. Note that these requirements may apply to multiple processes, not just Tax Extension but are provided here in reference to the Tax Extension Process.
 - 1. System can replicate and improve all necessary existing tax calculation mathematic logic currently configured on the mainframe to achieve the desired outputs, currently achieved by the mainframe, and effectively calculate Tax Extensions. Please note that this does not infer that the County wants to mirror the current mainframe limitations. For more details on Cook County Tax Extension calculations see the Civic Federation Tax Extension Primer 2011 Update.
 - 2. System must be PIN based.
 - 3. System allows Taxing Districts to submit levies and bonds via secure portal.
 - 4. System automatically populates a Taxing District existing data and allows them to edit. E.g. for bonds Taxing Districts may increase or decrease **existing levy amounts by filing a levy abatement or a supplemental levy.**
 - 5. System can manage Taxing Districts (and/or representatives) profiles, including self-serve password resets.

6. System allows Taxing Districts to select options from available list of options (e.g. pull down menus or check boxes) or key "other" (free text).
7. System allows Taxing Districts to file annexations and disconnections via secure portal
8. System allows Taxing Districts to specify specific reductions on their levies and bonds (e.g. by amount, by %, floor amount, proportionally).
9. System allows Taxing Districts to save work and only submit when ready.
10. System allows the holder of records (Clerk) to manage other Taxing District filed documents.
11. System allows authorized users to approve and then automatically post files to a website.
12. System has built in logic to prevent input of invalid data.
- 13. System allows taxing districts, or their representatives, to attached required PDF Bond Ordinance files.**
- 14. System allows taxing districts, or their representatives, to upload/capture bond details via import from excel, text, PDF or MS access files.**
- 15. System can apply data/fields from the import file to the appropriate cells to ensure final tax extension calculation (by the system).**
16. System prompts user to upload, enter, or correct information/attachments. E.g. if floor amounts not the same as the levy amount, prompt Taxing District to correct, if Taxing District needs assistance making determination, allow the entry and prompt for explanation notes.
17. System generates all internal and external email notifications at predefined milestones (e.g. Levies submitted, work ready for internal review, Levy report ready for review, final approval, etc.)
18. System allows Taxing Districts to download and upload documents (e.g. Taxing District may download a district levy report to apply hand signature and upload again).
19. System allows Taxing Districts to review, edit, signoff of first review and final review Tax Levy Reports.
20. System allows authorized users to make calculation modifications (manual overwrites) to normally fixed data.
21. System automatically populates captured data to all forms and screens where the same data is required. E.g. Fund numbers should auto populate to all places that use the same fund number.
22. System allows authorized users to easily maintain list of actions used by department. E.g. Fund types list.
23. System allows authorized users to enable and disable PTELL calculations on individual funds.
24. System allows users to add new PIN to old PIN – this may be accomplished in GIS but the new system should have the related functionality to accept those modifications.
25. System interfaces with GIS to import map data for true and dynamic analytics including TIF PINs and Districts.
26. System can calculate TIFs impacted by State assessed property based on business rules.
27. System can automatically calculate, by PIN, the EAV that Taxing District can access.
28. System allows authorized users to easily add new pull-down or check-box options. E.g. if new bond type, easy to create a new bond type.
29. System allows authorized users to enter full program life cycles including details for each of the total number of years in the program. For example Bonds may be 20 years and TIFs may be up to 35 years (programs can end earlier). Note that the life of a program changes based on Statute.
30. System can prevent entering of new information and alert users when action is not valid. E.g. system should flag an error when a PIN is added to a TIF district and the PIN is already in an EZA or the PIN does not correspond to that TIF.
31. System can automatically calculate program values per year based on business rules (e.g. system can set the frozen EAV for TIFs. System calculates and applies the correct EAV for EZA)
32. System allows authorized users to modify EZA amounts per year regardless of the program schedule

33. System is able to manage multiple improvements and multiple schedules per incentive type.
34. System seamlessly interfaces with GIS to pull all PIN related data, including all Taxing District identifiers, boundaries per district, PIN legal description, and related topography (building vs. vacant land).
35. System allows authorized users to create links to internal application facets such as GIS map for specific PINs or Districts.
36. System can automatically calculate distribution percentages for each PIN. Percentages are calculated based on the tax amount due to each Taxing District (including TIFS) from each PIN.
37. System can automatically calculate overlapping district values.
38. System can retain all prior overlapping district values.
39. System can automatically calculate overlapping extension minus debt information.
40. System can retain all overlapping extension minus debt information
41. System allows users to leverage historic overlapping district information in the creation of Tax Extension Certifications and Extension Debt Certifications.
42. System allows overlapping Counties to submit shared property data via portal (and allow internal authorized user to enter this data locally for paper submissions).
43. System can automatically determine when the EF is applicable to a calculation (e.g. EF does not apply to any State Assessed Real Estate such as air pollution and railroad)
44. System can automatically calculate Taxing District limitations based on designation (e.g. Home-ruled are PTELL exempt thus, tax rate ceiling for home-ruled = 0).
45. System applies Cook County various number rounding conventions.
46. System must accommodate Cook County segregation of funds.
47. System allows segregation of funds on tax bill.
48. System automatically performs data check/validation for final rounding calculation.
49. System can capture certification of information among internal users (e.g. the Assessor and BOR certify Assessed Values, the Clerk certifies final EAVs).
50. System allows authorized user to certify information for posting on a public portal.
51. System can generate Electronic certifications or data sets, information or reports
52. System can be configured to automatically generate periodic reports (e.g. Tax Extension key outputs) in predefined formats (PDF, Excel, etc.).
53. System disables ability to modify or make changes to data in a given process (key milestones) after certification is captured.
54. System can automatically post periodic reports to a website upon authorized user approval.
55. System has drag and drop reporting capabilities that allow user to drag data sets into a reporting format.
56. System has data export capabilities (export to excel, text, csv, or other standard formats).
57. System has the flexibility to customize the tax bill to include itemized values such as air pollution, but keep railroad a separate bill.
58. System allow authorized users to publish Taxing Agency Reports on the website:
<http://www.cookcountyclerk.com/tsd/taxagencyreports/Pages/default.aspx>
59. System has dynamic analytics functionality that allows users to sort and retrieve data in any given order.
60. System allows taxation on PINs based on calculations other than AV (E.g. based on front footage, or other defined criteria).
61. System allows Housing Authorities to provide data via excel upload or other future interface.
62. System can automatically run preliminary calculations and present results to the submitter.

63. System allows internal authorized users to review submissions and modify calculations.
64. System can automatically trigger print jobs upon authorized user approval.
- C. Tyler shall develop all the **Scavenger Sale Application** functionality and migrate all necessary data from existing databases.
- D. Tyler shall develop functionality to allow Assessor Office Analysts to perform "hand review," which requires the ability to modify data fields individually and in mass (the same changes for many records/PINS). The Tyler system functionality should allow Analysts to quickly and accurately review all revalued parcels and make value adjustments and add comments to individual parcels.
- E. Tyler shall develop the **Assessment by Legal** functionality. The County provided the **Assessor ABL Process** File via RFP Addendum No. 3.
- F. Tyler shall develop the electronic Warrant, Judgment and Scavenger Books functionality. Tyler shall, as required, migrate any existing electronic book data.
- G. The Tyler Solution shall allow County users to print the USPS Intelligent Mail Barcode on the tax bills necessary for the County to receive the lower price for postage.
- H. Tyler shall meet the following Assessor iC Valuations First Pass process requirements communicated via RFP Addendum No. 3:
- a. Industrial Commercial (IC) characteristic forms' data (form 4906) which is currently keyed into a valuations tool in the AS/400 shall be automated by Tyler. This data is only present in the AS400.
 - b. Tyler shall validate, and reengineer if necessary, the AS/400 IC characteristics form.
 - c. Tyler shall migrate this data and the functionality shall be created in the new Tyler system. IC Characteristic Specifications are included in the Migration Section of this SOW document.
- I. Tyler shall configure and or develop the necessary **Land Valuation Tool functionality**. Data migration from this tool may not be required because the data is continuously updated to the AS400 and to the mainframe, thus it exists in the mainframe which is in scope for migration. Tyler shall however validate migration needs and carefully plan synchronization of data at the time of migration to make sure the Land Valuation Tool data is the most current. The data source is specified here as reference and shall be validated by Tyler with the Assessor's Office.
- a. Database SQL Server 2010
 - b. Table: LandUpdate_NNNNN_YYYY (NNNNN = Township Name, YYYY = YEAR)
 - c. Web Application but limited to IC Land department
 - d. Source code: Visual Basic.net 2005 (for now)
 - e. The table is downloaded from the AS400 then imported to the SQL server
 - f. The IC Land department values the New Unit Price for land (this is the primary purpose of this process)
 - g. This system applied to approximately 115,000 PINs at the time the RFP. Tyler shall validate volumes.
 - h. The system calculates the New AV, Amount Change, Percent change from the Old AV.
 - i. Calculation:
 - i. If Percent Assessment = 0, $\text{New AV} = \text{SQFT} * \text{New Unit Price} * \text{Assessment Level}$
 - ii. If Percent Assessment > 0, $\text{New AV} = \text{SQFT} * \text{New Unit Price} * \text{Assessment Level} * \text{Percent Assessment}$
 - iii. Percent Change - If Old AV > 0, $\text{Percent Change} = (\text{New AV}) / \text{OLD AV} * 100$. Amount Change = New AV – Old AV
- J. Tyler shall configure all appropriate reports for each Office. The Clerk's Office produces an estimated 80 to 100 reports, integrated with internal computer programs in support of processing functions. Similarly, the Assessor's Office produces approximately 150 reports, while the Treasurer produces approximately 80 to 100 reports. Tyler

shall validate and configure all appropriate reports. Tyler shall enable robust reporting functionality as required in the System Requirements, including ad-hoc/self-serve and pre-canned reports. The County also believes that as a result of reengineering and further automation, some of the existing reports may not be necessary (e.g. static/rigid mainframe reports currently generated to identify potential data discrepancies or perform other semi-manual work).

- K. Tyler shall provide best in class (robust and easy to use) reporting, dashboard and analytics functionality that can provide the flexibility to manipulate and create new reports after implementation.
- L. The Board of Review (BOR) appeals process is currently being automated via Hyland OnBase Software. This is not the same as the Assessor's Appeals process or 2nd pass. Tyler shall automate the Assessor's Appeals process, or 2nd pass. Tyler shall build the appropriate interfaces to the BOR OnBase implementation.

3.4 System Response and Data Throughput

- a. Tyler shall configure the application to address performance, scalability and availability issues. For example, Tyler shall scale out the individual tiers within the application, like the presentation and application tiers, to handle a high volume of concurrent users. Tyler shall also partition data to improve query performance. The vast majority of data maintenance transactions in iasWorld shall commit in several seconds when sufficient bandwidth is available and there is minimal network latency between the client browser and the iasWorld servers.
- b. Tyler shall specify the appropriate hardware required for the software to support all expected simultaneous users.
- c. Tyler shall ensure that the database tier is properly configured so the memory available and processes operating are appropriate for the number of users. Tyler shall also properly configure the web tier to ensure prompt web service responses.
- d. Tyler expects key operational software as follows:

1	Operating System and Updates	Tyler's recommended configuration for each component.
1.1	Custom settings	Tyler plans to configure iasWorld 7.1 Client Workstations in accordance with Tyler's documented Requirements and Configuration. This document will be made available to the County once the project starts.
1.2	plugins	No specific plug-ins at the OS level are required.
1.3	additional SW (that is needed for the base OS)	IIS; .Net
1.4	User Account Settings and rights	Administration for setup and configuration
1.5	Windows updates constraints	No windows updates constraints
1.6	Security Settings	No specific security settings are required. The system can be "hardened" by the IT organization as required to implement security policies.

2	End Point Protection and Updates (MacAfee)	Tyler's recommended configuration for each component.
2.1	Recommended Standard	No recommended standards regarding end point protection and updates. Assume the standards support various levels of connection across the

		tiers.
2.2	Exclusions	None
2.3	Reporting	None

3.5 Data Conversion/Migration

The following description of Tyler’s approach to converting existing data is intended as a generic plan from which Tyler shall develop the specific detail steps during initial Discovery and Assessment Phase. Nonetheless, Tyler shall successfully migrate all data, from all data sources, as deemed necessary by the County to fully automate the property tax process and eliminate disconnected information. Tyler shall provide the County with Elected Office-specific timelines for the conversion, cleansing and migration of the data. Tyler shall make sure that none of the migration activities interrupt critical business functions.

Tyler shall document a migration plan to guide this effort and have the County and its Offices sign off on the migration plan prior to commencing any migration work.

3.5.1 Tyler’s Standard File Format for Conversion

Tyler shall develop and maintain a Data Dictionary and Functional Specifications Document which shall be updated periodically during the life of the project. Tyler shall update these files on SharePoint after each change to the database file structure and/or packages, and shall communicate changes to the project team.

3.5.2 Monitoring of Data Conversion Activities

Tyler shall create data verification procedures, and fully monitor all data conversion activities, including the establishment of control totals and computed values from the current systems to validate the converted files and tables. Tyler shall generate comparison reports to identify differences in the resulting values and key characteristics that will assist Tyler in resolving the conversion exceptions.

Tyler assumes Cook County will allow access to the existing data in an agreed upon structure.

3.5.3 Cleansing of Data

Tyler shall review and discuss the cleansing procedure with the County prior to commencing any work. Tyler shall provide subsequent reports describing data cleansing accomplishments, challenges, approach to address challenges and priority schedule. Tyler shall perform all data cleaning activities to ensure data integrity and accurate data mapping in the new system. Tyler shall address typical and unique data cleaning issues which are expected to be different from other organization since Cook County is the 2nd largest County in the United States and a complex environment.

3.5.4 Error Detection and Correction

During the conversion period and prior to acceptance testing, Tyler shall test the conversion by searching for errors, correcting the errors and testing again until all errors are corrected. Cook County shall verify that each error has been corrected.

3.5.5 Tyler Migration Responsibilities

- a. Tyler shall promptly after project kickoff, develop and review the Conversion/Migration Plan and detail activities with the County Team. This plan should include all testing activities including County’s responsibilities and acceptance procedure.
- b. Tyler estimates migration to last approximately 24 months. Tyler shall however, revise the timeline during the Discovery/Assessment Phase to better reflect the County’s conditions and data situation.

- c. Tyler shall verify with each office their business schedules to ensure that there is no interruption of data access during critical periods in the property tax cycle.
- d. Tyler shall develop a communication and reporting method that shall be reviewed and approved by the County.
- e. Tyler shall ensure data is cleaned and correctly mapped to the destination.
- f. Tyler shall revise its recommended approach to move/import, index, and associate all imported electronic documents to a PIN number.
- g. Tyler shall write its own scripts to facilitate conversion/migration.
- h. Tyler shall carefully evaluate current technologies and tools that house PIN related data to make appropriate migration plans. The County uses multiple standalone databases and systems that have created a lot of semi-manual/automatic work.
- i. Tyler shall automate as much of the manual work as possible and bring all data, from various data sources, into an integrated solution.
- j. Tyler shall eliminate reliance on standalone applications that house property tax data as a result of this effort. Should the County and Tyler determine that migration of any given database may hinder the timeline objectives, the County and Tyler shall prioritize and determine the appropriate phased transition and migration of all relevant property tax information.
- k. Tyler shall ensure that County's technical resources clearly understand and are formally communicated about next steps and expectations.
- l. Tyler shall assist the County's technical team in the preparation of machine readable formats, with corresponding file layouts.
- m. Tyler shall assist the County's technical team in generating balancing reports.
- n. Tyler shall determine the iasWorld database modules implicated.
- o. Tyler shall identify the number and type of columns in each iasWorld database table.
- p. Tyler shall establish conversion mapping from the legacy systems to iasWorld.
- q. Tyler shall run the conversion programs to create the various files for iasWorld. Tyler shall import the tables into iasWorld in the appropriate sequence using the standard conversion programs.
- r. Tyler shall generate totals for balancing record and parcel counts and assessed, appraised, taxable assessments, transitional assessments, tax levies, tax extension, abatements, credits, delinquents, and liens totals.
- s. Tyler shall run batch edits to identify data failing user-defined iasWorld edits.
- t. Tyler shall load all applicable tables.
- u. Tyler shall run all applicable iasWorld procedures.
- v. Tyler shall run comparisons and generate comparison reports.
- w. Tyler shall migrate and reproduce the related desired functionality of at minimum the following data sources/applications, and shall associate the scanned images to the appropriate PINs. For all identified data sources, Tyler shall validate the then-current data sizes and specifications necessary to determine migration needs. Tyler shall validate that the following are all applicable databases, as multiple access database exist throughout to assist with tracking. All property tax related databases are in-scope for this SOW. All volumes might have increased since the time of the RFP.

ID	Data	Description
1	Mainframe data	IBM Z Series 900 COBOL EZ+
2	AS/400	IBM AS/400 In this process the AS400 is used only by the Assessor's Office.
3	Scavenger Sale Application – TR	Data Volume is 1.5 Gig. MS Server 2008.

ID	Data	Description
4	Treasurer's Cashiering System - myRevenue Collector	Windows 2007 MS SQL server 2008
5	Clerk's Cashiering System	GP 2010, Version 11.00.1524. The Clerk's Office is currently upgrading the cashiering system to its latest version. 2008 Sequel server Data exists from 2007 to present. There are images attached to all transactions and the size of the files can vary dramatically. The Clerk process about 60,000 transactions per year with 10 document images per transaction that captures approximately 30 data fields. The system currently uses an average of 40 gig. The images stored use 500 gig of space but less than 50% are associated to the property tax system.
6	Assessor's cashiering application	Built-in house to track payment status by Divisions and Incentives Departments. SQL Server: CAMAFS01 (SQL Server) 2000 Related database TPILetterDB_Staging: 1.2GB (actively used).
7	Access Databases – AS	Class 6 (Class 6 Incentives_2 - 38.7 MB) -Main Tables: Class 6B applications - 543 Applications (Applications Filed) PINs 6 - 1790 PINs (Pending, Active, Divided, Removed, etc.)
8		Class 7&8 (Class 7&8 Applications - 2.75 MB) -Main Tables: Class 7 & 8 applications - 543 Applications (Applications Filed) Class 7 & 8 Pin Table - 1892 PINs (Pending, Active, Divided, Removed, etc.)
9		Class 9 (CL 9 03_Current file 02-04-09 - 74.5 MB) - Main Tables: Applications CURRENT- approximately 2650 Applications (Applications Filed) Newly created Class 9 PIN table with C-Es & appr v – approximately 3600 (Pending, Active, Divided, Removed, etc.)
10		Class C (Class C Applications - 1.26 MB) - Main Tables: Class C application Table - 23 Applications (Applications Filed) Class C Pin Table - 48 PINs (Pending, Active, Divided, Removed, etc.)
11		Class L (L-03 - 2.4 MB) - Main Tables Class L Applications - 49 Applications (Applications Filed) New Class L PIN table - 152 PINs (Pending, Active, Divided, Removed, etc.)
12		Class S (Class S11 - 686 KB) - Main Tables CISO2 - 24 Applications (Applications Filed) S PIN Table - 77 PINs (Pending, Active, Divided, Removed, etc.)
13		Class 2-SRO (NewVerSROMaster - 1.68 MB) - Main Tables SRO Master 2013 - 95 Applications (Applications Filed) SRO PIN Table - 86 PINs (Pending, Active, Divided, Removed, etc.)
14		Open Space (Open Space '97 to '14 - 6.28 MB) - Main Tables Open Space 2014 - 95 Applications (Applications Filed)
15		SRO PIN Table - 86 PINs (Pending, Active, Divided, Removed, etc.)
16		Class Veterans/Fraternal Order (Vets Freeze New Ver - 1.51 MB) - Main Tables: Veterans Freeze - 126 Applications (Applications Filed) PINS - 290 PINs (Pending, Active, Divided, Removed, etc.)
17		MS Access DB; 76,300 KB. First Control Number created in 1988

ID	Data	Description
		(earliest start year appears to be 1993).
18	Access Databases - CL	Forfeiture Sales
19		Deeds
20		Extension Databases
21		Accounting Databases
22		Redemption Databases
23	Access Databases –TR	Special Assessment Database .Net 4.0 web based application Data size: ~ 20GB
24		Duplicate and Overpayment Application
25		Sale in Error Application
26		Correspondence Management Database
27		CR number or JR number tracked on Secure Refund DB
28	Delinquent Tax Database – CL	Website Search Tool on the CL’s website. Data is currently in ASP.net framework4 / C# programming and MS SQL server2008 R2. Includes 20 years of historic delinquencies (~19 MB of Data).
29	13 years of scanned documents from lockbox providers – TR	1TB of Data
30	Scanned Images –AS	~300,000 exemptions scanned images (~29 GB).
31	Scanned Images – AS	PTAX scanned images (~150 GB)
32	IC characteristics - AS	IC characteristics specifications: The member named IC4906DTA in ICPRD/IC4906DTA currently contains 226,393 records There were approximate 148,196 PIN at the time of the RFP and these volumes might have changed. The Record Length = 329 Bytes The Data Size was 226,393 * 329 = 745,518 Bytes = 74,518 KB at the time of the RFP and the data sizes might have increased.
33	Scanned sketches – AS	The Assessor Office reported the following inventory at the time of the RFP. Tyler shall validate the current volumes. a. 624,254 Scanned sketches (TIF files) and b. 713,510 sketches in hardcopy Tyler shall associate scanned sketches to the appropriate PIN.
34	Electronic Warrant Book.	Tyler shall migrate existing data from TR.

3.5.6 Cook County Migration Responsibilities

- a. The County shall test the migration in accordance with the testing and acceptance procedure defined by Tyler.
- b. The County shall report any discrepancies in accordance with the testing and acceptance procedure.
- c. The County shall proactively work with the Tyler to resolve any error conditions.
- d. The County shall, with the guidance of Tyler, create the necessary extract files of the existing data and related tables to an agreed upon structure.
- e. The County shall provide Tyler any available documentation for the existing files, reference tables, valuation tables, computational procedures, etc., and make source code for programs available as needed to clarify the computations of the current system.
- f. The County shall provide reasonable access to the data to be converted. Files should include a tax year to facilitate the loading of historical data.

3.5.7 Deliverables

Tyler is responsible for developing all the Deliverables and Cook County is responsible for reviewing and formally approving each deliverable unless otherwise noted.

Key Activity	Deliverables	Acceptance Criteria
1. Technical Environment Assessment	Data Migration Plan should include all testing activities and acceptance procedure.	Deliverable Acceptance Form per Deliverable or list of deliverables. The Acceptance form must describe what is being delivered.
2. Data Conversion	Data Dictionary and Functional Specifications Document.	
3. Cleansing	Data Cleansing Reports.	
4. Mapping	Mapping Document.	
5. Testing	Report.	
6. Formal migration acceptance	Overall Migration Acceptance Form.	

3.6 Integration

Upon completing its initial assessment of the County’s Technology environment, Tyler shall document a plan that at minimum documents the required interfaces with sufficient detail to understand the data that will be pushed and/or pulled from each data source, including comprehensive diagrams. This plan should also outline the approach and timeline to build, test and accept interfaces. Tyler shall also discuss with the County the recommended interfacing approach such as web services, batch file processing, direct database integration via APIs, and/or the County’s Enterprise Service Bus (ESB) prior to finalizing any decisions or making any assumptions. The County shall review and approve the Integration Plan.

Tyler shall at minimum provide:

- a. An Integration Plan;
- b. An updated integrations/interfaces model/diagram;
- c. Planned interfacing method (real-time/batch, etc.);
- d. Estimated phased timeline for interfaces to go live;
- e. Approach to build and test each of the interfaces/integration;
- f. For each identified interface, Tyler shall alert the County to work with its vendors to estimate **indirect** level of effort by resources other than Tyler’s resources.
- g. Tyler shall at minimum build interfaces to the following existing technologies:

ID	Data	Description
1.	MS Active Directory	Authentication tool. Multiple AD implementations across the County, with trust built between some ADs.
2.	MS Office tools;	Multiple Versions (2003, 2010, 2013 and Office 365). Tyler will support future versions of MS office, typically within 6 months of commercial release.
3.	ESRI ArcGIS System;	ESRI ArcGIS Version 9.3 The County is currently upgrading to ArcGIS 10.2 and incorporating the new Parcelfabric data model. Cook County manages new and voided PINs as well as Taxing District annexations and disconnections through an existing GIS. The GIS system produces field data files or packets necessary for field work and data collection. This includes PINMAP, a custom System to manage all cadastral mapping functions.

ID	Data	Description
4.	ACS replacement system	This is a ROD system that will mostly push Sales data to the Assessor and Name and Address updates to the Treasurer. This data can also be pulled from the EZ Dec State of Illinois System. Tyler shall work with the County to determine the best data source. The ACS required documents include at minimum: <ol style="list-style-type: none"> a. All Plats of Survey; b. Condo declarations; c. Condo amendments; d. Condo removals; e. Dedications; f. Road takings; g. Vacations; h. Sub-Divisions; i. Deeds (needed for ABL); j. Annexations.
5.	EZDec	State of Illinois EZDec (property sales data). EZDec will be replaced by MyTax in the near future but will serve the same function. See the ACS replacement
6.	OnBase Software.	OnBase is used in various Property Tax Offices including the BOR, Treasurer's Office and Assessor's Office. Tyler shall validate OnBase data feeds with all Offices.
7.	Assessor's Website	Temporary if necessary - Tyler shall work with the County to determine the best approach to continue to provide public information via website and/or portal, until the portal functionality is fully deployed.
8.	Treasurer's Website	Temporary if necessary - Tyler shall work with the County to determine the best approach to continue to provide public information via website and/or portal, until the portal functionality is fully deployed.
9.	Clerk's Website	Temporary if necessary - Tyler shall work with the County to determine the best approach to continue to provide public information via website and/or portal, until the portal functionality is fully deployed. The Clerk's Delinquent Tax information shall specifically be accessible to the public via portal, the website or both. Tyler shall work with the Clerk's Office to determine the best approve to make this information accessible to the public.
10.	Cook County Property Tax Portal Website	Temporary if necessary - Tyler shall work with the County to determine the best approach to continue to provide public information via Property Tax Portal website until the portal functionality is fully deployed.
11.	IBM SPSS Statistics (SPSS)	IBM Software Package for Statistical Analysis.
12.	Accounting System	The Treasurer's cashiering system interfaces with an Accounting System The Clerk's current Cashiering System also interfaces with an Accounting System, different from the Treasurer's Accounting System.
13.	Xerox high volume printers (TR);	
14.	Toshiba high volume printers (AS);	
15.	Public-record.com (outsource	

ID	Data	Description
	database for foreclosures).	
16.	Clerk's Microsoft Dynamics Point of Sale System.	Microsoft Dynamics Point of Sale System (GP 2010, Version 11.00.1524) – Integration required only if after completing the Assessment, the Clerk determines the plan to migrate cashiering functions. Note that the TR's cashiering system already links to CL's cashiering system for all items paid at the CL and TR, including forfeitures (see the Delinquent Tax process).
17.	Treasurer's TPA system.	TPA (Third Party Agent) is a .net/SQL system built in house to process wire transfers and PINs and confirm that a mortgage company will pay a tax bill (see the TR Collections Process). Registered agencies can currently make initiate a wire payment for up to 100,000 properties (PINs) at the time.
18.	Key External Systems	Mainly banks and mortgage companies.
19.	Interactive Voice Response System (IVR).	Interactive Intelligence platform and has many other Avaya telephony components.
20.	Lexis Nexis	Current Countywide credit card processing vendor.
21.	Pitney Bowes Mailing Software	Current vendor that provides mailing address verification and intelligent mail barcode integration.
22.	Cook County Data Synchronization (Assessor, Bureau of Technology, Clerk and Treasurer)	Tyler shall work with the Assessor, Bureau of Technology, Clerk and Treasurer to design and implement interfaces to support the export of data from iasWorld in an effort to keep key Property related systems and datasets in sync with iasWorld. The Data Synchronization interfaces will be utilized during the testing phase and post go-live until Cook County determines the appropriate time to end the synchronization.

3.6.1 Deliverables

Tyler is responsible for developing all the Deliverables and Cook County is responsible for reviewing and formally approving each deliverable unless otherwise noted.

Key Activity	Expected Deliverable(s)	Acceptance Criteria
1. Technical Environment Assessment.	1. Interfacing plan (includes items "a" to "f" in this section.	Deliverable Acceptance Form per Deliverable or list of deliverables. The Acceptance form must describe what is being delivered.

3.7 Data Security and Compliance

- a. Tyler shall setup all password settings (e.g., complexity, aging.) and authentication of the Tyler Solution via the County's Active Directory authentication tool.
- b. Tyler shall use SSL to protect the data in motion and the installed IIS web server(s) shall use the highest level of encryption supported by the County. For protecting data at rest, Tyler shall work with the County to determine if Oracle Transparent Data Encryption (TDE) is appropriate.
- c. Tyler shall configure and/or enable all logging/auditing and reporting capabilities.
- d. Tyler shall configure and/or enable all web application security measures (e.g., SQL injection protection, buffer overflow, etc.).
- e. Tyler shall configure the application to ensure that the data that is transmitted off-site is encrypted end-to-end.

3.8 Development and Configuration Practices

Tyler shall adhere to applicable best practices and standards regarding both data security and data privacy. Tyler's resources shall adhere to secure coding practices conforming to:

- a. Microsoft Secure Coding Guidelines for the .NET Framework;
- b. OWASP Secure Coding Principles;
- c. Privacy by design principles; and
- d. Federal Trade Commission's Fair Information Practice Principles.

Tyler shall tender its deliverables in a manner that reasonably protects the security, confidentiality and privacy of County Data and Deliverables.

Tyler shall allow the County to review its architecture and design review methodology to validate the security-related design features of the application enhancement/modules before starting a development phase. The primary objective of this process is to identify and fix potential vulnerabilities before they can be exploited and before the fix requires a substantial reengineering effort. The outcome of this process is a reduced attack surface exposed by application enhancements/modules and increased security of the user and the system.

Tyler shall log all security issues identified at design review in the JIRA bug tracking system.

Tyler shall be expected to review all important design areas including but not limited to:

- a. Deployment and infrastructure considerations
- b. Input validation
- c. Authentication
- d. Authorization
- e. Sensitive Data
- f. Session Management
- g. Cryptography
- h. Parameter Manipulation
- i. Exceptions Management
- j. Auditing and Logging
- k. User provisioning/de-provisioning
- l. Tier analysis; end-to-end walkthrough of logical application tiers
- m. Evaluate security choices and increased privileges within and across the presentation, business, and data access layers
- n. Application life-cycle management including meta-data configuration changes
- o. Compliance with client security and privacy standards

Tyler shall ensure that the following engineering practices are followed by its system developers and administrators:

- a. Encrypt all secrets in text format whether in source code, web.config, machine.config, or any file.
- b. Encrypt all passwords, connection strings with passwords, encryption keys, credentials, and other secrets when stored in configuration files.
- c. Secrets must never be in source code encrypted or plain text.
- d. Apply input validation at all identified entry points (including form fields, QueryStrings, cookies, HTTP headers, and web service parameters).
- e. Verify that all inputs to the application are validated on the server side before consuming.
- f. Validate string data for length and format. Where possible use regular expressions to validate format. Make sure numeric data is validated for range (upper and lower bound) and type (signed vs. unsigned).
- g. String data should preferably use inclusion list (known, valid, and safe input) rather than exclusion list (rejecting known malicious or dangerous input).
- h. Secure sensitive data-at-rest.

- i. If necessary encrypt statutorily protected data (SPD) "at-rest," within the database server and other applicable stores. Ensuring that SPD data is encrypted with appropriate encryption algorithms and key strength when at-rest in a data-store, and that this encryption takes place within the data store if applicable.
- j. Leverage existing framework functionality to manage encryption.
- k. Confirm that the code implementation actually secures sensitive data.
- l. Secure sensitive data-in-transit. Encryption should be used for any SPD data as required that is transmitted over wired or wireless connections on the County network or is extranet/Internet-facing. Encryption should be used for any information in transit via wireless or wired connections when in-transit across the Internet.

Tyler shall conduct internal security code reviews that address specific security design requirements or issues logged and/or resolved during the design review. The County shall have the right to review internal security code review practices. Code reviews are expected to consider the following as applicable and should be updated to reflect the latest changes in security practices and threats.

- a. SQL injection. Confirm that the SQL queries are parameterized (preferably within a stored procedure) and that any input used in a SQL query is validated.
- b. Cross-site scripting. Confirm that user controlled data is encoded properly before rendering to the browser. .NET applications can leverage Anti-XSS library for encoding data that is more rigorous than the native .NET encoding.
- c. Cross-site request forgery. Confirm that the Page.ViewStateUserKey property is set to a unique value that prevents one-click attacks on your application from malicious users.
- d. Data access. Confirm no improper storage of database connection strings and proper use of authentication to the database.
- e. Input/data validation. Look for client-side validation that is not backed by server-side validation, poor validation techniques, and reliance on file names or other insecure mechanisms to make security decisions.
- f. Authentication. Confirm no weak passwords, clear-text credentials, overly long sessions, and other common authentication problems.
- g. Authorization. Confirm there is no failure to limit database access, inadequate separation of privileges, and other common authorization problems.
- h. Sensitive data. Confirm no mismanagement of sensitive data by disclosing secrets in error messages, code, memory, files, or the network.
- i. Auditing and logging. Confirm that the application is generating logs for sensitive actions and has a process in place for auditing logs file periodically.
- j. Unsafe code. Confirm there is no code compiled with the /unsafe switch that was not approved in design review. Look for potential buffer overflows, array out of bound errors, integer underflow and overflow, and data truncation errors.
- k. Unmanaged code. In addition to the checks performed for unsafe code, also scan unmanaged code for the use of potentially dangerous APIs, such as strcpy and strcat. For a list of potentially dangerous APIs, see the section "Potentially Dangerous Unmanaged APIs," in the Microsoft Security Question List available at the Microsoft website. Managed Code (.NET Framework latest stable version).
- l. Review any interop calls and the unmanaged code itself to make sure that bad assumptions are not made as execution control passes from managed to unmanaged code.
- m. Hard-coded secrets. Look for hard-coded secrets in code by looking for variable names, such as "key," "password," "pwd," "secret," "hash," and "salt."
- n. Poor error handling. Confirm there are no functions with missing error handlers or empty catch blocks.
- o. Web.config. Examine your configuration management settings in the web.config file to confirm that any forms authentication tickets are protected adequately, tracking and debugging is turned off, and that the correct algorithms are specified in the machineKey element.
- p. Code access security. Review for the use of asserts, link demands, and allowPartiallyTrustedCallersAttribute (APTCA).

- q. Code that uses cryptography. Review for failure to clear secrets and improper use of the cryptography APIs themselves.
- r. Threading problems. Review for race conditions and deadlocks, especially in static methods and constructors.

Tyler shall run FxCop to analyze managed code assemblies i.e. code that targets the .NET Framework common language runtime, and report information about the assemblies, such as possible design, localization, performance, and security improvements.

Tyler shall review and/or Triage the defects with the product lead, correct all defects that are Severity 1 or higher, update work items accordingly.

Tyler shall follow the complete software development life cycle (SDLC) process for application development. The software development life cycle used for iasWorld is adaptive and leverages a modified waterfall model and agile model. This hybrid approach provides flexibility for both incorporating technology advancements in the product as well as providing the flexibility many of our projects typically require (projects tend to still follow a waterfall based delivery model).

3.9 Network

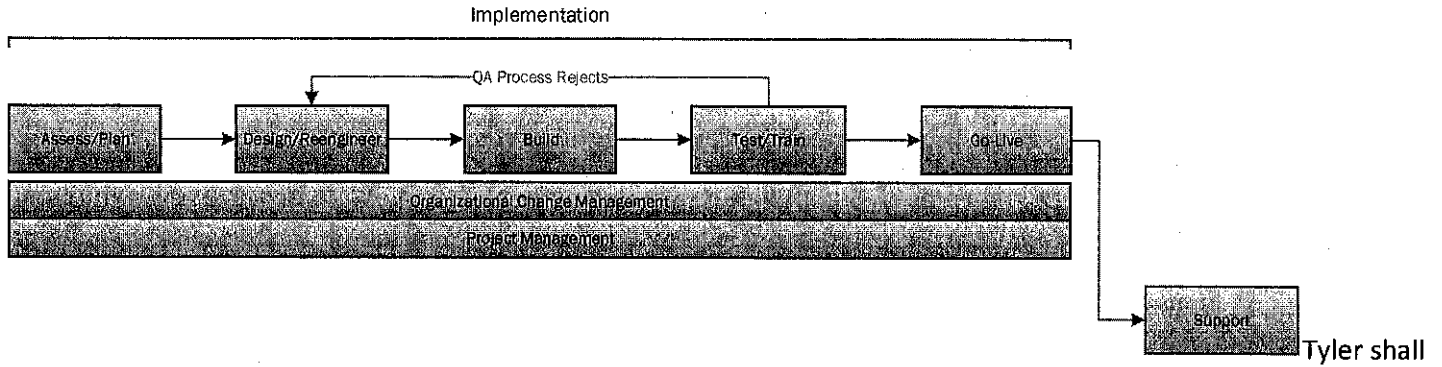
Tyler shall work with the County to review the optimal physical network infrastructure required for the on premise solution to effectively mitigate latency and data speed issues.

Tyler shall advise the County about all applicable local hardware required to effectively access and manage the Tyler Solution. Tyler shall document and define all necessary hardware components and specifications to ensure proper capacity (CPUs, memory, optimized root volumes, appropriate network throughput, etc.) to meet requirements on a normal day and during peak periods. In addition, Tyler shall provision backups and optimize servers.

4. Project Management Approach and Implementation Methodology

4.1 Overview of the Implementation Methodology

Tyler shall provide strong expertise throughout the project and shall provide prompt and decisive direction with respect to the implementation strategy to successfully rollout the solution across all key Agencies. Tyler shall use an iterative approach to manage the implementation adhering to industry best practices, incorporating agile methods where possible, providing underlying Organizational Change Management and Project Management Services while executing all project major phases. Tyler may adjust the traditional Build model to accelerate the release of functionality but the acceleration strategy and steps shall be well defined, discussed and documented with the County during the planning phase.



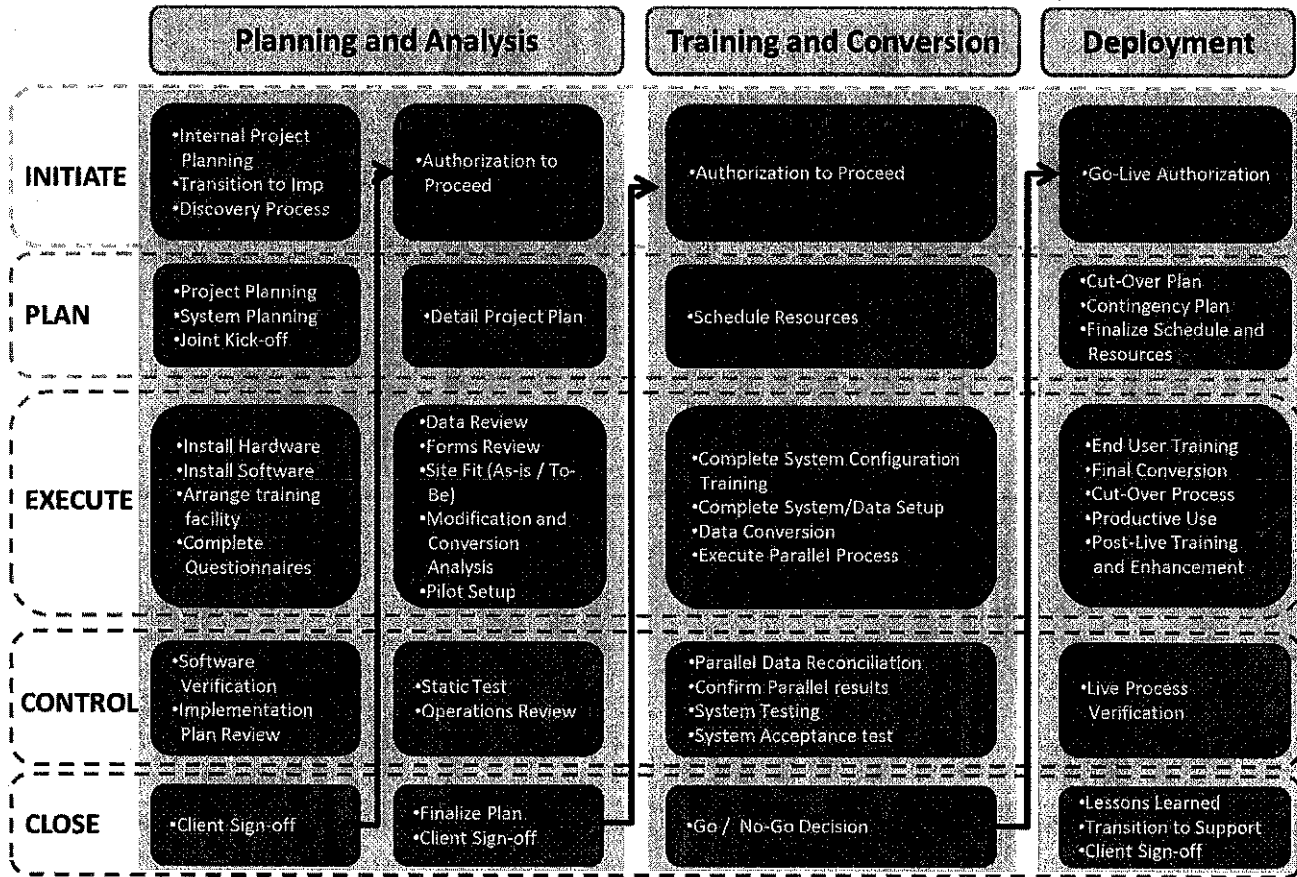
carefully assess the strategy to rollout the various Tyler Solution components and update the tentative plan accordingly.

