Contract with Sidwell for Assessor Mapping Conversion

Department: Information Systems
Contact: Jim Aranguren Phone: 530.552.3291
Meeting Date Requested: May 12, 2020
Regular Agenda ☐ Consent Agenda ☒

Department Summary: (Information provided in this section will be included on the agenda. Attach explanatory memorandum and other background as necessary).

The Assessor's Office currently creates and updates cadastral maps utilizing computer aided drafting (CAD) software. These maps describe property parcels for tax assessment purposes. The Assessor's Office is seeking to modernize the mapping process using Geographic Information Systems (GIS) instead of CAD software. Benefits of GIS include improved data accuracy, enhanced parcel history tracking, standardized business work flows, and increased staff efficiency. The Assessor engaged the GIS Division of the Department of Information Systems to select and coordinate with a consultant for the requisite data conversion, training, and platform upgrades to complete the transition.

The Information Systems Department solicited for a qualified firm to provide data conversion services. Sidwell was selected based on cost and expertise both with California Assessors and the State Board of Equalization mapping standards. Sidwell will convert 2,900 parcel maps containing over 95,000 parcels, train mapping staff on new methodologies, and upgrade the GIS platform. The Department recommends entering into a contract with Sidwell for a term of date of execution through December 31, 2020, not-to-exceed $225,279.

Fiscal Impact:
The FY 2019-20 Adopted Budget includes appropriation for this project funded primarily by a grant received from the State in FY 2018-19 ($150,000) and the Clerk-Recorder ($75,000).

Personnel Impact:
None.

Action Requested:
Approve contract and authorize the Chair to sign.

Administrative Office Review: Kevin Taggart, Management Analyst, Principal

Revised: December 2019
STANDARD CONTRACT
Greater than $25,000.00

This Contract, dated as of the last date executed by the County of Butte is between the County of Butte, a political subdivision of the State of California, hereinafter referred to as “County”, and the Contractor indicated in the variable information table below, hereinafter referred to as “Contractor.”

VARIABLE INFORMATION TABLE

<table>
<thead>
<tr>
<th>Term of This Contract (Complete Dates in Just One of the Following Three Rows)</th>
<th>Term Begins</th>
<th>Term Completion Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>√ Below</td>
<td>On Following Date</td>
<td>4/29/2020</td>
</tr>
<tr>
<td></td>
<td>Upon Date Notice to Proceed Received</td>
<td>Calendar Days Following Receipt of Notice to Proceed</td>
</tr>
<tr>
<td></td>
<td>Upon Last Date Executed by County</td>
<td>Calendar Days Following Execution of Contract by County</td>
</tr>
</tbody>
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County Department: Information Systems
FOB Point:

Terms
Basis of Price (Do Not √ More Than One of the Following Four Blocks)

<table>
<thead>
<tr>
<th>Price</th>
<th>Fixed Price</th>
<th>Annual Price</th>
<th>Monthly Price</th>
<th>Hourly Rate</th>
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<tbody>
<tr>
<td>$225,279.80</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Not-to-Exceed Price: √ if Reasonable Expenses are authorized in addition to Hourly Rate

Contractor Contact Information

<table>
<thead>
<tr>
<th>Contractor</th>
<th>Tony Pellettiere</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address</td>
<td>2570 Foxfield Road, Suite 300</td>
</tr>
<tr>
<td>City, State &amp; ZIP</td>
<td>St. Charles, IL 60174</td>
</tr>
<tr>
<td>Telephone</td>
<td>630-715-9616</td>
</tr>
<tr>
<td>Email</td>
<td><a href="mailto:tpellettiere@sidwellco.com">tpellettiere@sidwellco.com</a></td>
</tr>
</tbody>
</table>

County Contact Information

<table>
<thead>
<tr>
<th>Project Manager</th>
<th>Jim Aranguren</th>
</tr>
</thead>
<tbody>
<tr>
<td>Address</td>
<td>308 Nelson Ave</td>
</tr>
<tr>
<td>City, State &amp; ZIP</td>
<td>Oroville, CA 95965</td>
</tr>
<tr>
<td>Telephone</td>
<td>530 552 3291</td>
</tr>
<tr>
<td>Email</td>
<td><a href="mailto:jaranguren@buttecounty.net">jaranguren@buttecounty.net</a></td>
</tr>
</tbody>
</table>

WHEREAS, County, through the County Department identified above, desires to have work described in the Attachment III – Scope of Work performed; and

WHEREAS, Contractor possesses the necessary qualifications to perform the work described herein.

NOW THEREFORE BE IT AGREED between the parties to this Contract that this Contract is subject to the provisions contained in the following attachments, which are made a part of this Contract. Should there be any conflicts between this Contract and the attachments that are incorporated herein, precedence shall first be given to the provisions of this Contract followed by the attachments, in descending order, as indicated below:

Attachment I – Terms and Conditions
Attachment II – Insurance Requirements for Most Contracts
Attachment III – Scope of Work

By signature below, the department head or his or her deputy certifies that no unauthorized alterations have been made to the Attachment I – “Terms and Conditions” and/or the Attachment II – “Standard Insurance Requirements.”

Typed or Printed Name __________________________ Signature __________________________ Date ______________

This Contract and the above listed Attachments represent the entire undertaking between the parties.

COUNTY

______________________________
Steve Lambert
Chair, Butte County Board of Supervisors

______________________________
Tony Pellettiere
Vice President – Sales and Marketing

REVIEWED FOR CONTRACT POLICY COMPLIANCE
General Services Contracts Division

______________________________
By ______________
Date ______________

REVIEWED AS TO FORM
BRUCE S. ALPERT
Butte County Counsel

______________________________
By ______________
Date ______________
ATTACHMENT I
TERMS AND CONDITIONS

1. **Scope of Work.** The work to be undertaken is identified in the attached “Attachment III – Scope of Work” which is made a part of this Contract.

2. **Reimbursement.** The work shall be performed for the Fixed price, Annual price, Monthly price or Hourly rate as indicated above in the variable information table, but shall not exceed the Not-to-Exceed Price if included in the variable information table. Reasonable expenses are authorized in addition to the Hourly Rate if both the Hourly Rate block and the block authorizing Reasonable Expenses are checked in the variable information table. Payment shall be made after the Project Manager or designee reviews and approves the work and after submittal of an invoice by the Contractor.

