

# Assessor Property Assessment System (APAS) Project

## Exhibit A

### Statement of Work #1

December 11, 2018

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## Definitions

Abbreviation	Meaning
ACRE	Assessor-County Clerk-Recorder-Elections
APAS	Assessor Property Assessment System
API	Application Program Interface
APN	Assessor's Parcel Number
ARB	Architecture Review Board
BFA	Business Functional Areas
BOE	Board of Equalization
CIO	Change in Ownership
CCB	Change Control Board
CAMA	Computer Assisted Mass Appraisal
COGO	Coordinate Geometry
DB	Database
DM	Document Management
DNQ	Does Not Qualify
ERD	Entity Relationship Diagram
ETL	Extract, Transform, Load
FEIN	Federal Employer Identification Number
FTP	File Transfer Protocol
HLD	High Level Design
Hi-Fi	High Fidelity
IE	Internet Explorer
ITIL	Information Technology Infrastructure Library
IV&V	Independent Verification and Validation
KT	Knowledge Transfer
LOE	Level of Effort
Lo-Fi	Low Fidelity
M&O	Maintenance and Operations

NFR	Non-Functional Requirements
PDF	Portable Document Format
PMI	Project Management Institute
POC	Proof of Concept
QA	Quality Assurance
QC	Quality Control
QM	Quality Management
RFP	Request For Proposal
RTM	Requirements Traceability Matrix
SDLC	Software Development Life Cycle
SIT	System Integration Test
SLA	Service Level Agreement
SMC	County of San Mateo
SOP	Standard Operating Procedure
SOW	Statement of Work
SRS	Software Requirements Specification
UAT	User Acceptance Testing
UI	User Interface
VPN	Virtual Private Network
W3C	World Wide Web Consortium
WBS	Work Breakdown Structure
XML	Extensible Markup Language

This Statement of Work #1 (“SOW #1”) is entered into pursuant to and is a part of the Contract between the County of San Mateo, a political subdivision of the State of California (“**Customer**” or “**County**”) and Sapient Corporation, a wholly-owned subsidiary of Publicis Groupe S.A., a French holding company registered on the Euronext stock exchange, having a principal place of business at 131 Dartmouth Street, Suite 300, Boston, MA 02116 (“**Contractor**”) effective as of December 11, 2018 (the “Agreement”). All terms used in this SOW #1 and not otherwise defined herein will have the same meaning as in the Agreement.

## 1 Objectives and Overview

California property assessments are regulated by State Constitution, Revenue and Taxation (R&T) code; property tax rules; State Board of Equalization (BOE) rules, regulations and directives; and local ordinances, rules, regulations, and Assessor’s policies and procedures etc. It is the County’s intention that the Business use cases, workflows and the functional, general and technical requirements identified in Exhibit A-1 (Business Requirements) and Exhibit A-2 (Technical Requirements) encompass all the APAS requirements. The APAS project is structured such that during the Definition phase, the business requirements and technical requirements will be validated and expanded where appropriate. Furthermore, the activities in the Definition Phases will identify and develop the detailed business workflows and business rules required to build the APAS solution. It is the responsibility of the Contractor and their team members to ensure that during the Definition Phase, they document a comprehensive set of business rules to meet the current California Property Assessment rules and regulations and to design/develop the APAS solution accordingly.

The Assessor Property Assessment System (APAS) project is a business-driven effort to replace the legacy system, modernize the tools, improve workflows, and streamline internal/external interfaces of the system in order to meet the needs of the constituents and stakeholders to maintain the statutory and constitutional obligations of County of San Mateo (SMC) Assessor division. In turn, this project is more than just a replacement of the existing legacy system, but also a transformation of the business processes of the Assessor division.

The APAS project’s main focuses are addressing existing challenges and enabling future business operations to improve processes and add new functionalities and capabilities. The below APAS Guiding Principles and Goals have been established:

- Continue to fulfill the Assessor’s constitutional obligations to close the roll by replacing the Department’s 20-year old legacy system.
- Eliminate the current COBOL-based legacy system which is not scalable, flexible, extensible or cost-effective to maintain.
- Develop a state-of-the-art business application to support workplace transformations that will improve efficiency, productivity and greatly enhance services and information provided to the Assessor department’s constituents.
- Provide the County’s constituents with a state-of-the-art web portal improving data accuracy, allowing 24/7 online access and expanding self-service capabilities.
- Architect and develop a system that is flexible, scalable, extensible and easily modifiable to incorporate any regulatory and business changes.
- Build a system which is cost-effective to maintain and support and to provide the end-user with the capability to configure components of the system.

All documents referenced in this SOW #1 are incorporated by reference as if fully set forth herein.

## 2 Project Scope

Contractor will perform the Scope of Services as detailed in Section 3 and comply with the requirements and specifications set forth in this SOW #1, unless otherwise expressly indicated in this SOW #1 to not be in scope for Contractor's responsibilities.

The APAS Solution's business and technical requirements are provided in Exhibit A-1 (Business Requirements) and Exhibit A-2 (Technical Requirements).

**At the close of the Definition Phase, the Deliverables as listed in Exhibit A-3 (Deliverables) shall then constitute the complete and final APAS requirements.**

The Contractor shall ensure that the APAS Solution is aligned with ACRE's envisioned future operations and processes, as well as ensuring ACRE would have their specialized needs addressed through the business requirements specified for the new APAS. Additionally, County provided clarifications to the scope of work throughout the Request for Proposal (RFP) process including the Due Diligence process.

Contractor will be required to review, validate and further define and develop the detailed business and technical requirements, use cases, workflows, data model and business rules with County APAS staff. Contractor must also propose their approach for augmenting the existing technical requirements (Exhibit A-2) to support all the business requirements (Exhibit A-1).

Contractor will:

1. Validate the business and technical requirements provided by County and expand these requirements during the Definition Phase if new business and technical requirements are identified.
2. Create/develop detailed business requirements including the business rules and software requirements specification required to architect, design, build, test and deploy the APAS Solution (defined below) that will achieve all of the business, technical and operational requirements necessary to perform each of ACRE's business functions.
3. Build the APAS solution as a business transformation effort, the scope of which must include modernizing ACRE's business processes to maximize efficiency, accuracy, and flexibility.
4. Incorporate within the requirements, architectural, design, build, test and deployment plans that support the multi-phase implementation approach which will be used. As such, the scope of each Phase must account for both the dependency on the interfaces/integration (as identified in the Business Context Diagram provided in the RFP and Exhibit A-1 (Business Requirements), Exhibit A-2 (Technical Requirements)) as well as the ultimate end-to-end system requirements.
5. Perform activities identified in Exhibit A-4 (Roles and Responsibility Matrix).
6. Provide Subject Matter expertise throughout the project on Revenue and Taxation (R&T) code, Board of Equalizations (BOE) rules and guidelines, and EZ-Access system.
7. Provide detailed data conversion staging tables aligned with their proposed solution's data structure and values, coding all extract, transform, and load (ETL) logic to move data from the data files provided by the County to the APAS staging tables and finally to the APAS database.