4.1.1 High Level Effort Estimates

Task	Estimated Duration	Task Activities
1	Project Management Plans 6 months	<ul style="list-style-type: none"> a. Scope Management; b. Quality Management; c. Project Schedule Management; d. Contract Change Management; e. Communications Management; f. Time Management; g. Project Cost Management; h. Risk Management; i. Resource Management; Delivery Acceptance Management.
2	Requirements Validation 4 months	Requirements Validation Requirements Analysis
3	Gap/Fit Analysis 8 months	Fit Analysis
4	Customization 24 months	Customization Analysis Define Software Change Specifications Define Interface Specifications Develop Work Plan for Software Customization
5	Data Conversion Plan 6 months	Data Conversion Planning Legacy System Data Analysis

Task	Estimated Duration	Task Activities
		Develop Mapping Documentation
6	System Configuration 24 months	Configure Screens and Setups Program and Test Custom Changes Install and Test Interfaces Develop Installation Test Plan Develop Configuration Report Develop Customization Report
7	Data Conversion 30 months	Data Migration Test Conversion Conversion for Dual Test Production Conversion
8	Testing 9 months	Execute Test Plan
9	Training 12 months	Execute Training Plan
10	Cutover 12 months	Processing Support Go Live Support Additional Training Business Process Support
11	General Documentation Time estimate –occurs throughout 18 months	Product Technical Documentation Product Operational Documentation Product User Documentation All other Documentation

Tyler shall update the following diagram after discovery to ensure all phases align with the County's environment and conditions.



4.1.2 Deliverables

Tyler is responsible for developing all the Deliverables and Cook County is responsible for reviewing and formally approving each deliverable unless otherwise noted.

Key Activities	Deliverables	Acceptance Criteria
1. Define resource needs	1. Project Plan	Deliverable Acceptance Form. The Acceptance form must describe what is being delivered.

4.2 Resources

4.2.1 Resource Plan

Tyler shall prepare a Resource Plan immediately after project kickoff including the following information. The County shall review and approve the Resource Plan prior to commencing any work. Tyler shall ensure the appropriate expertise and skills are clearly present throughout the project, including but not limited appropriate and relevant Property Tax Code Subject Matter Experts (SMEs).

Once the Tyler Project team is assembled and the County counterparts have been identified, both parties agree that they will not remove that staff and personnel from their assigned Project roles without reasonable advance notice and good cause, and that they will work together to mitigate project impacts after any such removal. The parties will also

work together to manage the Project impact resulting from the temporary unavailability of Project staff from either party. In the event Tyler's personnel are not providing services consistent with Tyler's services warranty, the County will notify Tyler of that deficiency and give Tyler an opportunity to correct said deficiency. In the event the deficiency persists, Tyler will replace that Project member, upon written request and demonstration of good cause. Replacement staff shall have at minimum the reasonably equivalent experience as the person being replaced, and shall be non-billable to the County for the first two weeks of their Project assignment (whether their services are being provided onsite or remotely) allowing the individual to come up to speed and to diminish the impact to the Project.

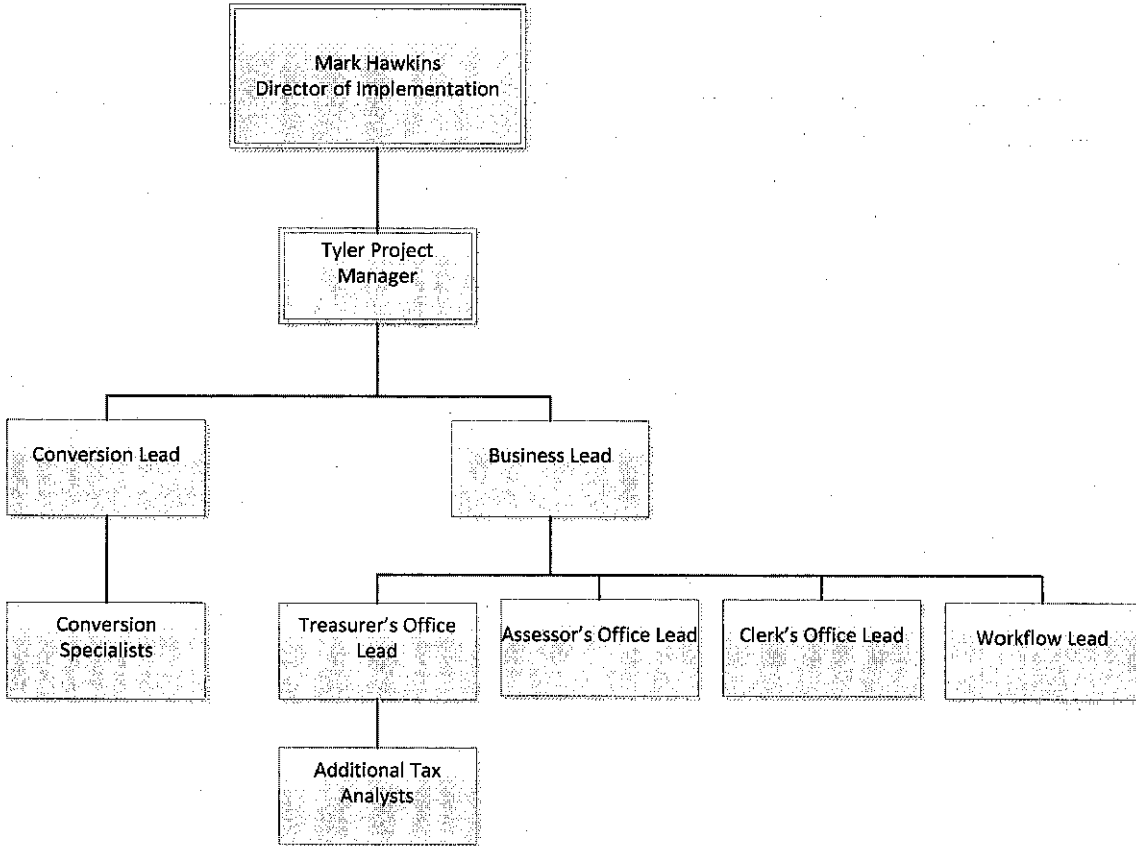
- a. Tyler shall allocate adequate resources to complete the scope of work as scheduled.
- b. Tyler shall develop a resource plan that clearly states the names or the resources that will be onsite, dates and times these resources are expected to be onsite.
- c. Tyler shall assign a dedicated team and provide all direct contact information for team members.
- d. Tyler's Project Manager shall be engaged throughout the entire project and be available on site.
- e. Tyler's assigned implementation analyst (resources responsible for system configurations) and DBAs and Conversion Specialists shall be engaged throughout the entire project and be available on site.
- f. Tyler's training and onsite support staff shall be engaged as planned during the critical training and transition phases.
- g. Tyler shall assign a business lead per agency (Assessor, Treasurer, Clerk, etc.). The Business Lead shall have relevant experience and will quickly learn the agency's specific business process.
- h. Tyler shall assign a dedicated project team to the Cook County project. Tyler shall bring as necessary, specialists for specific tasks to supplement the dedicated team. Custom development will be performed by Tyler's development team leveraging a pool of available resources.
- i. All Tyler resources shall become intimately knowledgeable of the County tax processes, issues and concerns. This staffing continuity shall prevent issues with knowledge transfer and wasted time training a revolving door of vendor staff, which can sometimes occur in projects of this length of time and complexity.
- j. Tyler shall manage all partners' and subcontractors' resources to ensure seamless and cohesive team dynamics whereby the County is unaware of separation of duties or gaps.
- k. Tyler shall provide a team as indicated in the diagram below. Tyler shall, upon completion of the Discovery and Assessment Phase, augment and solidify the details of this project team.
- l. Tyler shall ensure that enough resources are allocated to the project at all times. Failure to provide adequate and qualified resources shall result in penalties as defined in the Professional Services Agreement (PSA) Article 9 (b).
- m. Resources Necessary for Services. Except as set forth in this Agreement, Tyler shall provide and be financially responsible for all Equipment, Software, materials, facilities, systems and other resources needed by its staff to perform the Services in accordance with the Agreement.
- n. Tyler has preliminarily estimated approximately 30 total project resources as follows, many of the resources will be involved with the entire project, others will participate in specific phases as indicated below:

Role	Number of resources	Location	Expected participation phase
Director of Implementation	1	Remote, but will be onsite more	Entire Project

		frequently during the first weeks of implementation and go live. Will be onsite for quarterly visits.	
Project Manager	1	Onsite	Entire Project
Development Team	Core Development Team assigned to specific development specifications as needed	Offsite	Customization – Core Development
Conversion Lead	1	Remote, Onsite as needed but will be mostly onsite during the key first weeks of the project.	
Conversion Specialists	7	Onsite	Data Conversion Plan, Data Migration, Interface and Report Development
Training and OCM team	4	Onsite	Training Phase
Business Lead	1	Remote with Onsite Travel (50% onsite/remote)	Entire Project
Workflow Lead	1	Remote with Onsite Travel (50% onsite/remote)	Entire Project
Assessor’s Office Lead	1	Remote with Onsite Travel (50% onsite/remote)	Entire Project
Treasurer’s Office Lead	1	Remote with Onsite Travel (50% onsite/remote)	Entire Project
Clerk’s Office Lead	1	Remote with Onsite Travel (50% onsite/remote—with more than 50% as mutually agreed.	Entire Project
Additional tax analysts	4	Remote with Onsite Travel (50%	Entire Project

		onsite/remote)	
Cutover support team	6	Onsite	6 month
Support and Maintenance Team	Unlimited	Offsite	Post Go-Live

4.2.2 Tyler Team Chart



Role	Required Skills
Project Manager	PMI Certified; Large Scale Project Experience, 10+ years' experience
Business Leads -including Office Leads	5+ years' experience, able to configure iasWorld using HTML/XML. Gathering and documenting requirements, writing specifications.
Conversion Lead	Oracle PL/SQL, 10+ years, experience with Large datasets
Conversion Specialists	Oracle PL/SQL experience
Training/OCM Team	Prosci's ADKAR Change Management methodology, Training experience
Additional Tax Analysts	Able to configure iasWorld using HTML/XML. Gathering and documenting requirements, writing specifications.

Cutover Support Team	Will be comprised of Business Leads and other Analysts
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4.2.3 Client Roles and Responsibilities

The table below provides a summary of the County Agencies and their overall roles in the Property Tax Process. Each agency shall assign resources to assist and facilitate access to information for Tyler during the implementation.

Assessor's Office

Resource	Responsibilities	Participation
Mike Finegan	Desktops, Networks, Servers, Operating Systems	25—35%
Stiven Pazand	Desktops, Networks, Servers, Operating Systems	25—35%
Sandra Sandoval	Desktops, Networks, Servers, Operating Systems	25—35%
Kris McCanney	AS400 Programs/Data	25—35%
Steve Pham	AS400 Programs/Data	25—35%
Raul Moreno	Mainframe Processes, Assessment Scheduling Processing, Exemption Processing for 2nd Installment Tax Bill	25—35%
Karen Drennen	Assessment Scheduling Processing	25—35%
Derrick Smith	Microsoft.Net Applications, Access & SQL Databases	25—35%
Mai Nguyen	Microsoft.Net Applications, Access & SQL Databases	25—35%
Thomas Gillespie	I/C Valuation 1st Pass Value	25—35%
Vanessa Berrios	I/C Valuation 2nd Pass Value (Appeals)	25—35%
Erika Delau	I/C Valuation 2nd Pass Value (Appeals)	25—35%
Thomas Chmura	Residential Valuation 1st Pass Value (SPSS)/2nd Pass Value (Appeals)	25—35%
Timothy Hartnett	Residential Valuation 1st Pass Value (SPSS)/2nd Pass Value (Appeals)	25—35%

Charles Watkins	Tech Review (Final Review of Values)	25—35%
Margaret Monreal	Tech Review (Final Review of Values)	25—35%
William (Dan Murray)	Divisions	25—35%
Lisa Coglianesse	I/C Field	25—35%
Jeanne Connelly	I/C Field	25—35%
Mary Johnson	Permits	25—35%
Noel Cain	Permits	25—35%
Michelle Lord	Permits	25—35%
Lumni Likovski	Exemptions	25—35%
Lisa Clark	Exemptions	25—35%
Kapri Brown	Certificate of Errors	25—35%
Melissa Petty	Certificate of Errors	25—35%
Dominick Spalla	Incentive Properties	25—35%
Linda Morris	Exempt Properties	25—35%
Felix Cardona	Omitted Assesment	25—35%
Hazel Frazier	ABL (Assessment By Legal)	25—35%
Tiffany Brown	ABL (Assessment By Legal)	25—35%
Jeff Cox	Landmarks	25—35%
Mark Kos	Freedom of Information/Docketing Appeals	25—35%

Clerk's Office

Resource	Responsibilities	Participation
Margie Cusack	Office wide functionality	25—35%
Mirella Villafuerte		25—35%

Margie Cusack	Accounting/cashiering functionality	25—35%
Mirella Villafuerte		25—35%
Fred Newson		25—35%
Theresa Nichols		25—35%
Delphine Jordan		25—35%
Aurora Wedrall		25—35%
Margie Cusack	Collection of Unpaid Taxes/ Customer Service functionality	25—35%
Mirella Villafuerte		25—35%
Steven Kidd		25—35%
Guadalupe Soto		25—35%
Peter Warner		25—35%
Mary Bartelment		25—35%
Irene Covarrubias		25—35%
Tanya Anthofer	Mapping/GIS functionality	25—35%
Raymond Gottner		25—35%
Luis Castellanos		25—35%
Tanya Anthofer	Tax Extension / Distribution	25—35%
Mirella Villafuerte		25—35%

Treasurer's Office

Resource	Responsibilities	Participation
Katerina Kostakis	Finance, Refunds, Banking, Tax Research, Tax Distributions	25—35%
David Byrnes	Online Payments, Office Operations/Administration, IT Systems	25—35%

Justin Kirvan	Legal, Tax Sale, Bankruptcies	25—35%
Maurizio Marchese	IT Technology (Desktops, Networks, Servers, Operating Systems)	25—35%
Monica Frey	Cashiering, Customer Service, Tax Billing, Collections, Delinquencies, Special Assessments	25—35%

Bureau of Technology

Resource	Responsibilities	Participation
Kathy Lee Folan	Assessor, Board of Review and Clerk Mainframe Application Support	25—35%
Tom Brown	Clerk and Treasurer Mainframe Application Support	25—35%
Kurt Kisting	Clerk and Treasurer Mainframe Application Support	25—35%
John Shalvis	Mainframe Application Support	25—35%
Tracy Boswell	Mainframe Application Support	25—35%
Jacek Gutkowski	Application and Reporting Support	25—35%
Jason Chiu	Application and Reporting Support	25—35%
David Pershey	Manager of Applications	25—35%
Derrick Thomas	Director of Applications	25—35%

Critical peak periods per office:

- a. Treasurer’s Office - mid-January, one week leading up to March 1, two weeks in mid-June, and one week leading up to August 1.
- b. Assessor’s Office – Appeals mid Sept-late Nov, 2nd installment mid April – mid May, Tax bill season June 30th – Aug 5th
- c. Clerk’s Office – Mid-May – end of June.
- d. Board of Review - August thru March

Agency	Primary Roles and Responsibilities
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<p>1. Cook County Clerk's Office (CL)</p>	<ul style="list-style-type: none"> a. Processes new PINs and/or Divisions in collaboration with the AS. b. Calculate the tax rate at which each PIN should be taxed by Taxing Districts (Tax Extension Process). c. Manages the collection of unpaid taxes (delinquent tax process) that have been sold or forfeited by TR. d. Manages the Warrant and Judgment Book (PIN history) in collaboration with the TR.
<p>2. Cook County Assessor's Office (AS)</p>	<ul style="list-style-type: none"> a. Processes new PINs or Divisions in collaboration with the CL. b. Assesses Properties to determine Assessed Values (AV) for 1.8 million PINs. c. Conducts all needed field inspections and building permit processing (part of property valuations to determine Assessed Values). d. Accept, approve, and processes exemptions. e. Issues 1st and 2nd Assessment Notices to all property owners. f. Calculate equalized assessment value and apply exemptions. g. Reviews property owner Valuation Appeals. h. Processes and certifies correction of taxation errors (Certificate of Error Process).
<p>3. Cook County Board of Review (BOR)¹</p>	<p>The Cook County Board of Review is vested with quasi-judicial powers to adjudicate taxpayer complaints. Said powers include the following:</p> <ul style="list-style-type: none"> a. Correct factual mistakes; b. Review Certificates of Error; c. Order the Assessor (AS) to revise and correct the assessed value of a property; d. Recommend property for tax exempt status; and e. Defend assessment decisions for properties appealed at the Illinois Property Tax Appeal Board (PTAB).
<p>4. Cook County Treasurer's Office (TR):</p>	<ul style="list-style-type: none"> a. Accurately and timely issues 1.8 million tax bills (two times a year). b. Collects tax bill payments for approximately \$11B. c. Timely distributes collected taxes to Taxing Districts (based on the tax rates determined by CL). d. Manages the collection of unpaid taxes (delinquent tax process) in collaboration with the CL. e. Manages updates to the Warrant Books, which serve as the official tax records of the county, in collaboration with the CL. f. Manages tax refunds and credits.
<p>5. Cook County Recorder of Deeds (ROD)</p>	<ul style="list-style-type: none"> a. Records property sales data – used by AS and TR.
<p>6. Presidents' Office and Bureau of Technology</p>	<p>Mainframe (and other systems) support and maintenance, including running of hundreds of reports on behalf of the business users (property tax related). BOT also coordinates with TR to print the property tax bills.</p>

¹ Note that in the *mainframe* the BOR is listed by its former name: the Board of Appeals or "BA."

4.2.4 Project Executive Steering Committee Meetings

The Tyler project manager shall participate in Executive Steering Committee (ESC) meetings and coordinate with the Committee lead. This Executive Steering Committee shall include management representatives from the County involved in the project's oversight and control. The Steering Committee shall act individually and collectively as a vocal and visible project champion throughout the project. The Executive Steering Committee shall meet as needed throughout the project and no more than once per month during the project. Tyler shall coordinate and document the Executive Steering Committee personnel, frequency of meetings, actions and other key actions required by this team in a SharePoint sub-site/section. Tyler shall make sure agendas include all relevant content and actions. The ESC shall revise and approve meeting agendas. The Executive Steering Committee shall include members of Tyler's upper management organization.

4.3 Project Management

4.3.1 General

The Tyler project management team shall coordinate with County PM the project kickoff, establish the project site, create a traceability matrix, and thereafter, conduct meetings to review project plans, status/progress, and risks/issues on a mutually agreed schedule and no less than one (1) time per week during the project. Tyler shall document these meetings to provide an audit trail.

Tyler shall produce written status/progress reports on a regular basis (and no less than once per week), detailing progress to date, milestones achieved, plans for the next reporting period, and any unresolved issues or problems.

- b. Tyler shall develop a comprehensive project plan that shall be reviewed, accepted and accessible by the County. Tyler shall update the project plan as needed and communicate any changes to the County immediately, so County can discuss and concur with changes before Tyler implements them.
- c. Tyler shall develop a communications matrix.
- d. Tyler shall then manage the contractual requirements with a special emphasis, including but not limited to the following management areas, as described in the approved Project Plan:
 - a. Scope Management;
 - b. Quality Management;
 - c. Project Schedule Management;
 - d. Contract Change Management;
 - e. Communications Management;
 - f. Time Management;
 - g. Project Cost Management;
 - h. Risk Management;
 - i. Resource Management;
 - j. Delivery Acceptance Management.
- e. Tyler shall adhere to the PMI proven 5-phase methodology but shall tailor a project approach to effectively manage this project.
- f. Tyler shall provide a SharePoint site for this project.
- g. Tyler shall configure a Cook County SharePoint site that will at minimum enable the following functionality:
 - a. Document repository;
 - b. Status page (Dashboard);
 - c. Issues list;
 - d. Risk list;
 - e. Action items list to capture actions from regularly scheduled conferences and any ad hoc meetings, including "assigned to" and "due date."

- f. Timeline (schedule);
 - g. Change tracker;
 - h. Cost tracker;
 - i. Requirements traceability;
 - j. Organizational Change Management Activities;
 - k. Quality/testing process tracker;
 - l. Training and acceptance tracker;
 - m. Overall contract performance tracker (See Contract Performance Section of this document);
 - n. Key personnel contact information;
 - o. Project Journal (this should be the basis for Lesson’s Learned).
- h. Prior to configuring the SharePoint site and finalizing the report format, Tyler shall validate with key stakeholders the appropriate level of reporting information including but not limited to traceability of scope requirements, SRM, and budget. Refer to Exhibits included in this SOW for the County’s Project Progress Report.
- i. Tyler shall make sure all stakeholders have access to the SharePoint site.
 - j. Tyler shall keep the County’s SharePoint site current at all times.
 - k. Tyler shall upload/post/place all work products to the SharePoint site, including the timeline/schedule of activities.
 - l. Tyler shall individually track each County requirement, listed in this document or identified during the validation process.
 - m. Tyler shall report lessons-learned as often as possible to prevent issues from repeating again, but at minimum at each major milestone. Tyler shall report ongoing lessons-learned in weekly status. Tyler shall work with the County’s PM to determine the appropriate level of lessons-learned information required during standard reporting.
 - n. Tyler shall report overall project lessons-learned in the template provided in this document.

4.3.2 Project Task List and Timeline

Tyler is responsible for accurately estimating effort and presenting a comprehensive plan **reflecting experience and careful assessment** of the requirements. **Negligence to read the details is not a justification for a change order.**

The following is the Tyler’s estimated project timeline. Additional details are provided in the next section of this document.

	2015		2016				2017				2018				2019				2020		
	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	
Project Management	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Requirements Validation	■	■																			
Gap/Fit			■	■	■																
Data Conversion Plan	■	■																			
Data Conversion			■	■	■	■	■	■	■	■	■	■	■	■	■	■	■				
Configuration							■	■	■	■	■	■	■	■	■	■	■	■			
Customization Analysis							■	■	■	■	■	■	■	■	■	■	■	■			
Documentation													■	■	■	■	■	■			
Testing																	■	■	■	■	
Cutover to Production																			■	■	
Go Live Support																				■	■

4.3.3 Detail Project Plan and Task List

Tyler shall update the detailed project task list during the Discovery/Assessment phase in collaboration with the County. The table below is only an estimate. The implementation phase is expected to last fifty-four (54) month. Support and Maintenance shall start after implementation for three (3) additional years. Therefore this is an estimated ninety (90) month contract. Tyler shall prepare a Task List/Timeline that very clearly shows the relationship and logical sequencing of tasks such as Reengineering, Organizational Change Management, Discovery and/or Assessment, and Fit gap Analysis. The Project Plan must include a narrative of project tasks/phases that fully explains and clarifies them and aligns them with the dates in the timeline. The Project Plan and Task List take into account that the offices operate on a business cycle.

Below is a sample task list used by Tyler on other projects. Tyler shall update the task list during the planning phase to reflect the County's projects detailed tasks.

iasWorld Implementation Project Plan
Project Start-up
Begin Project
Project Kick-Off Presentation
Planning
Develop Project Plan
Develop Detailed Project Plan
Review, Comment & Revise Project Plan as needed
Approve Work Plan
Develop Project Scope Document
Develop Project Scope Document
Review & Comment on Project Scope Document
Approve Project Scope Document
Develop Risk Plan
Conduct Risk Assessments
Develop Risk List
Develop Risk Mitigation Plan
Review & Comment on Risk Plan
Approve Risk Plan
Develop Training Plan
Develop Training Plan
Review & Comment of Training Plan
Approve Training Plan
Planning Sign off
Installation
DEvelopment Environment
Install iasW DEV Environment
Test Application for Connectivity
Design TEST & PRODUCTION Environments
Review iasWorld Requirements & County Environment
Create Draft Architectural Network Diagram
Review & Comment on Network Diagram

Update Diagram
Accept Network Diagram
TEST & PRODUCTION Environments
Install iasW on Servers
Test Application for Connectivity
TEST & PROD Environments Ready for Use
Finalize Installation Documentation
Installation Sign off
Requirements Analysis (Fit/Gap)
Walk-Thru's
Conduct Walk-Thru #1: Functional-Configuration/Conversion Review
Provide Agenda
Conduct Walk Thru's
Provide Action Item Output & Review with County
Provide additional data as needed from Walk Thru's
Conduct Walk-Thru #2: Functional-Configuration/Conversion Review
Provide Agenda
Conduct Walk Thru's
Provide Action Item Output
Provide additional data as needed from Walk Thru's
Walk-Thru Reports
Produce Walk-Thru Report
Produce Requirements Traceability Matrix
Review Walk-Thru Analysis Reports
Accept Walk-Thru Analysis Reports
Reports Requirements Analysis
Interface Requirements Gathering
Provide initial list of legacy (current) interfaces, definition and Visio
Interface Requirements Meetings
Interface Overview Document
Create Interface Overview Document
Review and Comment
Revise Interface Overview Document
Accept Interface Overview Document
Reports Plan
Develop Reports Plan
Create Reports Log
Review & Comment on Report Plan & Log
Accept Report Plan
Report Identification
Reports - Id existing reports and provide samples

Compare County Reports to iasW Reports
Report Identification Complete
Security
Provide Initial Security Matrix
Review Security Matrix
Review of initial Security Matrix Complete
Gap Analysis
Gap Analysis Meetings
Prepare Agendas
Gap Analysis Meetings #1
Gap Analysis Meetings #2
Gap Analysis Meetings #3
Gap Analysis Meetings #4
Gap Analysis Report
Produce Gap Analysis Report
Update Requirements Traceability Matrix
Review & Comment on Gap Analysis Report
Accept Gap Analysis Reports
Requirements Analysis Complete
Detailed Design
Modification Specifications
Develop Modification Specifications
Review Modification Specifications
Revise Modification Specifications
Accept Modifications Specifications
Interfaces
Interface Specifications
Develop Interface Specifications
Review & Revise Interface Specifications
Approve Interface Specifications
Review & Update Interface Diagrams
Review & Update Interface Diagrams
Review & Comment on Revised Interface Diagrams
Complete Interface Specification Tasks
Reports
Refine List of Reports to Be Created
Refine List of Reports to Be Created
Review Business Requirements
Accept List of Reports To Be Developed
Develop Report Specifications
Critical Reports
Medium Reports
Low Reports
Review & Revise Reports Specifications

Critical Reports
Medium Reports
Low Reports
Approve Reports Specifications
Critical Reports
Medium Reports
Low Reports
Complete Reports Specification Tasks
Detailed Design Complete
Development & Unit Test
Development of Interfaces
Develop Interfaces
Test Interfaces
Interface Development Complete
Reports Development
Critical Reports
Medium Reports
Low Reports
All Report Development Complete
Development & Unit Test Complete
Testing & Integration
Interface Testing
Report Testing
Critical Reports
Medium Reports
Low Reports
Report Testing Complete
Develop User Acceptance Test Plan
Write UA Test Plans
Review & Comment on UA Test Plan
Accept UA Test Plan
Execute User Acceptance Tests
Execute Test Scripts
Modify Module / Transaction / Template
Complete UAT
Testing & Integration Complete
iasWorld Setup Configuration and Validation
General and AA Setup Configuration and Validation (Iteration 1)
Sales
Transaction Review
Template Layout
Conversion Testing
Security

Implementation of the Integrated Property Tax and Mass Appraisal System and Re-engineering of Related Property Tax Process

User Field Definitions
Field Edits, LOV Updates
Appeals
Transaction Review
Template Layout
Security
Conversion Testing
User Field Definitions
Field Edits, LOV Updates
Name/Address/Legal
Transaction Review
Template Layout
Conversion Testing
Security
User Field Definitions
Field Edits, LOV Updates
Assessment Ladder
Transaction Review
Template Layout
Security
Conversion Testing
User Field Definitions
Field Edits, LOV Updates
Notes
Transaction Review
Template Layout
Security
Conversion Testing
Field Edits, LOV Updates
General & AA Setup Configuration & Validation Complete (Iteration 1)
General and AA Setup Configuration and Validation (Iteration 2)
Sales
Transaction/LOV Validation
Adjustments
Transaction Accepted
Appeals
Transaction/LOV Validation
Adjustments
Transaction Accepted
Name/Address/Legal
Transaction/LOV Validation
Adjustments

Transaction Accepted
Assessment Ladder
Transaction/LOV Validation
Adjustments
Transaction Accepted
Notes
Transaction/LOV Validation
Adjustments
Transaction Accepted
General and AA Setup Configuration and Validation (Iteration 2) Complete
CAMA Setup Configuration and Validation (Iteration 1)
Land
Transaction/LOV Review
Template Layout
Security
Conversion Testing
User Field Definitions
Field Edits, LOV Updates
Agricultural
Transaction Review
Template Layout
Security
Conversion Testing
User Field Definitions
Field Edits, LOV Updates
Residential CAMA
Transaction Review
Template Layout
Security
Conversion Testing
User Field Definitions
Field Edits, LOV Updates
Appraisal Units
Transaction Review
Template Layout
Security
Conversion Testing
User Field Definitions
Field Edits, LOV Updates
Commercial CAMA
Transaction Review
Template Layout
Security

Conversion Testing
User Field Definitions
Field Edits, LOV Updates
Minerals
Transaction Review
Template Layout
Security
Conversion Testing
User Field Definitions
Field Edits, LOV Updates
CAMA Income
Transaction Review
Template Layout
Security
Conversion Testing
User Field Definitions
Field Edits, LOV Updates
CAMA Market
Transaction Review
Template Layout
Security
Conversion Testing
User Field Definitions
Field Edits, LOV Updates
Permits
Transaction Review
Template Layout
Security
Conversion Testing
User Field Definitions
Field Edits, LOV Updates
Miscellaneous CAMA - General, Entrance, Etc.
Transaction Review
Template Layout
Security
Conversion Testing
User Field Definitions
Field Edits, LOV Updates
CAMA Setup Configuration and Validation (Iteration 1)
Complete
CAMA Setup Configuration and Validation (Iteration 2)
Land
Transaction/LOV Review
Adjustments

Transaction Accepted
Agriculture
Transaction/LOV Review
Adjustments
Transaction Accepted
Residential CAMA
Transaction/LOV Review
Adjustments
Transaction Accepted
Appraisal Units
Transaction/LOV Review
Adjustments
Transaction Accepted
Commercial CAMA
Transaction/LOV Review
Adjustments
Transaction Accepted
Minerals
Transaction/LOV Review
Adjustments
Transaction Accepted
CAMA Income
Transaction/LOV Review
Adjustments
Transaction Accepted
CAMA Market
Transaction/LOV Review
Adjustments
Transaction Accepted
Permits
Transaction/LOV Review
Adjustments
Transaction Accepted
Miscellaneous CAMA - General, Entrance, Etc.
Transaction/LOV Review
Adjustments
Transaction Accepted
CAMA Setup Configuration and Validation (Iteration 2)
Complete
Tax Extension Setup Configuration and Validation (Iteration 1)
Tax Rates
Transaction Review
Template Layout
Security

Conversion Testing
User Field Definitions
Field Edits, LOV Updates
Special Assessments
Transaction Review
Template Layout
Security
Conversion Testing
User Field Definitions
Field Edits, LOV Updates
Tax Extension Setup Configuration & Validation Complete (Iteration 1)
Tax Extension Setup Configuration and Validation (Iteration 2)
Tax Rates
Transaction/LOV Review
Adjustments
Transaction Accepted
Special Assessments
Transaction/LOV Review
Adjustments
Transaction Accepted
Tax Extension Setup Configuration & Validation Complete (Iteration 2)
System Administration Setup & Configuration
Security
Role Review
Role Assignments
Load Roles
System Administration Setup & Configuration Complete
PRM Setup
Introduction & Setup Training
Create Cook County Specific Set-up Document
Review & Document Changes
Pictometry Integration
Modify & Update Setups
Unit Test Setups
Test Module
Issue Resolution
Review & Comment
Accept PRM Setup
iiDoc (EDMS) Integration
Introduction & Setup Training
Create Cook County Specific Set-up Document
Review & Document Changes

Modify & Update Setups
Integrate with OnBase
Create OnBase Web Service
Test Webservice
Test Setups
Testing Configurations and Adjustments
Integrate New Modifications in OnBase
County Testing
Test Setups
Accept iDoc (EDMS) Integration
Workflow & Field Management Implementation
Planning and Scope Definition
Present WF lifecycle and field management
Develop Use Cases
Produce WF Scope of Work
Review and revise WF SOW
Produce final WF SOW
Set-up & Implement Workflow
Install Default Configuration of WF
Produce WF Module Deliverables According to SOW
Present Configuration and Review Test Plan
Write Test Scripts
Test and Review
Modifications and Updates
WF Module Accepted
Public Access Implementation
Introduction & Setup Training
Create Cook County Specific Set-up Document
Review & Document Changes
Comment on Changes
Modify & Update Setups
Test Setups
Accept Public Access Implementation
iasWorld Setup & Configuration Complete
Data Conversion
Conversion Plan
Create Initial Conversion Plan
Review and comment on Conversion Plan
Revise and republish Conversion Plan
Accept Conversion Plan
Revise and Update Conversion Plan
Revise and Update Conversion Plan
Review and Comment on Revision
Accept Revised Conversion Plan

Initial Conversion
Data Gathering
Provide Data and Data Dictionaries
Provide business process definitions
Provide special procedures or processes
Provide business calendar
Load Data into iasW
Analysis of Data
Data Update
Load Data into iasW
Create Initial Data Conversion Specifications
Deliver Initial Conversion Specifications
Conversion Iteration #2
Create Data Extracts
Load Data into iasW
Update Conversion Specifications
Produce Updated Data Dictionary
Conversion Iteration #2 Complete
Conversion Iteration #3
Create Data Extracts
Load Data into iasW
Produce Cross Reference Mapping to IAS
Review and Verify Data
Refresh TEST
Conversion Iteration #3 Complete
Conversion Iteration #4
Refresh TEST
Review & Verify Data, Templates, LOV's
Modify & Update Setups
Refresh TEST
Conversion Iteration #4 Complete
Conversion Iteration #5
Create Data Extracts
Load Data into iasW
Review and Verify Data
Refresh TEST
Review and Verify Data, Templates, LOV's
Conversion Iteration #5 Complete
Final Conversion
Modify and Prepare File For Final Conversion
Execute Final Conversion
Accept Final Conversion Results
iasWorld In Production
Data Conversion Complete

Implementation of the Integrated Property Tax and Mass Appraisal System and Re-engineering of Related Property Tax Process

Training & Documentation
Provide & Update Documentation
Provide Original User Documentation
Modify User Documentation
Review & Comment on User Documentation
Accept Documentation
Training
Project Team Training
Update Training Plan
Update Training Plan
Review & Comment on Training Plan
Revise Training Plan
Comprehensive Training (Only showing 1 session per course)
Overview of iasWorld
Name, Address, Legal Maintenance
Processing Splits and Combinations
Agricultural Land Use Management & Rollbacks
Special Assessments & Exemptions
Supplemental & Exoneration Assessment Processing
Appeals Tracking
Residential CAMA Data Maintenance
System Administration
Batch & Online Reporting Processes
Commercial CAMA Data Maintenance
CALP Tables and Land Valuation
Inquire Ad-Hoc Reporting Basic
Annual Rollover Processes
Market Modeling Overview
Residential Cost Valuation
Inquire Ad-Hoc Reporting Advanced
Commercial Cost Tables, Income Tables, Valuation and Depreciation
Market Analysis Modeling and Valuation
Workflow Training
Training Complete
Training & Documentation Complete
System Acceptance
Go-Live Plan
Develop Go-Live Acceptance
Detail Pre-Go-Live Activities
Detail Go-Live Activities
Detail Post Go-Live Activities
Publish Go-Live Plan
Review and Comment on Go-Live Plan

Revise and Republish Go-Live Plan
Accept Go-Live Plan
Final System Acceptance
Final System Acceptance Support
Completion of Implementation Support
Project Close Out
Finalize Outstanding Issues
Turn Over to Support
Project Close Out
System Acceptance Complete

4.3.4 Deliverable Acceptance Process

Acceptance of defined deliverables means that the County has agreed that the deliverable has met the defined criteria. Tyler shall follow the following acceptance process:

- a. Tyler shall provide deliverables to the designated County Project Manager for review, accompanied by a deliverable acceptance form. The acceptance form shall include a description of the deliverables;
- b. Tyler shall log all submissions of deliverables. This log shall include the deliverable number, submission date, deliverable description, approval authority, rejection reason (where applicable), and date returned;
- c. Tyler and the County project manager shall verify a mutual understanding of the content of the deliverable when it is determined to be complete;
- d. Response to each deliverable must be formal acceptance or rejection in writing (no verbal, conditional or automatic approvals). E-mail approvals are acceptable if they are explicit (as on the acceptance form).
- e. The County shall provide acceptance on a timely basis, or return the documents to Tyler with requested changes. The acceptance form shall list the specific acceptance date and impact to other deliverables and associated dates.

Refer to Exhibits attached herein for the Deliverable Acceptance Form Tyler shall use in this project. Tyler shall revise this form in collaboration with the County if necessary.

4.3.5 Scope Change Management

Tyler shall manage the scope in order to minimize amendments or modifications. In the event of a change in scope or delay beyond the vendor’s control, Tyler shall discuss the impact with the County before proceeding. Any significant material change to the project scope or material delay beyond the vendor’s control shall be escalated to County management. If the parties agree a scope change is warranted the County shall then follow its amendment and modification process pursuant to Article 10 of the PSA, and shall be executed by the County’s Chief Procurement Officer. If the County requests additional work, work shall be priced at the contractual rates. All amendments and modifications are subject to the terms and conditions of Article 10 of the PSA.

4.3.6 Deliverables

Tyler is responsible for developing all the Deliverables and Cook County is responsible for reviewing and formally approving each deliverable unless otherwise noted.

<i>Key Activity</i>	<i>Expected Deliverable(s)</i>	<i>Acceptance Criteria</i>
1. Formal kickoff meeting.	1. Updated project plan.	Deliverable Acceptance Form per Deliverable or list of
2. Introduce project teams: Tyler Team	2. Project SharePoint site.	

<i>Key Activity</i>	<i>Expected Deliverable(s)</i>	<i>Acceptance Criteria</i>
and Cook County Team.	3. Executive Steering Committee	deliverables. The Acceptance form must describe what is being delivered.
3. Prepare project plan.	SharePoint space and schedule.	
4. Reassess appropriate resource needs and update project plan as needed.	4. Project reporting schedule, frequency and format.	
5. Develop and/or update Project Documents.	5. Updated project schedule and task list.	
6. Prepare project site.	6. Communications Plan/Matrix.	

4.4 Organizational Change Management

Tyler shall develop an organizational change management plan for the project that shall be approved by the County. Tyler shall use the PROSCI’s ADKAR methodology (Awareness, Desire, Knowledge, Ability, and Reinforcement) to perform the following work:

- a. Identify Audience Profile;
- b. Identify Employees as Supporters;
- c. Identify Written Communication Types;
- d. Implement “Lunch-and-Learn” Sessions;
- e. Conduct a Training Pilot;
- f. Conduct Go-Live Training Kickoff;
- g. Evaluate Learner Outcomes;
- h. Support Go-Live/Cutover activities.

4.4.1 Audience Profile (Addresses Ability)

Tyler shall conduct an Audience Profile of the learning population (all property tax agencies and users- internal and external). This will identify the County’s current tasks, office roles to ensure they are sufficient for the training requirements/transition of the new system. Tyler shall coordinate this task with the reengineering approach (discussed more fully in the Reengineering Section of the SOW so that its audience prerequisite-skill assessment also considers the “to be” property processes in which County will need training .If prerequisite skills for the new system and the new processes are not present, Tyler shall identify learning gaps and barriers during its scheduled (Business and Technical) Requirements Validation and Analysis and Fit Gap Analysis Phases, , and request the necessary adjustments by the County’s business owner or technical team. The goal of the Audience Profile task is to ensure that the appropriate level skills are present for a successful training intervention. Note that the County is responsible for the timely training or guidance needed to address any identified prerequisite skills that are not related to the Tyler Solution. Tyler shall provide a report identifying any gaps in this area.

End Users are expected to have basic computer knowledge and know how to operate a personal computer. System Administrators are expected to have basic knowledge and understanding of MS Active Directory, Servers, IIS, SQL, Oracle and MS Office.

4.4.2 Employees as Supporters (Addresses Reinforcement and Awareness)

Tyler shall identify and confirm with County selected employees as new system/process “evangelists/champions” (resources and influences) to their peer groups. These individuals must be representatives of the learning population.

They can assist with explaining the benefits of the new change to make the transition an easier process. Tyler shall incorporate these resources in the communications plan (RACI Chart).

4.4.3 Written Communication Types (Addresses Awareness)

Tyler shall create monthly written communication/newsletters regarding completed tasks, new functionality and timeline (not the same as the weekly status reports). Tyler shall work with the County to identify techniques and content that will increase user attention (make sure user are reading relevant communications, and not generic information).

Tyler shall create one "What's New with the Property Tax Process (aka Tyler Solution)?" flyer per quarter that describes the features, functions, and benefits of the new system. The timing could be agreed to jointly by Tyler and the County's business owners in order to align key milestones such as planning, configuration, training, go-live dates etc.

Tyler shall provide written website messages about the new system to the County's Property Tax Agencies to appear on the Internet, including descriptions of the project, expected changes and benefits, links, and prototype screenshots.