3. **County Project Manager.** The County project manager or designee for this undertaking who will receive payment invoices and answer questions related to the coordination of this undertaking is identified above in the variable information table.

4. **Independent Contractor.** Contractor is an independent contractor, working under his/her own supervision and direction and is not a representative or employee of County. Contractor agrees to file tax returns and pay all applicable taxes on amounts paid pursuant to this Contract.

5. **Confidentiality and Ownership.** The Contractor retains the exclusive right of ownership to any software, including but not limited to, source code, executable code, data structures, and APIs developed by the CONTRACTOR as part of this Agreement, as well as inventions, and any confidential information not utilizing the COUNTY’s data, produced for the COUNTY by the CONTRACTOR. COUNTY shall be granted a limited, non-exclusive license to any software, including but not limited to, source code, executable code, data structures, and APIs, developed by the Contractor as part of this Agreement, in addition to any inventions and any confidential information not utilizing the COUNTY’s data, produced for the COUNTY by the CONTRACTOR. Such license shall be royalty free, unless otherwise stated in the respective Scope of Work, or other document detailing the development of such work products, ... The COUNTY retains the exclusive right of ownership to the work, products, inventions and confidential information produced for the COUNTY by the CONTRACTOR using the COUNTY’S data, and the CONTRACTOR shall not disclose any information, whether developed by the CONTRACTOR or given to the CONTRACTOR by the COUNTY which utilizes the COUNTY’S data. The parties agree that the COUNTY will own the work, products, inventions or information produced by the CONTRACTOR utilizing the COUNTY’S data pursuant to this Contract.

6. **Termination.** This Contract may be terminated by either the County or Contractor by a thirty day written notice, and all parties shall cease all work under this Agreement upon receipt of such notice, unless otherwise agreed to in writing by the parties. Authorized costs incurred up to the date of termination by the Contractor will be reimbursed by the County. Notwithstanding anything stated to the contrary herein, this Contract shall expire on the Completion Date indicated in the above Variable Information Table unless the Completion Date is modified by written amendment to this Contract.

7. **Indemnification and Limitation of Liability.** Contractor agrees to accept responsibility for loss or damage to any person or entity, and to defend, indemnify, hold harmless and release the County, its officers, agents and employees from and against any and all actions, claims, damages, disabilities or expenses that may be asserted by any person or entity, including Contractor, to the extent arising out of or in connection with the negligent acts or omissions or willful misconduct in the performance by Contractor hereunder, whether or not there is concurrent negligence on the part of the County, but excluding liability due to the negligence or willful misconduct of the County. This indemnification
obligation is not limited in any way by any limitation on the amount or type of damages or compensation payable to or for Contractor or its agents under worker’s compensation acts, disability benefit acts, or other employee benefits acts. Contractor shall be liable to County for any loss of or damage to County property arising out of or in connection with Contractor’s negligence or willful misconduct.

TO THE GREATEST EXTENT PERMITTED BY APPLICABLE LAW, COUNTY AGREES THAT THE ENTIRE LIABILITY OF CONTRACTOR AND COUNTY’S EXCLUSIVE REMEDY WITH RESPECT TO THE SOFTWARE, THE PROFESSIONAL SERVICES AND ANY OTHER PRODUCTS, MATERIALS OR SERVICES SUPPLIED BY CONTRACTOR IN CONNECTION WITH THIS AGREEMENT FOR DAMAGES FOR ANY CAUSE AND REGARDLESS OF THE FORM OF ACTION, WHETHER IN CONTRACT OR IN TORT, INCLUDING FUNDAMENTAL BREACH OR NEGLIGENCE, SHALL BE LIMITED TO ACTUAL DIRECT DAMAGES AND SHALL NOT EXCEED IN THE AGGREGATE TWO TIMES THE ANNUAL FEES PAID IN THE THEN-CURRENT YEAR BY THE COUNTY TO CONTRACTOR UNDER THIS AGREEMENT.

COUNTY FURTHER AGREES THAT IN NO EVENT SHALL CONTRACTOR BE LIABLE, REGARDLESS OF THE FORM OF ACTION, WHETHER IN CONTRACT OR IN TORT, INCLUDING FUNDAMENTAL BREACH OR NEGLIGENCE, FOR ANY INDIRECT, PUNITIVE, CONSEQUENTIAL, INCIDENTAL, SPECIAL, OR EXEMPLARY DAMAGES WHATSOEVER, INCLUDING WITHOUT LIMITATION FOR LOST PROFITS, LOSS OF REVENUE, FAILURE TO REALIZE ANTICIPATED SAVINGS, LOST OR DAMAGED DATA, LOSS OF GOODWILL, BUSINESS OPPORTUNITIES OR REPUTATION, OR ECONOMIC LOSS, ARISING OUT OF OR IN CONNECTION WITH THIS AGREEMENT, EVEN IF IT HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH POTENTIAL LOSS OR DAMAGES, OR SUCH LOSSES OR DAMAGES ARE FORESEEABLE.

8. **Insurance Requirements.** Contractor shall procure and maintain for the duration of this Contract, insurance against claims for injuries to persons or damages to property which may arise from, or be in connection with the performance of the Work hereunder by Contractor, Contractor’s agents, representatives, employees and subcontractors. At the very least, Contractor shall maintain the insurance coverages, limits of coverage, and other insurance requirements as described in Attachment II to this Contract.

9. **Changes to the Contract.** Changes to this Contract may only be approved by written amendment to this Contract.

10. **Contractor’s Standard of Care.** County has relied upon the professional ability and training of the Contractor as a material inducement to enter into this Contract. Contractor represents that the work will be performed in accordance with generally accepted and applicable professional practices and standards as well as the requirements of applicable Federal, State and local laws, it being understood that acceptance of Contractor’s work by County shall not operate as a waiver or release.

11. **Termination for Exceeding Maximum Level of Expenditures.** Contracts exceeding the monetary limits delegated to the Purchasing Agent, or authorized deputies, are not valid unless duly executed by the Chair of the Board of Supervisors. If this Contract was executed for the County of Butte by the Purchasing Agent, or authorized deputy, this Contract shall automatically terminate on the date that the provision of services or personal property or incurring of expenses, the cumulative total of which, exceeds the amount prescribed by Government Code Section 25502.5 for personal services contracts or the amount prescribed by Public Contract Code Section 22032 (b) for public works contracts.