County will:

- Provide Subject Matter expertise on R&T code, BOE rules and guidelines, Assessor's policies and procedures, and the EZ-Access system to provide input throughout the project and to review and sign off on the Deliverables.
- Perform activities identified in Exhibit A-4 (Roles and Responsibility Matrix).
- Perform User Acceptance testing of the APAS solution.
- Extract data, perform data cleansing, and produce data files for Contractor to use in conversion activities.
- Ensure the accuracy of the legacy systems data and perform the final validation and approval of converted data.

## **2.1 Phased Implementation of APAS**

At the close of the Definition Phase, the Deliverables as listed in Exhibit A-3 (Deliverables) shall then constitute the complete and final APAS requirements that must be architected, designed, developed, tested and deployed.

Prior to initiating Phase 1 development, it is essential that the requirements of Phases 1, 2 and 3 be understood, documented, validated and incorporated in the overall architecture, Solution design and data model. In other words, to minimize rework and maximize reusability, the Phase 1 detailed design work must leverage known Phase 2 and Phase 3 requirements.

While the components of Phases 1, 2 and 3 were based upon a preliminary business determination of the most rational approach to implement a new system while maintaining ACRE's core business functions, it is essential that all design decisions take into account the ultimate requirements of the whole system as defined in the Definition Phase. This will include mutual decisions made by County and Contractor during the Definition Phase to move certain components from Phase 2 and Phase 3 to Phase 1 – and vice versa and finalize the number of Phases to implement the full project scope.

### **Definition Phase:**

Deliverables and activities are incorporated in Exhibit A-3 (Deliverables) and Exhibit A-4 (Roles and Responsibility Matrix). As a component of the bi-weekly report, the contractor must provide County with details related to project scope and complexity that may impact the Definition Phase Gap Analysis Report. This reporting will allow the County to be notified by the Contractor as promptly as possible of any potential impact to the price structure as detailed in Exhibit B (Fee Methodology & Payments).

During the Definition Phase, Contractor shall engage a team of experts to bring in domain knowledge regarding California Property Assessment including real property and business personal property. Contractor shall also engage a team of experts with vast experience in implementing business transformation and legacy modernization Projects.

**At the close of the Definition Phase, the Deliverables as listed in Exhibit A-3 (Deliverables) shall then constitute the complete and final APAS requirements.**

### **Phase 1, 2 and 3:**

At a high level, Phase 1 covers Business Personal Property functions; Phase 2 covers Real Property functions; Phase 3 covers the Web Portal and Appeals functions. The processes detailed in Exhibit A-1 (Business Requirements) and Exhibit A-2 (Technical Requirements) will be used

as inputs to the Definition Phase. At the end of the Definition Phase, the validated and signed off Deliverables listed in Exhibit A-3 (Deliverables) will finalize the scope of each Phase.

The scope of Phase 1 must include all activities required to retire County's legacy EZ-Access system for Business Personal Property and replace all interfaces to other systems. A temporary interface will be required to transfer data between the APAS system and legacy EZ-Access system for reporting purposes and other needs.

The scope of Phase 2 must include all activities required to retire County's legacy EZ-Access System for Real Property and replace all interfaces to other systems.

The scope of Phase 3 must include all the process associated with Appeals, Web Portal, field inspection and audit and all remaining requirements in Exhibit A-1 (Business Requirements) and Exhibit A-2 (Technical Requirements).

The implementation must meet the following conditions:

1. Development, test and acceptance must be strategically sequenced to adhere to a logical process flow. Each phase will be segmented into distinct sequential releases. Each release must group business functions in a way to logically support end user testing. The releases must be logically grouped and sequenced according to business needs. The Release Plan deliverable will define the releases for each phase.
2. The County must test and sign off on a release before the County will initiate end user acceptance testing on any subsequent dependent release. This requirement is essential to ensure that all dependencies and issues are resolved prior to attempting to validate a downstream functionality.

### Changes to the Requirements

At the close of the Definition Phase, the Deliverables as listed in Exhibit A-3 (Deliverables) shall then constitute the complete and final APAS requirements.

After Definition Phase sign off, if there is a proposed addition, deletion or change to the APAS Requirements, the proposed change will be handled in accordance with Exhibit A-7(Change Control Procedures). During Definition Phase, if there is a material change to the requirements or scope due to new or altered California regulations, the proposed changes will be handled through Change Control Procedures (Exhibit A-7).

### **2.2 Data Conversion Requirements**

Contractor shall perform the Data Conversion Services in accordance with the requirements provided in sections 3.1.6 and 3.2.1 of this SOW #1.

### **2.3 Warranty Services Requirements**

The Warranty services requirements are detailed in Exhibit A-10 (Warranty Services).

## **2.4 Maintenance and Operations (M&O) Support Requirements**

Contractor must offer high-value, world class, responsive, 24X7 System Management services. For the ongoing maintenance and support services, Contractor will follow best practices derived from various organizations and standards including ISO, Software Engineering Institute Capability Maturity Model (SEI CMM), IT Infrastructure Library (ITIL), and Project Management Institute (PMI).

The M&O Support requirements are detailed in Exhibit A-11 (Maintenance and Operations Support Terms).

### 3 Scope of Services

This Section describes the scope of Services to be conducted by the Contractor and the County throughout the project life cycle.

The scope of Services details Contractor responsibilities that must be successfully fulfilled.

This section also describes the responsibilities of the County throughout the project life cycle.

Exhibit A-4 (Roles and Responsibilities Matrix) details the deliverables, activities, and services and defines the relative responsibilities for Contractor and the County. It is underscored that this must be approached as a Project that values collaboration and transparency. **Therefore, virtually all Deliverables include a consult, review and approve element.**

#### 3.1 In Scope for Contractor

##### 3.1.1 Requirements

To ensure all APAS Project requirements are accurately and completely captured, Contractor shall:

1. Undertake all the tasks required to ensure that the following are fully, validated, documented, testable and traceable:
  1. Business and General requirements
  2. Assessor future state use cases
  3. Assessor future state to-be workflows
  4. Technical requirements
  5. Requirements for migrating data from the legacy solution to the APAS solution
  6. Maintenance and Operations requirements
  7. Business process flows and business rules
2. Ensure that the requirements and solutions for the user interfaces for the APAS are consistent with both the business requirements and with contemporary usability standards;
3. Map requirements to the data model as appropriate. This includes making required updates to the data model pursuant to any change to the requirements;
4. Maintain and update all requirements artifacts to reflect any and all additions, deletions or changes to the business, technical, maintenance and operations requirements;
5. Review and understand the County's data conversion and migration strategy and data mapping. The Contractor will develop the data loads to the staging tables based on the County's data conversion files;
6. Contractor will perform up to a maximum of 6 pre-production data loads of full data per Phase into each applicable table within the new solution Incremental data load will be performed as needed. The data migration planning/scheduling effort will be a priority within the upfront project plan activity.
7. Use Contractor's understanding of the data model, the business requirements and the business rules to advise the County of any required changes to the conversion and migration strategy;

8. Support the APAS data conversion processes, including the design, develop, test, execution, support and maintenance of data conversion processes to enable the conversion of legacy system data into APAS solution; and
9. Make changes to the APAS data model as necessitated by the data conversion.
10. Provide requirements traceability to/from test cases. Contractor must identify the methods, tools and technologies used to capture, catalogue and manage the requirements that are in scope and test cases for full traceability.