4.4.4 Implement "Lunch-and-Learn" Sessions (Addresses Knowledge)

Tyler shall create a Drop-in Training Room for 15 users to practice the new system features. Tyler shall create a test environment with real-life scenarios. Tyler shall implement Lunch and Learn sessions bi-monthly prior to executing any formal training. These sessions are intended to familiarize the property tax users with the new system.

Tyler shall create one video every two months (up to three minutes) to provide a visual display of the new system during the bi-monthly Lunch and Learn sessions.

Tyler shall conduct product demonstrations of the new system following the acceptance of a release or go-live events. This shall occur after each pre-release build is delivered to Cook County with new functionality. The specific number of pre-release builds will be determined during detailed planning, but Tyler anticipates no fewer than 4. The product demos will be provided to each business group. Use a comparison learning approach by demonstrating "this is how you did it in the old system vs. this is how you will do it in the new system."

4.4.5 Conduct a Training Pilot Session (Addresses Knowledge)

Tyler shall conduct a Training Pilot as defined in the Training Section of this document.

4.4.6 Go-Live Training Kickoff (Addresses Knowledge, Ability, and Awareness)

For all training sessions (See training section of this document for complete list of training types), Tyler shall:

- a. Provide a quick three-minute welcome;
- b. Have one System Trainer in the session to address any quick issues;
- c. Have one floor support staff member to assist trainees (similar to a teacher's assistant);
- d. Create an environment that celebrates roll successes by group. For example celebratory balloons, posters, or other as appropriate, to commemorate successes such as "Successful UAT" and/or "ready to use the system in production."

4.4.7 Evaluation of Learner Outcomes (Addresses Ability and Reinforcement)

Tyler shall use the Kirkpatrick Model in combination with the OCM methodology to evaluate the worth and merit of the training sessions and materials. Evaluation of Learner Outcomes is also described in the Training Section of this

document. Tyler shall coordinate evaluation activities with each Office Lead to make sure trainees are properly trained and materials are useful. Tyler shall redevelop materials and/or training sessions that are not useful to the end users.

4.4.8 Post Go-Live Support

Tyler shall provide onsite floor support. See the Post Implementation Support Section under The Knowledge Transfer Section.

4.4.9 Deliverables

Tyler is responsible for developing all the Deliverables and Cook County is responsible for reviewing and formally approving each deliverable unless otherwise noted.

Key Activity	Deliverables	Acceptance Criteria
<ol style="list-style-type: none"> 1. Audience Profiling 2. Identify and prepare supporters (evangelist) 3. Prepare written communications as defined by the timeline 4. Conduct lunch and learn sessions 5. Conduct training Pilot 6. Report 7. Prepare for training 8. Prepare for Go-Live 	<ol style="list-style-type: none"> 1. Organizational Change Management Plan listing the events/activities, schedule, frequency and format. These events/activities shall become deliverables. 2. Change Readiness Survey. 3. Audience Profile Report. 4. Updated RACI chart listing OCM evangelists and their roles. 5. Monthly Newsletter. 6. Quarterly Flyers. 7. Quarterly Website messages. 8. Bi-Monthly Lunch and Lean training sessions – 9. Other communications. 	<p>Deliverable Acceptance Form. The Acceptance form must describe what is being delivered.</p>

4.5 Discovery and/or Assessment Approach

Immediately after kickoff Tyler shall:

- a. Assign the appropriate team per area of concentration (Assessor, Treasurer, Clerk, Technical, etc.);
- b. Conduct a comprehensive review of each business flow (process);
- c. Analyze and validate the requirements with process owners. As part of the analysis Tyler analysts will review Cook’s requirements but also discuss best practices from the industry and review other relevant similar process our clients follow
- d. Assess the existing technology environment including but not limited to:
 - i. All property tax databases and applications;
 - ii. Mainframe;
 - iii. AS400;
 - iv. Interfaces;
- e. Document and develop Current State documentation including diagrams reflecting the functional and technical conditions;
- f. Update the project plan including the timeline as necessary.

Tyler shall begin its business assessment from the identified business processes including but not limited to the following, with the understanding that these are high level and many sub steps and sub process exist. Tyler shall then

validate the complete property tax process and identify all required end-to-end functionality (out of the box or customized) that shall enable the integrated property tax flow.

Tyler shall utilize the business process documents (Use Cases) as base information needing additional details. Tyler shall validate the business processes defined in the **Business Process Requirements** Section of this SOW document and shall capture additional needed information, including undocumented property tax business processes.

Business processes (Use Case files) are included as exhibits to this SOW and are reference documents, not final future state designs.

4.5.1 Deliverables

Tyler is responsible for developing all the Deliverables and Cook County is responsible for reviewing and formally approving each deliverable unless otherwise noted.

<i>Key Activity</i>	<i>Deliverables</i>	<i>Acceptance Criteria</i>
1. Business flows analysis 2. Validate requirements 3. Assess technology environment. 4. Document current state. 5. Update the project plan	1. Current State Document (Functional and Technical). 2. Updated project plan and timeline.	Deliverable Acceptance Form. The Acceptance form must describe what is being delivered.

4.6 Reengineering Approach and System Design

Tyler shall reengineer the current state property processes to at minimum eliminate unnecessary workflows, identify needed functionality that was never implemented due to mainframe limitations, eliminate functionality implemented in the mainframe as a “work-around,” eliminate repetitive work, and maximize automation to eliminate as many prior manual processes as possible.

Tyler shall document the “as is” and the “to be” process prior to configuring the Tyler software. The “to be” processes and future state technology design shall be included in the Design Document, which shall be approved by the County. In the reengineering plan, Tyler shall include steps to identify common themes across all Agencies, or themes that impact more than one group.

Tyler shall assess the feasibility of leveraging iterative and agile reviews and updates that would allow Tyler to promptly configure each reengineered segment (business process), review each configured system segment with the process owners, make modifications as needed, and seek approval when each configured segment is complete. Tyler shall however, follow a structured approach to determine which business processes are interconnected to other processes, and thus must hold configuration of said process until the end-to-end process flow has been clearly identified. Tyler shall not, for the sake of speed, automate process flows without fully validating its interconnections. Furthermore, Tyler shall not embark in an agile configuration phase without properly updating the SOW section and project plan, and assigning qualified and Agile knowledgeable resources.

Therefore, Tyler shall validate reengineering steps with the County during the Discovery/Assessment Phase and at minimum:

- a. Develop a Reengineering Plan listing each process, reengineering activities, roles (client and vendor), responsibilities, timeline and prioritization. If applicable (if Agile), identify iterations/sprints;
- b. Coordinate/schedule reengineering sessions;
- c. Create visual depictions of the process to assist process owners understand the current state and establish a common understanding of how things are currently operating. Process owners shall confirm assumptions;
- d. Develop Fit Gap Analysis documentation that clearly identifies improvement opportunities, confirms configurations and lists customizations;
- e. Review the Fit Gap Analysis documentation with process owners and facilitate the reengineering (necessary business process changes) of current state processes;
- f. Coordinate technical review sessions to validate technical assumptions including, hardware provisioning, environments preparation, interfaces map, Tyler Solution components/modules, servers, backup configurations, etc.;
- g. Tyler shall develop a process to document and review all functionality and requirements identified during the assessment phase, to then determine, in collaboration with the County, which items will be included in the Traceability Matrix and prioritized accordingly. This list should include the scheduled phase for each requirement, and should identify requirements that can be postponed to a later phase or may be suspected out scope.
- h. Tyler shall work with the County to decide which items will be placed in the out of scope list and determine if requirements will be included at a later phase, traded for other functionality, prioritized, or deferred. Tyler fit gap analysis shall however remain focus on addressing the core business functionality that allows the County to successfully complete each key Property Tax Function (Assessment, Tax Extension, Billing, Collections, Distributions, Refunds, Delinquent Taxes, etc.).
- i. Develop the final Future State System Design Document capturing the technical future state.
- j. Finalize the future state process and seek approval from process owners; Tyler shall then send the approved flows to the development team for development or configuration. Each approved flow is communicated to the development team in small batches allowing a steady stream, not a single dump of all changes. This approach shall allow for iterative and agile review and updates. Tyler shall clearly define all agile iterations in "a" above (plan), if and only if, Agile is deemed possible.
- k. Develop the Final Future State Functional Document capturing the future state property tax processes. Tyler shall update this document after each business owner provides formal approval;
- l. Review the impact of the Future State to the *Traceability Matrix* and update if necessary;
- m. Update *Project Plan* if necessary;
- n. Tyler shall commence migration activities in parallel with the reengineering phase.

4.6.1 Deliverables

Tyler is responsible for developing all the Deliverables and Cook County is responsible for reviewing and formally approving each deliverable unless otherwise noted.

Key Activity	Deliverables	Acceptance Criteria
1. Plan reengineering approach including event/sessions, steps and responsibilities.	1. Reengineering Plan. 2. "As is" document. 3. "To be" document. 4. Fit Gap Analysis documentation.	Deliverable Acceptance Form. The Acceptance form must describe what is being delivered.
2. Conduct review sessions (or sprints if applicable)	5. Future State System Design Documentation. 6. Future State Requirements Document.	
3. Develop Fit Gap Analysis Document	7. Updated Traceability Matrix.	
4. Design future technical system	8. Updated Project Plan. 9. See the Migration section of this	

<p>5. Develop functional requirements document</p> <p>6. Update plan as necessary</p> <p>7. Start data migration</p>	<p>document as all migration preparation deliverables in that section are also expected at this time.</p>	
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4.7 System Set up, Configuration and Development

Note: see the Reengineering section where Tyler states its plan to incorporate agile steps. If Tyler adheres to Agile, configuration work would occur only after the system has been setup as described in this section. Should the County advise not to leverage the Agile methodology, the Configuration and Development tasks shall occur only after the Future State has been approved by the County, thus, configurations and development task would occur in this phase.

Tyler shall at minimum:

- a. Produce all source code in a source control system; Tyler shall save all Cook specific configurations in a County's TEST site.
- b. Clearly define the promotion process to ensure that data is migrated, or completed work and changes are promoted/moved, to the appropriate environments;
 - a. Clearly identify the environment where stakeholders can view work in progress;
 - b. Tyler shall assist the County during installation of all applicable hardware and operating systems per approved Technical (System) Design Documentation;
 - i. Tyler shall assist with the installation of System Servers,
 - ii. Tyler shall assist with the installation of Server Operating Systems and Software,
 - iii. Tyler shall assist with the installation of storage architecture expansion to accommodate file storage.
- c. Install Tyler Base Software and/or 3rd party software;
- d. Create applicable administrator accounts for administrative and processing functions;
- e. Provision at minimum five (5) environments:
 - i. Production;
 - ii. Training;
 - iii. Staging;
 - iv. Test;
 - v. Development;
- f. Configure and develop all approved functional and technical future state requirements;
- g. Promote only the approved configurations and/or customizations to the production environment;
- h. Test the configured architecture;
- i. Seek approval from the County after infrastructure has been setup and tested;
- j. Document the system set up and configuration (as-built) in a System Build Document (SBD);
- k. Conduct migration activities as outlined in the Data Migration Plan. Migration activities shall however start immediately after project kickoff, and actual decommissioning of applicable applications, system and/or databases shall occur in the transition/cutover phase of this document.

4.7.1 System Configuration Procedures

Tyler shall make all Configurations on the County’s environments (Test, Development, Production, etc.) and will not be overwritten or changed with future releases and patches. Source Code changes will be added to Tyler’s base code and managed using its internal source control (Microsoft Team Foundation Version Control).

4.7.2 Deliverables

Tyler is responsible for developing all the Deliverables and Cook County is responsible for reviewing and formally approving each deliverable unless otherwise noted.

Key Activity	Deliverables	Acceptance Criteria
<ol style="list-style-type: none"> 1. Setup technical environments 2. Install base software 3. Configure modules 4. Unit test 5. Create User Roles & Security Permissions 6. Migrate necessary content and files 7. Build interfaces. 	<ol style="list-style-type: none"> 1. Promotion Process. 2. Four Environments (Prod, Staging, Test, Dev). 3. Installed base software. 4. System Build Document. 5. Test results from data conversion. 6. Test results from interfaces. 7. See migration and interfaces sections as those tasks and related deliverables are planned to occur in parallel. 	<p>Deliverable Acceptance Form. The Acceptance form must describe what is being delivered.</p>

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4.8 Quality Assurance (QA)

The County may at its own discretion perform independent quality assurance. Tyler shall assist the County to make sure all information and system functionality are promptly made available for independent quality assurance.

Tyler shall develop a comprehensive Quality Assurance Plan to guide all quality assurance steps and ensure effective testing by developers and users prior to final acceptance of the new system. Tyler shall clearly describe, in the QA plan, the strategy and procedure to perform all test types, and shall collaborate with the County to determine appropriate exit criteria for each testing type. Tyler shall at minimum:

- a. Start QA planning during requirements gathering to ensure traceability from future state process requirements to test scripts;
- b. Methodically plan for end to end testing;
- c. Develop testing procedures;
- d. Data test scripts;
- e. Report test results;
- f. Close testing phase in accordance with exit criteria.

Testing Types

Tyler shall at minimum provide the following testing types adhering to the promotion process described below:

- a. Unit Testing – Development Environment
- b. Integration Testing – Development Environment
- c. Migration/Data Conversion Testing – Test Environment
- d. User Acceptance Testing – Test Environment
- e. Regression - Test or Production Environment. Can happen in Test if it has similar hardware to Production.

4.8.1 Promotion process:

Tyler shall perform all configuration work in the Development Environment. The promotion process will be collaboratively agreed to by the County and Tyler. Our typical process is defined below.

Tyler typically promotes items as follows:

- i. From Development to Test once Unit Testing is complete.
- ii. After changes are verified and approved in Test, a plan will be reached to move to Production.
- iii. All releases and patches will be installed in Test before promotion to a Production environment.

4.8.2 Unit Testing

Tyler shall perform unit testing in the development environment and provide the County with a report of Unit Test Results identifying all pass/fail indicators and other potential issues. Unit testing will be supported by the Oracle tools and debugging aids. Tyler shall record errors or problems in the test database and provide a detailed report to the County. Tyler shall resolve all issues and discrepancies in the development environment until pass results are achieved. The Unit Test Results shall be reviewed and approved by the County prior to proceeding to other testing types and/or promoting to other environments. Tyler shall include load and stress test results as part of Unit Testing.

4.8.3 Integration Testing

Tyler shall commence integration testing after Unit Testing. Tyler shall perform integration testing for each third party or native component including Tyler Solution modules and their interconnections (e.g. Cashiering, TCM, CAMA, OnBase). Tyler shall test each module and interface separately and then together to ensure the system functions end-to-end. Tyler shall provide the integration test results for review by the County, immediately after each test and after end-to-end integration testing. Tyler shall also provide a detailed plan to mitigate issues, if any, found during integration testing to the County for approval. Tyler shall as a result of this test type certify a full integrated system.

4.8.4 Migration Testing

Tyler shall perform all activities described in the migration/conversion Section of this Document and upon migrating each data set, Tyler shall run Cleansing and Comparison Reports to ensure that all data migrated successfully to the various environments according to the promotion process. Should the reports show discrepancies, Tyler shall resolve any conflicts until the reports shows successful completion and data integrity. The County shall review and approve all reports and data mapping within iasWorld as appropriate.

4.8.5 Alpha Testing

Tyler shall assign a testing team to test the scripted functionality prior to releasing the functionality to the County's testing teams. Test scripts shall be provided to the County prior to testing and results from Alpha Testing should be presented to the County for review. After County review and sign-off, Tyler shall promote the configurations to the Testing Environment for User Acceptance Testing.

4.8.6 User Acceptance Testing

- a. Tyler shall convert and balance all data, from all process related databases/applications, prior to commencing User Acceptance Testing (UAT). Therefore, the County shall performance UAT using real data.
- b. Tyler shall document the UAT procedure including but not limited to the required County testers per Agency and forms to capture approvals necessary to guide the UAT process.
- c. Tyler shall establish a mechanism to record, track, and report testing progress via the project's SharePoint site.

- d. Tyler shall develop UAT test scripts in alignment with the Traceability Requirements Matrix and any additional requirements captured during the project. The test scripts shall have a place for testers to record results.
- e. Tyler shall capture UAT approval/signatures after each UAT session. The UAT form must clearly advise testers to sign off only if the system meets functionality expectations. The County shall review and approve the UAT form prior to UAT.
- f. Designated County staff shall test the functionality based on the QA Plan and UAT Procedure to ensure that test scenarios/scripts are successfully executed (i.e. process requirements function as expected in the new system). The QA Plan and UAT Procedures acceptable to County shall confirm that Tyler deliver to County a complete, fully tested system that Users can use for end to end testing with real data.
- g. Designated County staff shall, if the test script is successfully executed, sign the UAT form.
- h. Designated County staff shall, at its own discretion, conduct additional testing of functions not specified in the test script.
- i. Designated County staff shall, if the test script is not successfully executed, document in the test script the required fixes.
- j. Tyler shall address bugs/discrepancies found during UAT in accordance with the Bug/Discrepancy Fixing Procedure.
- k. The County shall accept the system after all testing meets exit criteria, and shall then provide notice to proceed to the Training Phase.

4.8.7 Bug/Discrepancy Fixing

Tyler shall define the steps necessary to track and fix bugs and/or discrepancies during the project. Tyler shall configure SharePoint to track bug/discrepancies which shall be utilized during the course of the contract. SharePoint shall be utilized to, at a minimum, enter and prioritize issues (bugs/discrepancies), log resolution steps, track status, and issue resolution reports. Tyler shall review with the County the format to capture and address bugs and discrepancies for mutual approval. The format to capture this information should at minimum capture the title, summary, configuration location (where error was found), steps to reproduce, expected results, history of the issue, verification process (to make sure defect has been fixed), prioritization schedule, communication, and environment since some defects appear in specific environments.

4.8.8 Regression Testing

Tyler shall perform regression testing each time modifications are made to the system as a result of a major release or as a result of the bug/discrepancy fixing procedure, to ensure that all functionality remains the same and that the modification did not create unintended changes/errors. Wherever feasible, the number of builds must be spaced to enable multiple fixes to be incorporated in each build.

4.8.9 Deliverables

Tyler is responsible for developing all the Deliverables and Cook County is responsible for reviewing and formally approving each deliverable unless otherwise noted.

<i>Key Activity</i>	<i>Deliverables</i>	<i>Acceptance Criteria</i>
	<ol style="list-style-type: none"> 1. Quality Plan 2. Bug & Discrepancy Procedure 3. Promotion Plan (from Dev to all other environments) 4. Unit Testing Results 	Deliverable Acceptance Form. The Acceptance form must describe what is being delivered.

	<ol style="list-style-type: none"> 5. Integration Testing Results 6. Migration Testing Results 7. Alpha Testing Results 8. Regression Testing Results 9. Test Cases and Test Scripts 10. UAT Forms 11. Approved UAT signoff 12. Testing Log 13. UAT Log 	
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4.9 Knowledge Transfer and Training,

Tyler shall provide formal in-classroom training sessions and non-classroom knowledge transfer.

Tyler shall provide professional training services incorporating the following industry models:

1. ADDIE Model for materials development and training strategy.
2. Kirkpatrick Model for training/learner evaluation.

The OCM PROSCI's ADKAR model described in a previous section of this document shall also play a very prominent role during training and cutover.

4.9.1 Formal Training Approach

The ADDIE, Kirkpatrick and PROSCI ADKAR models shall guide the Training, Knowledge Transfer, and Transition activities whereby Tyler shall analyze training needs (skills, processes, content, etc.) during the Discovery and Assessment Phase to later design the best and most appropriate training program in collaboration with technical and business users. Prior to commencing formal training activities, Tyler shall develop and provide the County for review and approval a comprehensive Training Plan and related materials, including at minimum:

- a. Pilot training program plan;
- b. Instructor-led training plan;
- c. Level one support procedure;
- d. Post go-live training plan;
- e. Target audiences;
- f. Schedule/timing;
- g. Step-by-step training procedures (training delivery plan);
- h. Training evaluation procedure;
- i. Documentation needed at each training phase including:
 - i. Participant and instructor training guides;
 - ii. Job aids such as PowerPoints;
 - iii. Quick reference aids;
 - iv. Handouts where appropriate;
 - v. Administrator manuals;
 - vi. End user manuals specific to user business processes;
 - vii. Training tracker/log;

- viii. Evaluation forms to measure knowledge transfer;
- j. Planned training videos and related content;
- k. Planned e-learning module and related topics;
- l. Planned change management activities and communications as defined in the OCM and Communications Plans.

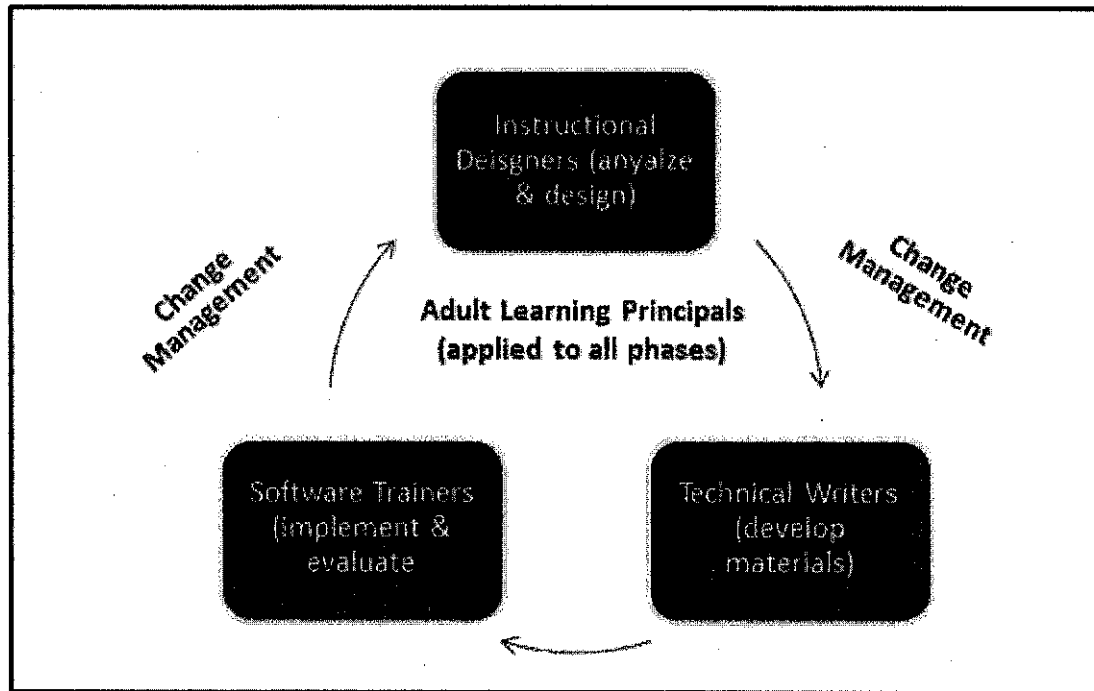


Figure 4-4: Components of a Successful Training Implementation

4.9.2 Training Analysis and Design

Tyler shall follow the PROCSI ADKAR model to **identify audience profiles, assess skills and identify pre-requisites** in order to develop the necessary materials for training. Outcomes from these key steps are defined in the OCM Section of this document and shall occur early during the implementation. Tyler shall ensure that all relevant modules related to a single business processes are included in a single business process training session (e.g. cashiering functionality should be incorporated into all applicable business processes. During training, transition from cashiering to content management, for example, should be seamless to the end user, thus it should not be a separate training session). County Trainees shall not attend “per module” training sessions, but rather it shall be a per Business Process approach.

4.9.3 Knowledge Transfer

Tyler shall promptly after kickoff identify the technical resources that currently support Property Tax related processes across all Agencies (Treasurer, Clerk, Assessor, BOR, ROD, and BOT) and technology platforms. Tyler’s technical resources shall work closely with the County’s technical resources to ensure proactive and effective knowledge transfer through informal shadowing. Tyler shall also coordinate formal knowledge transfer sessions where County’s system administrators can ask questions, receive “recap/refresh” of learned activities,” and walkthrough formal documentation and manuals.

4.9.4 Pilot Training Program

Tyler shall implement a training pilot to allow at least two members per Elected Office to evaluate the training format, new system, facility, and learning materials prior to the Go-Live date. Participants shall provide feedback and identify issues prior to the full scale training deployment. Any modifications, additions, or revisions shall be reviewed first by the County and, upon approval, made before the training program begins. The pilot session shall include the following:

- a. Training database with simulated County data.
- b. Final draft of the learning materials (training manual, instructor PowerPoint, handouts, job aids, etc.)

4.9.5 Debrief the Pilot Training

After the pilot, Tyler shall conduct a debriefing session. Tyler shall use the results from this exercise to adjust the training strategy accordingly. Tyler shall evaluate every aspect of the pilot and ask the following questions:

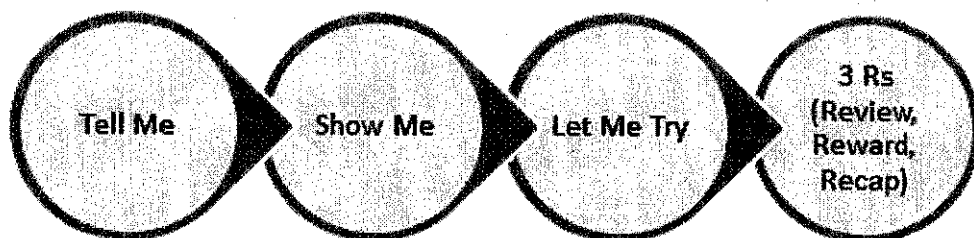
- a. Were there any system or data issues?
- b. Did the functionality work?
- c. Did the learning materials work?
- d. Was the training effective—as measured by defined metrics?

4.9.6 Instructor-led training (classroom training)

Upon completion of the Pilot Training Program, Tyler shall provide instructor led training, County-business-process focused, for all Property Tax users (approximately 455 trainees) across all related Agencies. Tyler shall revise the timing of training during the planning phase and determine training needs to train after each release and/or prior to Go-Live events/releases. Training sessions shall be organized around well-defined business processes, not around modules development and release.

- a. Step 1 – Analyze and Design in-class instructional format;
- b. Step 2 – Develop documentation;
- c. Step 3 – Implement instructor-led training;
- d. Step 4 – Implement OCM planned activities;
- e. Step 5 – Refresh training as needed;
- f. Step 6 – Evaluate Outcomes.

At each instructor-led training session, Tyler shall adhere to the following in-class instructional model:



Tyler shall coordinate with each Elected Office to make sure each step below is relevant to each business process.

Step 1 - Tell Me (Motivate) – Excite and motivate learners by telling them what they will learn at the beginning of each chapter/topic. State the learning objectives.

Step 2 - Show Me (Instruct) – Show learners what they will learn by defining, describing, explaining, demonstrating, or illustrating the new material. For software training (or any type of psychomotor activity), Trainers will demonstrate the task first as learners watch. This allows learners to visually see the process and make the connection of what is required. After the demonstration/instruction, learners will:

- i. Imitate the demonstration with guided steps provided by the Trainer
- ii. Follow step-by-step procedures
- iii. Perform blind repetition

Note: Blind repetition is a teaching strategy which is necessary during the instruction. However, it promotes dependence and memorization of steps. Tyler Trainers shall use a variety of classroom techniques such as discovery learning and questioning techniques to assist in comprehension.

Step 3 - Let Me Try (Practice) – Learners will practice the instruction using in-class exercises/lessons. Practice provides self-directed as well as discovery learning. Learners will work independently while the instructor watches and monitors their performance. This step shall allow Tyler to identify additional needs for knowledge transfer and training.

Step 4 - Review – Perform the three R's (Recap, Review, and Reward).

The County shall formally review and approve the Training Plan and all related deliverables.

The County shall provide a training room large enough for 15 students, and with a workstation per student. Tyler shall use the training room during production cutover as a walk-in ad-hoc refresher area.

County trainees shall understand the business processes.

4.9.7 Evaluation of Learner Outcomes

Tyler, in collaboration with County representatives, shall evaluate the effectiveness of training and determine the impact of the instruction, by providing an evaluation form/survey at the end of each training session. Tyler shall use the evaluation results to determine whether or not the instructional goals were met. For example, "Was there a transfer of learning? Were the learning objectives achieved? Can learners perform the tasks learned during training? Did learning barriers exist?" Tyler shall therefore provide a training evaluation form/survey via (online?) and shall provide the summary results to the County's management team and steering committee. See the training section for a complete list of in-scope training sessions.

While the approach to OCM plan mostly leverages the PROCSI ADKAR Model, Tyler plans to combine this model with the Kirkpatrick Model to evaluate learner outcomes in a four-level evaluation model to assess the effectiveness of a training program. Thus, Tyler shall:

- a. Capture participants' feedback about the training they received. Tyler shall provide a course evaluation form/survey to learners at the end of each training session to gather opinions about the training, facilities, materials, and trainer.
- b. Measure the increase in knowledge or skill. Tyler shall use instruments to measure level two including classroom assignments, demonstration of a task (hands-on exercises), question/answer, or problem solving cases.
- c. Evaluate effectiveness of training by determining if the training dollars were spent adequately.
- a. Identify training gaps and use to prepare refresher training. Tyler shall coordinate new training session if the evaluations produce negative results pointing to the need for additional training.

4.9.8 Training Videos

Tyler shall develop quarterly videos addressing relevant business process functionality. Tyler shall produce linear (not interactive) training videos to provide a quick overview of major system functions. The development will include the

storyboards/scripts, voice overs, and video production. Camtasia version 8.0 software will be used as the development tool. Videos shall be retained by the County post-go-live for new employee and on-going training.

4.9.9 E-Learning Module

Tyler shall develop a module with step by step instructions, at various tracks—beginning, intermediate, and advanced—the tracks shall be defined by County SMEs and Tyler instructional designers. The Tyler University portal will be leveraged.

4.9.10 OCM Activities

Tyler shall describe in its OCM Plan, and shall collaborate with the County, to ensure the appropriate level of OCM activities during training and prior to Go-live. Tyler shall coordinate OCM activities as Critical Success Factors during this phase.

4.9.11 Deliverables

Tyler is responsible for developing all the Deliverables and Cook County is responsible for reviewing and formally approving each deliverable unless otherwise noted.

<i>Key Activity</i>	<i>Deliverables</i>	<i>Acceptance Criteria</i>
<ol style="list-style-type: none"> 1. Prepare training plan. 2. Preparing training materials. 3. Provide informal and formal knowledge transfer. 4. Provide instructor-led training. 	<ol style="list-style-type: none"> 1. Training Plan. 2. Pilot Training. 3. Instructor-led training for up to 455 users. 4. Quarterly Training videos. 5. Quarterly E-learning videos. 6. Training Procedures. 7. Participant and Instructor Training Guides. 8. Job Aids such as PowerPoints. 9. Quick Reference Aids. 10. Handouts where appropriate. 11. Administrator manuals. 12. End user Manuals specific to user business processes. 13. Training tracker/log. 14. Evaluation forms/surveys. 15. Informal and formal technical training. 16. OCM activities and communications. 	<p>Deliverable Acceptance Form. The Acceptance form must describe what is being delivered.</p>

4.10 Transition/Cutover Approach

- a. Tyler shall work with the County’s business owners to secure and sign off on the bug list and enhancements list.
- b. Tyler and the County shall come to a common agreement and plan of action to address the enhancements list, for example, some enhancements may be addressed during Rollout Support while other shall be address prior to cutover.

- c. Tyler shall update the migration/promotion to Production checklist and follow the procedure established in the QA section (see that section for details), where Tyler shall coordinate all testing and data accuracy validations necessary to ensure that the Production environment is operational and available to all Property Tax users.
- d. Tyler shall also ensure that all users are ready to use the solution and have been properly trained.
- e. Tyler shall elevate its OCM events and communications to ensure that the County is ready and aware of the expected next steps and definitive Go-live date.
- f. Tyler shall determine the specific rollout plan during the Project planning phase, and shall update said plan when ready to transition. The County anticipates the need of pushing data from the Tyler system (Final Values, if said values are accurate) into the current mainframe system for the tax calculation and tax bill process. Tyler shall work with the County to determine the appropriate strategy and as necessary create extract file(s) to achieve the goals of said strategy.
- g. Therefore, Tyler shall refine the Transition Plan prior to each Go-Live event identifying:
 - i. All critical steps (transition checklist) to make sure the entire organization knows exactly what will occur and when. This shall also specify how end users should request support during Go-Live;
 - ii. Support team needed at cutover including their respective responsibilities;
 - iii. Documentation needed at cutover;
 - iv. Communications that Tyler shall deliver prior, during, and after successful cutover and to whom.

4.11 Go -Live and Rollout Support

- a. Tyler shall phase the go-live in consultation with the County so as to not impact on-going operations/peak processing periods.
- b. Tyler shall provide a plan for parallel entry and burn-in period with the County. The Assessor's Office plans to run parallel with the Tyler solution and the AS400/mainframe solution for the first three townships of the new assessment cycle, after go live, using one township from each of the three triennial reassessment periods. If any or all of the three townships do in fact have technical issues, Assessors office would, at its own discretion, run a fourth and possibly fifth township in parallel systems until at least two sequential townships run completely bug free or the office is sufficiently confident in the Tyler solution. The parallel systems shall run for a full property tax cycle.
- c. Tyler resources shall be onsite for up to six (6) months after each module/release go-live to answer questions, provide immediate assistance, and configure enhancements.
- d. System and/or configuration issues/bugs identified during rollout support shall be prioritized and addressed by Tyler following the QA processed described in this SOW (fixed in Dev, promoted to UAT and then to Production) prior to final approval of the Go-live.
- e. At each Go-live event Tyler shall:
 - i. Create a "kick-off" environment (e.g. posters, balloons, demo monitors, and other celebratory tools);
 - ii. Prepare Process Owner Leads to provide a quick Go-Live message and expectations;
 - iii. Provide onsite resources available to answer questions, assist end users, survey the floor and address any issues;
 - iv. Provide drop-in training for up to four (4) weeks after Go-live for each business area within each agency.
 - v. Create and communicate a schedule for drop-in times and topics if necessary.
 - vi. Assign trainers, business consultants, SMEs, and system programmers for drop-in training to provide one-on-one training, answer questions, and troubleshoot issues.
- f. Tyler shall, as part of Rollout Support activities, provide at minimum:
 - i. Refresher training;
 - ii. Working directly with the County on any reported issues;
 - iii. Assistance with any major processes;
 - iv. Minor adjustments to configurations and setups;

- v. Address configurations adjustments such as setting up of digital dashboards or other minor setups that are needed and which don't surface until after users are in production.
- g. Tyler shall use an "all-hands-on-deck" approach during rollout with dedicated (40 hours a week) resources including:
 - i. Project Manager;
 - ii. Implementation Analysts;
 - iii. Conversion SMEs;
 - iv. Testing;
 - v. Training;
 - vi. OCM SMEs.
- h. Tyler shall carefully plan go-live event as to prevent any impact to the property tax critical points (e.g. EAV, rate calculation, assessment notices, tax bill print).
- i. Tyler shall perform at least the following key tasks and activities:
 - a. Training – individual and group as needed.
 - b. Issues – direct communication, most early issues are training related and not due to bugs.
 - c. Business Process Support – assistance with new processes or existing process that are handled in the new system.
 - d. Process Assistance – help with major processes post go-live
 - e. Interface Assistance – help with interfaces and first time processing issues.

4.12 System Warranty Period

This section shall be governed by Exhibit 2 of the PSA, Cook County Information Technology Special Conditions (ITSCs).

4.13 Support and Maintenance Agreement

As long as County timely pays its maintenance and support fees, Tyler shall provide support and maintenance for the County on an annual basis as follows:

- a. Standard Help Desk Support;
- b. Managed services support;
- c. Support via the online knowledgebase (Tyler Community).

In addition, Tyler shall update the *Escalation Procedure* on an annual basis or sooner if necessary.

Tyler shall also report support and maintenance services rendered to the County no less than once a year.

The initial annual term of support and maintenance services commences on the Effective Date of the Professional Services Agreement to which this Exhibit is attached and remains in effect for one (1) year. The term of the support and maintenance agreement will renew automatically for additional one (1) year terms, provided that the parties have exercised the right to renew the Agreement as defined in Article 4(c) of the Professional Services Agreement, unless terminated in writing by either party at least one hundred and eighty (180) days prior to the end of the then-current term.

As long as the County maintains a continuous Support and Maintenance Agreement with Tyler for each of the Tyler Software Products and (i) in the event a Tyler software product is no longer supported, and (ii) Tyler makes generally available successor software products (e.g., software products based on a new technical architecture) ("Successor Products") with substantially similar price, features, and functionality to the Tyler software product for ten (10) years from the Effective Date of the Agreement, then the County, at its sole discretion, may transfer the Tyler software product to the Successor Products, for no additional license fees. In the event the County elects to transfer the Tyler software products to the Successor Products, the

County will return to Tyler the Tyler software products and pay the then current maintenance fees for the Successor Products and fees for any services and third party hardware and software associated with the transfer to the Successor Products, at then current Tyler rates.

The maintenance and support fees for the Tyler Software licensed to County are listed in the Pricing provisions of this SOW. Those amounts are payable in accordance with the Payment Schedule. Tyler will provide County with at least forty-five (45) days written notice of any change in County's annual maintenance and support fees.

4.12.1. Standard Help Desk Support

Tyler shall provide a staffed call center (Help Desk) with a client manager assigned to Cook County.

Tyler shall provide help desk Level-One Scripts for use by the County's Help Desk.

If the County's Help Desk is not able to successfully address a reported issue, the County's Help Desk shall open a ticket with Tyler's Help Desk in accordance with this Help Desk Procedure.

Tyler shall update the following help desk procedure prior to transition to Support and Maintenance.

Note that the County will likely have Help Desk groups assigned based on business process.

4.13.1.1 How to Report Issues

- a. The County shall report issues during normal business hours, from 7 a.m. to 5 p.m. CST.
- b. Tyler shall plan for additional support hours during the heavy processing times (during 1st and 2nd installment, assessment close out period, billing and collections).
- c. The County may report issues via the Tyler online help desk.
- d. By phone at: 800-800-2581, x1 or Client Manager's direct dial number (Client Manager will be identified at transition to support and maintenance).
- e. By email at: iasWorld.Support@TylerTech.com or Client Manager's direct email address once assigned.

Emergency After Hours Support

In the event of an emergency that occurs after normal business hours (an emergency being defined as the system is unavailable to users) the County shall contact Tyler staff through a dedicated line that will contact the Company staff member on-call. In the event that the on-call staff member is unavailable, a phone tree will be activated contacting other staff, ultimately ending with the DBA manager. Tyler staff shall begin work as soon as physically practical to diagnose and resolve the issue causing the emergency to be declared. Use of the emergency contact number should be available to three (3) named County staff members who shall have permission to initiate a declared emergency after hours call.

4.13.1.2 Severity Definitions and Resolution Times

Tyler shall work with the County on an annual basis to identify upcoming-year key property tax cycle dates/milestones, such as tax runs or property tax due dates. Tyler shall then assign dedicated resources to address any issues that may arise during the identified critical periods. The County shall trigger the Escalation Procedure immediately after Tyler's failure to respond within the appropriate response time during these critical times.

The description and associated response times are as follows:

<i>Priority</i>	<i>Definition</i>	<i>Response</i>	<i>Resolution SLA</i>
Critical	Software is inoperable for a significant number of Client users or issue affects an essential business function with no workaround, regardless of the number of users.	Client is contacted within 1 hour.	Within 1 business day or an agreed upon due date and time.
High	A critical priority issue with an existing circumvention or Issue affects a large group of Client users, regardless of the business function.	Client is contacted within 1 hour.	Within 2-5 business days or an agreed upon due date.
Medium	A high priority issue with an existing workaround or an issue that affects a small group of users of a non-essential essential business function.	Client is contact within 1 hour.	Within 4 – 10 business days, or an agreed upon due date.
Non-Critical	Issue affects 1 Client user and is non-essential business function.	Client is contacted within 1 hour.	Typically 6+ business days from reported problem, or an agreed upon due date.

4.13.1.3 Troubleshooting

At a minimum, customers will be asked the following when contacting Support. This information is used to determine issue severity and prioritization:

- a. Is this happening in PRODUCTION or TEST?
- b. Where is the issue happening?
- c. Did you receive an error message of any kind?
- d. Was this ever working correctly?
- e. Is this the first time you have received this message?
- f. What were you attempting to do when you received the issue (step-by-step)?
- g. Can you replicate this issue every time or is it sporadic?
- h. Are you aware of others in your office experiencing the same issue?
- i. Have any troubleshooting steps already been taken?

After gathering this information, the Help Desk will enter the incident information in ONYX or MS CRM System along with any relevant screenshots. The Help Desk shall assign each issue a severity based off the information provided. Priority is given to critical issues.

The Help Desk shall then follow-up and update the County via phone or email based on the severity of the incident. An online portal will be accessible that lists all open incidents. The portal will include a description of the incident, the

severity, and the current status. Once an issue has been closed, a notification will be emailed to the County, and logged in a knowledge base for future reference as needed.

4.13.2 Managed Services

Tyler managed services shall include scheduled onsite reviews, operating system support, database support, software support, emergency after-hours support, site monitoring/reporting, automatically services reporting and up to 800 hours per year of managed services.

Tyler shall provide up to 80 hours of modifications each year for state mandated legislative/statutory changes as part of the annual maintenance agreement. Any modifications that exceed the 80 hours could be covered by a portion of the 800 managed service hours.

4.13.2.1 On-Site Reviews

Tyler staff shall meet onsite once quarterly to review the current environment and any outstanding issues.

4.13.2.2 Operating System Support

Tyler shall provide operating system support such as routine system backup and recovery assistance.

Tyler shall use the County's backup solution to configure the Tyler Solution. To meet the County's RTO RPO.