12. **Termination for Exceeding Maximum Term.** Contracts exceeding the five-year term delegated to the Purchasing Agent, or authorized deputies, are not valid unless duly executed by the Chair of the Board of Supervisors. If this Contract was executed for the
County of Butte by the Purchasing Agent, or authorized deputy, this Contract shall automatically terminate on the date that the term exceeds five years. Amendments to this Contract, or new Contracts for essentially the same purpose, shall not be valid beyond the five-year limitation unless duly executed by the Chair of the Board of Supervisors.

13. **Compliance with Laws.** Contractor shall comply with the Federal, State and local laws, rules and regulations that are relevant to this Agreement, including, without limitation, any nondiscrimination laws.

14. **Applicable Law and Forum.** This Contract shall be construed and interpreted according to California law and any action to enforce the terms of this Contract for the breach thereof shall be brought and tried in the state and federal courts with jurisdiction over the County of Butte.

15. **Contradictions in Terms and Conditions.** In the event of any contradictions in the terms and/or conditions of this Contract, these Attachment I TERMS AND CONDITIONS shall prevail.

16. **No Delegation or Assignment:** Contractor shall not delegate, transfer or assign its duties or rights under this Agreement, either in whole or in part, directly or indirectly, by acquisition, asset sale, merger, change of control, operation of law or otherwise, without the prior written consent of County, which shall not be unduly or unreasonably withheld. Upon consent to any delegation, transfer or assignment, the parties will enter into an amendment to reflect the transfer and successor to Provider. County will not be obligated to make payment under the Agreement until such time that the amendment is entered into.
ATTACHMENT II
INSURANCE REQUIREMENTS FOR MOST CONTRACTS
Not for Professional Services or Construction Contracts

*Please provide a copy of Attachment II to your insurance agent.

Contractor shall procure and maintain for the duration of this contract, insurance against claims for injuries to persons or damages to property that may arise from or be in connection with the performance of the work hereunder by Contractor, Contractor’s agents, representatives, employees and subcontractors. Before the commencement of work Contractor shall submit Certificates of Insurance and Endorsements evidencing that Contractor has obtained the following forms of coverage:

A. MINIMUM SCOPE AND LIMITS OF INSURANCE - Coverage shall be at least as broad as:

1) **Commercial General Liability (CGL):** Insurance Services Office (ISO) Form CG 00 01 covering CGL on an “occurrence” basis, including products and completed operations, property damage, bodily injury and personal & advertising injury with limits no less than $1,000,000 per occurrence. If a general aggregate limit applies, either the general aggregate limit shall apply separately to this project/location (ISO CG 25 03 or 25 04) or the general aggregate limit shall be twice the required occurrence limit.

2) **Automobile Liability:** ISO’s Commercial Automobile Liability coverage form CA 00 01.
   
   1. Commercial Automobile Liability: Covering any auto (Code 1) for corporate/business owned vehicles, or if Contractor has no owned autos, covering hired (Code 8) and non-owned autos (Code 9), with limits no less than $1,000,000 per accident for bodily injury and property damage.
   
   2. If no transportation services of any type are provided, and use of a motor vehicle is strictly limited to travel to and from work or work sites, evidence of Personal Auto Policy coverage with limits no less than $100,000 per person, $300,000 each accident, $50,000 property damage may be provided in lieu of Commercial Automobile Liability Insurance.

3) **Workers’ Compensation Insurance:** As required by the State of California, with Statutory Limits and Employer’s Liability Insurance with limit of no less than $1,000,000 per accident for bodily injury and disease. (*Not required if Contractor provides written verification he or she has no employees.*)

4) **Technology Errors and Omissions/Cyber Liability Insurance** appropriate to Contractor’s profession and work hereunder, with limits no less than $1,000,000 per occurrence and in the aggregate. Coverage shall respond to the duties and obligations as is undertaken by the Contractor in this agreement and shall include, but not be limited to, claims involving infringement of intellectual property, copyright, trademark, invasion of privacy violations, release or theft of private non-public information, extortion and network security liability. The policy shall provide coverage for breach response costs as well as regulatory fines and penalties as well as credit monitoring expenses.

B. OTHER INSURANCE PROVISIONS - The insurance policies are to contain, or be endorsed to contain, the following provisions:

1) The County of Butte, its officers, officials, employees and volunteers are to be covered as additional insureds on the CGL and Commercial Auto policies with respect to liability arising out of work or operations performed by or on behalf of the Contractor, including materials, parts or equipment furnished in connection with such work or operations. General Liability coverage can be provided in the form of an endorsement to Contractor’s insurance (at least as broad as ISO Form CG 20 10 11 85 or both CG 20 10, CG 20 26, CG 20 33, or CG 20 38 and CG 20 37 forms if later revisions used).
2) For any claims related to this contract, Contractors insurance coverage shall be primary insurance coverage at least as broad as ISO Form CG 20 01 04 13 as respects the County, its officers, officials, employees and volunteers. Any insurance or self-insurance maintained by the County, its officers, officials, employees and volunteers shall be excess of Contractor’s insurance and shall not contribute with it.

3) Insurer shall endeavor to provide thirty (30) days notice of cancellation.

C. WAIVER OF SUBROGATION: Contractor hereby grants to County a waiver of any right to subrogation which any insurer of said Contractor may acquire against the County by virtue of the payment of any loss under such insurance. Contractor agrees to obtain any endorsement that may be necessary to affect this waiver of subrogation, but this provision applies regardless of whether or not the County has received a waiver of subrogation endorsement from the insurer.

The Workers’ Compensation policy shall be include a waiver of subrogation in favor of the County for all work performed by the Contractor, its employees, agents and subcontractors.

D. SELF-INSURED RETENTIONS: Self-insured retentions must be declared to and approved by the County. The County may require Contractor to purchase coverage with a lower retention or provide proof of ability to pay losses and related investigations, claim administration, and defense expenses within the retention.

E. ACCEPTABILITY OF INSURERS: Insurance is to be placed with insurers authorized to conduct business in the state with a current A.M. Best’s rating of no less than A:VII, unless otherwise acceptable to the County.