### 3.1.2 Architecture & Design

Contractor must develop the APAS Solution architecture as required to meet all system functional & general, technical and maintenance and operations requirements.

APAS Solution must leverage Salesforce Platform as a Service (PaaS) best practices and technology innovations where beneficial, to achieve the objectives of creating highly extensible, configurable and agile systems with relatively lower maintenance and enhancement costs. APAS Solution to the extent possible, will leverage innovative ways to engage existing and future users through the adoption of self-service technologies.

The APAS Solution to the extent possible will be designed to be easily configurable and maintainable. It is the County's intent that the proposed solution(s) will be architected and designed so that changes can be implemented quickly as needed.

APAS Solution must be architected and designed to support business activities, the below APAS Guiding Principles and Goals have been established.

- Date/Activity Driven System:** The design shall support both date-driven and activity-driven processes and workflows.
- Secure and Integrated Access:** The system's user interface needs to provide authorized users with an integrated access to all modules, data and services relevant to the user group. Similarly, it must allow system administrators to restrict data access and transaction execution based on user role.
- Enterprise Data Availability:** Accessible integration of all system data to support the full Property Assessment lifecycle, regardless of where data is created or maintained—the most up-to-date version of data must be made available to system users at all times within performance constraints.
- Ease of Learning:** Each authorized user must be provided a consistent, customizable and easy-to-use interface—including user-defined criteria for ease of learning, use and support.
- Location Independent Use:** Staff and stakeholder citizens need to be able to use the system via multiple channels and task-appropriate devices to promote efficient customer services—System access must not be restricted based on the location of the user. Authorized users must have access based on their roles irrespective of geographic location.
- Quality Data Entry:** Data to the extent possible will be captured at the beginning of processes, including citizen self-service, and automatically system checked for correctness and completeness before acceptance into the system's data records.

- ❑ **Decision-support:** The Solution to the extent possible will provide timely, accurate and complete data and information through application and standard tools to authorized users to support their analysis and decisions at all levels—including automatic queries, calculations, populating forms and templates and workflow prompts. Additionally:
  - Accessible Enterprise Data must be exposed to native Business Intelligence and Analytic tools to help County stakeholders answer key questions, drive exploratory policymaking and improvements.
  - Business users must be prompted and served known data to make key determinations at the process points of decision-making.
  - Business supervisors and managers must be prompted and alerted to provide secondary review according to any configurable data thresholds and County policies.
  - Transaction audit logs and historical records need to be maintained shall be and easy to access and view.
- ❑ **Configurable Business Rules:** The Solution must be highly configurable and adaptable to specific and changing requirements. It must utilize a combination of system parameters and business rules that are configurable by business users and minimize the need for specialized computer programming knowledge/skills.
- ❑ **Scalable and Extensible:** The system needs to be scalable to accommodate additional users and extensible in expanding capabilities to meet future business needs and local and State mandates.
- ❑ **Secure and Manageable:** The target architecture for the system needs to be protected against common Internet threats and must be manageable within reasonable operational and financial constraints.
- ❑ **Workflow/Work list** – Capability to generate, route and track individual work items for Staff processing and Supervisor performance management, including generating reports on a regular schedule and as needed.
- ❑ **Ease of Maintenance:** The Solution must be built in such a way that modifications for one function can be done easily without affecting other functions and making testing much easier to perform.
- ❑ **Data Integrity:** Ensure data is recorded exactly as intended (such as a database correctly rejecting mutually exclusive possibilities) and upon later retrieval, ensure the data is the same as it was when it was originally recorded.
- ❑ **Testability:** The Solution must be easily testable and to the extent possible, the testing process must be automated.

All key decisions regarding the APAS Solution architecture shall be made by the Architecture Review Board (ARB). County will work with Contractor to develop the role of the ARB during the Definition Phase, including the composition of its members including representation from both the County and Contractor. The ARB shall review all technical aspects of the Project and provide recommendation to the respective teams. The ARB

shall also review all proposed changes or variances to the APAS Solution architecture to assess both the viability of the change as well as the consistency with the architecture solution. Any instances where Contractor is proposing development/implementation of APAS that varies from the agreed upon APAS Solution architecture, must be brought to the ARB for review and approval.

Once the APAS Solution architecture is adopted, Contractor shall design, develop/ implement the system that is entirely consistent with the APAS Solution architecture. Any variances to the adopted APAS Solution architecture must first be brought to the ARB for review and approval prior to implementation.

The APAS Solution design and all related artifacts shall be reviewed and approved by the ARB prior to the review by other County resources for acceptance.

### **3.1.3 Configuration and Development**

Contractor shall develop the APAS Solution in a manner that is compliant with:

1. The Deliverables from the Definition Phase as listed in Exhibit A-3 (Deliverables) shall constitute the APAS requirements;
2. Accepted APAS Solution architecture;
3. Accepted APAS Solution design;
4. Accepted Data Model and design;
5. Accepted Interface design; and
6. Adopted Salesforce and APEX best practices and coding standards.

Contractor shall validate its code through automated unit testing and shall share the results of this testing with the County.

Additionally, Contractor shall utilize capabilities provided in Salesforce such as Lightning Process Builder and Visual Flows to configure business processes, logic and rules. In the event custom development is leveraged, Contractor shall leverage a third component, Custom Metadata Types, to ensure that data-driven design & development techniques are used to ensure business rules and calculations are customizable via configuration.

Contractor shall also review, collaborate upon and, as necessary within Contractor' scope of Services, incorporate into its development activities, the County's requirements for data conversion and migration, and building interfaces.

As an integral component to its development activities, Contractor shall provide the County with demonstrations of the progress of the Project including functional demonstrations.