Tyler shall coordinate with the County to meet all backup up recovery needs via configuration and monitoring of the system, as well of testing of the recovery procedure.

4.13.2.3 Database Support

Tyler shall provide:

- a. Support of the iasWorld Oracle databases;
- b. Database administration;
- c. Software upgrades;
- d. Database refreshes;
- e. Diagnosing and resolving database errors.

4.13.2.4 Software Support

Tyler shall support the County's iasWorld system including managing the iasWorld installation on the three (3) supported environments (including development/sandbox environment). This shall include applying updates, patches and enhancements on County's non-production environments during normal business hours and on the County's production environment as needed. Tyler shall schedule in advance production iasWorld releases. Tyler shall however clearly communicate to the County and coordinate with the County to make sure releases are not scheduled during critical property tax cycle dates. Tyler shall defer releases until a later date if necessary so as to not impact any ongoing property tax operations.

The County shall receive all updates, enhancements and warranty fixes that are made available to all other Tyler clients for their licensed software. These releases and updates are included at no additional charge provided the County maintains a valid, ongoing maintenance agreement.

Tyler software support and maintenance does not include support and/or maintenance for Using Agency Code (as such term is defined in Exhibit 2, ITSCs).

4.13.2.5 Site Monitoring/Reporting

Tyler shall:

- a. Monitor Table space usage;
- b. Monitor backup configurations and ensure the solutions is recoverable (in the event of system failure);
- c. Check for runaway processes.

4.13.3 Online Knowledgebase

Tyler shall provide access to the online knowledgebase known as Tyler Community, which provides clients with 24x7 access to information, resources and other Tyler clients to share ideas and network.

4.13.4 Escalation Procedure

In the event of an emergency that occurs after normal business hours (an emergency being defined as the system is unavailable to users) the County shall contact Tyler staff through a dedicated line, or Tyler’s on-call resources as indicated below. In the event that the on-call staff member is unavailable, the Escalation Procedure shall govern. Tyler shall begin work as soon as physically practical to diagnose and resolve the issue causing the emergency to be declared. Use of the emergency contact number should be available to at least two (2) named County staff members per Elected Office who shall have permission to initiate a declared emergency after hours call.

Contact Order	Name	Title	Contact Info
1st	Rick Ryder	Database Administrator	Phone 866-405-4628 Email: rick.ryder@tylertech.com
1st	Gabe Hannan	Sr. Database Administrator	Phone 866-405-4628 Email: gabe.hannan@tylertech.com
1st	Larry Ryder	Database Administrator	Phone 866-405-4628 Email: larry.ryder@tylertech.com
1st	Eswar Narlanka	Senior Database Administer	Phone 866-405-4628 Email: eswar.narlanka@tylertech.com
2nd	Darrin Martin	Database Administer Manager	Direct: 1-800-800-2581, x1871 Hotline: 866-405-4628 Email: darrin.martin@tylertech.com
3rd	Michael Lange	Director, iasWorld Development/Product	Direct: 1-800-800-2581, x1866 Hotline: 866-405-4628

		Email: michael.lange@tylertech.com
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4.13.4 Security Incident Response

Tyler shall promptly notify the County in writing of any security incidents and data breaches in alignment with the following requirements. For all security incidents and data breaches of which Tyler is aware, Tyler shall:

- a. Immediately notify the County of incidents and breaches;
- b. Immediately notify the County of incidents and breaches to other iasWorld clients that may impact the County either directly or by reference (knowledge on how to prevent a similar incident from occurring at the County);
- c. Identify immediate plan of action to mitigate further incident progression;
- d. For any data breaches that Tyler's acts or omissions cause, it shall also work with the County within reason to provide outbound and inbound incident-related communications.

4.13.5 Support Reporting

Tyler shall provide a quarterly report indicating consumption of support hours. This report shall include hours consumed, remaining hours for the ongoing year, unused hours for the prior year, applicable and applied performance credits. In addition, Tyler shall update the consumption report every time services are rendered. An up-to-date consumption report shall be provided with every invoice.

Support calls and bug fixes are covered under the maintenance agreement. Billable support would be for items such as valuation, functional or reporting changes requested by the County and support for Using Agency Code (as such term is defined in Exhibit 2, ITSCs). Billable support services will be billed to County at Tyler's then current rates.

Tyler shall provide a semiannual report (log) of issues/incidents response times and resolution times.

4.14 Backup and Disaster Recovery

- a. Tyler shall document the backup and recovery procedure and coordinate periodic testing of the procedure to ensure that the application and all related servers and databases are recoverable.
- b. Tyler shall use the Oracle Recovery Manager (RMAN) for Point in Time recovery, with Flashback Query.
- c. Tyler shall implement the Oracle Data Pump to do nightly exports of the database to recover a specific table or transport data to another environment. The option to do one or the other should be documented in the backup and recovery procedure.
- d. Tyler shall coordinate with the County's technical resources to ensure that the application backup and recovery can be accomplished with the County's standard Windows server backup software (either disk to disk or disk to tape).
- e. Tyler shall test the recovery approach quarterly. Tyler shall conduct other unplanned tests with the refreshing of data from Production to one of the other environments (Test/Development/Staging).
- f. Tyler shall provide a report to the County technical team verifying that the copying of the RMAN files or Data Pump files to the restoration environment was successful, that the recovery process successful using RMAN or Data Pump, and that the Recovery environment is functional. Reports will include timings of each step/phase of the testing process.
- g. Tyler shall implement Oracle Active Data Guard in the Production/DR site to handle the database failover process.
- h. The Oracle Recovery Manager (RMAN) supports both full and incremental backups. RMAN is a "hot backup"; therefore, the database shall not need to be shutdown to complete the backup.

- i. Tyler and the County shall monitor backups (verify logs - backups are completing without error), to monitor space requirements for inadequate space on the file systems, and to verify tape (disk to disk) backups are completing successfully.
- j. Tyler shall create an NFS mount to move Data Pump files to network points for accessibility for recovery and backups. RMAN files will be backed up as well.
- k. Tyler shall work with the County to identify what needs to be backed up and how the backups will be done (Windows servers), to configure the Oracle Recovery Manager and Data Pump, and to work with the County to move backup files to file systems that can be backed up by third party software (County Standard). Tyler shall work with the County to define the restore point and the verification testing scenario of the recovery testing process.
- l. Data Guard allows for two options: an automatic switch from Production to Disaster Recovery, or a manual switch. Tyler shall work with the County to determine the appropriate option needed by the business continuity group.
- m. Tyler shall assist the County in determining when to failover over to the Disaster Recovery site.
- n. Tyler shall use on the production environment Oracle Real Application Clusters employed on the databases, and shall cluster all the Windows servers; this should provide for High Availability and a load balancer switch for balancing load on the web servers. The Disaster Recovery site database shall have instantaneous updates using Oracle Active Data Guard. The County shall work with Tyler to determine when to failover to the Disaster Recovery site or to wait if Production will be back on-line.
- o. Tyler shall setup all appropriate replication and clearly define whether the County will be running active/active to DR or active passive.
- p. Tyler shall prepare/provision the Disaster Recovery site with the same database hardware as the production site. Assuming that the same network bandwidth is available at the Disaster Recovery site as the primary site and that the Windows servers are running on the same hardware with a similar load factor (if running in a virtual server environment that would have a similar number of servers on the virtual server hosts doing similar work), then High Availability should be with attainable.

Category	Availability	RTO	Characteristics & RPO
High Availability	99.982%	Intra-day	Typically involves data replication to a hot-site for each transaction or at short intervals, like 15 minutes.

4.15 Contract Performance Review and Acceptance

- a. Tyler shall schedule a close out session 30 days after the six (6) month onsite support period ends. Tyler shall include in this meeting representatives from each business area and the Executive Steering Committee.
- b. Tyler shall establish the recurring Contract Performance Review schedule. Tyler shall review contract performance quarterly during the years of support and maintenance.
- c. Tyler shall create a list of all deliverables identifying the URL in the County's SharePoint Site.
- d. Tyler shall prepare a **Declaration of Satisfaction Form/Report**
- e. Tyler shall confirm the Go-Live dates date based on contract terms.
- f. Tyler shall abide to the following performance metrics:

Contract Performance Review Item	Description – acceptance criteria	Acceptance via

Contract Performance Review Item	Description – acceptance criteria	Acceptance via
1. Project Goals and Objectives:	System has all the functionality required for the County to meet the stated goals and objectives (except for any agreed upon exclusions).	Acceptance Form signed (or email approved ²) by PM and Project Sponsors
A. Transition out of the mainframe and AS400 systems;	System has all the functionality required for the County to efficiently process all Current State business processes in the new system (except for any agreed upon exclusions).	Acceptance Form signed (or email approved) by PM and Project Sponsors
B. Timely and accurately integrate with the GIS system to import the annual PIN and Tax Code list required for taxation;		Acceptance Form signed (or email approved) by PM and Project Sponsors
C. Timely and accurately issue assessment notices to property owners and process appeals;	System has all the functionality required for the County to timely and accurately produce assessment notices and conduct informal review based appeal process.	Acceptance Form signed (or emailed approved) by PM and Project Sponsor
D. Process and apply Exemptions	System integrates with the Board of Review to receive final values and will apply equalizer rate and proper exemptions	Acceptance Form signed (or emailed approved) by PM and Project Sponsor
A. Timely and accurately validate Taxing District input and calculate tax rates per PIN;	System has all the functionality required for the County to timely and accurately validate Taxing District input and calculate tax rates per PIN.	Acceptance Form signed (or emailed approved) by PM and Project Sponsor
B. Provide data for and mechanism to produce timely and accurate tax bills for over 1.8 million PINs;	System has all the functionality required for the County to timely and accurately produce tax bills for 1.8 million PINs. System can generate data files necessary for the County to create bills on-site or through a third-party.	Acceptance Form signed (or emailed approved) by PM and Project Sponsor
C. Timely and accurately collect and distribute taxes;	System has all the functionality required for the County to accurately process collections and distributions of taxes from a number of sources, including	Acceptance Form signed (or emailed approved) by PM and Project Sponsor

² Email approvals must be formal such as “I agree and approve the attached results,” and not casual or ambiguous in nature.

Contract Performance Review Item	Description – acceptance criteria	Acceptance via
	in-person, electronic on-line and batch processing.	
D. Effectively manage and recover uncollected (delinquent) taxes;	System has all the functionality required for the County to effectively track delinquent taxes and provides functionality to recover uncollected (delinquent) taxes including the annual property tax sale and bi-annual scavenger sale.	Acceptance Form signed (or emailed approved) by PM and Project Sponsor
E. Eliminate stand-alone information/databases;	System is integrated across all property tax offices.	Acceptance Form signed (or emailed approved) by PM and Project Sponsors
F. Provide real-time information across all agencies;	System provides real-time data across all agencies in a secure solution.	Acceptance Form signed (or emailed approved) by PM and Project Sponsors
G. Reengineer and automate the current process with a strong focus on workflow automation, including document management and GIS integration, and standardize business functions around a common PIN-based system;	Work is traceable, and folders can be searched and retrieved, including historical data, at any given time. System provides management real-time access to system data/dashboards that visually display work allocation and allow work to be assigned as necessary	Acceptance Form signed (or emailed approved) by PM and Project Sponsors
H. Enhance customer service (property owners, attorneys, Taxing Districts);		Acceptance Form signed (or email approved) by PM and Project Sponsors
I. Reduce customers’ physical visits by increasing effective online information exchange;	Customer information can be easy and quickly retrieve via Portal or website by external users. Customer can submit electronic forms to the County that otherwise would require an in-person visit.	Acceptance Form signed (or email approved) by PM and Project Sponsors
J. Reduce repetitive work by eliminating redundant data entry or duplication of services;	Future state design shows elimination of repetitive work. The AS400 and other disconnected databases are successfully migrated.	Acceptance Form signed (or emailed approved) by PM and Project Sponsors
K. Reduce human error;	System performs simple math calculations and standard data validations. System allows user to revert to previous versions.	Acceptance Form signed (or emailed approved) by PM and Project Sponsors

Contract Performance Review Item	Description – acceptance criteria	Acceptance via
L. Reduce cost associated with manual work and paper printing;	System provides content management/imaging.	Acceptance Form signed (or emailed approved) by PM
M. Increase transparency to management and the citizens of Cook County;		
N. Increase efficiency.		
2. System Reliability	System architecture supports automatic load balancing, mirroring, and automatic failover to backup location.	Form signed by PM and Director of Application Development (or emailed approved)
3. System Scalability	Further workflow automation is possible anywhere in the organization after deployment. Data sets and interfaces can be added and integrated.	Acceptance Form signed by PM and Director of Application Development (or emailed approved)
4. System functionality	System requirements traceability to implemented functionality, using the SRM as the basis for PM review.	Acceptance Form signed by PM (or emailed approved)
5. System integrates with the existing technologies	System can successfully and seamlessly integrate with the recommended existing technologies.	Acceptance Form signed by PM (or emailed approved)
6. Critical data is available in the new system	Data in all existing databases, (including but not limited to Mainframe, MS Access, SQL databases, etc.) listed in the Migration section is successfully migrated to the new system, and seamlessly integrates with all other system components.	Acceptance Form signed by PM (or emailed approved)
7. Project Transition	Vendor submits all acceptance forms for all deliverables – as accepted and signed at each phase, including UAT signed forms.	Acceptance Form signed by PM
8. Budget and Schedule	Key deliverables were executed on time and on budget. Project costs were contained to/or about the originally agreed amount. A final report should be presented for signoff.	Final Report signed by PM

See Pricing and Payment Schedule on following pages:

Pricing

Tyler acknowledges it took into account Cook's size and complexity and included a reasonable amount of estimated time to address typical unknown and unique situations.

Main

Company Name: Tyler Technologies, Inc.											
ID	Deliverable Costs (From Payment Schedule Tab)	Estimated Year 1	Estimated Year 2	Estimated Year 3	Estimated Year 4	Estimated Year 5	Estimated costs for remaining years (if any)	Total Estimated Costs			
1.001	**Total Deliverables Costs	Costs	Costs	Costs	Costs	Costs		Costs			
ID	Project Costs	Estimated Year 1	Estimated Year 2	Estimated Year 3	Estimated Year 4	Estimated Year 5	Estimated costs for remaining years (if any)	Total Estimated Costs			
1.002	*Support & Maintenance	\$ -	\$ -	\$ 1,631,761	\$ 1,631,761	\$ 1,688,264	\$ 3,546,039	\$ 8,497,825			
1.003	**Software	\$ 7,620,910						\$ 7,620,910			
1.004	**Hardware							\$ -			
1.005	*Professional Services Cost	\$ 2,904,930	\$ 3,181,590	\$ 3,458,250	\$ 3,734,910	\$ 553,320		\$ 13,883,000			
1.006	Total Project Cost	\$ 10,525,840	\$ 3,181,590	\$ 5,090,011	\$ 5,366,671	\$ 2,241,584	\$ 3,546,039	\$ 29,951,735			

Cook County makes no guarantee that the services or products identified in this RFP will be required.

Proposers must return this pricing proposal in excel format.

*If these cells do not add up to the **Total Deliverables Costs, there may be an issue with your calculations.

**Per County email on 6/16/2015 - County to provide necessary hardware for this project.

Support and Maintenance

ID	Item	Brief Description (complete details should be provided in the proposal)	Unit of Measure	Cost per Unit	Qty	Proposed Annual % Increase	Proposed Annual (\$) Increase	Year 1 Cost	Year 2 Costs	Year 3 Cost	Year 4 Cost -	Year 5 Cost	Year 6 Cost	Year 7 Cost	Total Increase over 7 years
2	Support and Maintenance	EsWorld CMAA/Tax Standard Support	Annual	1,013,055	1	4%	\$ 40,522	Waved	Waved	\$ 1,013,055	\$ 1,013,055	\$ 1,053,577	\$ 1,094,099	\$ 1,134,622	\$ 121,567
2	Support and Maintenance	EsWorld Inquiry & Appeals Tracking	Annual	100,535	1	4%	\$ 4,021	Waved	Waved	\$ 100,535	\$ 100,535	\$ 104,556	\$ 108,578	\$ 112,599	\$ 12,064
2	Support and Maintenance	EsWorld Delinquent Tax Collection	Annual	100,535	1	4%	\$ 4,021	Waved	Waved	\$ 100,535	\$ 100,535	\$ 104,556	\$ 108,578	\$ 112,599	\$ 12,064
2	Support and Maintenance	EsWorld Field Manager	Annual	61,200	1	4%	\$ 2,448	Waved	Waved	\$ 61,200	\$ 61,200	\$ 63,648	\$ 66,096	\$ 68,544	\$ 7,344
2.01	Support and Maintenance	EsWorld Public Access	Annual	52,800	1	4%	\$ 2,112	Waved	Waved	\$ 52,800	\$ 52,800	\$ 54,912	\$ 57,024	\$ 59,136	\$ 6,336
2.01	Support and Maintenance	EsWorld eBilling	Annual	31,660	1	4%	\$ 1,266	Waved	Waved	\$ 31,660	\$ 31,660	\$ 32,926	\$ 34,193	\$ 35,459	\$ 3,799
2.01	Support and Maintenance	EsWorld Correspondence Management	Annual	52,800	1	4%	\$ -	Waved	Waved	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2.01	Support and Maintenance	EsWorld Analyze	Annual	52,800	1	4%	\$ 2,112	Waved	Waved	\$ 52,800	\$ 52,800	\$ 54,912	\$ 57,024	\$ 59,136	\$ 6,336
2.01	Support and Maintenance	EsWorld Managed Services 800 Manage Service hours per year	Annual	150	800	0%	\$ -	Waved	Waved	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2.01	Support and Maintenance	Oracle Database Peripherals	Annual	125,000	1	0%	\$ -	Waved	Waved	\$ 125,000	\$ 125,000	\$ 125,000	\$ 125,000	\$ 125,000	\$ -
2.01	Support and Maintenance	Cashiering Support and Maintenance	Annual	46,044	1	0%	\$ -	Waved	Waved	\$ 46,044	\$ 46,044	\$ 46,044	\$ 46,044	\$ 46,044	\$ -
2.01	Support and Maintenance	EMISE Support and Maintenance	Annual	44,838	1	0%	\$ -	Waved	Waved	\$ 44,838	\$ 44,838	\$ 44,838	\$ 44,838	\$ 44,838	\$ -
2.01	Support and Maintenance	Tyler Content Manager Workflow	Annual	2,394	1	0%	\$ -	Waved	Waved	\$ 2,394	\$ 2,394	\$ 2,394	\$ 2,394	\$ 2,394	\$ -
2.01	Support and Maintenance	Tyler Content Manager Web Services Interface	Annual	900	1	0%	\$ -	Waved	Waved	\$ 900	\$ 900	\$ 900	\$ 900	\$ 900	\$ -
2.02								Waved	Waved						\$ -
2.02		Software Support and Maintenance Annual						\$ -	\$ -	\$ 1,506,761	\$ 1,506,761	\$ 1,532,254	\$ 1,557,747	\$ 1,583,240	\$ 189,510
2.02		and Parts Es Support and Maintenance						\$ -	\$ -	\$ 125,000	\$ 125,000	\$ 125,000	\$ 125,000	\$ 125,000	\$ -
2.02								\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2.02								\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Cook County makes no guarantee that the services or products identified in this RFP will be required. Proposers must return this pricing proposal in excel format.

*Note: Costs represented in this column are the expected year 3 costs. Tyler anticipates an annual increase in the range of 3%-5% for years 4-10 consistent with our annual maintenance costs represented on the Summary Tab

Software

ID	Module Name	Proposed Software Functionality	List Price per Unit	Extended Price	Qty	Total Cost	Discounted Cost
4.001	iasWorld/CAMA/Tax Standard	CAMA, Assessment Administration, Exemptions, Activity Center, Tax Billing and Collection, and Document Management functionality.	5,628,070	5,628,070	1	5,628,070	5,123,820
4.002	iasWorld/Inquiry & Appeals Tracking	Manages formal and informal appeal scheduling.	558,530	558,530	1	558,530	508,490
4.003	iasWorld/Delinquent Tax Collection	Tracks and manages delinquent taxes and collection.	558,530	558,530	1	558,530	508,490
4.004	iasWorld/Field Manager	Mobile data collection.	340,000	340,000	1	340,000	309,530
4.005	iasWorld/Public Access	Provides to assessment and tax data.	293,345	293,345	1	293,345	267,065
4.006	iasWorld/e-filing	Electronic filing of data.	175,890	175,890	1	175,890	160,135
4.007	iasWorld/Correspondence Management	Managing inbound and outbound communication from taxpayers.	293,345	293,345	0	0	0
4.008	iasWorld/analyze	Statistical analysis of assessment and tax data.	293,345	293,345	1	293,345	267,065
4.009	Tyler Cashiering		255,800	255,800	1	255,800	232,880
4.010	Tyler CM/SE		249,100	249,100	1	249,100	226,785
4.011	Tyler Content Manager/Workflow		13,300	13,300	1	13,300	12,110
4.012	Tyler Content Manager/ Web Services Interface		5,000	5,000	1	5,000	4,550
						Software Total	7,620,920

Cook County makes no guarantee that the services or products identified in this RFP will be required.

Professional Services

ID	Role	Brief Description of activities that this resource will be performing during the project.	Project Phase	Skill Level	M/WBE Sub-Contractor	Hourly Rate	Total Number of Hours	Total project cost	Total M/WBE Costs
6.001	Project Manager	Project Overview, Stakeholder Meetings, Manage Tyler team and Subs, Create Project Management Documents, Monitor Risks, Manage schedule	All	III	No	\$ 143.14	8,060	\$ 1,153,688	\$
6.002	Business Lead	Manage CAM/AA/Tax Analysts; Review Gap and other documents produced by the team. Make assignments and follow up on status. Work with client on questions that arise from requirements, gathering to the Gap to the final deliverables	All	III	No	\$ 138.37	8,060	\$ 1,115,232	\$
6.003	Lead Business Analyst	Requirements Gathering, Gap and Specification documents, QA, system setup and configuration, training assistance	All	III	No	\$ 124.05	15,840	\$ 1,964,992	\$
6.004	Business Analysts	Requirements Gathering, Gap and Specification documents, QA, system setup and configuration, training assistance	All	II	No	\$ 119.28	15,840	\$ 1,889,415	\$
6.005	Technical Analysts	Conversion lead, Reporting Lead, Technical DBA, interface work	Conversion, Customization, Interfaces	III	No	\$ 128.82	6,110	\$ 787,113	\$
6.006	Development - Program	Code Modifications to base iasWorld system, Code interfaces	Customization, Interfaces	I	No	\$ 128.82	9,680	\$ 1,247,014	\$
6.007	DBA (Sub)	Conversion activities, Report Writing, DBA Services, Interface Programming	Conversion, Customization, Interfaces	II	Yes	\$ 119.28	43,047	\$ 5,134,700	\$ 5,134,700
6.008	William Everett Group	Training Services, Ongoing learning materials	Gap, Training	II	Yes	\$ 90.65	3,280	\$ 297,344	\$ 297,344
6.009		Cashiering Implementation services				\$ 152	800	\$ 121,667	
6.010		CM/SE				\$ 152	64	\$ 9,733	
6.011		Tyler Content Manager Workflow				\$ 152	16	\$ 2,433	
6.012		Tyler Content Manager Web Services Interface				\$ 152	24	\$ 3,650	
6.013		Cash Station Install - Onsite				\$ 131	8	\$ 1,050	
6.014		Programming services				\$ 131	800	\$ 104,968	
6.015		Goodwill Credit							
6							111,629	\$ 19,839,990	
6-A								M/WBE Totals \$ 5,437,045	

Payment Schedule

ID	Project Phase	Deliverable	Cost Per Deliverable (Invoice Amount)
7-001	Contract Initiation	License	\$ 7,620,910
7-002	PM/Planning	Initial Project Plan	\$ 302,250
7-003	PM/Planning	Project SharePoint site configured	\$ 241,800
7-004	PM/Planning	Executive Steering Committee SharePoint space and schedule	\$ 120,900
7-005	PM/Planning	Project reporting schedule, frequency and format	\$ 60,450
7-006	PM/Planning	Updated project schedule and task list	\$ 302,250
7-007	PM/Planning	Communications Plan/Matrix	\$ 181,350
7-008	OCM	Organizational Change Management Plan listing the events/activities, schedule, frequency and format. These events/activities shall become deliverables	\$ 207,495
7-009	OCM	Change Readiness Survey	\$ 124,457
7-010	OCM	Audience Profile Report	\$ 82,998
7-011	OCM	Updated RACI chart listing OCM evangelists and their roles	\$ 41,499
7-012	OCM	Monthly Newsletter	\$ 207,495
7-013	OCM	One informational flyer/poster per quarter	\$ 82,998
7-014	OCM	Quarterly Website messages	\$ 108,954
7-015	OCM	BI-monthly Lunch and Learn training sessions	\$ 98,561
7-016	OCM	Pre-release build product demonstrations (no less than 4)	\$ 82,998
7-017	Discovery / Assessment	Current State Document (Functional and Technical)	\$ 1,037,475
7-018	Discovery / Assessment	Updated project plan and timeline	\$ 345,825
7-019	Reengineering / System Design	Reengineering Reengineering Plan	\$ 1,244,970
7-020	Reengineering / System Design	Reengineering "As-Is" document	\$ 746,982
7-021	Reengineering	To be document	\$ 995,976
7-022	Reengineering	Fit Gap Analysis documentation	\$ 1,493,964
7-023	Reengineering	Future State System Design Documentation (include updated diagrams)	\$ 622,485
7-024	Reengineering	Future State Requirements Document	\$ 497,988

Code	Description	Unit	Amount
7.025	Reengineering Updated Traceability Matrix.	\$	248,994
7.026	Reengineering Updated Project Plan	\$	373,491
7.027	System Install, Promotion Process and Configuration	\$	28,169
7.028	System Install, Four Environments (Prod, Staging, Test, Dev) and Configuration	\$	56,337
7.029	System Install, Installed base software and Configuration	\$	225,348
7.030	System Install, System Build Document and Configuration	\$	28,169
7.031	System Install, Test results from data conversion and Configuration	\$	225,348
7.032	System Install, Test results from interfaces and Configuration	\$	56,337
7.033	System Install, system configuration documentation and Configuration	\$	169,011
7.034	System Install, Conversion Migration Plan and Configuration	\$	169,011
7.035	System Install, Data Dictionary and Functional Specifications and Document	\$	56,337
7.036	System Install, Comparison reports and Configuration	\$	112,674
7.037	System Install, Data cleansing subsequent reports and Configuration	\$	169,011
7.038	System Install, Integration Plan and Configuration	\$	112,674
7.039	Quality, Quality Plan	\$	55,332
7.040	Quality, BDD Discrepancy Procedure	\$	27,666
7.041	Quality, Promotion Plan (from Dev to all other)	\$	41,499
7.042	Quality, Unit Testing Results	\$	82,998
7.043	Quality, Integration Testing Results	\$	96,831
7.044	Quality, Migration Testing Results	\$	110,664
7.045	Quality, Alpha Testing Results	\$	27,666
7.046	Quality, Regression Testing Results	\$	55,332
7.047	Quality, Test Cases and Test Scripts	\$	27,666
7.048	Quality, UAT forms	\$	41,499
7.049	Quality, Approved DAI signoff	\$	69,165
7.050	Quality, Testing Log	\$	13,833
7.051	Quality, UAT Log	\$	41,499
7.052	Training, Initial Training Plan	\$	138,330
7.053	Training, Pilot Training	\$	193,662

7.054	Training	Instructor-led training for up to 455 users.	\$	179,829
7.055	Training	X-Training videos.	\$	55,332
7.056	Training	X-E learning modules.	\$	27,666
7.057	Training	Training Procedures.	\$	55,332
7.058	Training	Participant and Instructor Training Guides.	\$	96,831
7.059	Training	Job Aids such as PowerPoint.	\$	110,664
7.060	Training	Quick Reference Aids.	\$	27,666
7.061	Training	Handouts where appropriate.	\$	13,833
7.062	Training	Administrator manuals.	\$	152,163
7.063	Training	End user Manuals specific to user business.	\$	55,332
7.064	Training	Training tracker/log.	\$	13,833
7.065	Training	Evaluation forms/surveys.	\$	27,666
7.066	Training	Informal and formal technical training.	\$	138,330
7.067	Training	OCM activities and communications.	\$	96,831
7.068	Transition	Transition Plan.	\$	99,000
7.069	Transition	Transition Checklist.	\$	59,400
7.070	Transition	Promotion (to Production) Test Results.	\$	39,600
7.071	Transition	OCM activities and communications.	\$	49,500
7.072	Transition	Six Months of Onsite Go-Live Support.	\$	247,500
7.073	Support and	Support and Maintenance.	\$	1,631,761
7.074	Support and	Support and Maintenance.	\$	1,631,761
7.075	Support and	Support and Maintenance.	\$	1,688,264
7.076	Support and	Support and Maintenance.	\$	1,744,768
7.077	Support and	Support and Maintenance.	\$	1,801,271
			\$	29,951,735

****Total Deliverables Cost should include professional services and software.**

Invoicing: Tyler will invoice County and County agrees to pay for the applicable license fees, products, and services described above in the Payment Schedule as follows. County's rights to dispute any invoice are set forth in the Professional Services Agreement to which this Exhibit is attached.

1. Tyler Software.
 - 1.1 License Fees: License fees are invoiced 100% on the Effective Date of the Professional Services Agreement the ("Effective Date").
 - 1.2 Maintenance and Support Fees: The first and second year maintenance and support fees for the two (2) year period commencing on the Effective Date are waived. Subsequent maintenance and support fees are invoiced annually in advance on each anniversary of the Effective Date.
2. Professional Services. Implementation and other professional services are billed and payable in the amounts set forth above in the Payment Schedule upon County's acceptance of each Deliverable pursuant to the Deliverable Acceptance Process described in Section 4.3.4.

Payment. Payment for undisputed invoices is due within sixty (60) days of the invoice date. Maintenance and support fees are due on each anniversary of the Effective Date. Tyler prefers to receive payments electronically. Tyler's electronic payment information is:

Bank: Wells Fargo Bank, N.A.
420 Montgomery
San Francisco, CA 94104
ABA: 121000248
Account: 4124302472
Beneficiary: Tyler Technologies, Inc. – Operating

Exhibits

A. Tyler Software Modules – Generic Descriptions

The modules in the next sections describe Tyler's base software which does not currently meet the County's requirements, but shall be configured or customized to meet the County's requirements. See the **Business Process Requirements, System Requirements** and **System Requirements Clarifications** sections of this SOW for specific County requirements. The generic descriptions of Tyler's modules shall not limit the functionality that Tyler shall develop or configure for the County.

1. *Computer Assisted Mass Appraisal (CAMA)*

The Computer Assisted Mass Appraisal solution provided in iasWorld is responsible for the maintenance of property characteristics from which appraised value estimates are developed. iasWorld supports three primary approaches to value – cost, sales comparison (regression and comparable sales) and income – through the use of valuation tables and algorithms that offer the best flexibility and ease of use. The market valuation functionality within iasWorld includes constrained regression modeling and market valuation driven by comparable sales. Having this feature as an integral part of the CAMA module allows the County to work on multiple models while cleaning up sales without the need to re-extract the sales file to import into a 3rd party modeling tool. The model building and valuation testing, using different comparable selection criteria can occur easily over a longer period of time, allowing for better, more refined market models. iasWorld supports the classification of properties, land and improvements for the purpose of determining the assessed values used in the calculation of taxes. See the System Requirements Section for detailed in-scope requirements.

2. *Exemptions*

The iasWorld exemption functionality manages real estate tax exemptions which are reductions from the assessed valuation or amount of property taxes that homeowners or organizations must pay to a taxing district. The exemptions functionality can be used for all types of reductions, including abatements, deductions, and partial or full exemptions. Exemptions may cover all or part of the total real estate taxes due. Through the application setup forms, users with appropriate permission can define and maintain all exemptions according to state requirements, with the setups and calculations customized for each site. The exemptions can be set to be applied to appraised value, assessed value, equalized assessed value, or taxes. Exemptions within iasWorld are table driven so as exemptions are added, removed, or modified, they can be changed within the application.

3. *Tax Billing and Collection (TB&C)*

The Tax Billing and Collection solution in iasWorld provides for the functions of extending, adjusting, collecting and distributing property taxes. The data maintained in the solution is integral to extending taxes in iasWorld through the use of the various tax rates calculated in the system in conjunction with the property values maintained in the Assessment Administration solution.

The extended tax rates must then be adjusted to reflect appropriate taxation business rules in the application. The Tax Billing and Collection maintenance process also includes the ability to create all required types of tax bills and to collect payments on the tax amounts through a variety of solutions. Payments can be processed in real-time through either direct maintenance within the iasWorld solution or through third party cashiering solutions. The system also provides the ability for payments to be collected through off-line methods such as from Lockbox collections and Mortgage Company processing.

4. *Inquiry and Appeals Tracking*

The Inquiry and Appeals Tracking solution in iasWorld is where the information associated with the scheduling and disposition of properties undergoing the appeal process is maintained.

Tyler shall however modify the Inquiry and Appeals module to meet specific Assessor's Office needs, which are different than the external appeals process by the BOR.

5. *Field Mobile*

iasWorld provides multiple methods for reviewing and collecting information remotely in the field. With the recent improvement to make iasWorld browser-independent, you have the capability to take any device (iPad, Droid, Windows tablets or even a laptop, i.e. ToughBook) into the field. Accessing the enterprise application via a browser on a tablet or other compatible devices does require a live network connection (i.e. wireless, broadband card or data service plan). iasWorld also provides a field specific application called Field Mobile. You can run Field Mobile on any Windows based device (i.e. Microsoft Surface). With the Field Mobile application, you are able to download properties and perform tasks such as updating property characteristics and maintaining property sketches; you can also use the device to take a photo and upload it directly to the property record. The information stored on the remote device can then be uploaded back into iasWorld whenever you establish a live network connection. Field Mobile applications will fully integrate with the production of field work that is generated by the Cook County GIS system and all necessary field data collection work flow and required materials.

6. *eFile*

The eFile solution extends the value of iasWorld by allowing for the direct capture of data and electronic attachments from Cook County constituents. The eFile solution not only provides an easy and efficient way for tax payers to communicate with your office, but also greatly reduces the re-entry of paper submissions.

7. *Public Access*

iasWorld Public Access is an online gateway to property and tax data. It provides the tools needed to extend the access of the iasWorld system data to a citizen-facing website. Because there are many degrees of standards and accessibility to public records, the County will have flexibility to choose the level of data the public may access. The County has the flexibility to share data on an existing website or, alternatively, build a new or expanded online presence using the inherent, modern tools and content management system functions in Public Access. iasWorld Public Access provides the following features:

1. Add the ability to search and display iasWorld data on a newly built website or on an existing website using today's most current tools — all displayed with the County's established look and brand.
2. Create modern, data-rich access using modern HTML5 technology that supports today's most current browsers, including Internet Explorer®, Chrome, Firefox™ and Safari.
3. Download data files and reports, such as mailing addresses, parcel summary reports, property record cards, assessment notices, tax bills and more.
4. Create search forms that allow for single or multiple criteria on real and personal property searches.
5. Configure search results to display for basic property details, building photos and sketches, map book pages, links to other sites using dynamic URLs and more.
6. Apply virtually any design theme to the public access site with comprehensive customization capabilities — using existing and new web assets.
7. Deploy in a way that best suits the County's needs today and over the long term.

8. Incorporate and share data from key systems, such as aerial imagery and GIS information, for an easily accessible and interactive online experience.
9. Keep content fresh and engaging using the most widely adopted content management system functions.
10. Supports pass-through payment of fees and taxes using dynamically generated URLs that can be configured to pass pertinent information on to the payment vendor's secure Web site.

8. *Cashiering*

Designed to streamline cashiering for public sector agencies, Tyler Cashiering features a versatile, easy-to-navigate interface developed in the Microsoft® .NET platform. This scalable application centralizes the collection process, creating a single point of entry for data from multiple applications. It has a familiar Microsoft® Windows® look and feel, and was designed with user experience in mind. Cashiering allows for a wide range of customization based on payment type. It integrates with local resources, such as OCR and handheld bar code scanners, printers, and validators, as well as MICR devices, making it an essential addition to any agency's collection process. Tyler Cashiering features the ability to display on-screen running batch and transaction totals. And, it has standard interfaces to other Tyler products/modules; with the potential to connect to other non-Tyler systems as well.

Tyler Cashiering offers secure credit card processing features, and is compliant with PCI/PA-DSS security standards. Additionally, it offers full Check-21 compliance which allows for creation of an electronic cash letter containing images of checks to be submitted to a bank in lieu of a traditional deposit with paper checks.

9. *Content Management*

Tyler Content Manager supports a variety of electronic file formats, for scanned images, word processing documents and spreadsheets... and also accepts other electronically-received content like faxes, TIFF images, PDF and electronic forms, photos, Microsoft file formats and emails. And, all of your items can be saved in the same location—regardless of format.

In addition to scanning directly into Tyler Content Manager from any TWAIN scanner, Windows drag-and-drop techniques can be used to associate electronic information to a folder. Utilities are available to "Acquire an Image" from a directory and to mass load images for batch processing. Web Services API allows the flow of data and content to and from Tyler Content Manager and other applications.

Proper organization and indexing of documents is paramount to whether or not your electronic content is useful and meaningful. Tyler Content Manager uses Optical Character Recognition (OCR) to allow a query on the full text of any scanned document, as well as text-based files such as MS Word and Excel.

10. *Analyze*

The iasWorld Analyze functionality offers the end user a meaningful, easy to use way to review and evaluate statistical data. Through the Analyze functionality users can retrieve datasets from the iasWorld Market Valuation module for visual/detail analysis and apply additional filters to isolate parcel groups by neighborhood group, neighborhood, verification code, qualification code, etc. Users can access advanced data visualization options to explore data visually on instant click-and-display views, including a scatter diagram, maps, Pictometry (when available), data detail tables, distribution charts and comprehensive statistical measures and moments. iasWorld Analyze functionality provides for real-time, quick and easy access to data for analysis where users can view data in various charts and graphs and switch views for different types of analysis. Selections made in one view are highlighted on different views, enabling further

exploration of details for individual parcels or parcel groups. Analyze allows the users to easily view the data within the application in a variety of ways not previously considered.

11. Activity Center

The Activity Center in iasWorld can be used to manage the workflow process. This configurable workflow solution can be used to help route and track an appeal from the time of entering and reviewing the application information, to sending to the designated appraiser for review, scheduling the appeal hearing and even sending the appeal to the appropriate staff for recording results and mailing notices. iasWorld uses a process called "job chaining" to append multiple reports together as a part of an appeal packet. For example, three separate reports such as the notice of hearing, property record card and comparables report can be appended into a process that generates all outputs at once.

B. Project Lessons Learned Document

Tyler shall provide the Project Lessons Learned in the following format.

Project Name:	
Prepared by:	
Date (MM/DD/YYYY):	

The purpose of this template is to help the project team share knowledge gained from experience so that the entire organization may benefit. A successful Lessons-Learned program will help project teams:

- Repeat desirable outcomes
- Avoid undesirable outcomes.

A. **Your project team should begin to use this document at its first project meeting.** Continually recording Lessons-Learned throughout the project is the best way to ensure that they are accurately recorded. Topics to consider include all of the following (feel free to change the list).

Project Management	Technical Management	Human Factors	Overall
<ul style="list-style-type: none"> ▪ Project Planning ▪ Resource Management ▪ Risk Management ▪ Change Control ▪ Procurement ▪ Budget Management ▪ Quality Control ▪ Status Reports ▪ Vendor Selection 	<ul style="list-style-type: none"> ▪ Requirements ▪ Specification ▪ Test Plan ▪ Construction ▪ Testing ▪ Rollout ▪ Training ▪ Documentation ▪ Vendor Management 	<ul style="list-style-type: none"> ▪ Communication ▪ Team Experience ▪ Interaction with Sponsor ▪ Interaction with Customer ▪ Interaction with Management ▪ Management support ▪ Quality of meetings ▪ Vendor interaction 	<ul style="list-style-type: none"> ▪ Customer Satisfaction ▪ Technical Success ▪ Quality product ▪ Product Accepted ▪ On Time ▪ Within Budget ▪ Met Project Objectives ▪ Met Business Objectives

B. **At the end of your project, use this document to summarize your experience.**

During your discussions:

- Do not place blame!
- Be positive
- Focus on successes as well as failures
- Indicate which strategies contributed to success
- Indicate which improvement strategies would have the greatest impact

1. Project Journal	
<i>During each project team meeting discuss what strategies contributed to success as well as areas of potential improvement. Enter your conclusions in the table below (insert rows as needed).</i>	
Strategies and Processes that led to Success	
<i>Date</i>	<i>Description</i>
Areas of Potential Improvement	
<i>Date</i>	<i>Description</i>

2. Project Close-Out Discussion	
At the end of your project, gather all stakeholders for a Lessons-Learned meeting.	
Use the questions below to summarize your Lessons-Learned discussion. Enter comments in the areas provided. Focus on Lessons Learned that will help in future projects. (Insert rows as needed)	
A. List this project's three biggest successes.	
<i>Description</i>	<i>Factors that Promoted this Success</i>
B. List other successes that the team would like highlighted:	
<i>Description</i>	<i>Factors that Promoted this Success</i>
C. List areas of potential improvement along with <i>high-impact</i> improvement strategies:	

2. Project Close-Out Discussion	
<i>Description</i>	<i>Factors that Promoted this Success</i>
D. Enter other comments:	

3. Project Lessons Learned Document/ Signatures			
Project Manager:			
<i>I have reviewed the information contained in this Project Lessons-Learned Document and agree:</i>			
Name	Title	Signature	Date (MM/DD/YYYY)

C. Deliverable Acceptance Form

Date Submitted ___ / ___ / ___

Company: _____

Project Name _____

Deliverable/Milestone _____

**Established
Acceptance Criteria**

**Approvals required
(names and titles)**

**Associated Invoice
Amount**

**Contract Balance
Remaining**

Exceptions:

- Accept Deliverable
- Decline Deliverable

Comments/Reason:

Approver Name(s) (Print)/Department

Approver Signature(s)

Date

D. Post Implementation Evaluation Form

Customer Evaluation Survey			
Supplier Name:			
Date:			
	Excellent	Average	Poor
Summary Vendor Evaluation			
Corporate/Sales			
Cost Management			
Quality			
Delivery			
Responsibility			
Technology			
Supplier Performance Factors			
Corporate			
Billing Process			
Sales Support			
Personnel turnover			
Timely response to inquiries			
Employee knowledge			
Employee courtesy			
Cost Management			
Scope (change) management			
Price reductions			
Warranty administration			
Quality			
Quality & process control			
Continuous improvement			
Errors and omissions corrective measures			
Incoming inspections requirements			
Delivery			
Meets customer requests			
Accuracy			
Documentation			
Advance delay notification			
Responsiveness			
Timely implementation of spec changes			
Manages complaints expeditiously			

Customer-focused attitude			
Continuous improvement processes			
Technology			
Provide timely technical assistance			
Engineering support			
Maintains roadmap			
Communicates changes			
IT systems			

E. Project -Final Acceptance Form

Author		Approval Request Date	
Contributors		Approval Due Date	

Deliverable Overview

Project Name	
Deliverable Name	

Acceptance Criteria	
Comments	<Client Name> agrees that the solution has been delivered as outlined in the Scope of Work and any related change orders. <Client Name> accepts the project as complete.