F. VERIFICATION OF COVERAGE: Contractor shall furnish County with certificates of insurance before work begins. However, failure to obtain the required documents prior to the work beginning shall not waive the Contractor’s obligation to provide them.

G. SPECIAL RISKS OR CIRCUMSTANCES: County reserves the right to modify these requirements, including limits, based on the nature of the risk, prior experience, insurer, coverage, or other special circumstances.

H. SUBCONTRACTORS: Contractor shall require all subcontractors to be insured under their own policies. If subcontractors are insured under their own policies, they shall be subject to all the requirements stated herein, including providing the County certificates of insurance and endorsements before beginning work under this contract.
ATTACHMENT III
SCOPE OF WORK

The County anticipates that the Contractor selected for this work shall provide an efficient database foundation for land records using ESRI's Local Government Information Model (LGIM) and parcel fabric, along with tools, and training needed to provide County staff the ability to maintain and update parcel information in the LGIM and parcel fabric. The firm shall also provide the necessary tools and training to staff so they can provide maps that conform to the California State Board of Equalization Assessor’s Handbook Section 215.

Unless indicated otherwise herein, the Contractor shall furnish all labor, materials, transportation, supervision and management, and pay all taxes required to complete the project described below:

PHASE 1 – PROJECT IMPLEMENTATION PLAN AND PREPARATION

1. Project Initiation Meeting
The Contractor shall schedule a project initiation or "kick-off" meeting with the appropriate County personnel to set project expectations, acquire necessary data, and establish timelines for the completion of the project. The Contractor Project Manager shall be introduced as the primary contact on behalf of the Contractor during this meeting. This shall also include setting expectations and action items to be completed prior to the arrival of the Contractor Project Manager in the County.

2. On-Site Needs and Workflow Analysis
The Contractor shall analyze the current workflows, datasets, and GIS infrastructure within the County for parcel management and Assessor map development. From this analysis, the Contractor shall provide any new recommended GIS maintenance workflows that take full advantage of the ESRI Platform and the Contractor software solutions. To provide due diligence in meeting the needs of the County, the Contractor shall perform the following services of project management, information gathering, and refinement of scope.

The Contractor Project Manager shall travel to the County and personally conduct user interviews for those with a stake in the project. These interviews shall be conducted on-site over one and one half (1 ½) days.

Through these conversations, the Contractor shall establish a strong understanding of the current GIS data, technology, and workflow needs. It will be the County’s responsibility to assist with arranging for these meetings to occur during the time frame allotted for these services.

While much of the specifics of the interviews and direction of the analysis shall be fully defined during the Project Initiation meeting, it is expected that the information gathered during these interviews will be provided by the County and may include, but is not limited to: GIS assessment and related datasets, maintenance procedures, types of GIS products produced by the County (digital data, maps, tables, etc.), and integration with existing administrative systems. The Contractor shall present recommendations during a brief presentation to the County and apply some of the recommendations to the pilot phase of the project.

PHASE 2 – PILOT PROJECT AND ARCGIS ENTERPRISE IMPLEMENTATION

To ensure that the expected design of the project deliverables meet the requirements of Butte County for parcel fabric cleanup and conversion, assessor map production and geodatabase schema design, the Contractor shall deliver a geographic subset of the county’s data in the form of a pilot project. This shall be used to assist the County and the Contractor in refining the project design to optimize the deliverables in the full project. The services and data products described in Phases 3-5 shall be applied to the pilot area. The Enterprise System, necessary for parcel fabric
implementation, shall be installed and configured in tandem, or as close as possible with the pilot project

1. Pilot Area
While the finalized project area shall be determined in the Project Initiation Meeting (see Phase 1), the project area will cover a contiguous area of between 2 and 4 square miles and contain approximately 1,000 parcels. Upon selecting the pilot area, it is highly recommended by the Contractor that the area include the largest variety of map scales, parcel types (condos, etc.), and annotation types to have as many issues as possible addressed that can be before going into full production. The County will provide details of the area to be used for the pilot area.

2. Review
The Contractor shall produce a geodatabase with a converted parcel fabric for the selected parcels, all plotting features for those map pages where the parcels exist, and a series of hard copy plots for all representative pages. The pilot project is expected to be an iterative process with refinement to conversion procedures and geodatabase specifications. The County will review the pilot area products for quality, completeness, and accuracy to then report feedback to the Contractor.

The Contractor shall implement the feedback received from the County, refine the pilot area, and resubmit the pilot back to the County. The Contractor shall also make available any supporting design documentation to the County.

3. Pilot Project Deliverables
The following are the deliverables for the pilot project:

- Pilot Geodatabase for one (1) Assessor Map Book area (file geodatabase)
- Converted parcel fabric (parcels and row features)
- Plotting index polygons and supporting features
- Annotations and lines for assessor map production
- Configured ArcGIS Pro project file (.aprx) to review data
- Geodatabase design documentation
- Plots for Assessor Map Pages (.tif/.pdf)
- Resubmitted Pilot Geodatabase after corrections

4. ArcGIS Enterprise Implementation
ArcGIS Enterprise is an essential foundation for parcel fabric implementation. It shall be installed and configured in tandem with the Pilot Project by the Contractor but treated as a singular milestone. Comprised of four software components, ArcGIS Enterprise will introduce a smoother way to apply security, analyze data, collaborate, and create cross-platform maps and applications. The Contractor’s ArcGIS Enterprise Services Bundle shall include these steps:

1. Consultation and project planning
2. Installation and configuration
   a. ArcGIS Server (includes ArcGIS Server Manager)
   b. ArcGIS Web Adaptor
   c. Portal for ArcGIS
   d. ArcGIS Data Store
   e. Organization management
3. Training for administrators and end users

The Contractor shall begin the first step with consultation and project planning with the County in which the ArcGIS Enterprise deployment type (may require multiple servers) and security type will be determined.
In step 2 the latest version of the four software components (a-d) shall be installed and configured to work together as an ArcGIS Enterprise replacing the existing ArcGIS Server 10.5 functions. Following the installation and configuration of software components the organization management shall be configured (e). This configuration includes named users, roles, licensing, permissions, and registering geodatabases.

In step 3 administrators and end users (publishing and consuming data) will be trained how to utilize and manage all aspects of the ArcGIS Enterprise environment including but not limited to administering Portal, Data Stores, and web services.