### **3.1.4 Testing**

Contractor shall develop, document and implement the Master Testing Strategy and Test Plan. The purpose of the Master Testing Strategy is to ensure that the Contractor has identified the major system testing activities and associated deliverables required to be performed by them. A separate and complete set of testing as outlined below shall be required for each module of functionality that will be put into production. Complete testing shall also be required for every System interface that is built and put into production and fulfill requirements that are elaborated during the Definition Phase mutually agreed to by the County and Contractor. The testing functions of the Project shall be iterative and span the entire length of the Project.

Contractor must employ a robust test methodology based on industry standards. Contractor shall be responsible for populating the test system(s) with County data necessary to ensure the validity of the testing for all phases of testing. County staff shall not be required to manually enter data to pre-populate the test environment for any test phase. Contractor shall use an automated test management tool suite to manage, assess, track, and perform the required test and deployment support activities. The County may decide to perform parallel testing with its current legacy system(s) to ensure consistency and integrity of the APAS solution.

As part of the Production Cut over process, Contractor shall perform simulation of the Roll Close for both Real Property and Business Personal Property with production data.

The **Master Testing Strategy** deliverable shall at a minimum, include:

- The test methodology to be employed for overall testing;
- The automated method of populating the test systems with data;
- Identification of the software-based tracking system that will be employed;
- Identifies strategies for each type/level of Project Testing outlined in the list below:

Coverage	Testing	Definition
Business Coverage	Functional Feature Testing	Functional/Feature testing is to ensure that it has all the required functionality that's specified within the requirements.
	Day in Life Testing	Day-in-the-life testing is performed to ensure processes that are leveraged by the County throughout the day are operating correctly.
	Security Testing	Security testing is performed to ensure each role and respective rights to the solution are setup properly. Testing to be performed for all Salesforce supported browsers.
	Functional Scenario Testing	Scenario testing is to test the end-to-end functionality to ensure the business processes and flows are functioning as needed. In scenario testing, contractor puts themselves in the user's shoes and determines real world scenarios (use-cases) that can be performed.
	E2E Scenario Testing	End to end testing ensures that each story is validated for correctness and completeness. It will also ensure that the overall solution will work not only at an individual component/module level, but also in its entirety. End to end scenarios are tested once the stories are developed and development integration is completed.
Development Coverage	Unit Testing	Unit testing is performed for every capability, module, and deliverable to ensure the overall quality. From business coverage standpoint, each feature is individually tested for functionality in parallel with Unit Testing. After every sprint, a feedback session with the County will be performed. Feedback is then implemented in the next sprint.
	Operational Testing	Operational Testing ensures operational readiness of the system, which is supposed to mimic the production environment. It confirms that the system meets operational requirements (ex. performance, security, stability, maintainability, accessibility, endurance and penetration etc.)

Coverage	Testing	Definition
	Integration Testing	Integration testing is performed to validate the business capabilities and functionality flow through multiple modules. As part of the overall application integration testing, Contractor will conduct a deep dive into how data is acquired from various incoming sources (either through feeds, messages, events, etc.), gets transformed based on business rules (through ETL process, batch jobs, etc.) and is delivered to target systems.
	Regression Testing	Regression testing ensures that functionalities that are added in the ongoing sprint don't break/impact the functionalities that are delivered in the preceding sprint. Contractor will maintain and execute an optimum regression test suite including the automation of test cases to ensure the entire regression is quick and efficient.
Data Coverage	Data Certification	Testing done to ensure data completeness, data transformation and validation are performed as part of data certification
	Cutover Dry Runs	Cutover testing is Dress Rehearsal to ensure that the tasks and activities that allows to replace the current legacy capabilities (process and technology) with the new capabilities (process and technology) is correctly performed.

- Identifies strategies for the following types of testing:
  - Parallel Testing
  - Simulated Roll Close Testing (Real Property Roll Close and Business Personal Property Roll Close)
  - User Acceptance Testing

Activities in the Test Plan shall include at a minimum:

- Definition of the Test Phase and Objectives;
- Entrance Criteria for the Test Phase;
- Exit Criteria for the Test Phase; and
- Key milestones (i.e. relationship in terms of timeframes days / weeks/ months, to predecessors and successor tasks) associated with each Testing Phase.

To ensure that the System has been thoroughly tested, Contractor shall provide **Test Scenarios, Test Cases and Test Scripts** to include all types of testing to ensure comprehensive test coverage of each and every requirement as specified in this SOW #1. Additionally, Contractor will provide UAT test templates for County staff to prepare the UAT scenarios.

Contractor must maintain the Requirements Traceability Matrix (RTM) during all testing efforts. The County must have complete visibility of Contractor's test execution and results.

As an integral component to its testing and quality assurance activities, the Contractor onsite team shall conduct – with the County team – scheduled and on-request reviews of the current APAS System, including the build and the test results. Contractor is responsible for ensuring that any Sprint/Release presented to the County for testing meets the documented entry criteria for such testing.

### 3.1.5 Cutover and Deployment

Contractor shall develop, document and implement both the Deployment Plan and the Cutover Plan. These plans shall incorporate all steps, dependencies and metrics required to implement Phase 1, Phase 2 and Phase 3 of the APAS System into production. The Plan shall provide a detailed schedule of activities with key “go-no go” decision points identified throughout the deployment process (including any data conversion steps necessary for go-live).

The Cutover plan defines the strategies and decisions and specifies the details to execute a cutover to a live environment. The Cutover plan must contain end-user rollout plan. The plan addresses three sections of cutover: pre-cutover, cutover and post-cutover. The Cutover Plan shall include the elements described in this section and the following components:

- The Contractor must document the processes to perform cutover such as importing users and final data sets, activation of user accounts, etc. while deploying the complete solution into the production environment. These processes must be presented to County and communicated to all impacted end users.
- The cutover criteria that will be used to determine if cutover can occur; each requirement must be clear and concise and to support requirements traceability matrix. If the cutover criteria are derived from other documents, the documents must be specifically referenced. — Examples of these types of requirements might be:
  - Cutover within a specific window or time frame;
  - A description of the acceptable impact to business functionality;
  - Priorities;
  - Data preparation – may include data quality/integrity;
  - Migration of data;
  - Allowance for alternative business processes during interim phases in a phased approach; and
  - Dates that must be met because of regulatory requirements, or the Assessor’s business priorities.
- Assumptions, dependencies or constraints that may impact the cutover activities;
- Create a contact list for the cutover. Who will be contacted and who is responsible for making the contact;
- The communications plan is critical for aligning stakeholder expectations with respect to APAS project objectives and transition considerations;
- Describe at a high level how the data (cleansing, migration, conversion) will be done;
- Discuss the steps for shutting down legacy systems and blocking accesses or allowing read only access; and
- Describe the support process that will be put in place. Outline the functional and technical staff plans to deal with the additional demands and coverage requirements for all working hours.