Approval Signatures

Name - Title	Signature	MM-DD-YYYY
Client Name and Title		
Client Name and Title		
Project Manager Name		

F. Appraisal & Tax Solutions iasWorld 7.1 Client Workstation Requirements and Configuration

Client System Requirements

The following are some of the client system requirements for iasWorld 7.1.

Hardware & Platform

The following table displays both CPU and RAM requirements by operating system, as well as browser and screen resolution requirements.

		Operating System	
		Windows 7	Windows 8
CPU	Minimum	2.0 x the Microsoft recommended CPU requirements	2.0 x the Microsoft recommended CPU requirements
	Recommended	3.0 x the Microsoft recommended CPU requirements	3.0 x the Microsoft recommended CPU requirements
RAM	Minimum	2.0 x the Microsoft recommended RAM	2.0 x the Microsoft recommended RAM
	Recommended	3.0 x the Microsoft recommended RAM	3.0 x the Microsoft recommended RAM
Examples	Minimum	2 GHz x64 processor 2 GB RAM	2 GHz x64 processor 2 GB RAM
	Recommended	3 GHz x64 processor 3 GB RAM	3 GHz x64 processor 3 GB RAM
Architecture		The use of the 64bit versions of the Windows operating system on 64bit supported workstations is highly recommended. The 32bit versions are supported, but we recommend using the higher recommendations for CPU and RAM.	
Browser		iasWorld 7.1 supports Internet Explorer 9.0 and 10.0. There are iasWorld modules that can be accessed via additional browsers. Please consult the iasWorld Release Notes 7.1 document for	

Operating System	
Windows 7	Windows 8
	further details.
Screen Resolution	<p>iasWorld is designed for use on client workstations with a screen resolution of at least 1024x768, but a screen resolution of 1280 x 1024 is most desirable. Resolutions lower than 1024x768 are not supported.</p> <p>The use of multiple monitors is beneficial and can increase productivity.</p>

Note: This documentation does not include requirements for other applications that may be integrated with our system. For any third party integration components outside of iasWorld, you must reference the specific requirements provided by that application.

Report File Reader

iasWorld reports are generated in a PDF file format. To view these reports, a PDF reader application is required. Tyler Technologies recommends Adobe Reader version 8.x and above for viewing iasWorld PDF reports.

Java Runtime Environment

The Sun Java Runtime Environment (JRE) is required on all client workstations that will use the Sketch drawing applet. The Sketch applet supports the Sun JRE versions 1.4.2_09 and above.

Microsoft Silverlight

Microsoft® Silverlight® 5 is required on all client workstations that will use the Activity Center features.

Printer Support

The default print model in iasWorld is PostScript. PostScript printers are required for direct printing from iasWorld. You can still print to virtually any printer by opening the output in Acrobat Reader and printing from there, as long as you run the report with the proper (PostScript) format info and leave the DO_PDF option enabled.

Client Workstation Configuration

The following are some of the client workstation configuration requirements for iasWorld 7.1.

Browser Security Zones

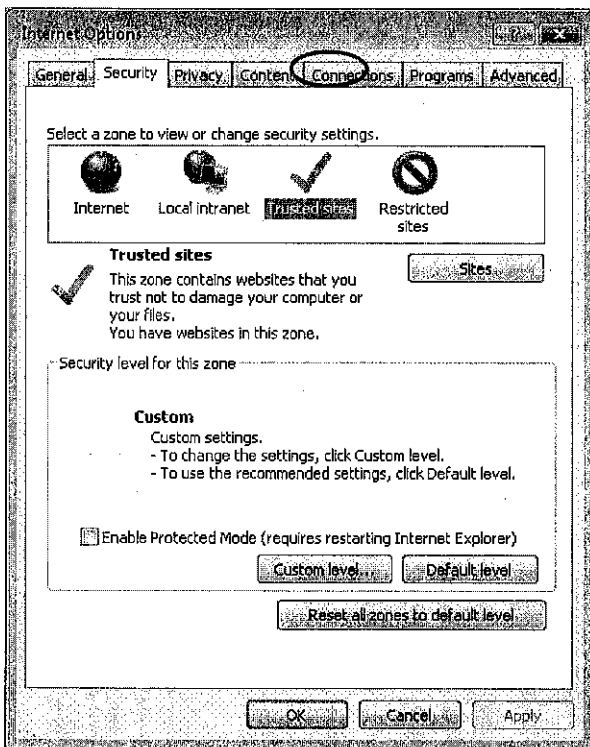
Although not required, it is highly recommended that the iasWorld site(s) for a jurisdiction be added to the "Trusted Sites" Internet Explorer security zone on client workstations. Internet Explorer assigns all web sites to one of five built-in security zones – Internet, Local intranet, Trusted Sites, Restricted Sites and My Computer. Different security configurations can be applied each of these four security zones. The zone to which a website is assigned, along with the security settings configured for that zone, define the privileges that that Internet Explorer browser grants to the website.

By default, all websites are assigned to either the Internet or Local intranet security zone by Internet Explorer. Rules for determining whether a site is classified as an Internet zone site or Local intranet zone site can be found in Microsoft Knowledge Base article KB174360.

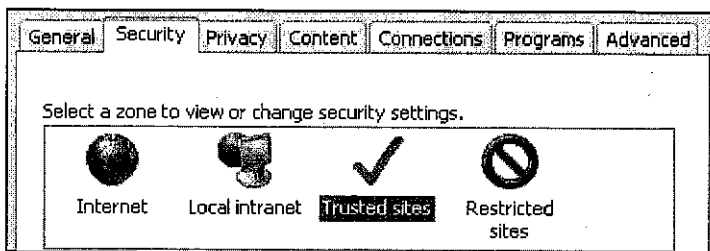
Note: The default security level for Trusted Sites in Internet Explorer 9.x and 10.x is Low.


Add iasWorld as a Trusted Site in IE 9.x

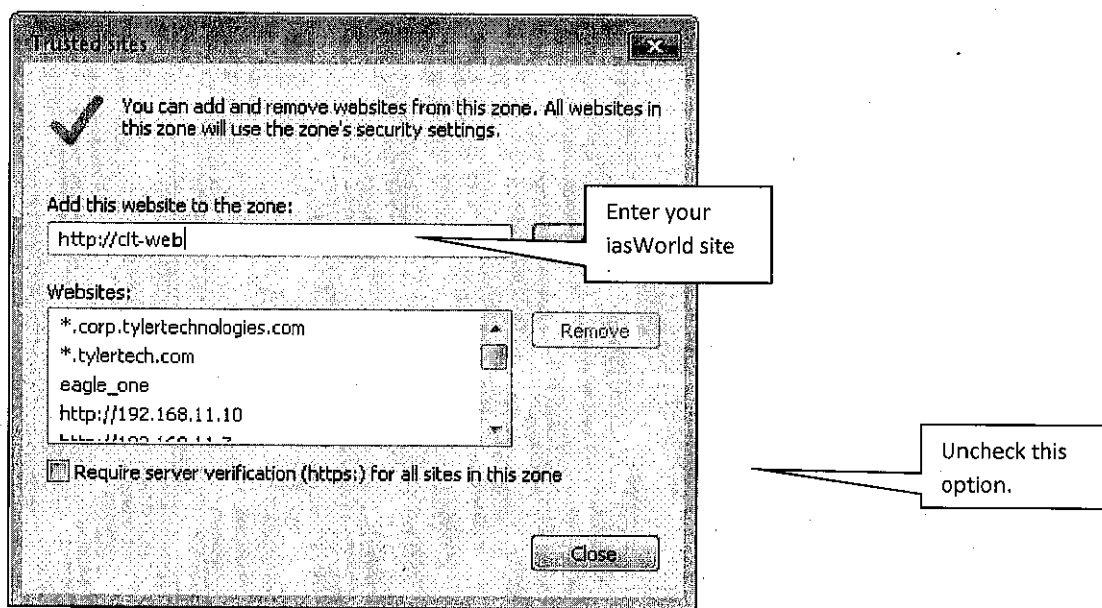
1. From the **Tools** menu, select the **Internet Options** command.
2. From the Internet Options dialog box, select the **Security** tab.





3. Select the **Trusted sites** icon from the "Select a zone to view..." list.



4. Click the  button.
5. In the Trusted sites dialog box, enter the name of your iasWorld site in the **Add this website to the zone** text box.
6. Uncheck the **Require server verification (https:) for all sites in this zone** option.

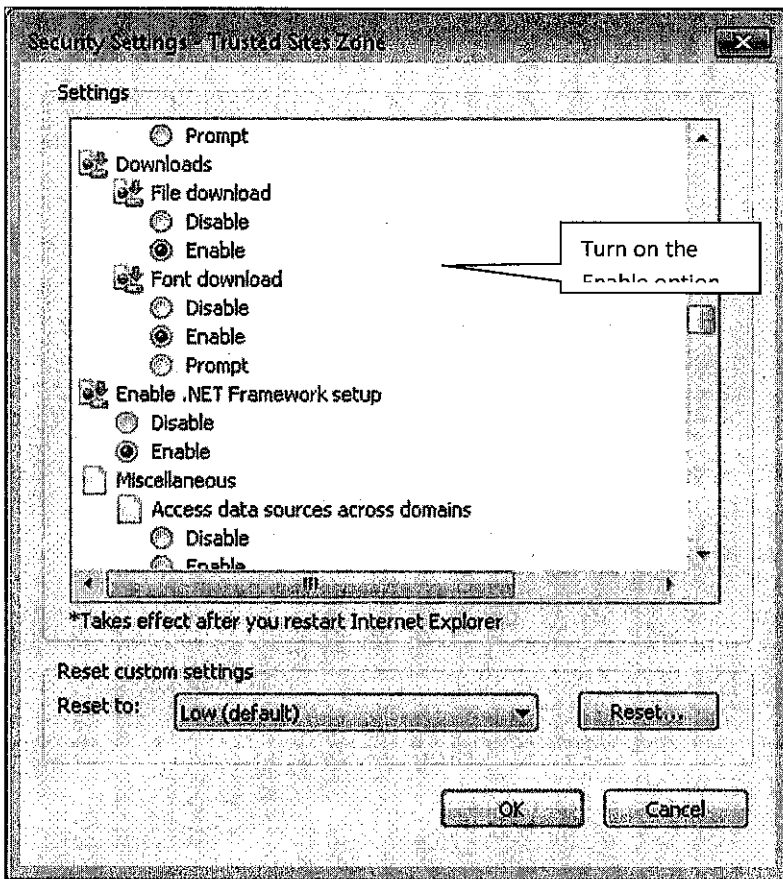


7. Click the  button. The URL for the iasWorld home page is added to the Trusted Sites list.
8. Click the  button and exit all open dialogs.

Enable Downloads in IE 9.x

You also may need to enable downloads from your internal site.

1. From the browser **Tools** menu, select the **Internet Options** command.
2. From the Internet Options dialog box, select the **Security** tab.
3. Click the button.
4. Locate the **Downloads** section of the Security Settings dialog box. Make sure that the **Enable** option is turned on.




5. Click .

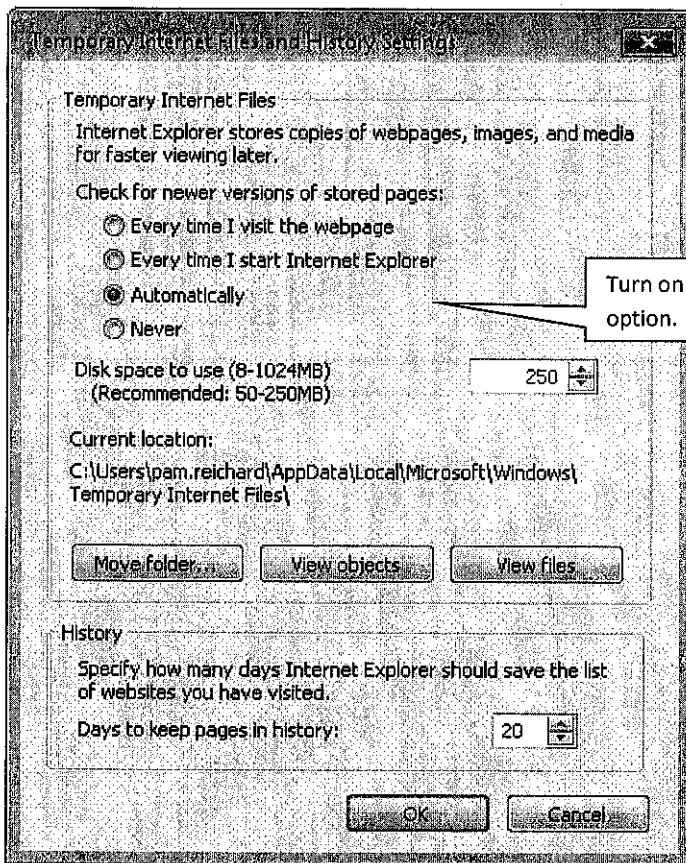
Temporary Internet Files


Internet Explorer caches previously downloaded files for future use. The purpose of this file caching process is to increase site performance on subsequent visits to a site because some previously downloaded files may be able to be reused (if they have not been updated on the server). These cached files saved by Internet Explorer are known as Temporary Internet Files.

Temporary Internet Files should be enabled for iasWorld. The frequency of checking for newer versions of stored files should be set to "Automatically" (the default value). The disk space allocated to temporary Internet files should be at least 50 MB (the default value is usually greater than 50 MB).

Configure Temporary Internet Files Settings in IE 9.x

1. From the Tools menu, select the **Internet Options** command.
2. Select the **General** tab.
3. In the **Browsing History** section of the dialog box, click the  button. The Temporary Internet Files and History Settings dialog box displays.
4. For the **Check for newer versions of stored pages** option, make sure that **Automatically** (the default value) is enabled.



5. For the **Disk space to use** option, ensure that the size is greater than 50 MB (the default value is typically greater than 50 MB). For laserfiche, set this to at least 100MB.
6. Click the  button and exit all open dialogs.

Cookies

The HTTP protocol, the application protocol used for transferring information between client workstation and web server, is a stateless protocol. Because of this fact, a mechanism is needed to determine which user is making a request for a page when such a request is received by the web server. The mechanism used for this purpose by ASP.NET applications, such as iasWorld, is cookies.

Cookies are small pieces of text inserted into the requests and responses between a client browser and workstation by both the Internet Explorer browser and web server. One specific type of cookie is called a session cookie. Session cookies differ from other types of cookies in that session cookies are only stored in the memory of the client browser and are never written to disk as a temporary file (as are other cookies).

Session cookies must be enabled for iasWorld web sites. Adding an iasWorld site to the Trusted Sites security zone enables cookies automatically.

Scripting

iasWorld uses scripts – small functions written in a scripting language such as JavaScript and executed by the client workstation – to enable interactive features of the site. In order for an iasWorld site to function properly on a client workstation, the scripting options identified in the list below must be enabled on the workstation:

Script Option	Setting
Binary and Script Behaviors	Enable
Script ActiveX controls marked safe for scripting	Enable
Active Scripting	Enable
Allow status bar updates via script	Enable
Allow web sites to prompt for information using scripted windows	Enable
Scripting of Java applets	Enable
Allow programmatic clipboard access	Enable

Note: The Low security level in IE 9.x and 10.x of the Trusted Sites security zone (the default level for IE 9.x and IE 10.x) uses the above settings by default.

Mixed Content

If accessing the iasWorld site over SSL (i.e. using the HTTPS protocol), it may be necessary to enable the Display Mixed Content option in the browser. This is necessary to avoid prompting by the browser when accessing pages that contain maps or links to other third party servers that may use the HTTP protocol for downloading resources. The Display Mixed Content option can be changed via the Security Settings dialog box for the zone in which the iasWorld site resides.

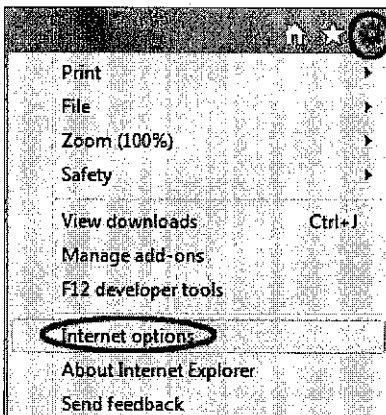
Pop-up Blockers

iasWorld does use pop-up dialog boxes to notify you when events occur as well as display data entry forms for accepting your input. The use of third party pop-up blocking software is not supported with iasWorld.


Internet Explorer includes a built-in pop-up blocker. In order for iasWorld to function properly, the built-in pop-up blocker must either be turned off, or the iasWorld pop-ups must be exempted from being blocked. Turning off the pop-up blocker as well as exempting iasWorld popups from the pop-up blocker can be done via the following sets of instructions.

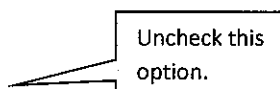
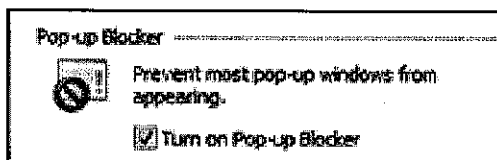
Turn off the Pop-up Blocker for IE 9.x

1. Click on the "gear" icon, located in the upper right hand corner of your IE9 window. When the drop-down menu appears, click on **Internet options**.



The IE9 Internet Options should now be visible, overlaying your browser window.

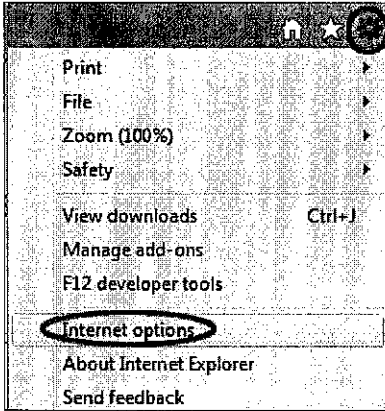
2. Click the Privacy tab.
3. In the section titled "Pop-up Blocker", make sure that the **Turn on Pop-up Blocker** checkbox is unchecked and then click .



Add a Website to the IE 9.x Pop-up Blocker Exceptions List

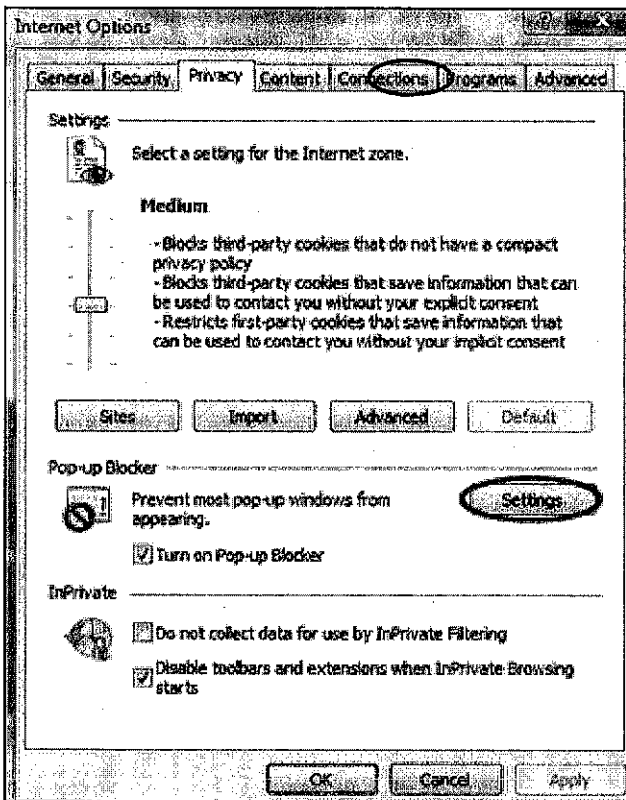
If your IE 9.x site must have the pop-ups blocked, you can make an exception for the iasWorld site by following these instructions.

1. Click on the "gear" icon, located in the upper right hand corner of your IE9 window. When the drop-down menu appears, click on Internet options.



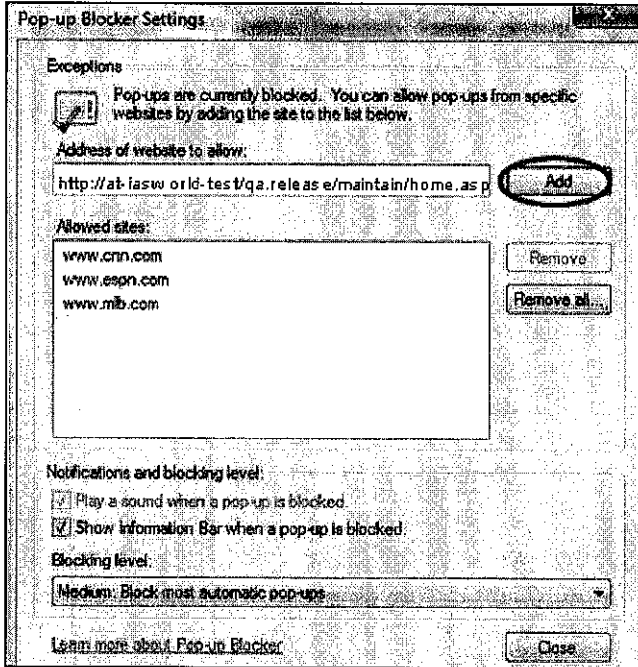
The IE9 Internet Options should now be visible, overlaying your browser window.

2. Click the **Privacy** tab.
3. In the section titled "Pop-up Blocker", click the  button.



4. In the Pop-up Blocker Settings dialog box, in the **Address of website to allow** text box, enter the URL of the website where you want pop-ups to be allowed.

5. Next, click on the  button located to the right of this field.



6. After you click , the site you entered is now displayed in the Allowed Sites list.

7. Click .

User Interface Settings

Internet Explorer enables you to modify various browser settings that affect the size, position and style of fonts and controls on web pages. Because of the significant user interface (UI) differences that can result when you modify various user interface settings, only the default UI settings are supported by iasWorld.

The following items are options that affect the client workstation user interface. The value for each setting that is supported by iasWorld is specified.

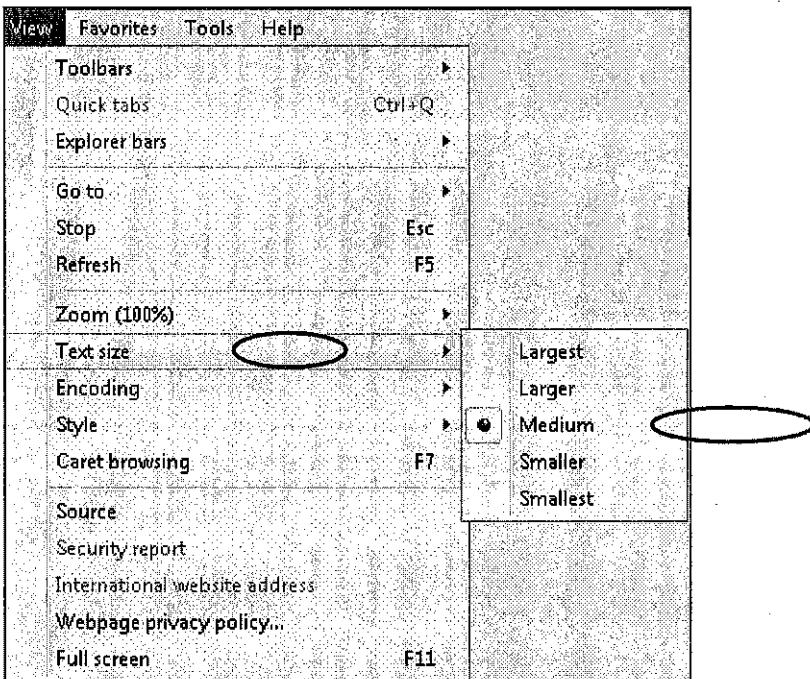
Browser Text Size

Internet Explorer supports the ability to set a default relative font size (text size) for web pages. The available relative sizes are Smallest, Smaller, Medium, Larger and Largest. The default value in IE is Medium.

The value of this setting should be set to Medium for iasWorld.

Set Browser Text Size in IE 9.x

1. From the **View** menu, select the **Text size** command.
2. Select the **Medium** size from the flyout menu.



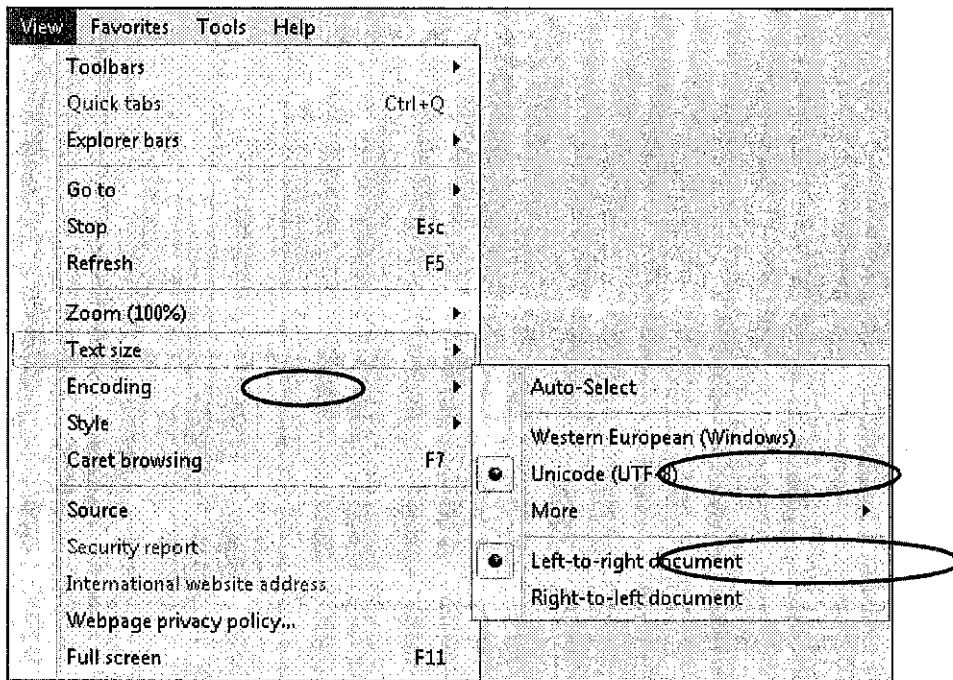
Browser Text Encoding

Internet Explorer supports the ability to specify the encoding for text on web pages. The text encoding settings tell the browser what language and character set to use when displaying web pages. The default text encoding value in IE is Unicode (UTF-8) along with the option “Left to right document”.

The value of the browser text encoding for iasWorld should be set to ‘Unicode (UTF-8)’ along with ‘Left-to-right document.’

Set Browser Text Encoding Options in IE 9.x


1. From the Page menu, select the **Encoding** command.
2. From the flyout menu, select **Unicode (UTF-8)**.
3. Select **Left-to-right document**.

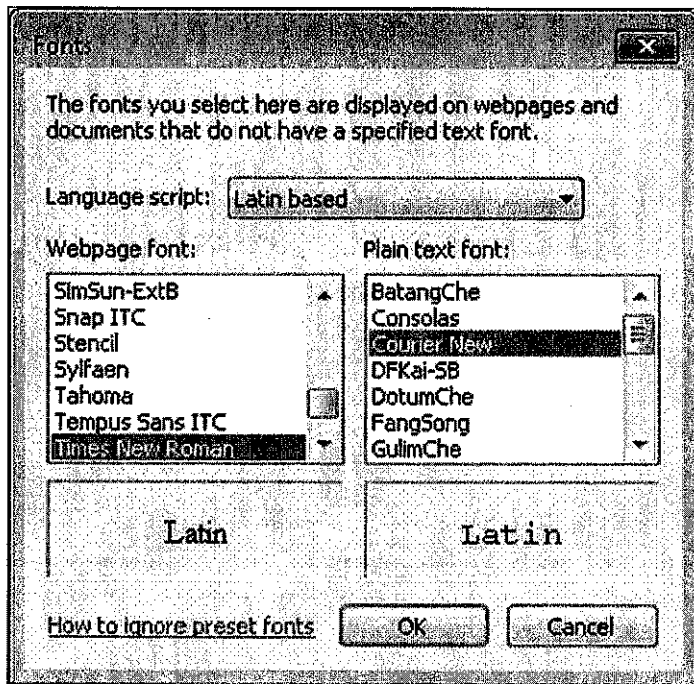


Default Font

Internet Explorer supports the ability to specify a font that should be used in situations where a web page does not explicitly specify the font for text on the page. The default fonts used by IE are Times New Roman for the Webpage font option and Courier New for the Plain text font option. For iasWorld, the fonts must be set to those options.

Set the Default Browser Fonts in IE 9.x

1. On the **Tools** menu, select the **Internet Options** command.
2. On the **General** tab, click the  button.
3. In the Fonts dialog box, make sure the following fonts are chosen for iasWorld:
 - Webpage font: Times New Roman
 - Plain text font: Courier New




4. Click .

Ignore Color and Font Settings

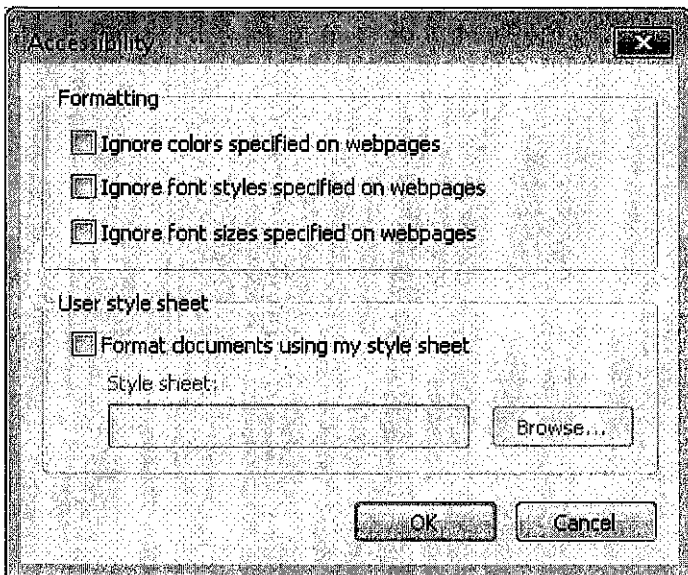
Internet Explorer supports the ability for you to define whether font and color settings defined on a web page should be ignored. By default, IE does not ignore the font and color settings defined on a web page.

iasWorld does not support the ability to ignore font and color settings.

Define the Formatting Options in IE 9.x

1. On the **Tools** menu, select the **Internet Options** command.
2. On the **General** tab, click the  button.
3. In the Accessibility dialog box, select the options for ignoring colors, font styles, and font sizes.

If using iasWorld, make sure that none of the 'Ignore' boxes are checked.



Uncheck all these options.

4. Click .

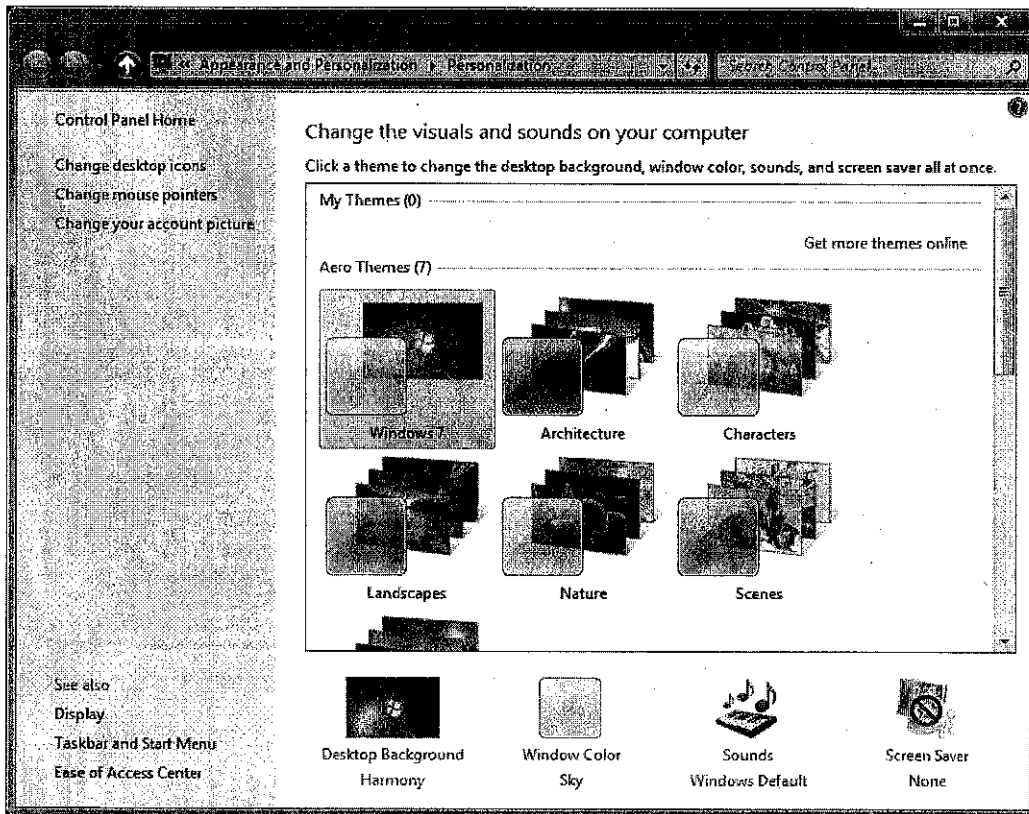
Windows Theme

The Windows family of operating systems supports the ability for you to define “themes” that should be used to render various UI components. Themes can affect the size, color and style of buttons, text and other UI components.

Because of the significant user interface differences that can result by use of custom themes, only the default Windows themes are supported by iasWorld.

Set a Windows 7 Theme

1. Right-click on the desktop and select the **Personalize** command.
2. On the Themes section of the dialog box, select a theme to use.



Third Party Browser Add-ons

Many browser add-ons, typically in the form of toolbars that appear as part of the browser’s set of toolbars, are available from third party vendors, such as Yahoo! and Google. Browser toolbars usually offer convenience features, such as quick access to email, or enhancements that are not part of the native browser functionality, such as a pop-up blocker (note that IE does have a built-in popup blocker).

Because of the wide range of browser add-ons that are available, as well as the wide range of functionality provided by these add-ons, iasWorld does not guarantee compatibility for any third party add-on toolbars that are not part of the standard IE browser installation.

Managing Browser Add-ons

Windows 7 provides you with the ability to manage browser add-ons via a Manage Add-ons user interface. Browser add-ons can be configured via the UI to be enabled or disabled.

Tyler Technologies highly recommends that no third party browser add-ons (other than the ones listed in the table below) be installed on iasWorld client workstations.

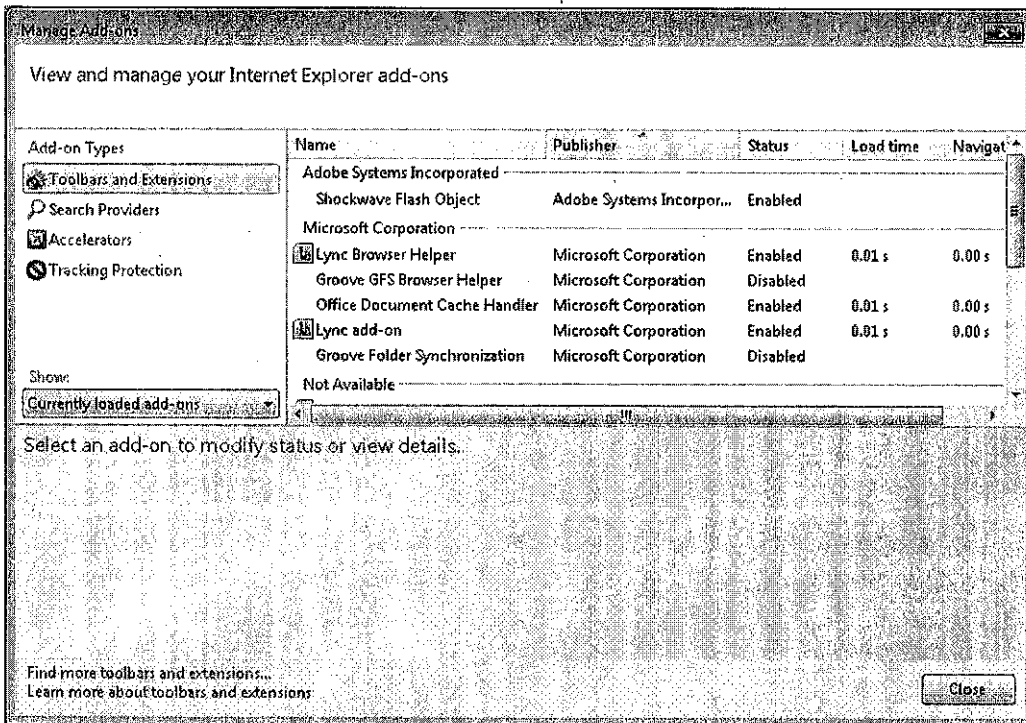
The following browser add-ons must be enabled in order for iasWorld to function properly on a client workstation.

Add-on	Setting	Vendor
Adobe PDF Reader Link Helper	Enabled	Adobe Systems
(All Sun Java Plug-in Addons)	Enabled	Sun Microsystems
Microsoft Scriptlet Component	Enabled	Microsoft Corp
XML Document	Enabled	Microsoft Corp

Accessing Browser Add-ons Management in IE 9.x

You can access the browser add-ons management user interface via the following steps.

1. From the **Tools** menu, select the **Internet Options** command.
2. On the **Programs** tab, click the **Manage add-ons** button.
3. In the Manage Add-ons dialog box, make sure that the add-ons listed in the above add-on table are enabled.




4. Click **OK**.

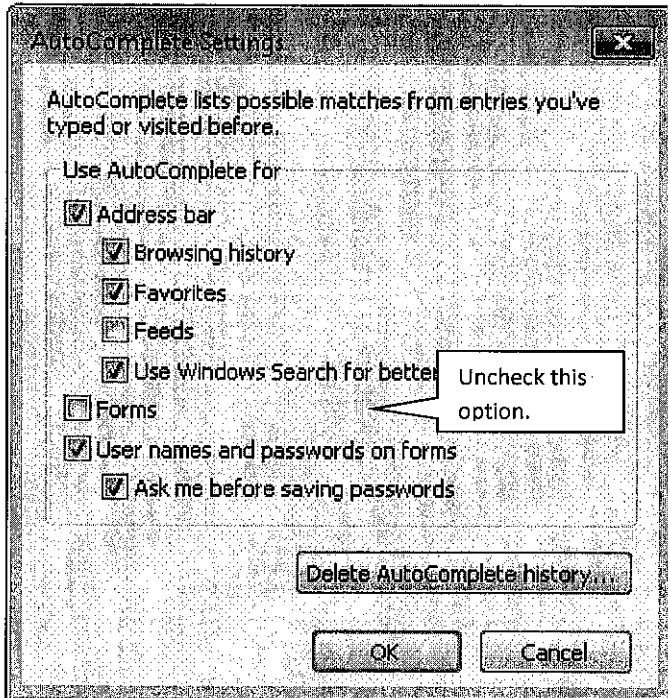
AutoComplete

Internet Explorer supports the ability for the browser to retain information in its cache files for values that have been typed into fields on a form. Subsequent navigation to a field on a form with the same field name provides you with the option of selecting a previously typed value for the field from a list. This functionality is known as AutoComplete.

It is recommended that AutoComplete functionality for forms be turned off on iasWorld workstations.

Access the AutoComplete Settings in IE 9.x

1. From the **Tools** menu, select the **Internet Options** command.
2. On the **Content** tab, click the  button on the AutoComplete portion of the tab.
3. On the AutoComplete Settings dialog box, make sure that the AutoComplete option for **Forms** is unchecked.