PHASE 3 – MIGRATION AND CLEAN UP OF THE COUNTY PARCEL DATA TO THE PARCEL FABRIC AND LGIM

The Contractor shall create an ArcGIS Pro-based parcel fabric dataset and populate the model therein with the County's existing tax parcels. The Contractor shall take the necessary steps to analyze, clean, stage, and load tax parcels into the parcel fabric, and then tune the fabric for performance. The Contractor shall enable the project geodatabase with the latest schema and functionality available for the current working version of ArcGIS at the time of delivery.

1. Data Cleanup
- The Contractor shall analyze all polygons for overlaps and gaps between mutually exclusive land record parcels. Topology errors shall be flagged and corrected using ESRI topology tools. Furthermore, there shall be work performed on each set to ensure that parcels are coincident with each other topologically throughout the conversion process, if they are intended to do so.
- Additional Data Clean-up – Simplifying Curves. The Contractor shall identify curve features that are densified arcs (multi-segment lines that are a series of small straight segments mimicking a curve rather than a true curve) and shall change them into true curves. Changing the legacy curves to true curves greatly reduces the number of features loaded into the parcel fabric and streamlines the geodatabase.

2. Data Staging
The Contractor shall load the County's existing countywide parcel layer to a staging geodatabase, which allows for schema and attribute requirements to be enacted on the data prior to loading the features into the target parcel fabric. Features shall then be sorted into the correct staging layers and categorized in a manner recognizable to the parcel fabric schema. Additionally, the appropriate attributes shall be mapped to the staged database fields to ensure simple loading into the LGIM geodatabase. Concurrently, The Contractor shall also maintain critical attributes that the County wishes to retain moving forward.

3. Data Loading
After properly staging the data, the Contractor shall load the data into a geodatabase:

Create Parcel Fabric Geodatabase
The Contractor shall convert and load the staged County parcel features into an ESRI ArcGIS Pro geodatabase. The Contractor shall use the best available parcel fabric schema provided on the ArcGIS for Local Government portal, and add additional parcel types if necessary, based upon discussions with the County.

Load Staging Data
The Contractor shall load the data from the staging geodatabase into the ArcGIS Pro geodatabase using ArcGIS geoprocessing tools. The data shall be loaded in stages for each type of feature.
Testing
The Contractor shall perform a series of testing procedures and small edits on the data to ensure that it was loaded correctly and can utilize the intended functions and tools.

PHASE 4 – ASSESSOR MAP DESIGN

The Assessor Map Conversion phase of the project describes all conversion of the County’s GIS-based features, geodatabase schemas, map documents, and configuration files necessary to completely reproduce the County’s Assessor Maps in an ESRI-based environment. The mapping system shall closely conform to the standards present on the current set of Assessor’s maps and meet the CA State Board of Equalization’s Section 215 Assessment Map Standards.

1. Data Gathering
The Contractor shall work with County staff and make arrangements for delivery of supporting assessor map files to the Contractor for conversion. While more specific data format considerations can be suggested, the County will deliver to the Contractor at the outset of the project, the following files:

- Most current complete set of the County’s assessor map AutoCAD files
- A representative sample of current scans of County assessor map pages in either pdf or tiff format
- Any additional supporting files deemed necessary in the Project Initiation

Once gathered and delivered, the Contractor shall logically sort and distribute areas of work to individuals.

2. Geodatabase Schema Design
The Contractor shall develop feature class layers in the project geodatabase in addition to the LGIM features. The initial geodatabase design shall be delivered and refined, if necessary, according to the needs of the County before entering full production.

While the final geodatabase design has yet to be implemented, the following describes the minimum feature classes required for successful implementation of this project:

Page Index
A polygon feature class, referred to as a ‘Page Index’, shall be created delineating the areas displayed on all the County’s Assessor Maps. The polygons shall accurately reproduce the visible extent of the specific area of land represented by the map page. Each polygon shall be attributed with page-specific information that can be used by the MapPlotter software to display the attributes on the margins of the map page as well as provide searchable reference for County staff. The Contractor shall interpret the boundaries of the page indexes by reconciling each map page with the current countywide parcel layer.

Page Border
An additional feature class shall be created that is used to delineate the extent of the complete map page in real space. Where the page index is used to clip out an area of the parcels are exclude surrounding areas, the page border is the rectangular area of the map page within which the supporting annotations and marginalia are included. The purpose of the page border is to provide a physical feature in the map maintenance environment to control editing within the frame of the map page.
Map Line
A Map Line feature class shall include all linear and cartographic features required in the mapping system that would be used in the same manner as annotations and additional linear boundaries. Examples of these features include lot lines, subdivision corners, ownership hooks, bearing and dimension tics, leader arrows, etc. The feature class shall be subtyped so that users can query individual line feature types and filter line types for editing. All features shall be attributed with the assessor map page on which they appear.

Map Cartography
A Map Cartography feature class shall include all linear features required in the mapping system that would be used in the same manner as annotations. Examples of these features include subdivision corners, ownership hooks, bearing and dimension tics, leader arrows, etc. The feature class shall be subtyped so that users can query individual line feature types and filter line types for editing. All features shall be attributed with the assessor map page on which they appear.

Map Annotation
The Map Annotation feature class shall include all annotation for the assessor map system. These annotation features include parcel numbers, block numbers, road names, and legend information like tax rate areas, survey references, etc. The annotation feature class shall include separate annotation classes for each feature type (APN, Road, etc.). All features shall be attributed with the assessor map page on which they appear.

Map Point
A Map Point feature class shall include all point features required in the mapping system that would be used in the same manner as annotation, but points. Examples of these features include section corners, parcel corners, etc. The feature class shall be subtyped so that users can query individual point feature types and filter point types for editing. All features shall be attributed with the assessor map page on which they appear.

3. **Plotting Boundary Creation**
For every assessor map page there shall be one (1) page index polygon attributed with the assessor map page and any other attributes the County deems important. The border features shall be derived from parcel boundaries based upon the APN assigned to the parcels, dissolved to a single feature, and scaled in real space to indicate the extent of a map page. The index features shall be interpreted from the visible parcel features shown on the map page and the irregular extents shall be recreated in real geographic space in the project geodatabase. Rotation factors shall be interpreted from each assessor map using the north arrow and the angle from true north. The scale factor shall be attributed on the polygons and interpreted as indicated on the map pages. All supporting attributes shall be derived from the map pages.