In preparation for various Phases of the APAS System production deployment, Contractor shall deliver a Deployment Plan that documents all the activities to be performed by the various Project participants (e.g. Contractor, County and/or any identified third parties) to successfully deploy the new System to the production environment. Contractor shall deploy the APAS Solution in accordance with the Deployment Plan deliverable. Contractor shall track and monitor progress towards the Deployment Plan deliverable and identify, escalate and resolve issues and risks in accordance with the Project Management Plan. The Deployment Plan shall include the elements described above and the following components:

- The specific time frame and activities associated with the full functionality roll-out of each of the proposed APAS Phases and the overall complete roll-out of all functionality into the Production Environment;
- All critical resources (Contractor, County and/or any identified third parties) must be identified and are available to support deployment activities;
- Key resources needed to support critical or complex deployment activities must be identified;
- A developed, documented and accepted Communication Plan and command structure that define the decision process and any “go / no go” decision events;
- Communications must have been developed, documented and provided to stakeholders informing them of the deployment process and status;
- Contingency plans must be in place to deal with System Deployment issues that may arise;
- A detailed back-out and recovery Process must be documented that will be triggered if the release to production fails. The back-out and recovery process shall ensure that the old System is maintained and restored if necessary and all data remains available to County users with no impact to their job function or activities; and
- Smoke or sanity tests must run after deployment to confirm deployment/release integrity.

### **3.1.6 Data Conversion, Transformation and Load**

Contractor shall provide services to enable the migration of Legacy system(s) data into the APAS Database and required to perform APAS data conversion successfully, including the design, development, test, execution, support and maintenance of data conversion processes as described below:

- During the Definition Phase, Contractor shall provide a comprehensive Data Transformation and Load Strategy document to the County describing the approach and strategy to ensure the successful and timely population of cleansed legacy data into APAS tables. This document shall, at a minimum, include:
  - Guideline for the County to generate the data files that contain the cleansed legacy system data;
  - Strategies for loading the cleansed legacy data into APAS staging tables;

- Strategies for performing the required data transformation based on the final requirements and the data model of the APAS database;
  - Plan for data validation before and after loading into APAS database;
  - Approach to load the transformed and validated data into APAS database; and
  - Plan outlining the steps to work with the County to identify any root-cause issues preventing data transformation and load from being fully successful.
- Contractor shall collaborate with the County on a detailed data roadmap for successful data conversion.
  - Contractor shall perform the necessary data integration and synchronization work to implement the System in compliance with the requirements of the SOW #1. Contractor shall develop a detailed plan to validate all data integration and synchronization routines, as well as the accuracy and integrity of all data integrated from the Contractor provided Data Staging Tables.
  - Contractor shall be responsible for designing and creating staging tables aligned with the APAS data model.
  - Contractor shall be responsible for loading the cleansed legacy system data provided by the County in the form of data files, into the staging tables.
  - Contractor shall be responsible for developing all extract, transform and load (ETL) programs to move data from the data files provided by the County to the APAS staging tables and finally to the APAS database, Contractor shall also provide all the software tools required to accomplish these tasks.
  - Contractor shall be responsible for executing, validating and confirming all the data transformations and for loading the data from APAS staging tables into the final APAS database in an accurate and timely manner (data transformation and load is required to take place prior to executing the functional test cases), by resolving all the data exception cases and errors.
  - Contractor shall be responsible for performing data testing within the APAS solution and collaborate with the County to confirm successful conversion. Contractor will provide summary reports to the County.
  - Contractor shall support all the County activities for data validation of the converted data
  - Contractor shall be responsible for providing tools for testing and validation of the converted data as well as tools for reporting issues found during data testing and validation
  - Contractor shall be responsible to work with the County to identify any root-cause issues preventing data conversion from being fully successful and for conducting any reconciliation activities necessary to ensure success

### **3.1.7 Environment Management**

Contractor shall be responsible for maintenance and operations of all APAS Solution functionality developed in pre-production environments such as development, testing, training and staging. The number of environments will be further reviewed and finalized

during the Definition Phase and will be updated as required through the Change Control Procedures.

Contractor shall provide an Environment Management Plan to detail the activities involved in the set-up, management and maintenance of the various production and pre-production environments required for APAS. The Environment Management Plan shall identify the methods and tools used to automate, monitor, and manage the various environments to ensure the agreed upon availability. The plan shall, at a minimum, include:

- Identification of all environments required for the project;
- Schedule for setting up each identified environment;
- Strategy for monitoring and managing all the environments;
- Plan for resolving environment defects; and
- Strategy for upgrade and maintenance of all the environments.

### **3.1.8 Project/Program Management**

County is responsible for the overall program management of APAS. Contractor is responsible for the project management of the APAS solution.

Contractor shall provide resources necessary to successfully deliver a fully functional APAS Solution through the requirements, design, development, testing, deployment and stabilization periods, including the Program and Project Management resources necessary to effectively manage project delivery throughout the entire lifecycle of the solution implementation.

County will assign one or more Program/Project Manager(s) to facilitate necessary interactions and efforts between the Contractor resources and County subject matter experts (SMEs). However, Contractor shall allocate a dedicated Program/Project Manager to sufficiently plan, execute, monitor/track, report on progress and provide overall management of each task, activity and deliverable to completion as defined and agreed upon with County. In summary, Contractor must:

- Manage their project resources to meet all requirements specified in the Contract and future authorized contract documents.
- Develop all required and necessary project plans and documentation to effectively manage the APAS implementation.
- Provide sufficient numbers of personnel at the appropriate skill levels to successfully fulfill service delivery requirements on schedule.
- Develop and maintain a log of risks and mitigation strategies associated with the delivery of services, as well as a log of issues and resolutions for issues identified with the delivery of services described herein. These risks and issues shall be documented and maintained in an electronic format that is easily accessible to County management.
- Attend meetings as requested by County and provide updates during weekly project status meetings facilitated by County and Contractor project management.
- Provide assistance in developing, reviewing, editing, and contributing to documents, requests and presentations related to information requests from County

management, County leadership, agents of the County, and any other established oversight organizations.

Contractor shall perform the following tasks, sub tasks and activities necessary to manage the project:

### **3.1.8.1 Project Initiation**

A Project Initiation meeting (Project Kick-Off) shall be held to formally notify all County and Contractor team members and stakeholders that the Project has begun and to ensure all team members have a shared understanding of their roles and the contract requirements. The County shall select the location of the Project Kick-Off. County and Contractor shall coordinate a mutually agreeable date and time for the Project Kick-Off meeting.

### **3.1.8.2 Project Initiation Planning**

Contractor shall plan the Project Initiation meeting with County Program Manager. Contractor shall prepare draft material in advance of the meeting and work with the County to develop a shared agenda.