4. Click .

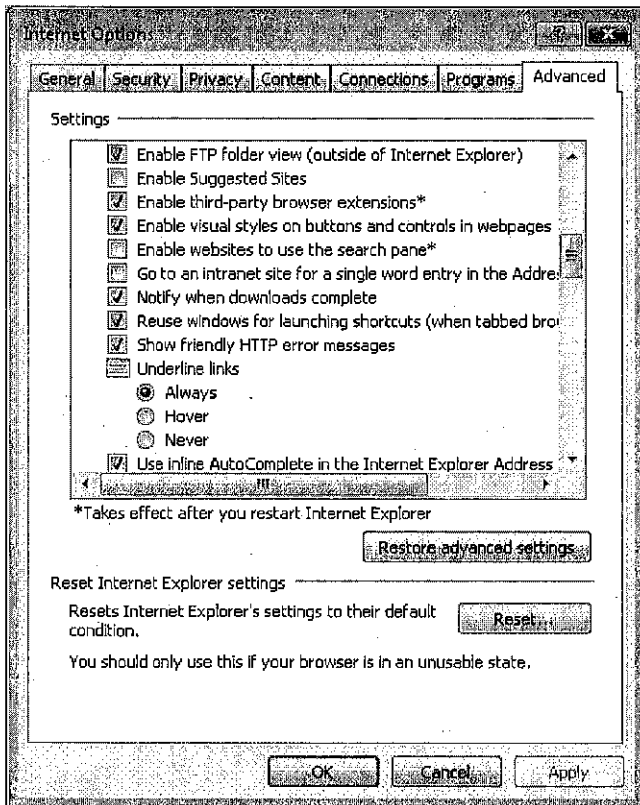
Advanced Settings


Internet Explorer offers a wide array of configuration settings that it designates Advanced Settings. In order for iasWorld to function properly on a client workstation, the client workstation must have the following default Advanced Settings enabled.

Item	Setting
Enable visual styles on buttons and controls in web pages	Checked
Use HTTP 1.1	Checked
Java (Sun) > Use JRE ... (Appears as an item in Advanced Settings when the Sun JRE is installed.	Checked
Show Pictures	Checked
Enable native XMLHTTP Support	Checked

Access the Advanced Settings in IE 9.x

1. From the **Tools** menu, select the **Internet Options** command.
2. Select the **Advanced** tab.



3. Check that the appropriate advanced settings for Internet Explorer are checked as shown in the previous Advanced Setting table. Click .

Additional Considerations

The following are some additional items to consider when configuring your workstation.

Browser Zoom Levels

The IE browser provides the ability for you to specify a “zoom level” for viewing web pages. Zoom Levels increase the scale of web pages displayed in the browser. The default zoom level for IE is 100%.

iasWorld supports only the 100% zoom level.

Tabbed Browsing

The IE browser provides the ability for multiple web pages to be viewed in the same browser window via the use of browser tabs. iasWorld does support the use of IE tabs; however, pop-up windows must be configured to open in a new window and not in a browser tab. You can determine how pop-up windows should be handled – whether they should appear as a new window or as a tab in the current window. The default mode for handling pop-ups in IE is to open pop-ups in a new window.

iasWorld supports the display of pop-up windows in a new window only; opening pop-up windows in a new browser tab is not supported.

IE 9.x Compatibility View

IE 9.x supports a view mode known as Compatibility View. This view mode is designed to allow older web sites to operate in IE 9 that may not do so otherwise. Compatibility View is not required for iasWorld.

Spyware

Spyware is an umbrella term used to classify software programs that are in some way used to discover information about the user of a workstation, the user’s online behavior, or the contents of files. There are many different variations on spyware produced by many different vendors, some legitimate and some criminal. Some spyware programs are disguised as browser add-ins that offer an incentive or desirable functionality in order to coax you into installing the software. Such programs have the capacity to modify the contents of web pages as the pages are downloaded to your workstation.

iasWorld is not supported on any workstations on which software that Tyler Technologies considers to be spyware has been installed.

EXHIBIT 2

Cook County Information Technology Special Conditions (ITSCs)

Exhibit 2

Cook County Information Technology Special Conditions (ITSCs)

1. DEFINITIONS FOR SPECIAL CONDITIONS

1.1. **"Agreement"** means the Professional Services Agreement entered into between the County and the Contractor and to which this Exhibit 2 is attached and made a part hereof.

1.2. **"Assets"** means Equipment, Software, Intellectual Property, IP Materials and other assets used in providing the Services. Assets are considered in use as of the date of deployment.

1.3. **"Business Continuity Plan"** means the planned process, and related activities, required to maintain continuity of business operations between the period of time following declaration of a Disaster until such time an IT environment is returned to an acceptable condition of normal business operation.

1.4. **"Change"** means, in an operational context, an addition, modification or deletion to any Equipment, Software, IT environment, IT systems, network, device, infrastructure, circuit, documentation or other items related to Services. Changes may arise reactively in response to Incidents/Problems or externally imposed requirements (e.g., legislative changes), or proactively from attempts to (a) seek greater efficiency or effectiveness in the provision or delivery of Services; (b) reflect business initiatives; or (c) implement programs, projects or Service improvement initiatives.

1.5. **"Change Order"** means a document that authorizes a Change to the Services or Deliverables under the Agreement, whether in time frames, costs, or scope.

1.6. **"Change Request"** means one Party's request to the other Party for a Change Order.

1.7. **"Contractor"** has the same meaning as both "Contractor" and "Consultant" as such terms are defined, and may be interchangeably used in the Agreement.

1.8. **"Contractor Confidential Information"** means all non-public proprietary information of Contractor that is marked confidential, restricted, proprietary, or with a similar designation or which a reasonable person would believe to be confidential and includes, without limitation, Personal Information and trade secrets as defined by applicable state law; provided that Contractor Confidential Information excludes: (a) Using Agency Confidential Information, (b) Using Agency Data; (c) information that may be subject to disclosure under Illinois Freedom of Information Act, 5 ILCS 140/1 et seq. or under the Cook County Code of Ordinances; and (d) the terms of this Agreement, regardless of whether marked with a confidential designation or not.

1.9. **"Contractor Facilities"** means locations owned, leased or otherwise utilized by Contractor and its Subcontractors from which it or they may provide Services.

1.10. **"Contractor Intellectual Property"** means all Intellectual Property owned or licensed by Contractor.

1.11. **"Contractor IP Materials"** means all IP Materials owned or licensed by Contractor.

1.12. **"Contractor Personnel"** means any individuals that are employees, representatives, Subcontractors or agents of Contractor, or of a direct or indirect Subcontractor of Contractor.

1.13. **"Contractor-Provided Equipment"** means Equipment provided by or on behalf of Contractor."

1.14. **"Contractor-Provided Software"** means Software provided by or on behalf of Contractor.

1.15. **"Data Protection Laws"** means laws, regulations, and regulatory requirements, in connection with the processing of Personal Information, including those provisions of the Payment Card Industry standards.

1.16. **"Data Security Breach"** means (a) the loss or misuse (by any means) of any Using Agency Data or other Using Agency Confidential Information; (b) the unauthorized or unlawful access, use, or disclosure of any Using Agency Data or other Using Agency Confidential Information; or (c) any other act or omission that compromises the security, confidentiality, integrity or availability of any Using Agency Data or other Using Agency Confidential Information.

1.17. **"Defect"** means a failure of the Licensed Software to substantially conform to the functional descriptions set forth in Contractor's written proposal to County, or their functional equivalent. Future functionality may be updated, modified, or otherwise enhanced through Contractor's Maintenance and Support Agreement, and the governing functional descriptions for such future functionality will be set forth in Contractor's then-current Documentation.

1.18. **"Deliverable"** has the same meaning as "Deliverable" as defined in Exhibit 1, Statement of Work and includes without limitation Contractor-Provided Equipment and Contractor-Provided Software.

1.19. **"Developed Intellectual Property"** means Intellectual Property as well as any IP Materials conceived, developed, authored or reduced to practice in the course of or in connection with the provision of the Services, including, but not limited to: (a) Developed Software; (b) documentation, training materials, or other IP Materials that do not modify or enhance then existing Using Agency IP Materials; and (c) modifications to or enhancements (derivative works) of, Third Party Intellectual Property or related IP Materials to the extent not owned by the licensor of the Third Party Intellectual Property under the terms of the applicable license.

1.20. **"Developed Software"** any Software conceived, developed, authored or reduced to practice in the course of or in connection with the provision of the Services (including any modifications, enhancements, patches, upgrades or similar developments), and specifically including all customizations, improvements, derivations, modifications, enhancements or changes which are made to the utility, efficiency, functional capability or application of the Licensed Software and/or the Licensed Software Source Code in order to meet specific County or using Agency business requirements outlined in Exhibit 1, SOW).

1.21. **"Disaster"** means a sudden, unplanned, calamitous event causing substantial damage or loss as defined or determined by a risk assessment and business impact analysis, and which creates an inability or substantial impairment on the organization's part to provide critical

business functions for a material period of time. This also includes any period when the Using Agency management decides to divert resources from normal production responses and exercises its Disaster Recovery Plan.

1.22. **"Disaster Recovery Plan"** means the planned process, and related activities, required to return an IT environment to an acceptable condition of normal business operation following declaration of a Disaster.

1.23. **"Documentation"** means any online or written documentation related to the use or functionality of the Licensed Software that Contractor provides or otherwise makes available to Using Agency, including instructions, user guides, manuals and other training or self-help documentation.

1.24. **"Equipment"** means the computer, telecommunications, network, storage, and related hardware and peripherals owned or leased by the Using Agency or its Third Party Contractors, or by Contractor or its Subcontractors, and used or supported by Contractor or its Subcontractors, or by the Using Agency or its agents, in connection with the Services.

1.25. **"Illicit Code"** means any hidden files, automatically replicating, transmitting or activating computer program, virus, worms, spyware, or malware (or other harmful or malicious computer program) or any Equipment-limiting, Software-limiting or Services-limiting function (including, but not limited to, any key, node lock, time-out or similar function), whether implemented by electronic or other means.

1.26. **"Incident"** means any event that is not part of the standard operation of a service in the Using Agency IT environment (including an event in respect of the Services or any Equipment or Software) and that causes, or may cause, an interruption to, or a reduction in the quality of, that service. The Using Agency will determine the severity level of each reported Incident.

1.27. **"Intellectual Property"** has the same meaning as "Intellectual Property" as defined in the County's Professional Services Agreement.

1.28. **"IP Materials"** means works of authorship, software, documentation, processes, designs, drawings, specifications, formulae, databases, algorithms, models, methods, processes and techniques, technical data, inventions, discoveries, know how, the general format, organization, or structure of any report, document or database, and other technical proprietary information.

1.29. **"Laws"** means all United States federal, state and local laws or foreign laws, constitutions, statutes, codes, rules, regulations, ordinances, executive orders, decrees, edicts of or by any governmental authority having the force of law or any other legal requirement (including common law), including Data Protection Laws and the Cook County Code of Ordinances.

1.30. **"Licensed Software"** means the Contractor's software modules described in Exhibit A of Exhibit 1, Statement of Work, Developed Software, including object, executable or binary code, screens, user interfaces, data structures, data libraries, definition libraries, templates, menus, buttons and icons, and error corrections, upgrades, updates, enhancements or new releases created by Contractor (e.g., patches, fixes, program temporary fixes, programs, code or data

conversion, or custom programming) and provided to County through the Maintenance and Support Agreement.

1.31. **"Maintenance and Support Agreement"** means the terms and conditions governing the provision of maintenance and support services by Contractor to County. County's Maintenance and Support Agreement is included in Exhibit 1, Statement of Work, Section 4.13.

1.32. **"Open Source Materials"** means any Software that: (a) contains, or is derived in any manner (in whole or in part) from, any Software that is distributed as free Software, open source Software, shareware (e.g., Linux), or similar licensing or distribution models; and (b) is subject to any agreement with terms requiring that such Software be (i) disclosed or distributed in source code or object code form, (ii) licensed for the purpose of making derivative works, and/or (iii) redistributable. Open Source Materials includes without limitation "open source" code (as defined by the Open Source Initiative) and "free" code (as defined by the Free Software Foundation).

1.33. **"Party"** means either County, on behalf of County and its Using Agencies, or Contractor.

1.34. **"Parties"** means both County, on behalf of County and its Using Agencies, and Contractor.

1.35. **"Personal Information"** means personal data or information that relates to a specific, identifiable, individual person, including Using Agency personnel and individuals about whom the Using Agency, Contractor, Contractor's Subcontractors or affiliates has or collects financial and other information. For the avoidance of doubt, Personal Information includes the following: (a) any government-issued identification numbers (e.g., Social Security, driver's license, passport); (b) any financial account information, including account numbers, credit card numbers, debit card numbers, and other Cardholder Data; (c) user name or email address, in combination with a password or security question and answer that would permit access to an account; and (f) any other personal data defined as personally identifiable information under the breach notification laws of Illinois.

1.36. **"Problem"** means the underlying cause of one or more Incidents, including where such cause is unknown or where it is known and a temporary work-around or permanent alternative has been identified.

1.37. **"Public Record"** shall have the same meaning as the term "public record" in the Illinois Local Records Act, 50 ILCS 205/1 et seq.

1.38. **"Required Consent"** means that consent required to secure any rights of use of or access to any of Using Agency-Provided Equipment, Using Agency-Provided Software, Using Agency Intellectual Property, Using Agency IP Materials, any other Equipment, any other Software whether Third Party Software or otherwise, any other Intellectual Property whether Third Party Intellectual Property or otherwise, any other IP Material, any of which are required by, requested by, used by or accessed by Contractor, its Subcontractors, employees or other agents in connection with the Services.

1.39. **"Services"** has the same meaning as "Services" as defined in the County's Professional Services Agreement.

1.40. **"Source Code"** means the programming statements or instructions written or expressed in any language understandable by a human being skilled in the art, which are translated by a language compiler to produce executable machine Object Code.

1.41. **"System"** has the same meaning as "System" as defined in the County's Professional Services Agreement.

1.42. **"Third Party"** has the same meaning as "Third Party" as defined in the County's Professional Services Agreement.

1.43. **"Third Party Intellectual Property"** means all Intellectual Property owned by a Third Party, including Third Party Software.

1.44. **"Third Party Contractor"** means a Third Party that provides the Using Agency with products or services that are related to, or in support of, the Services. Subcontractors of Contractor are not "Third Party Contractors."

1.45. **"Third Party Software"** means a commercial Software product developed by a Third Party not specifically for or on behalf of the Using Agency. For clarity, custom or proprietary Software, including customizations to Third Party Software, developed by or on behalf of the Using Agency to the Using Agency's specifications shall not be considered Third Party Software.

1.46. **"Using Agency"** has the same meaning as the term "Using Agency" in the Cook County Procurement Code, located at Chapter 34, Article IV in the Cook County Code of Ordinances as amended, as applied to each department or agency receiving goods, Services or other Deliverables under this Agreement and includes Cook County, a body politic and corporate of the State of Illinois, on behalf of such Using Agency.

1.47. **"User Guides"** means the user guides for the Licensed Software.

1.48. **"Using Agency Code"** means any calculation routines developed or written by Contractor specifically for a Using Agency and which is explicitly identified in writing by the Using Agency, to be separately maintained by Using Agency and which does not become part of the Licensed Software Source Code.

1.49. **"Using Agency Confidential Information"** means: (a) all non-public proprietary information of Using Agency that is marked confidential, restricted, proprietary, or with a similar designation; (b) Using Agency Data; and (c) any information that is exempt from public disclosure under the Illinois Freedom of Information Act, 5 ILCS 140/1 et seq. or under the Cook County Code of Ordinances.

1.50. **"Using Agency Data"** means all data, whether Personal Information or other data, provided by the Using Agency to Contractor, provided by Third Parties to Contractor under the direction of a Using Agency for purposes relating to this Agreement, including all data sent to Contractor by the Using Agency and/or stored by Contractor on any media relating to the Agreement, including metadata about such data. To the extent there is any uncertainty as to whether any data constitutes Using Agency Data, the data in question shall be treated as Using Agency Data. Using Agency Data further includes information that is: (a) input, processed or stored by the Using Agency's IT systems, including any Using Agency-Provided Software; (b) submitted to

Contractor or its Subcontractors by any employees, agents, the Using Agency, Third Parties, business partners, and customers in connection with the Services or otherwise; (c) Incident records created by the Using Agency containing information relating to the Services; (d) Using Agency Intellectual Property and Using Agency IP Materials; (e) any raw data used to generate reports under this Agreement and any data included therein; and (f) Using Agency Confidential Information.

1.51. ***"Using Agency Intellectual Property"*** means all Intellectual Property owned or licensed by the Using Agency.

1.52. ***"Using Agency IP Materials"*** means all IP Materials owned or licensed by the Using Agency.

1.53. ***"Using Agency-Provided Equipment"*** means Equipment provided by or on behalf of Using Agency.

1.54. ***"Using Agency-Provided Software"*** means Software provided by or on behalf of Using Agency.

1.55. ***"WISP"*** means written information security program.

2. SERVICES AND DELIVERABLES

2.1. Approved Facilities. Contractor will perform Services only within North America and only from locations owned, leased or otherwise utilized by Contractor and its Subcontractors.

2.2. Licenses and Export Controls. (Intentionally Omitted).

2.3. Required Consents for Assets in Use and Third Party Contracts as of the Effective Date. Contractor and Using Agencies shall be jointly responsible for obtaining all Required Consents relating to this Agreement. If the Parties are unable to obtain a Required Consent, the Parties shall work together to implement an alternative approach as necessary to perform the Services, which alternate approach may require additional services to be provided by Contractor which are out of scope and necessitate a change order and/or project schedule change. The Using Agency shall cooperate with Contractor and provide Contractor such assistance in this regard as the Contractor may reasonably request.

2.4. SLAs and Critical Milestones. (Intentionally Omitted).

2.5. Default SLAs, Critical Milestones and Fee Reductions. (Intentionally Omitted).

2.6. Standards and Procedures Manual. (Intentionally Omitted).

2.7. Project Management Methodology. (Intentionally Omitted).

2.8. Change Management Procedures. (Intentionally Omitted).

2.9. Resources Necessary for Services. (Intentionally Omitted).

2.10. Using Agency Resources. Except as explicitly allowed under the Agreement, Contractor shall not use, nor permit any Subcontractor, employee, agent, or other Third Party to use

any Using Agency-Provided Equipment, Using Agency-Provided Software, Using Agency facilities, or any other Equipment, Software, materials, facilities, systems or other resources that the Using Agency provides or otherwise makes available under the Agreement for any purpose other than the performance of the Services and Contractor shall do so with the mutual cooperation with the County. County acknowledges and agrees to provide Contractor with access to Using Agency-Provided Equipment, Using Agency-Provided Software, Using Agency facilities, or any other Equipment, Software, materials, facilities, systems or other resources that may be necessary for Contractor to perform the Services. County further agrees to provide a reasonably suitable environment, location, and space for the installation of the Licensed Software and Third Party Products, including, without limitation, sufficient electrical circuits, cables, and other reasonably necessary items required for the installation and operation of the Tyler Software and Third Party Products. Contractor shall not purport to, pledge or charge by way of security any of the aforementioned. Contractor shall keep any Equipment owned or leased by the Using Agency that is under Contractor's or a Contractor Subcontractor's control, secure and, for any such Equipment that is not located at the Using Agency facilities, such Equipment shall be clearly identified as the Using Agency's and separable from Contractor's and Third Parties' property.

2.11. Maintenance of Assets. Contractor shall maintain (i) Client's Oracle database identified in Exhibit 1, Statement of Work, Section 4.12.3 for as long as Client pays the managed services fees, and (ii) all Licensed Software and Contractor operating systems, in good condition, less ordinary wear and tear, and in such locations and configurations as to be readily identifiable.

2.12. Service Compatibility. To the extent necessary to provide the implementation Services outlined in Exhibit 1, Statement of Work, Contractor shall ensure that the Contractor-Provided Equipment and Contractor-Provided Software (collectively, the "Contractor Resources") are interoperable with the Using Agency-Provided Equipment, Using Agency-Provided Software and with the Using Agency's other Assets, at no additional cost to be charged by Contractor to County beyond that specified in the Agreement and without adversely affecting any systems or services retained by the Using Agency or its Third Party Contractors as set forth in Exhibit 1, Statement of Work. In the event of any Problem related to service compatibility where it is not known whether the Problem is caused by Contractor's Assets or by Using Agency's Assets, Contractor and Using Agency shall work together to identify and correct the Problem except to the extent that Contractor can demonstrate, to the Using Agency's satisfaction, that the cause was not due to Contractor Resources or to Contractor's action or inaction, in which case Contractor shall not be responsible for correcting the Problem.

2.13. Cooperation with Using Agency's Third Party Contractors. Contractor shall cooperate with all Third Party Contractors to coordinate its performance of the Services with the services and systems of such Third Party Contractors. Subject to reasonable confidentiality requirements, such cooperation shall include providing: (a) applicable written information, standards and policies concerning any or all of the systems, data, computing environment, and technology direction used in performing the Services so that the goods and services provided by the Third Party Contractor may work in conjunction with or be integrated with the Services; (b) the applicable requirements of any necessary interfaces for the Third Party Contractor's work product; (c) applicable written requirements of any necessary modifications to the systems or computing environment; and (d) access to and use of the Contractor's Assets as mutually agreed upon by the Using Agency and Contractor (such agreement not to be unreasonably withheld or delayed) and

subject to the Third Party Contractor's agreement to comply with Contractor's applicable standard security policies.

2.14. Procurement Assistance. At any time following implementation of the Licensed Software and County's Final Acceptance of the System, as defined in Exhibit 1, SOW, Contractor shall, as requested by the Using Agency, reasonably cooperate with the Using Agency with respect to any procurement relating to any of the Services or replacing the Services, including: (a) providing information, reports and data for use in the Using Agency's procurement or transition to a subsequent Third Party Contractor; (b) answering Third Parties' and Using Agency's questions regarding the procurement and Services transition; and (c) allowing Third Parties participating in the Using Agency's procurement to perform reasonable, non-disruptive due diligence activities in respect of the relevant Services, including providing reasonable access to Key Personnel. Notwithstanding the foregoing, the Contractor shall provide Procurement assistance prior to the County's Final Acceptance of the System as defined in Exhibit 1, SOW, if the Using Agency is looking to procure an additional solution which does not replace the Contractor's System.

3. LICENSE GRANT AND RESTRICTIONS

3.1. Upon full payment of the Licensed Software license fees, Contractor grants the County a perpetual, nonexclusive, worldwide, and royalty-free license to use the Licensed Software and Contractor's Documentation, for the County's internal business purposes only, subject to the following limitations:

- (i) County may make copies of the Licensed Software for backup and testing purposes, so long as such copies are not used in production and the testing is for internal use only.
- (ii) County may disclose, provide or otherwise make available the Licensed Software to the County's employees, agents, contractors, as necessary, Contractor's employees, and any third-party service provider of the County's choosing for the sole purposes of backup, operations continuity, and/or disaster recovery, without prior written consent of the Contractor.
 - (a) Should the County need to disclose, provide or otherwise make available the Licensed Software to any Third Party, the County agrees to require any such Third Party to comply with the Confidentiality provisions of section 8 herein.
- (iii) County's rights to use the Licensed Software and Documentation are perpetual but may be revoked, in accordance with the disputes provision of Article 6 of the Agreement if County does not use the Licensed Software and Documentation for the purposes as stated in the Agreement or if County violates any of the license restrictions under this Section 3.1.
- (iv) County may require Contractor to modify the Licensed Software and Documentation as may be needed by the County, under commercially reasonable terms, for the purposes provided herein.

(v) County may transfer the Licensed Software to a replacement hardware system, provided that the County gives Contractor advance written notice of any such transfer and pays Contractor for any required or requested technical assistance associated with such transfer.

(vi) County may use and copy the Documentation for internal, non-commercial reference purposes only.

(vii) Except as provided herein, County may not:

(a) Sell, assign, lease, license, or in any manner encumber, pledge, convey or transfer the Licensed Software or any interest therein to a Third Party;

(b) Reverse engineer, decompile, or disassemble the Licensed Software;

(c) Rent, lease, lend, or provide commercial hosting services with the Licensed Software; or

(d) Publish or otherwise disclose the Licensed Software or Documentation to a Third Party.

(viii) The license terms in this Agreement apply to updates and enhancements Contractor may provide to the County or make available to the County through the Maintenance and Support Agreement.

3.2. The County grants Contractor permission to use and modify the County's existing software and documentation as necessary for the Contractor to perform the requirements of this project and for no other purpose, provided that any software and documentation provided to Contractor or its agents, employees or subcontractors by the County must be treated by them as Confidential Information.

4. THIRD PARTY SOFTWARE

4.1. Oracle[®] Software. The County acknowledges that certain Oracle Software is needed for the implementation, operation, maintenance and support of the System as identified by the Contractor in Exhibit 1, Statement of Work. The County has elected to secure the necessary Oracle licenses as required by Tyler iasWorld system.

4.2 The County may, at its discretion, request that Contractor procure application specific licenses for the Oracle Software on behalf of the County, or furnish some or all of the Third-Party Software specified by Contractor to be necessary to provide the System, pursuant to independent contracts between the County and a third-party; provided that:

(i) The County must timely provide such Third-Party Software;

(ii) The County shall, at its own expense, procure maintenance, support and/or software assurance applicable to such independently acquired Third-Party Software; and

- (iii) The Contract price will be increased by the dollar amount corresponding to such Third-Party Software in the Payment Schedule.

5. WARRANTIES

5.1. Compliance with Law and Regulations. Contractor represents and warrants that it shall perform its obligations under the Agreement in accordance with all Laws applicable to Contractor and its business, including Laws applicable to the manner in which the Services are performed, including any changes in such Laws. Contractor also represents and warrants that it shall identify, obtain, keep current, and provide for County's inspection, all necessary licenses, approvals, permits, authorizations, visas and the like as may be required from time to time under Contractor Laws for Contractor to perform the Services.

5.2. Non-Infringement. Contractor represents and warrants that as of the date of the Agreement, Contractor has received no claims that the Licensed Software infringes any patent, copyright, trademark, trade secret or other proprietary rights of any Third Party.

5.3. Contractor Materials and Third Party Intellectual Property. Contractor represents and warrants that it owns, or is authorized to use and distribute, all Contractor Intellectual Property, Contractor IP Materials and Contractor-provided Third Party Products and Intellectual Property.

5.4. System. Contractor warrants that the Licensed Software will be without Defect (will substantially conform to the functional descriptions set forth in Contractor's written proposal, or their functional equivalent) for the term of the implementation of the System described in Exhibit 1, Statement of Work, and for as long as the County maintains a Maintenance and Support Agreement with Contractor. If the Licensed Software does not perform as warranted, Contractor will use all reasonable efforts, consistent with industry standards, to cure the Defect. County acknowledges and agrees that the above warranty does not extend to any Using Agency Code.

5.5. Security. If the County identifies during County's annual penetration test that either (i) the Licensed Software, or (ii) the Services provided by Contractor, do not conform to applicable industry standard security requirements as stated in Exhibit 1, Statement of Work or this Exhibit 2, the Contractor shall provide and bear the cost of all labor and materials required to make such Tyler Software or Services conform to such industry standard security requirements. Tyler shall meet its obligations under this security requirements warranty during the first two annual County penetration tests, provided that County maintains a Maintenance and Support Agreement with Contractor.

5.6. No Open Source. Contractor represents and warrants that Contractor has not (i) incorporated Open Source Materials into, or combined Open Source Materials with, the Deliverables or Software, (ii) distributed Open Source Materials in conjunction with any Deliverables or Software, or (iii) used Open Source Materials, in such a way that, with respect to the foregoing (i), (ii), or (iii), creates obligations for the Contractor with respect to any material Deliverables or grant, or purport to grant, to any Third Party, any rights or immunities under any material Deliverables (including, but not limited to, using any Open Source Materials that require, as a condition of use, modification and/or distribution of such Open Source Materials that other material Software included in Deliverables incorporated into, derived from or distributed with such Open Source Materials be (A) disclosed or distributed in source

code form, (B) be licensed for the purpose of making derivative works, or (C) be redistributable at no charge).

5.7 Access to Using Agency Data. Contractor represents and warrants that Contractor has not and will not prevent, or reasonably fail to allow, for any reason including without limitation late payment or otherwise, the Using Agency's access to and retrieval of Using Agency Data. Contractor acknowledges that Using Agency Data may be Public Records and that any person who knowingly, without lawful authority and with the intent to defraud any party, public officer, or entity, alters, destroys, defaces, removes, or conceals any Public Record commits a Class 4 felony.

5.8 Viruses, Worms, Spyware, or Malware. Contractor represents and warrants that the Licensed Software, any Licensed Software configured by Contractor, and any Using Agency Code, at the time such Using Agency Code is delivered, shall contain no viruses, worms, spyware, or malware. Contractor represents and warrants that it has not and will not introduce, invoke or cause to be invoked such Illicit Code in any Using Agency IT environment at any time, including upon expiration or termination of this Agreement for any reason, without the Using Agency's prior written consent. If Contractor or County discovers that Illicit Code has been introduced into Licensed Software Contractor shall, at no additional charge, (a) immediately undertake to remove such Illicit Code, (b) promptly notify the other parties in writing of the introduction, and (c) use reasonable efforts to correct and repair any damage to Using Agency Data or Licensed Software caused by such Illicit Code and otherwise assist the Using Agency in mitigating such damage and restoring any affected Service, Licensed Software or Equipment.

5.9 Software Disabling Mechanism, Hardstop or Passive License Monitoring, and Other Destructive Mechanisms. The Contractor warrants that the Licensed Software, the Using Agency Code, and any reports and data provided to the County under the Agreement do not contain any Induced Inhibiting Code ("IIC") or any other inhibitor data or coding. "IIC" means any deliberately included application or coding that may degrade performance, result in inaccurate data, deny accessibility, or in any manner adversely affect programs or data or use of the Licensed Software or its operating environment. The Contractor warrants and represents that the Licensed Software and the Using Agency Code provided pursuant to the Agreement does not contain any coding that may disable the Licensed Software or impair in any way its operation based on the elapsing of a period of time, exceeding an authorized number of copies, advancement to a particular date or other numerals, or other similar self-destruct mechanisms (sometimes referred to as "time bombs," "time locks," or "drop dead" devices) or that would permit the Contractor to access the Licensed Software to cause such disablement or impairment (sometimes referred to as a "trap door" device). The Contractor warrants and represents that the Licensed Software and Using Agency Code contains no destructive programming that (i) is designed to permit the Contractor or third parties unauthorized access to, or use of, the County's systems or networks; or (ii) would have the effect of disabling or otherwise shutting down all or any portion of the Licensed Software. The Contractor agrees that in the event of a breach of this Subsection, the County may not have an adequate remedy at law, including monetary damages, and that the County is consequently entitled to seek a temporary restraining order, injunction, or other form of equitable relief against the continuance of such breach, in addition to any and all remedies to which the County may be entitled.

5.10 Data Security. Contractor warrants and represents that (i) the performance of the Services shall not permit any unauthorized access to or cause any loss or damage to Using Agency Data, Using Agency Intellectual Property, or other Using Agency Confidential Information; and (ii) it complies

and shall comply with all Using Agency security policies in place from time to time which are provided to Contractor in writing and which are applicable to the provision of the Services during the term of this Agreement.

6 SOURCE CODE ESCROW

6.1 THE CONTRACTOR REPRESENTS AND WARRANTS THAT:

- (i) The Contractor has entered into the Source Code escrow agreement ("Escrow Agreement") with Iron Mountain Intellectual Property Management, Inc. ("Escrow Agent");
- (ii) All Source Code and related Documentation for the Licensed Software is under escrow deposit pursuant to said Escrow Agreement; and
- (iii) The Contractor shall maintain the Escrow Agreement until either (1) the County no longer uses the Licensed Software or (2) the Contractor provides the Source Code to the County.

6.2 The Contractor shall provide to the County all information necessary for the County to comply with registration requirements, if any, of the Escrow Agent. County may be added as a beneficiary to the Escrow Agreement by completing a standard beneficiary enrollment form and paying the annual beneficiary fee (currently \$800) directly to the Escrow Agent. County will be responsible for maintaining its ongoing status as a beneficiary, including payment of the then-current annual beneficiary fees. Contractor shall provide thirty (30) days prior written notice of a change of Contractor's Escrow Agent.

6.3 The Contractor shall ensure that:

- (i) Source Code must be held by the Escrow Agent in trust for the County, and/or the County named as a beneficiary;
- (ii) All updates to the Licensed Software must be escrowed within sixty (60) days of the date of issue;
- (iii) The Escrow Agent must verify deposit of the Licensed Software and all updates thereof and so notify the County;
- (iv) The County is permitted, at its sole cost and expense, to require periodic testing (but in any event not more than once per year) of all Source Code held in escrow; and

6.4 If the Contractor, its assignee or successor (1) becomes insolvent or ceases to exist as a business entity, or (2) fails to perform its maintenance and support obligations under the Agreement and fails to cure said failure within thirty (30) days following receipt of written notification of said failure, the County shall have the right to so certify to the Escrow Agent and to direct the Escrow Agent to provide the County with a copy of the Source Code and commentary for the installed release level of the Licensed Software

used by the County. For the avoidance of doubt, the County can only exercise its rights under item 6.4 (2) above, if the license fees for the Licensed Software have been paid in full to the Contractor.

6.5 The Contractor shall certify in writing that it has deposited, and thereafter will maintain, a current copy of all Source Code related to the Licensed Software, including current commentary, with the Escrow Agent and agrees to comply with the obligations set forth in the Escrow Agreement as required hereby.

6.6 Source Code related to the Licensed Software, as well as any corrections or enhancements to such Source Code, must be updated for each new release, patch, service pack or upgrade of the Licensed Software and placed in escrow as required by this section.

6.7 The Contractor shall certify in writing annually that the Source Code escrow remains in effect with the Escrow Agent in compliance with the terms of this section, and that the Source Code is up to date.

7 INTELLECTUAL PROPERTY

7.1 Using Agency Intellectual Property. The Using Agency retains all right, title and interest in and to all Using Agency Intellectual Property and Using Agency IP Materials. To the extent the Using Agency may grant such license, Contractor is granted a worldwide, fully paid-up, nonexclusive license during the term of this Agreement to use, copy, maintain, modify, enhance and create derivative works of the Using Agency Intellectual Property and Using Agency IP Materials that are necessary for performing the Services, and that are explicitly identified in writing by the Using Agency's Chief Information Officer, for the sole purpose of performing the Services pursuant to this Agreement. Contractor shall not be permitted to use any of the Using Agency Intellectual Property or Using Agency IP Materials for the benefit of any entities other than the Using Agency. Contractor shall cease all use of the Using Agency Intellectual Property and Using Agency IP Materials upon expiration or termination of this Agreement. Upon expiration or termination of this Agreement or relevant Services under this Agreement, Contractor shall return to the Using Agency all the Using Agency Intellectual Property, Using Agency IP Materials and copies thereof possessed by Contractor.

7.2 Developed Intellectual Property. As between the Parties, except as may be agreed to by Contractor in writing, such agreement to be provided or withheld in Contractor's sole discretion, Contractor shall have all right, title and interest in all Developed Intellectual Property. In the event that Contractor agrees in writing, and the Parties identify, in writing, certain Developed Intellectual Property to be owned by Using Agency, then Contractor hereby irrevocably and unconditionally assigns, transfers and conveys to the Using Agency without further consideration all of its right, title and interest in such Developed Intellectual Property, including all rights of patent, copyright, trade secret or other proprietary rights in such materials, which assignment shall be effective as of the creation of such works without need for any further documentation or action on the part of the Parties. Contractor agrees to execute any documents or take any other actions as may reasonably be necessary, or as the Using Agency may reasonably request, to perfect the Using Agency's ownership of any such Developed Intellectual Property to be owned by Using Agency. Contractor shall secure compliance with this Section by any personnel, employees, contractors or other agents of Contractor and its Subcontractors involved directly or indirectly in the performance of Services under this Agreement. For purposes of clarity, the

parties agree that Contractor shall own all right, title and interest (including all associated Intellectual Property rights) in and to any modification or change that when made or added to the Licensed Software, changes its utility, efficiency, functional capability or application as specified by the County or any Using Agency to meet specific County or Using Agency business requirements outlined in Exhibit 1, Statement of Work, and which modification or change is contained in the Licensed Software.

7.3 Contractor Intellectual Property. Contractor retains all right, title and interest in and to Contractor Intellectual Property and Contractor IP Materials that Contractor developed before or independently of this Agreement. The Licensed Software and Contractor Documentation are protected by copyright and other intellectual property laws and treaties. Contractor owns the title, copyright, and other intellectual property rights in the Licensed Software and the Documentation. During the term of this Agreement and immediately prior to the expiration or termination thereof for any reason, Contractor will provide to the Using Agency the most current copies of any Contractor IP Materials to which the Using Agency has rights pursuant to the foregoing, including any related Documentation.

7.4 Using Agency Code. As between the Parties, upon payment in full of the fees associated with the Using Agency Code, the Using Agency shall have all right, title and interest in all Using Agency Code. If Contractor's Intellectual Property is included with or embodied in any Using Agency Code, Using Agency shall have a perpetual, irrevocable, nonexclusive, worldwide, royalty-free license to use, execute, reproduce, display, perform, distribute internally, and prepare for internal use derivative works based on the Contractor's Intellectual Property in each case solely in conjunction with the Using Agency Code delivered by Contractor as part of the Services.

7.5 Third Party Intellectual Property. Contractor shall not introduce into the Using Agency's environment any Third Party Intellectual Property or otherwise use such Third Party Intellectual Property to perform the Services without first obtaining the prior written consent from the Using Agency's Chief Information Officer, which the Using Agency may give or withhold in its sole discretion. A decision by the Using Agency to withhold its consent shall not relieve Contractor of any obligation to perform the Services.

7.6 Residual Knowledge. Nothing contained in this Agreement shall restrict either Contractor or Using Agency from the use of any ideas, concepts, know-how, methodologies, processes, technologies, algorithms or techniques relating to the Services which either Contractor or Using Agency, individually or jointly, develops or discloses under this Agreement, provided that in doing so Contractor or Using Agency does not breach its respective obligations under Section 8 relating to confidentiality and non-disclosure and does not infringe the Intellectual Property rights of the other or Third Parties who have licensed or provided materials to the other. Except for the license rights contained under Section 3 and Section 7.1, neither this Agreement nor any disclosure made hereunder grants any license to either Contractor or Using Agency under any Intellectual Property rights of the other.

7.7 Software Licenses. This Agreement contains all terms and conditions relating to all licenses in Contractor-Provided Software and Contractor IP Materials. Except as explicitly set forth elsewhere in this Agreement, all licenses that Contractor grants in Contractor-Provided Software include the right of use by Third Party Contractors for the benefit of the Using Agency for such Using Agency's internal business purposes only, the right to make backup copies for backup purposes or as may be required by the Using Agency's Business Continuity Plan or Disaster Recovery Plan, the right to reasonably approve the procedures by which Contractor may audit the use of license entitlements, and the right to receive prior notice before Contractor changes Contractor-Provided Software in a manner

that materially and negatively impacts the Using Agency.

8 USING AGENCY DATA AND CONFIDENTIALITY

8.1 Property of Using Agency. All Using Agency Confidential Information, including without limitation Using Agency Data, shall be and remain the sole property of the Using Agency. Contractor shall not utilize the Using Agency Data or any other Using Agency Confidential Information for any purpose other than that of performing the Services under this Agreement. Contractor shall not, and Contractor shall ensure that its Subcontractors, its employees, or agents do not, possess or assert any lien or other right against or to the Using Agency Data or any other Using Agency Confidential Information. Without the Using Agency's express written permission, which the Using Agency may give or withhold in its sole discretion, no Using Agency Data nor any other Using Agency Confidential Information, or any part thereof, shall be disclosed, shared, sold, assigned, leased, destroyed, altered, withheld, or otherwise restricted by Contractor or commercially exploited by or on behalf of Contractor, its employees, Subcontractors or agents.

8.2 Acknowledgment of Importance of Using Agency Confidential Information. Contractor acknowledges the importance of Using Agency Confidential Information, including without limitation Using Agency Data, to the Using Agency and, where applicable, Third Party proprietors of such information, and recognizes that the Using Agency and/or Third Party proprietors may suffer irreparable harm or loss in the event of such information being disclosed or used otherwise than in accordance with this Agreement.

8.3 Return of Using Agency Data and Other Using Agency Confidential Information. Upon the Using Agency's request, at any time during this Agreement or at termination or expiration of this Agreement, Contractor shall promptly return any and all requested Using Agency Data and all other requested Using Agency Confidential Information to the Using Agency or its designee in a commercially reasonable format, which is mutually agreeable to the Contractor and County. Contractor shall also provide sufficient information requested by the Using Agency about the format and structure of the Using Agency Data to enable such data to be used in substantially the manner in which Contractor utilized such data. Also upon Using Agency's request, in lieu of return or in addition to return, Contractor shall destroy Using Agency Data and other Using Agency Confidential Information, sanitize any media upon which such the aforementioned resided using a process that meets or exceeds industry standards for the destruction of the applicable type(s) of Confidential Information, and provide documentation of same within 10 days of completion, all in compliance with Using Agency's policies and procedures as updated. All other materials which contain Using Agency Data and other Using Agency Confidential Information shall be physically destroyed and shredded in accordance to NIST Special Publication 800-88, as may be updated, amended or replaced from time to time; and upon Using Agency request, Contractor shall provide Using Agency with a certificate of destruction in compliance with NIST Special Publication 800-88. Contractor shall be relieved from its obligation to perform any Service to the extent the return of any Using Agency Data or other Using Agency Confidential Information at the Using Agency's request under this Section materially impacts Contractor's ability to perform such Service; provided, that Contractor gives the Using Agency notice of the impact of the return and continues to use reasonable efforts to perform.

8.4 Public Records. Contractor will adhere to all Laws governing Public Records located at 50 ILCS 205/1 et seq. and at 44 Ill. Admin. Code 4500.10 et seq. Specifically, and without limitation, Contractor shall: (a) store Using Agency Data in such a way that each record is individually accessible for

the length of the Using Agency's scheduled retention; (b) store and access Using Agency Data in a manner allowing individual records to maintain their relationships with one another; (c) capture relevant structural, descriptive, and administrative metadata to Using Agency Data at the time a record is created or enters the control of Contractor or its Subcontractors.