4. **Map Publication**
The Contractor shall create all supporting map documents and files for the County to publish assessor maps using the data from the project geodatabase. Each of the following components are designed to be used with The Contractor’s MapPlotter application as an extension to ArcGIS Pro.

**Map Page Template**
The Contractor shall create an 11” X 17” layout in ArcGIS Pro for all assessor map pages with single data frame layouts (one contiguous area visible on the map). The template shall be designed so that as many of the assessor maps can use it as possible. The template shall
include:

- Clipped data frames to show specific parcels, annotations, lines and points stored as geospatial data in the delivered fabric geodatabase. As the user navigates between pages in MapPlotter, the data frame shall zoom to the correct map page and show the contents within that boundary stored in the page index feature class.
- Dynamic text elements that shall change when the user navigates from page to page. The text shall be linked to attribute fields in the page index feature class.

Map Page Exceptions
While it is expected that the aforementioned layout shall work satisfactorily with the majority of assessor map pages, the Contractor expects some unique mapping scenarios that may require a map document to be created for one specific Assessor map. These unique scenarios shall function seamlessly in the end-user workflow, but the Contractor shall make the County aware of these outliers upon delivery. The Contractor shall note these exceptions and create unique map documents for each of the exception pages.

MapPlotter Configuration File
The Contractor shall create a configuration file for MapPlotter to pre-configure MapPlotter for immediate use upon delivery. The Contractor shall configure the file so that all pages will be sorted and grouped by map book for easy navigation. The configuration file shall reference all templates and subdivision index PDF’s in order.

5. Map Maintenance
The Contractor shall create all supporting map documents and configuration files for the County to maintain the geodatabase, parcel fabric, and assessor map system within ArcGIS Pro.

Editing Map
A map within the delivered ArcGIS Pro project shall be preconfigured for the County to perform editing tasks on the parcel fabric and assessor map data. The data frames, layers, and editing templates shall be configured to streamline the map maintenance process.

PHASE 5 – CONVERSION OF AUTOCAD ASSESSOR MAPS

1. CAD Map Conversion
The Contractor shall convert all the County's Assessor Map CAD files to ArcGIS Pro geodatabase features. The Contractor shall take the necessary steps to analyze, convert, and sort line and annotation features into the project geodatabase. The Contractor shall use the following source documents to support the cadastral conversion process:
- Approximately 2800 complete CAD Files

2. Spatial Adjustment
For every assessor map page and book index with supporting CAD features, the Contractor shall convert and spatially georeference all annotation, line and point features from CAD into the project geodatabase and the corresponding feature classes and subtypes. All features shall be attributed with the map page on which they appear. All features shall be properly registered to appear in their correct locations in relation to the parcels in real space and the generated assessor map.
PHASE 6 – IMPLEMENTATION AND TRAINING

The Contractor shall provide County staff with all documentation and training materials necessary to successfully maintain the new geodatabase, parcel fabric, and Assessor Maps. The Contractor shall provide seven (7) total days of on-site resources in two (2) separate trips to assist in the implementation of the new project geodatabase on the County’s enterprise system and provide the necessary training in ArcGIS Pro, parcel fabric, and assessor map maintenance. The Contractor shall also assist in the installation, configuration and testing of mapping workstations. The Contractor shall also provide on-site training services to ensure that County staff will be able to maintain the new system. Lastly, the contractor shall provide implementation, detailed documentation, and training on all workflows necessary to reflect edits made in the parcel fabric going forward into the County’s existing parcel feature classes used in all desktop and online applications.

1. On-Site Implementation
   A Contractor Project Manager or Analyst shall perform the following services at the County:
   - Assistance in loading project geodatabase into the enterprise GIS system
   - Assistance in configuring project geodatabase in production for versioning, privileges, other enterprise related settings
   - Loading of project files onto accessible directories with consulting from County
   - Installation of the Contractor software on individual workstations
   - Configuration of the Contractor software on individual workstations
   - The Contractor shall provide the County with the necessary Contractor software to deploy in the test environment at no additional cost. If the software expires it shall continue to be renewed at no additional cost until the County has their environment live in production.
   - End-to-end testing of accessing, editing, and map production workflows in production enterprise project geodatabase
   - The Contractor shall utilize County specific data for all training and workflow development, when applicable. Some training exercises may occur prior to final delivery of the County’s data and may require pre-configured data. All training and workflows shall be designed specifically for the County’s environment.

2. On-Site Training
   A Contractor Project Manager or Analyst shall perform on-site training for staff at the County. The following outline is provided as a guide for which topics are to be covered. The order and length of each session is expected to be fluid to keep pace with the participating staff members from day-to-day.

   **Basic ArcGIS Pro Training**
   At the outset of training, it is expected that users will be new to ArcGIS Pro. Time will be allocated simply to direct users to the most important aspects of ArcGIS Pro to provide a foundation for maintaining data moving forward.

   - Opening and closing ArcGIS Pro Projects
   - Accessing maps, layouts, database connections, etc.
   - Adding and removing data
   - Navigating Maps (zoom, pan, etc.)
   - Simple editing
   - Changing labeling and symbology properties
Parcel Fabric Training
In this course, individuals responsible for mapping in the parcel fabric will be introduced to the fabric editing tools provided in ArcGIS Pro. Users will perform fully documented hands-on exercises and County examples that address the following functions:

- Understanding the parcel fabric components
- Querying the parcel fabric (e.g. history)
- Splitting and merging parcels (simple)
- Making boundary line adjustments
- Creating condominiums
- Entering plats/subdivisions - COGO
- Adjusting to parcel fabric
- Copying and pasting constructions into the parcel fabric
- Placing bearing and dimension annotations using fabric tools
- Publishing the parcel fabric to the Assessor’s Enterprise GIS environment
- Least Squares Adjustments

Assessor Map Creation
In this training session, the Contractor shall ensure users will learn all the workflows and functions for creating updated and new Assessor Maps that conform to the California standards. This shall show users how to approach the placement of features for a specific map in tandem with editing parcels in the parcel fabric. The Contractor shall introduce users to MapPlotter, which is the proposed tool for batch plotting and export of multiple map pages. Under the Contractor’s instruction, users will perform fully documented hands-on exercises that address the following functions:

- Placement of features for specific map pages in the geodatabase
- Creation and updating of new map pages and templates
- Applying scales and rotation factors to maps
- Exporting maps in bulk
- Plotting maps in bulk

EXHIBIT A – ADDITIONAL CONTRACTOR ASSURANCES

Additional Contractor assurances for worked performed under this contract per Exhibit A-Additional Contractor Assurances, attached hereto and incorporated herein.