### **3.1.8.3 Project Kick-Off Meeting**

County Program Manager will finalize the agenda of Project Kick-Off Meeting and facilitate any questions. Contractor shall present a portion of the agenda items at meeting(s) to adequately provide County and Contractor team members and project stakeholders with an overview of the project approach and expectations. Contractor shall present at minimum, information about the following, which shall later be detailed in the Project Management Plan:

- Project Scope,
- Development strategy and approach,
- Change Management,
- Budget/Cost Management,
- Risk Management Strategy,
- Quality Management Strategy,
- Communication and Status Reporting Approach – including performance measurements and critical success factors,
- Introduction of Contractor Key Personnel their roles and responsibilities,
- Overall project approach and high-level schedule including slated completion of key deliverables,
- Overview of Contractor Project Management processes including initiating, planning, executing, controlling, and closing each phase of the contract,
- Next Steps.

### **3.1.8.4 Project Management Plan**

Contractor shall provide a set of documents that, when taken together, constitute the APAS Project Management Plan that describes how project objectives shall be met and provides a road map for executing the project. The approach shall be consistent with the Project Management Institute (PMI) Project Management Methodologies stated in the Project Management Body of Knowledge (PMBOK) or equivalent. Contractor shall use the County's tool of choice (e.g. Jira) or Contractor's ProjectForce tool as the APAS Application Lifecycle Management (ALM) tool. The APAS Project Management Plan shall be maintained and kept accessible in the central repository for project artifacts.

Contractor shall undertake all the steps necessary to ensure that the accepted Project Plan and all artifacts related to the Project status, timelines, roadmap, milestones, issues, risks and action items remain current and readily accessible to the County via a management dashboard. Contractor shall also ensure that Deliverables that are not achieved in accordance with the Project Plan are properly escalated within the approved Project governance structure.

During the project, Contractor Project Manager shall provide the County Program Manager with updates to the Contractor staffing plan roster. The information to be reported are Resource Name, Years of Experience, Skill Set, Proposed Project Role, Resource Location, planned start and end dates and Induction start and end dates.

Contractor shall take the following steps to ensure that Project activities are not impacted by staff absences.

Project Planning: Any planned absences are incorporated into the Project schedule and resources assigned accordingly. For unplanned absences, the Project Plan will be revisited, and task re-assignments may be done to minimize the impact to the Project. To facilitate this and enable cross-training amongst team members the following mechanisms are used:

- Procedures, standards and checklists are defined at the outset of a Project and revised as needed. These form a ready reference for any Contractor Personnel who needs to perform a given activity.
- Onsite/Offshore shadowing: This ensures work delivered by Contractor Personnel at onsite is shadowed by offshore consultants and helps in rotation of the resources if the need arises.
- Knowledge sharing sessions shall be conducted on a frequent basis to ensure dissemination of knowledge amongst the Contractor Personnel and helping provide back-up support during the absence of a Contractor for certain periods. Rigorous quality procedures are adhered to comply with this.
- Cross-training across various Project tasks/system modules is conducted and an appropriate Responsibility Assignment Matrix is created at Project level to ensure distribution of responsibility across teams. Primary and backup owners are created for each area of expertise to enable a smooth handoff when needed.

For each Key Position, Contractor shall prepare and keep current a succession plan whereby there is always an identified “backup” associate who has current knowledge of all the Project’s requirements, processes and tools and who is ready to assume the Key Position if required.

The APAS Project Management Plan shall address the initiating, planning, executing, controlling and closing of activities and processes. At a minimum, with the support of County staff, Contractor shall include the following components in the Plan, as defined, and in accordance with the contract requirements:

#### *3.1.8.4.1 Project Scope*

- Purpose
- Requirements
- Deliverables
- Constraints/Dependencies/Assumptions

#### *3.1.8.4.2 Costs/Budget*

- Breakdown of costs/budget by Deliverable

#### *3.1.8.4.3 Risk Analysis and Management Plan*

- Identification of Project risks;
- Assessing the severity and probability of each identified risk;
- Identifying the potential impact of each identified risk, develop risk response plans for each identified risk and how a risk will be reassessed once a response is received or put in motion;
- Providing guidance for assessing the efficacy of risk mitigation actions;
- Description of work products and processes for assessing and controlling risks;
- Detailed escalation mechanisms for risks;
- Risk and Issues Log, to be updated weekly;
- Risk and Issue Escalation Plan;
- Issues and Action Item Process that describes how unanticipated issues, action items, and tasks are assigned to a specific person for action and are tracked to resolution, and documents the following:
  - Description of Issue and/or Action Item;
  - Priority of Issue and/or Action Item;
  - Status of Issue and/or Action Item (e.g. open, pending, under investigation, resolved);
  - Plan for resolution;

- Identification of individual responsible for resolution, including anticipated use of County staff or other resources;
- Targeted resolution date;
- Actual resolution dates; and
- Resolution action.

#### *3.1.8.4.4 Change Management Plan*

Contractor shall participate in and abide by the established Change Control Procedures pursuant to Exhibit A-7 (Change Control Procedures) of the Contract. Change Control Procedures will be initiated for material project changes such as change in timeline, resources, an increase or decrease of scope, etc. To the extent a service is carved-out, the fixed price cost will correspondingly be reduced on a prorated basis. These types of change are defined in the Change Control Procedures.

Scope and requirement change control applies after the completion of the Definition Phase and sign-off of the Definition Phase deliverables as detailed in Exhibit A-3 (Deliverables). During Definition Phase, if there is a material change to the requirements or scope due to new or altered California laws, ordinances or regulations, the proposed changes will be handled through Exhibit A-7 (Change Control Procedures).

#### *3.1.8.4.5 Quality Management Plan*

Contractor shall define and document their quality assurance activities that will be implemented to ensure the APAS Project conforms to all established and contracted requirements. The plan shall document how Contractor application configuration/customization and release activities and processes shall be managed, tracked and audited (from both a project management and configuration control perspective), to ensure the delivered APAS Solution and components meet the quality standards and requirements required by the contract. In addition, the plan shall provide a comprehensive explanation of how Contractor will integrate its software release process into any County Release schedules or processes.

#### *3.1.8.4.6 Project Procurement Plan*

Contractor shall define and document a Project Procurement Plan that outlines plans for securing software/tools, subcontractors, and other resources (if applicable).