8.5 Loss of Using Agency Confidential Information. Without limiting any rights and responsibilities under Section 7 of these IT Special Conditions, in the event of any disclosure or loss of, or inability to account for, any Using Agency Confidential Information, Contractor shall promptly, at its own expense: (a) notify the Using Agency in writing; (b) take such actions as may be necessary or reasonably requested by the Using Agency to minimize the violation; and (c) cooperate in all reasonable respects with the Using Agency to minimize the violation and any damage resulting therefrom.

8.6 Undertakings With Respect To Personnel. Contractor acknowledges and agrees that it is responsible for the maintenance of the confidentiality of Using Agency Data and other Using Agency Confidential Information by Contractor Personnel. Without limiting the generality of the foregoing, Contractor shall undertake to inform all Contractor Personnel of Contractor's obligations with respect to Using Agency Data and other Using Agency Confidential Information and shall undertake to ensure that all Contractor Personnel comply with Contractor's obligations with respect to same.

8.7 Background Checks of Contractor Personnel. Whenever the Using Agency deems it reasonably necessary for security reasons, the Using Agency or its designee may conduct, at its expense, criminal and driver history background checks of Contractor Personnel. If, in the reasonable opinion of the Using Agency, any individual does not pass the background check, the parties will work together to mitigate the assignment of such individual.

8.9 Contractor Confidential Information. Using Agency shall use at least the same degree of care to prevent disclosing Contractor Confidential Information to Third Parties as Using Agency employs to avoid unauthorized disclosure, publication or dissemination of its Using Agency Confidential Information of like character.

9 DATA SECURITY AND PRIVACY

9.1 General Requirement of Confidentiality and Security. At the time the Contractor implements the System it shall be Contractor's obligation to maintain the confidentiality and security of all Using Agency Confidential Information which is in Contractor's exclusive possession or control, including without limitation Using Agency Data, in connection with the performance of the Services. County shall at its own expense protect the security of the System and prohibit unauthorized access to the System. Contractor shall perform all Services utilizing the County's Information Security Framework with respect to local and remote access and connectivity policies and procedures and in compliance with applicable federal and state laws and industry standards, including those relating to the prevention and detection of fraud or other inappropriate use or access of systems and networks.

9.2 General Compliance. To the extent that Contractor captures, processes or stores Personal Information on Contractor's Equipment, at the time of implementation of the System, Contractor shall comply with all applicable Laws in connection with all capturing, processing, storing and disposing of Personal Information by Contractor pursuant to its obligations under this Agreement and applicable Data Protection Laws and shall not do, or cause or permit to be done, anything that may cause or otherwise result in a breach by the Using Agency of the same. Contractor and its personnel shall comply with all applicable provisions of the County's Information Security Framework, and federal and state

laws and industry standards related to the security and privacy of Personal Information.

9.3 Security. To the extent that Contractor stores, maintains, possesses or controls Using Agency Confidential Information on Contractor's Equipment, at the time of implementation of the System, Contractor shall establish and maintain reasonable and appropriate physical, logical, and administrative safeguards to preserve the security and confidentiality of the Using Agency Confidential Information and to protect same against unauthorized or unlawful disclosure, access or processing, accidental loss, destruction or damage. Such safeguards shall be deemed reasonable and appropriate if established and maintained with the more rigorous of: (a) the security standards employed by Contractor with respect to the protection of its confidential information and trade secrets as updated; (b) security standards provided by Contractor to its other customers at no additional cost to such customers, as updated; or (c) compliance with the then-current NIST 800-series standards and successors thereto or an equivalent, generally accepted, industry-standard security standards series.

9.4 Written Information Security Program (WISP). Contractor shall establish and maintain a WISP designed to preserve the security and confidentiality of the Using Agency Data and other Using Agency Confidential Information. Contractor's WISP shall include Data Breach procedures and annual Data Breach response exercises.

9.5 Contractor Personnel. Contractor will oblige its Contractor Personnel to comply with applicable Data Protection Laws and to undertake only to collect, process or use any Using Agency Data, Using Agency Intellectual Property, Using Agency Confidential Information, or Personal Information received from or on behalf of the Using Agency for purposes of, and necessary to, performing the Services and not to make the aforementioned available to any Third Parties except as specifically authorized hereunder. Contractor shall ensure that, prior to performing any Services or accessing any Using Agency Data or other Using Agency Confidential Information, all Contractor Personnel who may have access to the aforementioned shall have executed confidentiality agreements concerning access protection and data/software security consistent with this Agreement.

9.6 Information Access. Contractor shall not attempt to or permit access to any Using Agency Data or other Using Agency Confidential Information by any unauthorized individual or entity. Contractor shall provide each of the Contractor Personnel, Subcontractors and agents only such access as is minimally necessary for such persons/entities to perform the tasks and functions for which they are responsible. Contractor shall, upon request from the Using Agency, provide the Using Agency with an updated list of those Contractor Personnel, Subcontractors and agents having access to Using Agency Data and other Using Agency Confidential Information and the level of such access. Contractor shall maintain written policies that include auditing access levels and terminating access rights for off-boarded Contractor Personnel, Subcontractors and agents.

9.7 Cardholder Data. (Intentionally Omitted).

9.8 Encryption Requirement. To the extent that Contractor transmits any Personal Information or other Using Agency Confidential Information, Contractor shall encrypt such Personal Information and all other Using Agency Confidential Information the disclosure of which would reasonably threaten the confidentiality and security of Using Agency Data while in motion using SSL. To the extent Contractor stores, maintains, possesses or controls Using Agency Confidential Information at rest, Contractor shall use Oracle encryption for the data at "rest" (in the database). Contractor shall not

deviate from this encryption requirement without the advance, written approval of the Using Agency's Information Security Office.

9.9 Using Agency Security. Contractor shall notify the Using Agency if it becomes aware of any Using Agency security practices or procedures (or any lack thereof) that Contractor believes do not comport with generally accepted security policies or procedures.

9.10 Data Subject Right of Access and Rectification. If the Using Agency is required to provide or rectify information regarding an individual's Personal Information, Contractor will reasonably cooperate with the Using Agency to the full extent necessary to comply with Data Protection Laws. If a request by a data subject is made directly to Contractor, Contractor shall notify the Using Agency of such request as soon as reasonably practicable.

9.11 Security, Privacy and Data Minimization in Software Development Life Cycle. Contractor shall implement an industry-recognized procedure that addresses the security and privacy of Personal Information as part of the software development life cycle in connection with the performance of the Services. Contractor shall implement procedures to minimize the collection of Personal Information and shall, subject to Using Agency's written request to the contrary, minimize the collection of Personal Information.

9.12 Advertising and Sale of Using Agency Data. Nothing in this Agreement shall be construed to limit or prohibit a Using Agency's right to advertise, sell or otherwise distribute Using Agency Data as permitted by the Cook County Code of Ordinances.

9.13 Secure Development and Configuration Practices
The Contractor must describe its application development and configuration practices and how they will reasonably protect the security, confidentiality and privacy of County data and any individuals who may be considered data subjects as to the solution.

The Contractor should state whether it will adhere to the following guidelines: Microsoft Secure Coding Guidelines for the .NET Framework, CERT Secure Coding Standards, OWASP Secure Coding Principles, privacy by design principles, and the Federal Trade Commission's Fair Information Practice Principles.

10 DATA SECURITY BREACH

10.1 Notice to Using Agency. Contractor shall provide to the Using Agency written notice of a Data Security Breach of Using Agency Data which is in Contractor's possession or under Contractor's direct control, and which Data Security Breach is directly caused by Contractor, promptly following, and in no event later than one (1) business day following, the discovery or suspicion of the occurrence by Contractor of a Data Security Breach. Such notice shall summarize in reasonable detail the nature of the Using Agency Data that may have been exposed, and, if applicable, any persons whose Personal Information may have been affected or exposed, if known, by such Data Security Breach directly caused by Contractor. Contractor shall not make any public announcements relating to such Data Security Breach without the Using Agency's prior written approval.

10.2 Data Breach Responsibilities. If Contractor becomes aware that a Data Security Breach of Using Agency Data which is in Contractor's possession or under Contractor's direct control, and which Data Security Breach is directly caused by Contractor has occurred (or potentially has occurred),

Contractor shall: (a) reasonably cooperate with the Using Agency in connection with the investigation of known and suspected Data Security Breaches; (b) perform any reasonable corrective actions that are within the scope of the Services; and (c) in the event of a Data Security Breach directly caused by Contractor, at the request and under the direction of the Using Agency, take any all other reasonable remedial actions that the Using Agency deems necessary or appropriate, including without limitation, providing notice to all persons whose Personal Information may have been affected or exposed by such Data Security Breach, whether or not such notice is required by Law.

10.3 Data Breach Exercises. (Intentionally Omitted).

10.4 Costs. The costs incurred in connection with Contractor's obligations set forth herein or Using Agency's obligations under relevant Data Security Laws shall be the responsibility of the Party whose acts or omissions directly caused or resulted in the Data Security Beach and may include without limitation: (a) the development and delivery of legal notices or reports required by Law, including research and analysis to determine whether such notices or reports may be required; (b) examination and repair of Using Agency Data that may have been altered or damaged in connection with the Data Security Breach, (c) containment, elimination and remediation of the Data Security Breach, and (d) implementation of new or additional security measures reasonably necessary to prevent additional Data Security Breaches; (e) providing notice to all persons whose Personal Information may have been affected or exposed by such Data Security Breach, whether or required by Law; (f) the establishment of a toll-free telephone number, email address, and staffing of corresponding communications center where affected persons may receive information relating to the Data Security Breach; (g) the provision of one (1) year of credit monitoring/repair and/or identity restoration/insurance for affected persons.

11 AUDIT RIGHTS

11.1 Generally. Contractor and its Subcontractors shall provide access to any records, facilities, and personnel relating to the Services, no more than one (1) time per year and during standard business hours, to the Using Agency and its internal or external auditors, inspectors and regulators in order to audit, inspect, examine, test, and verify Contractor's performance of the Services in accordance with the Agreement.

11.2 Security Audits. (Intentionally Omitted).

11.3 Service Organization Control (SOC 2), Type II Audits. (Intentionally Omitted).

11.4 Audits Conducted by Contractor. Upon Contractor's receipt of a written request by a Using Agency, and provided that Using Agency signs Contractor's standard non-disclosure agreement, Contractor promptly shall make available to the Using Agency a summary of the results of any reviews or audits conducted by Contractor and its Subcontractors, agents or representatives (including internal and external auditors), including SOC 2 audits, relating to Contractor's and its Subcontractors' operating practices and procedures to the extent relevant to the Services or any of Contractor's obligations under the Agreement. To the extent that the results of any such audits reveal deficiencies or issues that impact the Using Agency or the Services, Contractor shall provide the Using Agency with evidence of remediation promptly following completion thereof.

11.5 Internal Controls. At the time of implementation, Contractor shall ensure that it establishes and maintains reasonable and appropriate safeguards to preserve the security and confidentiality of Using Agency Confidential Information. At any time following successful

implementation, if requested by the Using Agency, the Contractor shall notify the Using Agency of any modifications to any of its internal controls that impact the Using Agency, the Services and/or Using Agency Data and shall demonstrate compliance with this Agreement.

11.6 Subcontractor Agreements. Contractor shall ensure that all agreements with its Subcontractors performing Services under this Agreement contain terms and conditions consistent with the Using Agency's audit rights.

12 RIGHT TO EXIT ASSISTANCE (INTENTIONALLY OMITTED)

13 MISCELLANEOUS

13.1 Survival. Sections 1 (Definitions for Special Conditions), 4 (Intellectual Property), 7 (Data Security Breach), and 8 (Audit Rights) shall survive the expiration or termination of this Agreement for a period of five (5) years (and Sections 5 (Using Agency Data and Confidentiality) and 10 (Miscellaneous) shall survive for a period of ten [10] years) from the later of (a) the expiration or termination of the Agreement (including any Exit Assistance Period), or (b) the return or destruction of Using Agency Confidential Information as required by this Agreement.

13.2 No Limitation. The rights and obligations set forth in these IT special conditions exhibit do not limit the rights and obligations set forth in any Articles of the Professional Services Agreement. For the avoidance of doubt, the use of County in the PSA shall expressly include Using Agency and vice versa.

13.3 No Waiver of Tort Immunity. Nothing in this Agreement waives immunity available to the Using Agency under Law, including under the Illinois Local Governmental and Governmental Employees Tort Immunity Act, 745 ILCS 10/1-101 et seq.

13.4 No Click-Wrap or Incorporated Terms. The Using Agency is not bound by any content on the Contractor's website, which modifies the Agreement and this Exhibit, in any click-wrap, shrink-wrap, browse-wrap or other similar document, even if the Contractor's documentation specifically referenced that content and attempts to incorporate it into any other communication, unless the Using Agency has actual knowledge of the content and has expressly agreed to be bound by it in a writing that has been manually signed by the County's Chief Procurement Officer.

13.5 Change Requests. Except as otherwise set forth in this Agreement, this Section shall govern all Change Requests and Change Orders. If either Party believes that a Change Order is necessary or desirable, such Party shall submit a Change Request to the other. Contractor represents to Using Agency that it has factored into Contractor's fees adequate contingencies for *de minimis* Change Orders. Accordingly, if Change Requests are made, they will be presumed not to impact the fees under this Agreement; provided, however, that if the Change Request consists of other than a *de minimis* deviation from the scope of the Services and/or Deliverables, Contractor shall provide Using Agency with written notification of such other deviation (a) within five (5) business days after receipt of a Using Agency initiated Change Request, or (b) as part of a Contractor initiated Change Request. In the event of a Using Agency-initiated Change Request, within five (5) business days of Contractor's receipt of such Change Request, Contractor shall provide to Using Agency a written statement describing in detail: (a) the reasonably anticipated impact on any Services and Deliverables as a result of the Change Request including, without limitation, Changes in

Software, Equipment or project schedule, and (b) the fixed cost or cost estimate for the Change Request. If Contractor submits a Change Request to Using Agency, such Change Request shall include the information required for a Change Response.

13.6 Change Orders. Any Change Order that increases the cost or scope of the Agreement, or increases the project schedule by more than 120 days after the schedule is finalized after discovery or planning phase, or that materially affects the rights or duties of the Parties as set forth the Agreement, must be agreed upon by the affected Using Agency in a writing executed by the County's Chief Procurement Officer. In all cases, the approval of all Change Requests and issuance of corresponding Change Orders must comply the County's Procurement Code. If either Party rejects the other's Change Request, Contractor shall proceed to fulfill its obligations under this Agreement.

13.7 New Technologies. The County is aware that technology is evolving rapidly and that the Contractor may be in the process of improving its existing products or services; or making available new technologies to its commercial and governmental customers. In this regard, the Contractor shall promptly inform the County of all improvements to the Contractor's existing technologies relevant to any component of the System, including the Licensed Software. At the County's request, and at no additional charge, Contractor shall provide the County with any new features, functions, revisions, enhancements, modifications or improvements of the Licensed Software modules purchased by County pursuant to Exhibit 1, Statement of Work, that the Contractor makes available to other customers without charge as long as the County maintains the Maintenance and Support Agreement and pays maintenance and support fees.

EXHIBIT 3

**Minority and Women Owned Business Enterprise Commitment
and Utilization Plan**

MBE/WBE UTILIZATION PLAN - FORM 1

BIDDER/PROPOSER HEREBY STATES that all MBE/WBE firms included in this Plan are certified MBEs/WBEs by at least one of the entities listed in the General Conditions – Section 19.

I. BIDDER/PROPOSER MBE/WBE STATUS: (check the appropriate line)

- Bidder/Proposer is a certified MBE or WBE firm. (If so, attach copy of current Letter of Certification)
- Bidder/Proposer is a Joint Venture and one or more Joint Venture partners are certified MBEs or WBEs. (If so, attach copies of Letter(s) of Certification, a copy of Joint Venture Agreement clearly describing the role of the MBE/WBE firm(s) and its ownership interest in the Joint Venture and a completed Joint Venture Affidavit – available online at www.cookcountyl.gov/contractcompliance)
- Bidder/Proposer is not a certified MBE or WBE firm, nor a Joint Venture with MBE/WBE partners, but will utilize MBE and WBE firms either directly or indirectly in the performance of the Contract. (If so, complete Sections II below and the Letter(s) of Intent – Form 2).

II. **Direct Participation of MBE/WBE Firms** **Indirect Participation of MBE/WBE Firms**

NOTE: Where goals have not been achieved through direct participation, Bidder/Proposer shall include documentation outlining efforts to achieve Direct Participation at the time of Bid/Proposal submission. Indirect Participation will only be considered after all efforts to achieve Direct Participation have been exhausted. Only after written documentation of Good Faith Efforts is received will Indirect Participation be considered.

MBEs/WBEs that will perform as subcontractors/suppliers/consultants include the following:

MBE/WBE Firm: Diversified Technology, Inc.
Address: 1006 South Michigan Avenue, Suite 602, Chicago, IL 60605
E-mail: darryl@divtel.com
Contact Person: Darryl Henry Phone: 312-296-8018
Dollar Amount Participation: \$4,285,350
Percent Amount of Participation: 31.0 %
*Letter of Intent attached? Yes X No _____
*Current Letter of Certification attached? Yes X No _____

MBE/WBE Firm: The William Everett Group
Address: 35 East Wacker Drive, Suite 3900, Chicago, IL 60601
E-mail: e.turner@wegrp.com
Contact Person: Ellen Rozelle Turner Phone: 315-564-5680
Dollar Amount Participation: \$1,246,400
Percent Amount of Participation: 9.0 %
*Letter of Intent attached? Yes X No _____
*Current Letter of Certification attached? Yes X No _____

Attach additional sheets as needed.

*** Letter(s) of Intent and current Letters of Certification must be submitted at the time of bid.**

MBE/WBE LETTER OF INTENT - FORM 2

M/WBE Firm: The William Everett Group

Certifying Agency: Cook County

Contact Person: Ellen Rozelle Turner

Certification Expiration Date: December 29, 2016

Address: 35 East Wacker Drive, Suite 3900

Ethnicity: African-American

City/State: Chicago, IL Zip: 60601

Bid/Proposal/Contract #: 1490-13101 Integrated Tax

Phone: 312-564-5680 Fax: 312-929-4553

FEIN #: 26-1317039

Email: e.turner@wegrp.com

Participation: Direct Indirect

Will the M/WBE firm be subcontracting any of the goods or services of this contract to another firm?

No Yes - Please attach explanation. Proposed Subcontractor(s): Sharon Johnson Arnold

The undersigned M/WBE is prepared to provide the following Commodities/Services for the above named Project/ Contract: (If more space is needed to fully describe M/WBE Firm's proposed scope of work and/or payment schedule, attach additional sheets)

Training Services, Change Management Services

Indicate the **Dollar Amount**, **Percentage**, and the **Terms of Payment** for the above-described Commodities/ Services:
\$1,246,400- 9%; Payment Terms will be 30 days after payment from County of invoice from TWEG

THE UNDERSIGNED PARTIES AGREE that this Letter of Intent will become a binding Subcontract Agreement for the above work, conditioned upon (1) the Bidder/Proposer's receipt of a signed contract from the County of Cook; (2) Undersigned Subcontractor remaining compliant with all relevant credentials, codes, ordinances and statutes required by Contractor, Cook County, and the State to participate as a MBE/WBE firm for the above work. The Undersigned Parties do also certify that they did not affix their signatures to this document until all areas under Description of Service/ Supply and Fee/Cost were completed.

Ellen Rozelle Turner
Signature (M/WBE)

Gus Tenhundfeld
Signature (Prime Bidder/Proposer)

Ellen Rozelle Turner
Print Name

Gus Tenhundfeld
Print Name

The William Everett Group
Firm Name

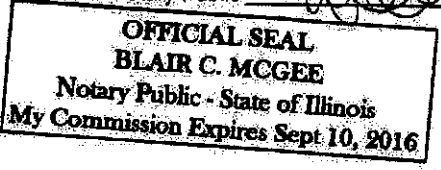
Tyler Technologies, Inc
Firm Name

June 25, 2015
Date

June 24, 2015
Date

Subscribed and sworn before me
this 25th day of June, 2015.
Notary Public: [Signature]

Subscribed and sworn before me
this 24th day of June, 2015.
Notary Public: Karen A. Jackson



SEAL

KAREN A. JACKSON, Notary Public
In and for the State of Ohio
My Commission Expires Feb. 25, 2017



DEPARTMENT OF PROCUREMENT SERVICES

CITY OF CHICAGO

APR 18 2014

Darryl Henry
Diversified Technology, Inc.
1006 South Michigan Avenue, Suite 602
Chicago, IL 60605

Dear Mr. Henry:

We are pleased to inform you that **Diversified Technology, Inc.** has been certified as a **Minority Business Enterprise ("MBE")** by the City of Chicago ("City"). This **MBE** certification is valid until **04/30/2019**; however your firm's certification must be revalidated annually. In the past the City has provided you with an annual letter confirming your certification; such letters will no longer be issued. As a consequence, we require you to be even more diligent in filing your **annual No-Change Affidavit 60 days** before your annual anniversary date.

It is now your responsibility to check the City's certification directory and verify your certification status. As a condition of continued certification during the five year period stated above, you must file an annual No-Change Affidavit. Your firm's **annual No-Change Affidavit** is due by **04/30/2015, 04/30/2016, 04/30/2017, and 04/30/2018**. Please remember, you have an affirmative duty to file your **No-Change Affidavit 60 days** prior to the date of expiration. Failure to file your annual No-Change Affidavit may result in the suspension or rescission of your certification.

Your firm's five year certification will expire on **04/30/2019**. You have an affirmative duty to file for recertification **60 days** prior to the date of the five year anniversary date. Therefore, you must file for recertification by **02/30/2019**.

It is important to note that you also have an ongoing affirmative duty to notify the City of any changes in ownership or control of your firm, or any other fact affecting your firm's eligibility for certification **within 10 days** of such change. These changes may include but are not limited to a change of address, change of business structure, change in ownership or ownership structure, change of business operations, gross receipts and or personal net worth that exceed the program threshold. Failure to provide the City with timely notice of such changes may result in the suspension or rescission of your certification. In addition, you may be liable for civil penalties under Chapter 1-22, "False Claims", of the Municipal Code of Chicago.

Please note – you shall be deemed to have had your certification lapse and will be ineligible to participate as a **MBE** if you fail to:

- File your annual No-Change Affidavit within the required time period;
- Provide financial or other records requested pursuant to an audit within the required time period;
- Notify the City of any changes affecting your firm's certification within 10 days of such change; or
- File your recertification within the required time period.

Please be reminded of your contractual obligation to cooperate with the City with respect to any reviews, audits or investigation of its contracts and affirmative action programs. We strongly encourage you to assist us in maintaining the integrity of our programs by reporting instances or suspicions of fraud or abuse to the City's Inspector General at chicagoinspectorgeneral.org, or 866-IG-TIPLINE (866-448-4754).

Be advised that if you or your firm is found to be involved in certification, bidding and/or contractual fraud or abuse, the City will pursue decertification and debarment. In addition to any other penalty imposed by law, any person who knowingly obtains, or knowingly assists another in obtaining a contract with the City by falsely representing the individual or entity, or the individual or entity assisted is guilty of a misdemeanor, punishable by incarceration in the county jail for a period not to exceed six months, or a fine of not less than \$5,000 and not more than \$10,000 or both.

Your firm's name will be listed in the City's Directory of Minority and Women-Owned Business Enterprises in the specialty area(s) of:

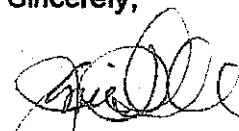
NAICS Code(s):

541512 - Computer Software Consulting Services or Consultants

Your firm's participation on City contracts will be credited only toward **Minority Business Enterprise** goals in your area(s) specialty. While your participation on City contracts is not limited to your area of specialty, credit toward goals will be given only for work that is self-performed and providing a commercially useful function that is done in the approved specialty category.

Thank you for your interest in the City's Minority and Women-Owned Business Enterprise (MBE/WBE) Program.

Sincerely,



Jamie L. Rhee
Chief Procurement Officer

JLR/sl



OFFICE OF CONTRACT COMPLIANCE

JACQUELINE GOMEZ

DIRECTOR

118 N. Clark, County Building, Room 1020 • Chicago, Illinois 60602 • (312) 603-5502

TONI PRECKWINKLE

PRESIDENT

Cook County Board
of Commissioners

EARLEAN COLLINS

1st District

ROBERT STEELE

2nd District

JERRY BUTLER

3rd District

STANLEY MOORE

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GREGG GOSLIN

14th District

TIMOTHY O. SCHNEIDER

15th District

JEFFREY R. TOBOLSKI

16th District

ELIZABETH ANN DOODY GORMAN

17th District

October 21, 2013

Ms. Ellen Rozelle Turner
President

Mind Your Manners dba The William Everett Group
35 East Wacker Drive Ste. 930
Chicago, IL 60601

Annual Certification Expires: October 21, 2014

Dear Ms. Turner:

Congratulations on your continued eligibility for Certification as a **MBE/WBE** by Cook County Government. This annual **MBE/WBE** Certification is valid until **October 21, 2016**.

As a condition of continued certification during this three (3) year period, you must file a **"No Change Affidavit"** within **sixty (60) days** prior to the date of annual expiration. Failure to file this Affidavit shall result in the termination of your certification. You must notify Cook County Government's Office of Contract Compliance of any change in ownership or control or any other matters or facts affecting your firm's eligibility for certification.

Cook County Government may commence action to remove your firm as a **MBE/WBE** vendor if you fail to notify us of any changes of facts affecting your firm's certification, or if your firm otherwise fails to cooperate with the County in any inquiry or investigation. Removal of status may also be commenced if your firm is found to be involved in bidding or contractual irregularities.

Your firm's name will be listed in Cook County's Directory of Minority Business Enterprise, Women Business Enterprise and/ or Veteran Business Enterprise in the area(s) of specialty:

TECHNOLOGY: MANAGEMENT, APPLICATION & INFRASTRUCTURE CONSULTING SERVICES; STAFFING AND TRAINING SERVICES

Your firm's participation on County contracts will be credited toward **MBE** or **WBE** goals in your area(s) of specialty. While your participation on Cook County contracts is not limited to your specialty, credited toward **MBE** or **WBE** goals will be given only for work performed in the specialty category.

Thank you for your continued interest in Cook County Government's Minority, Women and Veteran Business Enterprise Programs.

Sincerely,

Jacqueline Gomez
Contract Compliance Director

JG/ew

2016



NOV 17 2014

DEPARTMENT OF PROCUREMENT SERVICES

CITY OF CHICAGO

Lana Gertz
LG Associates, Inc. DBA Asen Computer Associates
900 N National Parkway #155
Schaumburg, IL 60173

Dear Lana Gertz:

We are pleased to inform you that **LG Associates, Inc. DBA Asen Computer Associates** has been recertified as a **Women-Owned Business Enterprise ("WBE")** by the City of Chicago ("City"). This **WBE** certification is valid until **12/01/2019**; however your firm's certification must be revalidated annually. In the past the City has provided you with an annual letter confirming your certification; such letters will no longer be issued. As a consequence, we require you to be even more diligent in filing your **annual No-Change Affidavit 60 days** before your annual anniversary date.

It is now your responsibility to check the City's certification directory and verify your certification status. As a condition of continued certification during the five year period stated above, you must file an annual No-Change Affidavit. Your firm's **annual No-Change Affidavit** is due by **12/01/2015, 12/01/2016, 12/01/2017, and 12/01/2018**. Please remember, you have an affirmative duty to file your **No-Change Affidavit 60 days** prior to the date of expiration. Failure to file your annual No-Change Affidavit may result in the suspension or rescission of your certification.

Your firm's five year certification will expire on **12/01/2019**. You have an affirmative duty to file for recertification **60 days** prior to the date of the five year anniversary date. Therefore, you must file for recertification by **10/01/2019**.

It is important to note that you also have an ongoing affirmative duty to notify the City of any changes in ownership or control of your firm, or any other fact affecting your firm's eligibility for certification **within 10 days** of such change. These changes may include but are not limited to a change of address, change of business structure, change in ownership or ownership structure, change of business operations, gross receipts and or personal net worth that exceed the program threshold. Failure to provide the City with timely notice of such changes may result in the suspension or rescission of your certification. In addition, you may be liable for civil penalties under Chapter 1-22, "False Claims", of the Municipal Code of Chicago.

Please note – you shall be deemed to have had your certification lapse and will be ineligible to participate as a **WBE** if you fail to:

- File your annual No-Change Affidavit within the required time period;
- Provide financial or other records requested pursuant to an audit within the required time period;
- Notify the City of any changes affecting your firm's certification **within 10 days** of such change; or
- File your recertification within the required time period.

Please be reminded of your contractual obligation to cooperate with the City with respect to any reviews, audits or investigation of its contracts and affirmative action programs. We strongly encourage you to assist us in maintaining the integrity of our programs by reporting instances or suspicions of fraud or abuse to the **City's Inspector General at chicagoinspectorgeneral.org, or 866-IG-TIPLINE (866-448-4754).**

Be advised that if you or your firm is found to be involved in certification, bidding and/or contractual fraud or abuse, the City will pursue decertification and debarment. In addition to any other penalty imposed by law, any person who knowingly obtains, or knowingly assists another in obtaining a contract with the City by falsely representing the individual or entity, or the individual or entity assisted is guilty of a misdemeanor, punishable by incarceration in the county jail for a period not to exceed six months, or a fine of not less than \$5,000 and not more than \$10,000 or both.

Your firm's name will be listed in the City's Directory of Women-Owned Business Enterprises in the specialty area(s) of:

NAICS Code(s):

541511 – Computer Programming Services, Custom

541511 – Computer Software Support Services, custom

541512 – Computer Systems Integration Design Consulting Services

541513 – Facilities (i.e., clients' facilities) Support Services, Computer systems or Data

Your firm's participation on City contracts will be credited only toward **Women-Owned Business Enterprise** goals in your area(s) specialty. While your participation on City contracts is not limited to your area of specialty, credit toward goals will be given only for work that is self-performed and providing a commercially useful function that is done in the approved specialty category.

Thank you for your interest in the City's Minority and Women-Owned Business Enterprise (MBE/WBE) Program.

Sincerely,



Jamie L. Rhee
Chief Procurement Officer
JLR/es



January 22, 2015

Zulfi Sayla
System Solutions Inc
3630 Commercial Ave
Northbrook, IL 60062-1823

Certification Term Expires: December 31, 2015

Dear Business Owner:

Re: MBE Recognition Certification Approval
(CMSDC)

Congratulations! After reviewing the information that you supplied, we are pleased to inform you that your firm has been granted certification as a Minority Business Enterprise (MBE) under the Business Enterprise Program for Minorities, Females, and Persons with Disabilities.

BEP accepts the Chicago Minority Supplier Development Council's (CMSDC) certification regarding your business status. This outside certification is in effect with the State of Illinois as long as it is valid with the CMSDC.

At least 60 days prior to the anniversary day of your certification, you will be notified by BEP to update your certification as a condition of continued certification. In addition, should any changes occur in ownership and/or control of the business or other changes affecting the firm's operations, you are required to notify BEP within two weeks. Failure to notify our office of changes will result in decertification of your firm.

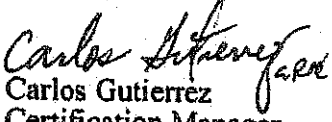
Please be advised, while this certification does not guarantee you will receive a State contract, it does assure your firm the opportunity to participate in the State's procurement process. Your firm's participation on State contracts will be credited only toward Minority Business Enterprise (MBE) goals in your area(s) of specialty. Your firm's name will appear in the State's Directory as a certified vendor with the Business Enterprise Program (BEP) in the specialty area(s) of:

EDP, HARDWARE MAINTENANCE
EDP, MAINFRAME/WAN HARDWARE
EDP, SOFTWARE MAINTENANCE
EDP, MICROCOMPUTERS, WORKSTATION/
EDP, MID RANGE - HARDWARE (AS400,RISC)
EDP, MID RANGE - SOFTWARE (AS400,RISC)
EDP, MICROCOMPUTERS, SERVERS/LAN HARDWARE
EDP, MAINFRAME SOFTWARE
DATA EQUIPMENT
COMPUTER SUPPLIES, MISC.
COMPUTER SUPPLIES, COMPUTER TAPE
COMPUTER SUPPLIES, DATA TAPE CARTRIDGES
COMPUTER SUPPLIES
EDP PERSONAL COMPUTERS

Please visit our website at www.sell2.illinois.gov to obtain information about current and upcoming procurement opportunities, contracts, forms, and also to register to receive email alerts when the State is preparing to purchase a product or service you may provide.

Thank you for your participation in the Business Enterprise Program (BEP). We welcome your participation and wish you continued success.

Sincerely,


Carlos Gutierrez
Certification Manager
Business Enterprise Program

(L21MBE)



OFFICE OF CONTRACT COMPLIANCE

JACQUELINE GOMEZ

DIRECTOR

118 N. Clark, County Building, Room 1020 • Chicago, Illinois 60602 • (312) 603-5502

June 26, 2015

TONI PRECKWINKLE

PRESIDENT

**Cook County Board
of Commissioners**

RICHARD R. BOYKIN

1st District

ROBERT STEELE

2nd District

JERRY BUTLER

3rd District

STANLEY MOORE

4th District

DEBORAH SIMS

5th District

JOAN PATRICIA MURPHY

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LARRY SUFFREDIN

13th District

GREGG GOSLIN

14th District

TIMOTHY O. SCHNEIDER

15th District

JEFFREY R. TOBOLSKI

16th District

ELIZABETH ANN DOODY GORMAN

17th District

Ms. Shannon E. Andrews
Chief Procurement Officer
County Building-Room 1018
Chicago, IL 60602

Re: Contract No. 1490-13787

Integrated Property Tax and Mass Appraisal System and Re-engineering of Related Property Tax Process

Dear Ms. Andrews:

The following bid for the above-referenced contract has been reviewed for compliance with the General Conditions regarding the Minority- and Women- owned Business Enterprises (MBE/WBE) Ordinance and have been found to be responsive to the Ordinance.

Bidder: Tyler Technologies, Inc.

Bid Amount: \$29,951,735.00

Contract Goal: 40% MBE/WBE

<u>MBE/WBE</u>	<u>Status</u>	<u>Certifying Agency</u>	<u>Commitment*</u>
Diversified Technology, Inc.	MBE (6)	City of Chicago	14.5% (Direct)
Mind you Manners dba The Everett Group	WBE (6)	Cook County	<u>4.2% (Direct)</u> 18.7% MBE/WBE

*Commitment is based on the total value of professional services of \$14,496,200.00.

The Office of Contract Compliance has been advised by the Requesting Department that no other bidders are being recommended for award. Additional EDS forms were used in the determination of the responsiveness of this contract.

Sincerely,

Jacqueline Gomez
Contract Compliance Director

JG/ate

Cc: Tangela Malloy, Office of the Chief Procurement Officer

EXHIBIT 4

Identification of Sub-Contractors/Suppliers/Sub-Consultants Form

**Cook County
Office of the Chief Procurement Officer
Identification of Subcontractor/Supplier/Subconsultant Form**

<input type="checkbox"/> OCPO ONLY: <input type="checkbox"/> Disqualification <input checked="" type="checkbox"/> Check Complete

The Bidder/Proposer/Respondent ("the Contractor") will fully complete and execute and submit an Identification of Subcontractor/Supplier/Subconsultant Form ("ISF") with each Bid, Request for Proposal, and Request for Qualification. **The Contractor must complete the ISF for each Subcontractor, Supplier or Subconsultant which shall be used on the Contract.** In the event that there are any changes in the utilization of Subcontractors, Suppliers or Subconsultants, the Contractor must file an updated ISF.

Contract No.: 1490-13787	Date: 7/13/2015
Total Bid or Proposal Amount: \$29,951,735	Contract Title: Integrated Property Tax and Mass Appraisal System
Contractor: Tyler Technologies, Inc.	Subcontractor/Supplier/ Subconsultant to be added or substitute: The William Everett Group
Authorized Contact for Contractor: Gus Tenhundfeld	Authorized Contact for Subcontractor/Supplier/ Subconsultant: Eellen Rozelle Turner
Email Address (Contractor): gus.tenhundfeld@tylertech.com	Email Address (Subcontractor): e.turner@wegrp.com
Company Address (Contractor): 4100 Miller Valentine Court	Company Address (Subcontractor): 35 East Wacker Drive, Suite 3000
City, State and Zip (Contractor): Moraine, OH 45439	City, State and Zip (Subcontractor): Chicago, IL 60601
Telephone and Fax (Contractor) 800-800-2581/866-658-4258 (fax)	Telephone and Fax (Subcontractor) 312-564-5680
Estimated Start and Completion Dates (Contractor) September 2015 – February 2024	Estimated Start and Completion Dates (Subcontractor) September 2015 – February 2024

Note: Upon request, a copy of all written subcontractor agreements must be provided to the OCPO.

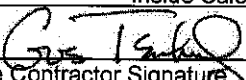
<u>Description of Services or Supplies</u>	<u>Total Price of Subcontract for Services or Supplies</u>
<u>Training and Change Management Services</u>	<u>\$1,246,400</u>

The subcontract documents will incorporate all requirements of the Contract awarded to the Contractor as applicable. The subcontract will in no way hinder the Subcontractor/Supplier/Subconsultant from maintaining its progress on any other contract on which it is either a Subcontractor/Supplier/Subconsultant or principal contractor. This disclosure is made with the understanding that the Contractor is not under any circumstances relieved of its abilities and obligations, and is responsible for the organization, performance, and quality of work. **This form does not approve any proposed changes, revisions or modifications to the contract approved MBE/WBE Utilization Plan. Any changes to the contract's approved MBE/WBE/Utilization Plan must be submitted to the Office of the Contract Compliance.**

Contractor Tyler Technologies, Inc.
Gus Tenhundfeld

Name _____

Title Inside Sales Manager

Title  _____

Prime Contractor Signature _____ Date July 13, 2015

**Cook County
Office of the Chief Procurement Officer
Identification of Subcontractor/Supplier/Subconsultant Form**

OCPO ONLY:	
<input type="radio"/> Disqualification	
<input checked="" type="radio"/> Check Complete	

The Bidder/Proposer/Respondent ("the Contractor") will fully complete and execute and submit an Identification of Subcontractor/Supplier/Subconsultant Form ("ISF") with each Bid, Request for Proposal, and Request for Qualification. **The Contractor must complete the ISF for each Subcontractor, Supplier or Subconsultant which shall be used on the Contract.** In the event that there are any changes in the utilization of Subcontractors, Suppliers or Subconsultants, the Contractor must file an updated ISF.

Contract No.: 1490-13787	Date: 7/13/2015
Total Bid or Proposal Amount: \$29,951,735	Contract Title: Integrated Property Tax and Mass Appraisal System
Contractor: Tyler Technologies, Inc.	Subcontractor/Supplier/Subconsultant to be added or substitute: Diversified Technology, Inc.
Authorized Contact for Contractor: Gus Tenhundfeld	Authorized Contact for Subcontractor/Supplier/Subconsultant: Darryl Henry
Email Address (Contractor): gus.tenhundfeld@tylertech.com	Email Address (Subcontractor): darryl@divtel.com
Company Address (Contractor): 4100 Miller Valentine Court	Company Address (Subcontractor): 10621 S. Halsted Street
City, State and Zip (Contractor): Moraine, OH 45439	City, State and Zip (Subcontractor): Chicago, IL 60628
Telephone and Fax (Contractor) 800-800-2581/866-658-4258 (fax)	Telephone and Fax (Subcontractor) 312-296-8018
Estimated Start and Completion Dates (Contractor) September 2015 – February 2024	Estimated Start and Completion Dates (Subcontractor) September 2015 – February 2024

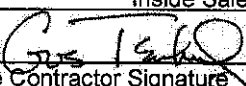
Note: Upon request, a copy of all written subcontractor agreements must be provided to the OCPO.

<u>Description of Services or Supplies</u>	<u>Total Price of Subcontract for Services or Supplies</u>
IT Consulting Services, Data Conversion/Integration Services, DBA, Reporting	\$4,285,350

The subcontract documents will incorporate all requirements of the Contract awarded to the Contractor as applicable. The subcontract will in no way hinder the Subcontractor/Supplier/Subconsultant from maintaining its progress on any other contract on which it is either a Subcontractor/Supplier/Subconsultant or principal contractor. This disclosure is made with the understanding that the Contractor is not under any circumstances relieved of its abilities and obligations, and is responsible for the organization, performance, and quality of work. **This form does not approve any proposed changes, revisions or modifications to the contract approved MBE/WBE Utilization Plan. Any changes to the contract's approved MBE/WBE/Utilization Plan must be submitted to the Office of the Contract Compliance.**

Contractor Tyler Technologies, Inc.
Gus Tenhundfeld

Name Inside Sales Manager

Title 

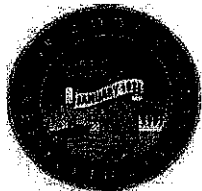
Prime Contractor Signature Date July 13, 2015

EXHIBIT 5

Evidence of Insurance

EXHIBIT 6

Board Authorization



Board of Commissioners of Cook County

118 North Clark Street
Chicago, IL

Legislation Details

File #: 15-4067 **Version:** 1 **Name:** Tyler Technologies, Inc., Dayton, Ohio

Type: Contract (Technology) **Status:** Approved

File created: 6/17/2015 **In control:** Technology and Innovation Committee

On agenda: 7/29/2015 **Final action:** 9/9/2015

Title: PROPOSED CONTRACT (TECHNOLOGY)

Department(s): Bureau of Technology

Vendor: Tyler Technologies, Inc., Moraine, Ohio

Request: Authorization for the Chief Procurement Officer to enter into and execute contract

Good(s) or Service(s): Integrated Property Tax and Mass Appraisal System Implementation and Software

Contract Value: \$29,951,735.00

Contract period: 9/30/2015 - 3/31/2023 with three (3), three (3) year renewal options

Potential Fiscal Year Budget Impact: FY 2015 \$8,347,143.00, FY 2016 \$2,974,095.00, FY 2017 \$4,882,516.00, FY 2018 \$5,159,176.00, FY 2019 \$4,627,776.00, FY 2020 \$2,159,757.80, FY 2021 \$1,801,271.20.