PROJECT MANAGEMENT AND VENDOR QUALITY CONTROL
The project shall be directly managed by the Contractor Project Manager. The selection of this individual shall be based upon: 1) strength of knowledge regarding California mapping standards, and 2) experience in managing GIS production and implementation projects in multiple jurisdictions of various sizes and locations the Contractor Project Manager shall be directly involved with all aspects of this project, and shall be in attendance for all critical project meetings, both on-site and via webcast. They shall be directly responsible for coordinating and defining the Contractor’s implementation plan, requirements finalization, pilot project,
implementation and training. The Project Manager shall be the primary Contractor point of contact for all project communications. The Contractor project manager shall submit updated project work plans and status reports to the County’s project manager at regular intervals (e.g. weekly, bi-weekly) and as project events may require.

QUALITY CONTROL AND USER ACCEPTANCE BY COUNTY
At the Contractor, quality control is an integral component of our production environment. As such, it is both an informal process, and a formal set of procedures. Informally, each Contractor technician, regardless of their position or level of experience, has the authority and is expected to question work performed by others when questions arise. Formally, all converted data is checked prior to completion of each task. Our most experienced cadastral mapping technicians, who include department managers and their assistants, perform quality control. Every feature is checked by these high-level technicians to ensure accuracy and adherence to the County's map standards.

1. **Technical Quality Assurance**

Map quality and data integrity result from years of collective experience. At the Contractor, this experience comes from our mapping technicians, analysts and managers, many of whom have been at the Contractor for more than a decade. These mapping experts have refined their drafting and communication skills to deliver projects to our clients that continually surpass their expectations.

The Contractor has been dedicated to the performance of quality services for more than 90 years. This dedication has been recognized as an important factor in establishing us as a GIS leader nationwide. Our quality control mechanisms as outlined below allow the Contractor to deliver to our clients, products with the highest degree of accuracy and integrity available.

2. **Quality Control Mechanisms**

Quality control mechanisms exist at every stage of a mapping project. Through a series of checking and re-checking work, high map accuracy and data integrity is achieved. Checking initially takes place in our GIS production department by staff solely devoted to data compilation and checking. Quality control mechanisms include:

- Enforcement of Data Integrity Rules
- Map Compilation Check
- Map Check
- Digital Verification

3. **Enforcement of Data Integrity Rules**

Preventing errors from occurring at the beginning of the process is much more efficient than fixing them later. Towards this end, the Contractor uses a unique data capture environment to ensure that boundaries that should be geographically coincident are geographically coincident. Instead of capturing parcel, lot, subdivision, and right of way boundaries that are on top of one another (geographically coincident), we capture one boundary and tag it as being a part of each feature type in which it participates. By having a single boundary that knows it’s a part of a parcel, lot, subdivision, and right of way feature, we eliminate any chance of slivers or minor mismatches between the features because they were generated from the same physical boundary on the map.

4. **Map Conversion Check**

Analysts have digital software tools, developed internally by our GIS Services and Support
department, which give them the ability to check their work and fix any errors quickly. These
digital tools also give the analysts the ability to perform automated tasks that can build
components of the mapping system more efficiently while also removing some of the human
error that would have resulted using older methods.

5. **Map Check**

After all the data has been compiled and the first maps are created, measures are taken to
ensure that each map depicts the original data legibly, logically and accurately.

It is the job of the checker to determine that:
- Map elements are represented correctly and are geographically accurate
- Data is accounted for and there is no missing information
- Parcel information is correctly placed and cross-referenced to the appropriate tabular
  records in the database(s)
- Every map and/or digital file conforms to the current procedures of aesthetic uniformity
  and consistency

6. **Digital Verification**

Topology of all line work related to parcel boundaries must be extremely precise when delivered
in a digital format. The Contractor uses the mapping software’s existing tools, as well as several
tools developed internally, that clean and validate topology while also making the checking of
individual features more efficient. A few very important routines used for more automated quality
control are described below:

- Feature Checking - The Contractor has tools in place that can rapidly display features of
  similar type to ensure all features are designated correctly.
- ArcGIS Topology Validation – Applicable topology rules are defined within ArcCatalog that
  validate both the linear and polygon feature classes. These topology rules are run against
  the entire geodatabase to ensure the following:
  - All linear feature classes are free of overshoots and undershoots
  - All linear features that should participate in an associated polygon face do so.
  - Ensure that polygon feature classes are free of sliver polygons.
- The Contractor Parcel Number Validation Routines - We also run our own quality control
  programs to ensure that every parcel polygon has an associated parcel number.

7. **Post Delivery Assurance**

If errors arise after final delivery, it is our policy to ensure that any and all the Contractor
mistakes are rectified quickly and correctly. We stand by our products as they leave our facility,
and we can guarantee that all products are constructed using every quality control mechanism
described above. The Contractor shall provide the County with guidelines for checking the
quality of delivered data from which to proceed.

8. **Communication with the County**

The Contractor Project Manager shall submit updated project work plans and status reports to
the County’s project manager at regular intervals (e.g. weekly, bi-weekly) and as project events
may require.

**DISCREPANCY COMMUNICATIONS**

Discrepancies in data received for the project will surface at any given stage of production. Our
experienced technicians shall often resolve these discrepancies using several forms of evidence and common logic. When there are data discrepancies that cannot be resolved in-house, the client is notified either directly through the Production Manager or the Project Manager to get more information on these issues.

- **Research Questions** – Any discrepancy discovered that cannot be resolved is immediately researched. The Contractor shall contact the client to provide information and knowledge regarding these problems. The Contractor shall use this approved information to make changes that agree with the client’s data.

- **Discrepancy Reports** – A discrepancy report that enumerates all the significant errors found in their data are provided upon delivery and discussed with the client.