#### *3.1.8.4.7 Monitoring and Control Plan*

Contractor shall define and document a Monitoring and Control Plan that outlines:

- Descriptions of the administrative procedures that will be used to develop, monitor and control the project schedule
- Project monitoring activities, including, but not limited to:

- Completion of work packages (Sprint) as compared to the project plan;
- Scope of work being performed;
- Quality of work being performed;
- Costs and expenditures as compared to the plan;
- Feedback of stakeholders and management (Sprint Retrospective); and
- Cohesiveness of team members;

Scope, Budget and Schedule Baselines

Contractor will work with county during the Definition Phase to decide on appropriate reports that may include:

- Earned Value Analysis reports
- Budget to Actuals
- Project Status Reports that detail the varying levels and needs of the Project Team for information regarding the Project, status, and accomplishments; describe the form and format of this reporting:
  - Status meetings (e.g. weekly, monthly)
  - Project reporting (e.g. weekly, monthly)

**3.1.8.4.8 Team Membership**

Contractor shall define and document their planned Team Membership that is aligned with the proposed Project Schedule. The Contractor shall identify the roles and responsibilities for staffing all Project activities, including identifying the resources the Contractor and the County will provide to successfully fulfill the requirements of the Contract.

**3.1.8.4.9 Project Work Plan and Schedule**

The County requires Contractor to detail a recommended project schedule that Contractor believes will present the best probability of a successful APAS project implementation. The County will require Contractor to validate the suggested phased approach to delivering meaningful functionality to County business stakeholders, while also being conscientious of potential implementation fatigue from overly long timeframes. Contractor shall consider the complexity, County resource demands, risks and overall duration presented by their proposed schedule.

Contractor shall deliver a Baseline Project Work Plan and Schedule, including a Work Breakdown Structure (WBS), Gantt chart(s) and a Project calendar in a mutually agreed-to project management and planning tool. The Contractor shall document any work plan or schedule changes from the plan submitted with the Contractor's original proposal. Contractor shall provide a Project Work Plan and Schedule to include:

- ❑ Identification of the resources to be provided by County, together with the scheduled dates those resources will be required.
- ❑ All County holidays and periods that will be observed by the Contractor staff, periods during which the County has advised that County Staff and Systems will be unavailable to Contractor, and any other resources that the County has committed to providing in the Contract.
- ❑ A Project Plan/Schedule that encompasses all activities from Project Initiation and Planning to Project Closeout. The Project Plan shall define the Project's overall objectives by identifying all Project tasks and Deliverables. This WBS is the Baseline Project Schedule and shall include:
  - A consolidated view of the activities, activity descriptions and activity durations assigned to the County, Contractor, and their sub-contractors;
  - A fully loaded staffing plan, Contractor and County, including all resources identified to each Project activity/task
  - A list of deliverables tied to Project milestones
  - A methodology for tracking the actual Project Schedule against the baseline Project Schedule
  - Identification and tracking of Deliverable acceptance periods
- ❑ Identification of all Tasks of the Project, and proposed sequences of phased functionality (as mutually agreed upon by Contractor and County), the duration of the Phases, distinct releases/Sprints within a phase and the duration of the Project;
- ❑ Identification of the critical path activities of the Project, and the criteria used to identify those activities;
- ❑ Description of corrective action activities to address schedule variances during the life of the Project and how these variances are identified and tracked to completion;
- ❑ Process, roles and responsibilities required to making changes to the Project Schedule; and
- ❑ Assignment of resources to the schedule and approach for managing staff and/or equipment availability to ensure completion of deliverables in accordance with contract terms and on schedule.

The Project Work Plan and Schedule, once accepted by County, will form the Baseline Work Plan and Schedule for the overall APAS Project. Contractor shall maintain and update applicable portions of the Project Schedule no less than weekly to reflect the current status of the Project with a comparison made to the Initial and Baseline Project Schedules. The Project Plan is maintained throughout the term of the Project and is a "living" document, being continuously reviewed and refined.

The Project Schedule shall be consistent with availability of County resources considering the roll close activities. These resources will be identified by the

County and communicated to Contractor prior to Schedule development. The County shall have direct electronic access to the Project Schedule as well as all Deliverables and working documents for immediate review and coordination of schedules and plans via an agreed sharing and planning tool (County SharePoint or APAS Application Lifecycle Management (ALM) tool).

### **3.1.9 Organizational Change Management (OCM)**

Contractor shall detail the approach and develop a plan to meet the complex Change Management needs and associated tasks that are part of a large-scale system implementation project like APAS. Contractor shall present its SuccessPath Change Management methodology to the County for review during the Definition Phase. The County will decide whether to adapt the SuccessPath methodology or another industry standard. Contractor shall assign a Change Manager to work closely with the County's Program Manager to carefully assess all the opportunities to promote successful change within the County, while addressing the defined areas where change will be challenging.

Post Go-Live, as part of Organizational Change Management process, Contractor Change Manager in concert with County shall conduct an analysis of user adoption and usage and strategies will be recommended to improve adoption. Contractor's SuccessPath Organizational Change Management methodology transitions through four steps (Level Set, plan, Execute, Evolve) to meet the needs of change, training and adoption success. At the start of the OCM practice, Contractor must execute a Level Set stage with the County, which defines baselines, ground rules and key players who are instrumental for change. In the final stage (Evolve), Contractor looks at performance and adoption. This is executed at defined milestones well after the implementation has been completed. Contractor shall create reports in Salesforce based on OCM Workshop defined baselines. These reports will help identify adoption metrics to proactively providing end-user support. The current performance (metrics) will be compared against the baseline (created in the level set stage) and will be evaluated for usage, performance, operations and adoption.

### **3.1.10 Warranty Services**

Contractor shall provide warranty services pursuant to Section 17 of the Agreement and Exhibit A-10 (Warranty Services) of the SOW #1.

### **3.1.11 Maintenance and Operations (M&O) Support**

Contractor shall provide Maintenance and Operations Support services pursuant to Exhibit A-11 (Maintenance and Operations (M&O) support terms) of the SOW #1.

### **3.1.12 Proof of Concept (PoC)**

During the Definition Phase and prior to County Acceptance of APAS Solution Design for APAS project, the County and Contractor shall identify risks and agree to the appropriate PoC(s) that need to be fulfilled to mitigate those risks and effectively illustrate that the proposed design and/or recommended technology tool/app for the APAS Solution will achieve the desired results.

### **3.1.13 Open Source, Contractor Materials, and AppExchange**

Exhibit A-6 (Financial Responsibility Matrix) lists all Open Source, Contractor Materials, and AppExchange software/tools that the Contractor intends to use on this project. The County and Contractor will review the list of open source software/tools, as well as the

intended Contractor Materials and AppExchange software during the Definition Phase to confirm it will meet the needs of the County. Contractor will not work with, embed, incorporate or otherwise utilize open source Software, Contractor Materials, or any Apps from Salesforce AppExchange in performing the Services without County's express prior written approval, which may be withheld at County's discretion. To the extent such restrictions or (re-) disclosure obligations derive from the open source license terms, Contractor shall inform County of such restrictions and obligations in writing. In the event the County decided to not leverage the Contractor's proposed open source software, Contractor will recommend alternative software which may include additional costs. The County is responsible for assuming any additional costs associated with alternatives to the open source software recommended by Contractor.