Accounts: 545-260

Contract Number(s): 1490-13787

Concurrence(s):
The vendor has met the Minority and Women Owned Business Enterprises Ordinance.

The Chief Procurement Officer concurs.

Summary: In collaboration with the Cook County Offices of the Assessor, Clerk, Treasurer, Board of Review, and Recorder of Deeds, the Bureau of Technology seeks Board approval of a contract with Tyler Technologies, Inc. to replace the County's legacy property tax system. The County currently employs 40-year-old technology to manage and implement tax collection across 1,500 taxing districts. The system incurs more than \$5M per year in support costs and depends upon inflexible and disparate legacy systems, including paper-based validation of system reports. These costs are expected to increase as the IT industry and future generations of IT professionals abandon the legacy technology upon which the County's property tax domain currently depends.

The proposed contract will re-engineer business processes and workflows through the implementation of modern technology and provide myriad benefits, including increased property tax revenue from improved assessment, appraisal, and collection operations, an improved ability to accommodate property tax workloads without requiring additional staff, and enhanced public services and responsiveness for County tax payers.

Request for Proposals (RFP) procedures were followed in accordance with the Cook County Procurement Code. Tyler Technologies, Inc. was recommended based on established evaluation criteria.

Sponsors:

Indexes: SIMONA ROLLINSON, Chief Information Officer, Bureau of Technology

Code sections:

Attachments:

Date	Ver.	Action By	Action	Result
9/9/2015	1	Board of Commissioners	approved	Pass
9/8/2015	1	Technology and Innovation Committee	recommended for approval	Pass
7/29/2015	1	Board of Commissioners	referred	Pass

EXHIBIT 7

Economic Disclosure Statement (EDS)

EXHIBIT 7

Economic Disclosure Statement (EDS)

**ECONOMIC DISCLOSURE STATEMENT
AND EXECUTION DOCUMENT
INDEX**

Section	Description	Pages
Instructions	Instructions for Completion of EDS	EDS i - ii
1	MBE/WBE Utilization Plan	EDS 1,2
2	Letter of Intent	EDS 3, 4
3	Petition for Reduction/Waiver of MBE/WBE Participation Goals	EDS 5, 6
4	Certifications	EDS 7, 8
5	Economic and Other Disclosures, Affidavit of Child Support Obligations and Disclosure of Ownership Interest	EDS 9 - 13
6	Sole Proprietor Signature Page	EDS 14a/b/c
7	Partnership Signature Page	EDS 15/a/b/c
8	Corporation Signature Page	EDS 16a/b/c
9	Cook County Signature Page	EDS 17

INSTRUCTIONS FOR COMPLETION OF ECONOMIC DISCLOSURE STATEMENT AND EXECUTION DOCUMENT

This Economic Disclosure Statement and Execution Document ("EDS") is to be completed and executed by every Bidder on a County contract, every party responding to a Request for Proposals or Request for Qualifications ("Proposer"), and others as required by the Purchasing Agent. If the Undersigned is awarded a contract pursuant to the procurement process for which this EDS was submitted (the "Contract"), this Economic Disclosure Statement and Execution Document shall stand as the Undersigned's execution of the Contract.

Definitions. Capitalized terms used in this EDS and not otherwise defined herein shall have the meanings given to such terms in the Instructions to Bidders, General Conditions, Request for Proposals, Request for Qualifications, or other documents, as applicable.

"Affiliated Entity" means a person or entity that, directly or indirectly: controls the Bidder, is controlled by the Bidder, or is, with the Bidder, under common control of another person or entity. Indicia of control include, without limitation, interlocking management or ownership; identity of interests among family members; shared facilities and equipment; common use of employees; and organization of a business entity following the ineligibility of a business entity to do business with the County under the standards set forth in the Certifications included in this EDS, using substantially the same management, ownership or principals as the ineligible entity.

"Bidder," "Proposer," "Undersigned," or "Applicant," is the person or entity executing this EDS. Upon award and execution of a Contract by the County, the Bidder, Proposer, Undersigned or Applicant, as the case may be, shall become the Contractor or Contracting Party.

"Proposal," for purposes of this EDS, is the Undersigned's complete response to an RFP/RFQ, or if no RFQ/RFP was issued by the County, the "Proposal" is such other proposal, quote or offer submitted by the Undersigned, and in any event a "Proposal" includes this EDS.

"Code" means the Code of Ordinances, Cook County, Illinois available through the Cook County Clerk's Office website (<http://www.cookctyclerk.com/sub/ordinances.asp>). This page can also be accessed by going to www.cookctyclerk.com, clicking on the tab labeled "County Board Proceedings," and then clicking on the link to "Cook County Ordinances."

"Contractor" or "Contracting Party" means the Bidder, Proposer or Applicant with whom the County has entered into a Contract.

"EDS" means this complete Economic Disclosure Statement and Execution Document, including all sections listed in the Index and any attachments.

"Lobby" or "lobbying" means to, for compensation, attempt to influence a County official or County employee with respect to any County matter.

"Lobbyist" means any person or entity who lobbies.

"Prohibited Acts" means any of the actions or occurrences which form the basis for disqualification under the Code, or under the Certifications hereinafter set forth.

Sections 1 through 3: MBE/WBE Documentation. Sections 1 and 2 must be completed in order to satisfy the requirements of the County's MBE/WBE Ordinance, as set forth in the Contract Documents, if applicable. If the Undersigned believes a waiver is appropriate and necessary, Section 3, the Petition for Waiver of MBE/WBE Participation must be completed.

Section 4: Certifications. Section 4 sets forth certifications that are required for contracting parties under the Code. Execution of this EDS constitutes a warranty that all the statements and certifications contained, and all the facts stated, in the Certifications are true, correct and complete as of the date of execution.

Section 5: Economic and Other Disclosures Statement. Section 5 is the County's required Economic and Other Disclosures Statement form. Execution of this EDS constitutes a warranty that all the information provided in the EDS is true, correct and complete as of the date of execution, and binds the Undersigned to the warranties, representations, agreements and acknowledgements contained therein.

Sections 6, 7, 8: Execution Forms. The Bidder executes this EDS, and the Contract, by completing and signing three copies of the appropriate Signature Page. Section 6 is the form for a sole proprietor; Section 7 is the form for a partnership or joint venture; and Section 8 is the form for a corporation. Proper execution requires **THREE ORIGINALS**; therefore, the appropriate Signature Page must be filled in, three copies made, and all three copies must be properly signed, notarized and submitted. The forms may be printed and completed by typing or hand writing the information required. The County is in the process of converting these forms into a format that may be downloaded and completed on the user's computer. Once this feature is available, those having the necessary software may follow the instructions set forth below under the heading "Instructions for Completing PDF Forms."

Required Updates. The information provided in this EDS will be kept current. In the event of any change in any information provided, including but not limited to any change which would render inaccurate or incomplete any certification or statement made in this EDS, the Undersigned will supplement this EDS up to the time the County takes action, by filing an amended EDS or such other documentation as is requested.

Additional Information. The County's Governmental Ethics and Campaign Financing Ordinances, impose certain duties and obligations on persons or entities seeking County contracts, work, business, or transactions. For further information please contact the Director of Ethics at (312) 603-4304 (69 W. Washington St. Suite 3040, Chicago, IL 60602) or visit our web-site at www.cookcountygov.com and go to the Ethics Department link. The Bidder must comply fully with the applicable ordinances.

ECONOMIC DISCLOSURE STATEMENT

MBE/WBE UTILIZATION PLAN (SECTION 1)

BIDDER/PROPOSER HEREBY STATES that all MBE/WBE firms included in this Plan are certified MBEs/WBEs by at least one of the entities listed in the General Conditions.

I. **BIDDER/PROPOSER MBE/WBE STATUS:** (check the appropriate line)

- _____ Bidder/Proposer is a certified MBE or WBE firm. (If so, attach copy of appropriate Letter of Certification)
- _____ Bidder/Proposer is a Joint Venture and one or more Joint Venture partners are certified MBEs or WBEs. (If so, attach copies of Letter(s) of Certification, a copy of Joint Venture Agreement clearly describing the role of the MBE/WBE firm, and its ownership interest in the Joint Venture and a completed Joint Venture Affidavit – available from the Office of Contract Compliance)
- _____ Bidder/Proposer is not a certified MBE or WBE firm, nor a Joint Venture with MBE/WBE partners, but will utilize MBE and WBE firms either directly or indirectly in the performance of the Contract. (If so, complete Sections II and III).

II. _____ Direct Participation of MBE/WBE Firms _____ Indirect Participation of MBE/WBE Firms

Where goals have not been achieved through direct participation, Bidder/Proposer shall include documentation outlining efforts to achieve Direct Participation at the time of Bid/Proposal submission. Indirect Participation will only be considered after all efforts to achieve Direct Participation have been exhausted. Only after written documentation of Good Faith Efforts is received will Indirect Participation be considered.

MBEs/WBEs that will perform as subcontractors/suppliers/consultants include the following:

MBE/WBE Firm: _____

Address: _____

E-mail: _____

Contact Person: _____ Phone: _____

Dollar Amount Participation: \$ _____

Percent Amount of Participation: _____ %

*Letter of Intent attached? Yes _____ No _____

*Letter of Certification attached? Yes _____ No _____

MBE/WBE Firm: _____

Address: _____

E-mail: _____

Contact Person: _____ Phone: _____

Dollar Amount Participation: \$ _____

Percent Amount of Participation: _____ %

*Letter of Intent attached? Yes _____ No _____

*Letter of Certification attached? Yes _____ No _____

Attach additional sheets as needed.

***Additionally, all Letters of Intent, Letters of Certification and documentation of Good Faith Efforts omitted from this bid/proposal must be submitted to the Office of Contract Compliance so as to assure receipt by the Contract Compliance Administrator not later than three (3) business days after the Bid Opening date.**

ECONOMIC DISCLOSURE STATEMENT

COOK COUNTY GOVERNMENT LETTER OF INTENT (SECTION 2)

M/WBE Firm: _____ Certifying Agency: _____

Address: _____ Certification Expiration Date: _____

City/State: _____ Zip: _____ FEIN #: _____

Phone: _____ Fax: _____ Contact Person: _____

Email: _____ Contract #: _____

Participation: _____ Direct _____ Indirect

Will the M/WBE firm be subcontracting any of the performance of this contract to another firm?

No _____ Yes _____ If "Yes", please attach explanation. Proposed Subcontractor: _____

The undersigned M/WBE is prepared to provide the following Commodities/Services for the above named Project/ Contract:

Indicate the Dollar Amount, or Percentage, and the Terms of Payment for the above-described Commodities/ Services:

(If more space is needed to fully describe M/WBE Firm's proposed scope of work and/or payment schedule, attach additional sheets)

THE UNDERSIGNED PARTIES AGREE that this Letter of Intent will become a binding Subcontract Agreement conditioned upon the Bidder/Proposer's receipt of a signed contract from the County of Cook. The Undersigned Parties do also certify that they did not affix their signatures to this document until all areas under Description of Service/ Supply and Fee/Cost were completed.

Signature (M/WBE)

Signature (Prime Bidder/Proposer)

Print Name

Print Name

Firm Name

Firm Name

Date

Date

Subscribed and sworn before me
this ____ day of _____, 20____.

Subscribed and sworn before me
this ____ day of _____, 20____.

Notary Public _____

Notary Public _____

SEAL

SEAL

SEE EXHIBIT 3

ECONOMIC DISCLOSURE STATEMENT

PETITION FOR WAIVER OF MBE/WBE PARTICIPATION (SECTION 3)

A. BIDDER/PROPOSER HEREBY REQUESTS:

_____ FULL MBE WAIVER _____ FULL WBE WAIVER
_____ REDUCTION (PARTIAL MBE and/or WBE PARTICIPATION)
_____ % of Reduction for MBE Participation
_____ % of Reduction for WBE Participation

B. REASON FOR FULL/REDUCTION WAIVER REQUEST:

Bidder/Proposer shall check each item applicable to its reason for a waiver request. Additionally, supporting documentation shall be submitted with this request. If such supporting documentation cannot be submitted with bid/proposal/quotation, such documentation shall be submitted directly to the Office of Contract Compliance no later than three (3) days from the date of submission date.

- _____ (1) Lack of sufficient qualified MBEs and/or WBEs capable of providing the goods or services required by the contract. (Please explain)
- _____ (2) The specifications and necessary requirements for performing the contract make it impossible or economically infeasible to divide the contract to enable the contractor to utilize MBEs and/or WBEs in accordance with the applicable participation. (Please explain)
- _____ (3) Price(s) quoted by potential MBEs and/or WBEs are above competitive levels and increase cost of doing business and would make acceptance of such MBE and/or WBE bid economically impracticable, taking into consideration the Percentage of total contract price represented by such MBE and/or WBE bid. (Please explain)
- _____ (4) There are other relevant factors making it impossible or economically infeasible to utilize MBE and/or WBE firms. (Please explain)

C. GOOD FAITH EFFORTS TO OBTAIN MBE/WBE PARTICIPATION:

- _____ (1) Made timely written solicitation to identified MBEs and WBEs for utilization of goods and/or services; and provided MBEs and WBEs with a timely opportunity to review and obtain relevant specifications, terms and conditions of the proposal to enable MBEs and WBEs to prepare an informed response to solicitation. (Please attach)
- _____ (2) Followed up initial solicitation of MBEs and WBEs to determine if firms are interested in business. (Please attach)
- _____ (3) Advertised in a timely manner in one or more daily newspapers and/or trade publication for MBEs and WBEs for supply of goods and services. (Please attach)
- _____ (4) Used the services and assistance of the Office of Contract Compliance staff. (Please explain)
- _____ (5) Engaged MBEs & WBEs for indirect participation. (Please explain)

D. OTHER RELEVANT INFORMATION:

Attach any other documentation relative to Good Faith Efforts in complying with MBE/WBE participation.

ECONOMIC DISCLOSURE STATEMENT

CERTIFICATIONS (SECTION 4)

THE FOLLOWING CERTIFICATIONS ARE MADE PURSUANT TO STATE LAW AND THE CODE. THE UNDERSIGNED IS CAUTIONED TO CAREFULLY READ THESE CERTIFICATIONS PRIOR TO SIGNING THE SIGNATURE PAGE. SIGNING THE SIGNATURE PAGE SHALL CONSTITUTE A WARRANTY BY THE UNDERSIGNED THAT ALL THE STATEMENTS, CERTIFICATIONS AND INFORMATION SET FORTH WITHIN THESE CERTIFICATIONS ARE TRUE, COMPLETE AND CORRECT AS OF THE DATE THE SIGNATURE PAGE IS SIGNED. THE UNDERSIGNED IS NOTIFIED THAT IF THE COUNTY LEARNS THAT ANY OF THE FOLLOWING CERTIFICATIONS WERE FALSELY MADE, THAT ANY CONTRACT ENTERED INTO WITH THE UNDERSIGNED SHALL BE SUBJECT TO TERMINATION.

A. PERSONS AND ENTITIES SUBJECT TO DISQUALIFICATION

No person or business entity shall be awarded a contract or sub-contract, for a period of five (5) years from the date of conviction or entry of a plea or admission of guilt, civil or criminal, if that person or business entity:

- 1) Has been convicted of an act committed, within the State of Illinois, of bribery or attempting to bribe an officer or employee of a unit of state, federal or local government or school district in the State of Illinois in that officer's or employee's official capacity;
- 2) Has been convicted by federal, state or local government of an act of bid-rigging or attempting to rig bids as defined in the Sherman Anti-Trust Act and Clayton Act. Act. 15 U.S.C. Section 1 et seq.;
- 3) Has been convicted of bid-rigging or attempting to rig bids under the laws of federal, state or local government;
- 4) Has been convicted of an act committed, within the State, of price-fixing or attempting to fix prices as defined by the Sherman Anti-Trust Act and the Clayton Act. 15 U.S.C. Section 1, et seq.;
- 5) Has been convicted of price-fixing or attempting to fix prices under the laws the State;
- 6) Has been convicted of defrauding or attempting to defraud any unit of state or local government or school district within the State of Illinois;
- 7) Has made an admission of guilt of such conduct as set forth in subsections (1) through (6) above which admission is a matter of record, whether or not such person or business entity was subject to prosecution for the offense or offenses admitted to; or
- 8) Has entered a plea of nolo contendere to charge of bribery, price-fixing, bid-rigging, or fraud, as set forth in sub-paragraphs (1) through (6) above.

In the case of bribery or attempting to bribe, a business entity may not be awarded a contract if an official, agent or employee of such business entity committed the Prohibited Act on behalf of the business entity and pursuant to the direction or authorization of an officer, director or other responsible official of the business entity, and such Prohibited Act occurred within three years prior to the award of the contract. In addition, a business entity shall be disqualified if an owner, partner or shareholder controlling, directly or indirectly, 20 % or more of the business entity, or an officer of the business entity has performed any Prohibited Act within five years prior to the award of the Contract.

THE UNDERSIGNED HEREBY CERTIFIES THAT: The Undersigned has read the provisions of Section A, Persons and Entities Subject to Disqualification, that the Undersigned has not committed any Prohibited Act set forth in Section A, and that award of the Contract to the Undersigned would not violate the provisions of such Section or of the Code.

B. BID-RIGGING OR BID ROTATING

THE UNDERSIGNED HEREBY CERTIFIES THAT: In accordance with 720 ILCS 5/33 E-11, neither the Undersigned nor any Affiliated Entity is barred from award of this Contract as a result of a conviction for the violation of State laws prohibiting bid-rigging or bid rotating.

C. DRUG FREE WORKPLACE ACT

THE UNDERSIGNED HEREBY CERTIFIES THAT: The Undersigned will provide a drug free workplace, as required by Public Act 86-1459 (30 ILCS 580/2-11).

D. DELINQUENCY IN PAYMENT OF TAXES

THE UNDERSIGNED HEREBY CERTIFIES THAT: The Undersigned is not an owner or a party responsible for the payment of any tax or fee administered by Cook County, by a local municipality, or by the Illinois Department of Revenue, which such tax or fee is delinquent, such as bar award of a contract or subcontract pursuant to the Code, Chapter 34, Section 34-129.

E. HUMAN RIGHTS ORDINANCE

No person who is a party to a contract with Cook County ("County") shall engage in unlawful discrimination or sexual harassment against any individual in the terms or conditions of employment, credit, public accommodations, housing, or provision of County facilities, services or programs (Code Chapter 42, Section 42-30 et seq).

ECONOMIC DISCLOSURE STATEMENT

F. ILLINOIS HUMAN RIGHTS ACT

THE UNDERSIGNED HEREBY CERTIFIES THAT: It is in compliance with the the Illinois Human Rights Act (775 ILCS 5/2-105), and agrees to abide by the requirements of the Act as part of its contractual obligations.

G. MACBRIDE PRINCIPLES, CODE CHAPTER 34, SECTION 34-132

If the primary contractor currently conducts business operations in Northern Ireland, or will conduct business during the projected duration of a County contract, the primary contractor shall make all reasonable and good faith efforts to conduct any such business operations in Northern Ireland in accordance with the MacBride Principles for Northern Ireland as defined in Illinois Public Act 85-1390.

H. LIVING WAGE ORDINANCE PREFERENCE (COOK COUNTY CODE, CHAPTER 34, SECTION 34-127;

The Code requires that a living wage must be paid to individuals employed by a Contractor which has a County Contract and by all subcontractors of such Contractor under a County Contract, throughout the duration of such County Contract. The amount of such living wage is determined from time to time by, and is available from, the Chief Financial Officer of the County.

For purposes of this EDS Section 4, H, "Contract" means any written agreement whereby the County is committed to or does expend funds in connection with the agreement or subcontract thereof. The term "Contract" as used in this EDS, Section 4, I, specifically excludes contracts with the following:

- 1) Not-For Profit Organizations (defined as a corporation having tax exempt status under Section 501(C)(3) of the United State Internal Revenue Code and recognized under the Illinois State not-for -profit law);
- 2) Community Development Block Grants;
- 3) Cook County Works Department;
- 4) Sheriff's Work Alternative Program; and
- 5) Department of Correction inmates.

C. GOOD FAITH EFFORTS TO OBTAIN MBE/WBE PARTICIPATION

Bidder/Proposer shall check each item applicable to its reason for a waiver request. **Additionally, supporting documentation shall be submitted with this request. If such supporting documentation cannot be submitted with bid/proposal/quotation, such documentation shall be submitted directly to the Office of Contract Compliance no later than three (3) days from the date of submission date.**

- 1) Made timely written solicitation to identified MBEs and WBEs for utilization of goods and/or services; and provided MBEs and WBEs with a timely opportunity to review and obtain relevant specifications, terms and conditions of the proposal to enable MBEs and WBEs to prepare an informed response to solicitation (please attach)
- 2) Followed up initial solicitation of MBEs and WBEs to determine if firms are interested in doing business (please attach)
- 3) Advertised in a timely manner in one or more daily newspapers and/or trade publication for MBEs and WBEs for supply of goods and services (please attach)
- 4) Use the services and assistance of the Office of Contract Compliance Staff (please explain)
- 5) Engaged MBEs & WBEs for indirect participation (please explain)

D. OTHER RELEVANT INFORMATION

Attach any other documentation relative to Good Faith Efforts in complying with MBE/WBE participation.

**CERTIFICATIONS
(SECTION 4)**

THE FOLLOWING CERTIFICATIONS ARE MADE PURSUANT TO STATE LAW AND THE CODE. THE UNDERSIGNED IS CAUTIONED TO CAREFULLY READ THESE CERTIFICATIONS PRIOR TO SIGNING THE SIGNATURE PAGE. SIGNING THE SIGNATURE PAGE SHALL CONSTITUTE A WARRANTY BY THE UNDERSIGNED THAT ALL THE STATEMENTS, CERTIFICATIONS AND INFORMATION SET FORTH WITHIN THESE CERTIFICATIONS ARE TRUE, COMPLETE AND CORRECT AS OF THE DATE THE SIGNATURE PAGE IS SIGNED. THE UNDERSIGNED IS NOTIFIED THAT IF THE COUNTY LEARNS THAT ANY OF THE FOLLOWING CERTIFICATIONS WERE FALSELY MADE, THAT ANY CONTRACT ENTERED INTO WITH THE UNDERSIGNED SHALL BE SUBJECT TO TERMINATION.

A. PERSONS AND ENTITIES SUBJECT TO DISQUALIFICATION

No person or business entity shall be awarded a contract or sub-contract, for a period of five (5) years from the date of conviction or entry of a plea or admission of guilt, civil or criminal, if that person or business entity:

- 1) Has been convicted of an act committed, within the State of Illinois, of bribery or attempting to bribe an officer or employee of a unit of state, federal or local government or school district in the State of Illinois in that officer's or employee's official capacity;
- 2) Has been convicted by federal, state or local government of an act of bid-rigging or attempting to rig bids as defined in the Sherman Anti-Trust Act and Clayton Act. Act. 15 U.S.C. Section 1 *et seq.*;
- 3) Has been convicted of bid-rigging or attempting to rig bids under the laws of federal, state or local government;
- 4) Has been convicted of an act committed, within the State, of price-fixing or attempting to fix prices as defined by the Sherman Anti-Trust Act and the Clayton Act. 15 U.S.C. Section 1, *et seq.*;
- 5) Has been convicted of price-fixing or attempting to fix prices under the laws the State;
- 6) Has been convicted of defrauding or attempting to defraud any unit of state or local government or school district within the State of Illinois;
- 7) Has made an admission of guilt of such conduct as set forth in subsections (1) through (6) above which admission is a matter of record, whether or not such person or business entity was subject to prosecution for the offense or offenses admitted to; or
- 8) Has entered a plea of *nolo contendere* to charge of bribery, price-fixing, bid-rigging, or fraud, as set forth in sub-paragraphs (1) through (6) above.

In the case of bribery or attempting to bribe, a business entity may not be awarded a contract if an official, agent or employee of such business entity committed the Prohibited Act on behalf of the business entity and pursuant to the direction or authorization of an officer, director or other responsible official of the business entity, and such Prohibited Act occurred within three years prior to the award of the contract. In addition, a business entity shall be disqualified if an owner, partner or shareholder controlling, directly or indirectly, 20 % or more of the business entity, or an officer of the business entity has performed any Prohibited Act within five years prior to the award of the Contract.

THE UNDERSIGNED HEREBY CERTIFIES THAT: The Undersigned has read the provisions of Section A, Persons and Entities Subject to Disqualification, that the Undersigned has not committed any Prohibited Act set forth in Section A, and that award of the Contract to the Undersigned would not violate the provisions of such Section or of the Code.

B. BID-RIGGING OR BID ROTATING

THE UNDERSIGNED HEREBY CERTIFIES THAT: *In accordance with 720 ILCS 5/33 E-11, neither the Undersigned nor any Affiliated Entity is barred from award of this Contract as a result of a conviction for the violation of State laws prohibiting bid-rigging or bid rotating.*

C. DRUG FREE WORKPLACE ACT

THE UNDERSIGNED HEREBY CERTIFIES THAT: The Undersigned will provide a drug free workplace, as required by Public Act 86-1459 (30 ILCS 580/2-11).

D. DELINQUENCY IN PAYMENT OF TAXES

THE UNDERSIGNED HEREBY CERTIFIES THAT: *The Undersigned is not an owner or a party responsible for the payment of any tax or fee administered by Cook County, by a local municipality, or by the Illinois Department of Revenue, which such tax or fee is delinquent, such as bar award of a contract or subcontract pursuant to the Code, Chapter 34, Section 34-129.*

E. HUMAN RIGHTS ORDINANCE

No person who is a party to a contract with Cook County ("County") shall engage in unlawful discrimination or sexual harassment against any individual in the terms or conditions of employment, credit, public accommodations, housing, or provision of County facilities, services or programs (Code Chapter 42, Section 42-30 *et seq.*).

F. ILLINOIS HUMAN RIGHTS ACT

THE UNDERSIGNED HEREBY CERTIFIES THAT: *It is in compliance with the the Illinois Human Rights Act (775 ILCS 5/2-105), and agrees to abide by the requirements of the Act as part of its contractual obligations.*

G. MACBRIDE PRINCIPLES, CODE CHAPTER 34, SECTION 34-132

If the primary contractor currently conducts business operations in Northern Ireland, or will conduct business during the projected duration of a County contract, the primary contractor shall make all reasonable and good faith efforts to conduct any such business operations in Northern Ireland in accordance with the MacBride Principles for Northern Ireland as defined in Illinois Public Act 85-1390.

H. LIVING WAGE ORDINANCE PREFERENCE (COOK COUNTY CODE, CHAPTER 34, SECTION 34-127;

The Code requires that a living wage must be paid to individuals employed by a Contractor which has a County Contract and by all subcontractors of such Contractor under a County Contract, throughout the duration of such County Contract. The amount of such living wage is determined from time to time by, and is available from, the Chief Financial Officer of the County.

For purposes of this EDS Section 4, H, "Contract" means any written agreement whereby the County is committed to or does expend funds in connection with the agreement or subcontract thereof. The term "Contract" as used in this EDS, Section 4, I, specifically excludes contracts with the following:

- 1) Not-For Profit Organizations (defined as a corporation having tax exempt status under Section 501(C)(3) of the United State Internal Revenue Code and recognized under the Illinois State not-for -profit law);
- 2) Community Development Block Grants;
- 3) President's Office of Employment Training;
- 4) Sheriff's Work Alternative Program; and
- 5) Department of Correction inmates.

**REQUIRED DISCLOSURES
(SECTION 5)**

1. DISCLOSURE OF LOBBYIST CONTACTS

List all persons or entities that have made lobbying contacts on your behalf with respect to this contract:

Name	Address
------	---------

N/A

2. LOCAL BUSINESS PREFERENCE DISCLOSURE; CODE, CHAPTER 34, SECTION 34-151(p);

"Local Business" shall mean a person authorized to transact business in this State and having a bona fide establishment for transacting business located within Cook County at which it was actually transacting business on the date when any competitive solicitation for a public contract is first advertised or announced and further which employs the majority of its regular, full time work force within Cook County, including a foreign corporation duly authorized to transact business in this State and which has a bona fide establishment for transacting business located within Cook County at which it was actually transacting business on the date when any competitive solicitation for a public contract is first advertised or announced and further which employs the majority of its regular, full time work force within Cook County.

a) Is Bidder a "Local Business" as defined above?

Yes: _____ No: X

b) If yes, list business address(es) within Cook County:

c) Does Bidder employ the majority of its regular full-time workforce within Cook County?

Yes: _____ No: X

3. THE CHILD SUPPORT ENFORCEMENT ORDINANCE (PREFERENCE (CODE, CHAPTER 34, SECTION 34-366)

Every Applicant for a County Privilege shall be in full compliance with any child support order before such Applicant is entitled to receive or renew a County Privilege. When delinquent child support exists, the County shall not issue or renew any County Privilege, and may revoke any County Privilege. All Applicants are required to review the Cook County Affidavit of Child Support Obligations attached to this EDS and complete the following, based upon the definitions and other information included in such Affidavit:

 X Applicant has no "Substantial Owner."

OR

 The Cook County Affidavit of Child Support Obligations has been completed by all "Substantial Owners" and is attached to this EDS.

4. REAL ESTATE OWNERSHIP DISCLOSURES.

The Undersigned must indicate by checking the appropriate provision below and providing all required information that either:

- a) The following is a complete list of all real estate owned by the Undersigned in Cook County:

PERMANENT INDEX NUMBER(S): _____

(ATTACH SHEET IF NECESSARY TO LIST ADDITIONAL INDEX NUMBERS)

OR:

- b) The Undersigned owns no real estate in Cook County.

5. EXCEPTIONS TO CERTIFICATIONS OR DISCLOSURES.

If the Undersigned is unable to certify to any of the Certifications or any other statements contained in this EDS and not explained elsewhere in this EDS, the Undersigned must explain below:

N/A

If the letters, "NA", the word "None" or "No Response" appears above, or if the space is left blank, it will be conclusively presumed that the Undersigned certified to all Certifications and other statements contained in this EDS.

COOK COUNTY DISCLOSURE OF OWNERSHIP INTEREST STATEMENT

The Cook County Code of Ordinances (§2-610 *et seq.*) requires that any Applicant for any County Action must disclose information concerning ownership interests in the Applicant. This Disclosure of Ownership Interest Statement must be completed with all information current as of the date this Statement is signed. Furthermore, this Statement must be kept current, by filing an amended Statement, until such time as the County Board or County Agency shall take action on the application. The information contained in this Statement will be maintained in a database and made available for public viewing.

If you are asked to list names, but there are no applicable names to list, you must state NONE. An incomplete Statement will be returned and any action regarding this contract will be delayed. A failure to fully comply with the ordinance may result in the action taken by the County Board or County Agency being voided.

"Applicant" means any Entity or person making an application to the County for any County Action.

"County Action" means any action by a County Agency, a County Department, or the County Board regarding an ordinance or ordinance amendment, a County Board approval, or other County agency approval, with respect to contracts, leases, or sale or purchase of real estate.

"Entity" or "Legal Entity" means a sole proprietorship, corporation, partnership, association, business trust, estate, two or more persons having a joint or common interest, trustee of a land trust, other commercial or legal entity or any beneficiary or beneficiaries thereof.

This Disclosure of Ownership Interest Statement must be submitted by :

1. An Applicant for County Action and
2. An individual or Legal Entity that holds stock or a beneficial interest in the Applicant and is listed on the Applicant's Statement (a "Holder") must file a Statement and complete #1 only under **Ownership Interest Declaration**.

Please print or type responses clearly and legibly. Add additional pages if needed, being careful to identify each portion of the form to which each additional page refers.

This Statement is being made by the Applicant or Stock/Beneficial Interest Holder

This Statement is an: Original Statement or Amended Statement

Identifying Information:

Name Tyler Technologies, Inc. D/B/A: _____ EIN NO.: 75-2303920

Street Address: 4100 Miller-Valentine Court

City: Moraine State: Ohio Zip Code: 45439

Phone No.: (800) 800-2581

Form of Legal Entity:

Sole Proprietor Partnership Corporation Trustee of Land Trust

Business Trust Estate Association Joint Venture

Other (describe) _____

Ownership Interest Declaration:

1. List the name(s), address, and percent ownership of each individual and each Entity having a legal or beneficial interest (including ownership) of more than five percent (5%) in the Applicant/Holder.

Name	Address	Percentage Interest in Applicant/Holder
BlackRock Fund Advisors	400 Howard St., San Francisco, CA 94105	7.62%
Brown Capitol Management, Inc.	1201 North Calvert St., Baltimore, MD 21202-3908	7.15%
Neuberger Berman Mangement, LLC	605 Third Avenue, 4th Floor, New York, NY 10158	6.73%
Vanguard Group, Inc.	455 Devon Park Drive, Wayne, PA 19087-1815	6.28%

2. If the interest of any individual or any Entity listed in (1) above is held as an agent or agents, or a nominee or nominees, list the name and address of the principal on whose behalf the interest is held.


Name of Agent/Nominee	Name of Principal	Principal's Address

3. Is the Applicant constructively controlled by another person or Legal Entity? Yes No
 If yes, state the name, address and percentage of beneficial interest of such person or legal entity, and the relationship under which such control is being or may be exercised.

Name	Address	Percentage of Beneficial Interest	Relationship

Declaration (check the applicable box):

- I state under oath that the Applicant has withheld no disclosure as to ownership interest in the Applicant nor reserved any information, data or plan as to the intended use or purpose for which the Applicant seeks County Board or other County Agency action.
- I state under oath that the Holder has withheld no disclosure as to ownership interest nor reserved any information required to be disclosed.

Andrew D. Teed
 Name of Authorized Applicant/Holder Representative (please print or type)

 Signature
 andrew.teed@tylertech.com
 E-mail address

President ERP/Tax & Appraisal Divisions
 Title
 September 25, 2014
 Date
 (800) 800-2581
 Phone Number

Subscribed to and sworn before me this 25th day of September 2014

x 
 Notary Public Signature

My commission expires:
KAREN A. JACKSON, Notary Public
 In and for the State of Ohio
 My Commission Expires Feb. 25, 2017

Notary Seal
 04.09

**SIGNATURE BY A CORPORATION
(SECTION 8)**

The Undersigned hereby certifies and warrants: that all of the statements, certifications, and representations set forth in this EDS are true, complete and correct; that the Undersigned is in full compliance and will continue to be in compliance throughout the term of the Contract or County Privilege issued to the Undersigned with all the policies and requirements set forth in this EDS; and that all of the facts and information provided by the Undersigned in this EDS are true, complete and correct. The Undersigned agrees to inform the Purchasing Agent in writing if any of such statements, certifications, representations, facts or information becomes or is found to be untrue, incomplete or incorrect during the term of the Contract or County Privilege.

BUSINESS NAME: Tyler Technologies, Inc.

BUSINESS ADDRESS: 4100 Miller-Valentine Court
Moraine, Ohio 45439

BUSINESS TELEPHONE: (800) 800-2581 FAX NUMBER: (866) 658-4258

CONTACT PERSON: John R. Baker

FEIN: 75-2303920 *IL CORPORATE FILE NUMBER: _____

LIST THE FOLLOWING CORPORATE OFFICERS:

PRESIDENT: John S. Marr, Jr. VICE PRESIDENT: Dustin R. Wombie

SECRETARY: H. Lynn Moore, Jr. TREASURER: Brian K. Miller

**SIGNATURE OF PRESIDENT:  (Division President)

ATTEST:  Assistant
(CORPORATE SECRETARY)

Subscribed and sworn to before me this
25th day of September, 2014.

x 
Notary Public Signature

KAREN A. JACKSON, Notary Public
My commission expires _____ in and for the State of Ohio
My Commission Expires **Feb. 25, 2017**

Notary Seal

* If the corporation is not registered in the State of Illinois, a copy of the Certificate of Good Standing from the state of incorporation must be submitted with this Signature Page.

** In the event that this Signature Page is signed by any persons than the President and Secretary, attach either a certified copy of the corporate by-laws, resolution or other authorization by the corporation, authorizing such persons to sign the Signature Page on behalf of the corporation.

Delaware

PAGE 1

The First State

I, JEFFREY W. BULLOCK, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY "TYLER TECHNOLOGIES, INC." IS DULY INCORPORATED UNDER THE LAWS OF THE STATE OF DELAWARE AND IS IN GOOD STANDING AND HAS A LEGAL CORPORATE EXISTENCE SO FAR AS THE RECORDS OF THIS OFFICE SHOW, AS OF THE THIRTIETH DAY OF MAY, A.D. 2014.

AND I DO HEREBY FURTHER CERTIFY THAT THE SAID "TYLER TECHNOLOGIES, INC." WAS INCORPORATED ON THE THIRTEENTH DAY OF NOVEMBER, A.D. 1989.

AND I DO HEREBY FURTHER CERTIFY THAT THE ANNUAL REPORTS HAVE BEEN FILED TO DATE.

AND I DO HEREBY FURTHER CERTIFY THAT THE FRANCHISE TAXES HAVE BEEN PAID TO DATE.

2213292 8300

140767624



You may verify this certificate online
at corp.delaware.gov/authver.shtml


Jeffrey W. Bullock, Secretary of State
AUTHENTICATION: 1412645

DATE: 05-30-14



4100 Miller-Valentine Court
Moraine, Ohio 45439

D: 800.800.2581
F: 937.278.3711

www.tylertech.com


**CERTIFICATE OF SECRETARY OF
TYLER TECHNOLOGIES, INC.**

The undersigned, being the duly elected Assistant Secretary of Tyler Technologies Inc., a Delaware corporation, hereby certifies on behalf of Tyler Technologies, Inc. that:

1. Attached hereto is a true, correct, and complete copy of resolutions duly adopted by the Board of Directors of Tyler Technologies Inc.

IN WITNESS WHEREOF, the undersigned has executed this Certificate on behalf of Tyler Technologies Inc. to be effective as of July 1, 2014.

Tyler Technologies Inc.,
a Delaware Corporation

By: 
Name: Keith M. Brown
Title: Assistant Secretary

**RESOLUTIONS OF THE BOARD OF DIRECTORS OF
TYLER TECHNOLOGIES, INC.**

WHEREAS, the Board of Directors of Tyler Technologies Inc., a Delaware corporation (the "Company") deems it to be in the best interests of the Company to authorize certain individuals to enter into contracts on behalf of the Company's Appraisal & Tax Division;

RESOLVED, that the following persons are hereby authorized to enter into contracts for the sale and provision of goods and services in the name and on behalf of the Company's Appraisal & Tax Division in amounts up to, but not exceeding, the amounts set forth next to each person's name:

Andrew D. Teed	Unlimited
David J. Johnson	Unlimited
Benjamin S. Story, III	\$30,000,000
John R. Baker	\$10,000,000
Mark Hawkins	\$10,000,000
William A. Henderson	\$10,000,000
John F. Thompson	\$10,000,000
Keith M. Brown	\$5,000,000
Matthew A. (Gus) Tenhundfeld	\$5,000,000
Melissa Baer	\$2,000,000
Lou Caldwell	\$2,000,000
Christopher C. Carter	\$2,000,000
Steve Crysel	\$2,000,000
Mike Dwyer	\$2,000,000
Mark Folkerts	\$2,000,000
Troy D. Fryman	\$2,000,000
Maurice Gogarty	\$2,000,000
Carmen Guido	\$2,000,000
Robert N. Marshall	\$2,000,000
Paul C. Miller	\$2,000,000
Gio Giordano	\$1,000,000
Kimberly L. Frisby	\$200,000
Michael A. Hurtado	\$30,000

RESOLVED, that foregoing authorization will automatically terminate with respect to each named person on such date as such person is no longer employed by Tyler;

RESOLVED, that each officer of Tyler is hereby authorized and directed, in the name and on behalf of Tyler, to do or cause to be done any and all things, and to execute, deliver, and file and all such other agreements, amendments, instruments, certificates, waivers, documents, and papers that any of them deem necessary or advisable to carry into effect the purposes and intent of the foregoing resolutions and to consummate the transactions contemplated thereby.

COOK COUNTY SIGNATURE PAGE
(SECTION 10)

ON BEHALF OF THE COUNTY OF COOK, A BODY POLITIC AND CORPORATE OF THE STATE OF ILLINOIS, THIS CONTRACT IS HEREBY EXECUTED BY:



COOK COUNTY CHIEF PROCUREMENT OFFICER

DATED AT CHICAGO, ILLINOIS THIS 30 DAY OF September, 2015.

IN THE CASE OF A BID PROPOSAL, THE COUNTY HEREBY ACCEPTS:

THE FOREGOING BID/PROPOSAL AS IDENTIFIED IN THE CONTRACT DOCUMENTS FOR CONTRACT NUMBER
1490-13787


OR

ITEM(S), SECTION(S), PART(S): _____

TOTAL AMOUNT OF CONTRACT: **\$ 29,951,735.00**
(DOLLARS AND CENTS)

FUND CHARGEABLE: _____

APPROVED AS TO FORM:


ASSISTANT STATE'S ATTORNEY
(Required on contracts over \$1,000,000.00)

APPROVED BY BOARD OF
COOK COUNTY COMMISSIONERS

SEP 09 2015