**PARCEL NUMBER VALIDATION**

As a part of this project, the Contractor shall provide a complete parcel validation process. The process ensures that every parcel in the tax roll has an associated parcel in the GIS and that every parcel in the GIS has a one to one match in the tax roll. This process also includes the validation for non-polygon parcels such as parcel points (which may be associated with condominiums), leased land, or other special property types.

**POST IMPLEMENTATION SUPPORT**

1. **MapPlotter™ Suite**

To meet the County’s needs of producing uniform assessor maps as directed in the statutory requirements of Section 215 in the California Board of Equalization’s Assessor Handbook, and to meet the quality control standards of map production within a modern GIS-based platform, the Contractor has included the Contractor’s MapPlotter application. MapPlotter, which loads as an extension to ArcGIS for Desktop, can be used to manage all assessor map pages and indexes within one application. MapPlotter provides several enhanced functions not available in core ArcGIS (re-centering, access to multiple map documents at once, organization of pages into books, etc.) that are necessary to optimize the map production environment under the proposed solution. MapPlotter is a separate application, which means it can be activated simultaneously with the user’s ArcPro session.

MapPlotter requires ArcGIS Desktop or ArcGIS Pro loaded on the same computer and is an extension to ArcGIS Desktop/ArcGIS Pro.

The potential benefits are:

- Production of assessor maps from GIS platform
- Management of entire assessor map system in one application
- Bulk export to required files (pdf/tiff)
- Loads as separate application to ArcPro
- Adds additional functionality for map production to what ArcPro alone provides

**Software Deliverables**

The software deliverables include:

- One (1) single-user seat of MapPlotter

**The Contractor Software Maintenance and Support**

All installed The Contractor software includes one (1) year of free Basic Software Support that is renewed on an annual basis. The following is included in this support package:
• Use of remote access/webcast to solve problems (GoToMyPC, Remote Desktop, etc.)
• The Contractor software configuration issues
• Free updates to the Contractor software
• Guaranteed response time within less than one (1) business day
• Access to the Contractor’s Help Desk: (630) 549-1080, which is available Monday through Friday 5:00 AM – 5:00 PM PST/PDT, excluding holidays.

2. **Annual Parcel Fabric Workflow Support**
The Contractor provides front-line support for tools, workflows, and best practices for users working in the parcel fabric data model. This support package, which is renewable on an annual basis, allows customers to call the Contractor’s Help Desk to address issues directly related to:

• Best-practices technical and workflow support for ESRI Parcel Fabric tools
• Step-by-step support with parcel mapping workflows, including:
  - Parcel Editor suite of tools
  - Parcel workflows introduced by The Contractor
  - Joining/unjoining parcels and sketches
  - Plans
  - Examining attributes
• Support with data specific map document design, including:
  - Layer symbology schemes
  - Field aliasing
  - Complex labeling
• Support with existing Fabric adjustment workflows, including:
  - Transforming parcels
  - Parcel fabric adjustment
• Help with mapping and display strategies for optimized visualization of data
• Routines and scripts to publish parcel fabric data to the desktop and/or web
• Help with understanding the structure of your data, reviewing attributes for quality control, and other map analysis such as working with historical parcel data
• Troubleshooting potential problems in workflows introduced by the Contractor
• Future planning questions about software patches/upgrades or how map changes may affect other systems (such as publishing to ArcGIS Online or exporting to end users)

3. **Hourly Support Packages**
The Contractor also provides hourly support on an as-needed basis. The County may elect to purchase “pay as you go” support or a support package. The Contractor pay as you go support rates begin at $175.00/hour and their base support package of eight (8) hours begins at $1,280.00. Additional packages shall be available and customizable to meet the County’s needs.

**Project Assumptions and Notes:**

• Travel total shall be included in the price of the contract, which represents travel hours.
• Travel expenses are advisory only and shall be billed separately from the contract.
• Annual recurring fees shall be billed automatically each year until cancelled in writing and shall not increase more than 5% per year for 3 years following implementation.
• Training/support services shall be invoiced in full upon commencement of training and shall
be payable within thirty (30) days.

- Training/support services must be completely used by the County within twelve (12) months of commencement of training.
- Additional services not specifically identified under the scope of this agreement may be added as mutually agreed upon by the County and the Contractor, and project pricing shall be modified accordingly at that time.

**Contractor Milestones**

Sidwell will submit monthly invoices for the percentage of work completed. Contractor shall be compensated net 30 days upon invoice and acceptance of completed work by County. Annual software licensing and support to be commenced and invoiced upon installation.

<table>
<thead>
<tr>
<th>Milestones</th>
<th>Compensation</th>
<th>Phase &amp; (Sections)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Project Implementation Plan and Preparation</td>
<td>$3,960</td>
<td>Phase 1 (All)</td>
</tr>
<tr>
<td>2 Pilot Project</td>
<td>$4,320</td>
<td>Phase 2, (1-3)</td>
</tr>
<tr>
<td>3 ArcGIS Enterprise Implementation</td>
<td>$9,900</td>
<td>Phase 2, (4)</td>
</tr>
<tr>
<td>4 Migration and Clean Up of the County Parcel Data to the Parcel Fabric and LGIM</td>
<td>$24,000</td>
<td>Phase 3 (All)</td>
</tr>
<tr>
<td>5 Assessor Map Design</td>
<td>$7,200</td>
<td>Phase 4 (All)</td>
</tr>
<tr>
<td>6 Conversion of AutoCAD Assessor Maps</td>
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<td>Phase 5 (All)</td>
</tr>
<tr>
<td>7 Implementation and Training</td>
<td>$12,960</td>
<td>Phase 6 (All)</td>
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</table>

Travel expenses are estimated by Contractor using searches of travel costs in the area, however, preapproval from the County must be given to the Contractor prior to incurring travel costs. Monthly travel invoicing shall include supporting documents. $8,140.80 Travel

<table>
<thead>
<tr>
<th>Extra Services</th>
<th>Compensation</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>One MapPlotter Suite Software Annual License</td>
<td>$1,599</td>
<td>License</td>
</tr>
<tr>
<td>Annual Parcel Fabric Workflow Support</td>
<td>$2,800</td>
<td>Support</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>$225,279.80</strong></td>
<td></td>
</tr>
</tbody>
</table>

**Contractor Reports :**

The Contractor shall provide regular weekly status reports by email.