#### **3.1.14 Upgrades, Patches, and new Releases**

When patches, upgrades or new releases are applied to APAS, Contractor must ensure that the customizations to APAS solution shall work across upgrades. When Salesforce releases a new version of the application and the platform, these upgrades must be seamless and must maintain backwards compatibility with the API used for integration. Services to embed all upgrades and patches to the APAS solution will be provided at no additional cost to the County. Each release shall be delivered automatically in a transparent manner and shall not break APAS configurations. Contractor must test and release the scheduled maintenance releases into Production within 90 days from when they are released for testing. For urgent matters, the agreed upon standard bug fix SLA's will apply.

#### **3.1.15 Hosting**

All environments necessary to develop, implement and support the APAS solution will be hosted on Salesforce Government Cloud. The interface from/to other systems will be hosted in Amazon Cloud.

#### **3.1.16 Technology**

The APAS Solution will be implemented utilizing Salesforce Platform as a Service (PaaS) utilizing Lightning Platform and other tools/apps from Salesforce AppExchange. The technology standards will be evaluated and finalized during the Definition Phase.

#### **3.1.17 Training**

Training is a critical aspect of APAS Project implementation. A Training Plan will be developed during the Build stage (ValuePath Methodology) of the project. Contractor shall work with the County throughout the project to determine the training needs, what type of curriculum is the right fit for County user needs, define the curriculum outline, as well as monitor user acceptance testing activities to learn about potential hurdles that will need to be overcome. Contractor must develop the Education and Curriculum Strategy, End-User and Admin Training Curriculum, Train-the-Trainer Curriculum, Training Manuals, Guides and Materials as per the Training Plan.

#### **3.1.18 Knowledge Transfer**

Knowledge Transfer (KT) is an important element of planning and project management to ensure that APAS Solution developed by Contractor is transferred to the County as required. Contractor Knowledge Transfer plan must identify the specific roles that would

be required to support and maintain the system. The Contractor Project Manager will be responsible for creating the KT plan and for ascertaining the level of support the County will require to provide support, maintenance and enhancements to the system. This information will be necessary to determine the specific skill sets, time commitment and cost to enable knowledge transfer to the appropriate County personnel. Once the plan has been established, the following actions and meetings will be established to ensure that knowledge is adequately transferred to County Personnel:

- Technical knowledge transfer will be done throughout the project as part of the design review process as well as during admin training.
- County APAS Program Manager and Contractor Project/Program Manager will jointly determine a schedule to meet semi-weekly to facilitate technical KT sessions.
- Contractor shall record design review sessions for distribution to County IT Personnel to review.
- Contractor technical staff shall do a comprehensive technical review of the APAS solution, code, architecture, configuration with County IT resources.
- Contractor shall conduct a basic training/KT for the designated County system administrator covering key functions such as adding new users, more in-depth report generation, and changing security profiles.
- Contractor shall conduct a KT session focused on core administration (adding users, security setup, modifying page layouts, change sets, etc.).
- Contractor shall conduct a KT session focused on reporting and dashboards (focusing on making updates, training county users on how to author/modify their own reports).
- Contractor shall record the KT Sessions and made available for distribution and archiving.

### **3.1.19 Backup and Restore**

Contractor shall perform Backup and Restore functions for Development and production environments utilizing an AppExchange tool. The appropriate frequency and metrics will be developed during the Definition Phase.

### **3.1.20 Disaster Recovery and Business Continuity**

Contractor shall implement the Disaster Recovery and Business Continuity (DR&BC) as per Attachment – 1 (Disaster Recovery and Business Continuity).

## **3.2 In Scope for County**

While the following Project critical Deliverables are the primary responsibility of the County, Contractor shall be responsible for reviewing the County Deliverables for consistency with the solution design, the database design, the test plan, and the implementation strategy. Any conflicts or questions regarding these County Deliverables shall be raised in accordance with the Project governance plan.

### **3.2.1 Data Conversion Services**

County team is primarily responsible for certain tasks of the data conversion process as described below, and the Contractor shall support the County team efforts:

- Making the legacy systems available for data conversion related tasks;
- Maintenance of the data in the legacy systems;
- Extraction of legacy data based on specified criteria;
- Purification of legacy data;
- Merging the purified data as much as possible based on identified characteristics and generating succinct data file(s);
- Final validation and approval of converted data in production and non-production environments. The Contractor shall support county staff by providing data reconciliation reports and issue identification reporting tools.

### **3.2.2 User Acceptance Testing**

County team is responsible for creating User Acceptance Test (UAT) scenarios that reflect the intended business use of APAS Solution. These UAT scenarios must rigorously test the APAS Solution against the in-scope requirements in a simulated business environment. Contractor shall provide resources to support the County during UAT and resolve any bugs reported during UAT prior to final deployment to production. Additionally, Contractor will provide UAT test templates for County staff to prepare the UAT scenarios.

### **3.3 Additions to Contractor Scope of Services**

Should the County determine that the APAS Project requires an expansion to the Contractor scope of Services such that Contractor and County agree that the expansion should be priced by the Contractor in accordance with the rate card presented in Exhibit B-1 (Rate Card for Additional Services).

## 4 Project Execution Approach and Deliverables

The Project will be executed using a Phased Implementation Approach. The four (4) phases that constitute the Project are the Definition Phase, Phase 1, Phase 2 and Phase 3.

The program Roadmap is described below:

Proposed Sapient APAS Team Release - High Level Plan																																									
Definition Phase (6 Months)						APAS Phase I (12 Months)												APAS Phase 2 (12 Months)												APAS Phase 3 (6 Months)											
Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12	Month 13	Month 14	Month 15	Month 16	Month 17	Month 18	Month 19	Month 20	Month 21	Month 22	Month 23	Month 24	Month 25	Month 26	Month 27	Month 28	Month 29	Month 30	Month 31	Month 32	Month 33	Month 34	Month 35	Month 36	Month 37	Month 38	Month 39			
Definition Phase						Phase I												Phase 1 Warranty	Maintenance & Support																						
																			Phase 2						Phase 2 Warranty			Maintenance & Support													
																																	Phase 3						Phase 3 Warranty		

### 4.1 Definition Phase

The purpose of the Definition Phase is to assess, validate and finalize the requirements and architectural design for functional, general and technical requirements of the entire APAS Solution. Contractor is responsible for the development and documentation of the Definition Phase activities/deliverables and the County supports Contractor in executing this phase. The County will have the right to Accept and sign off on the Deliverables.

Throughout the Definition Phase, Contractor shall leverage best practices and experiences from past project successes to develop a collaborative perspective on the best approach to the County’s desired project outcomes.

Entry Criteria	Exit Criteria
<ol style="list-style-type: none"> <li>Contract and all associated documents signed</li> <li>Salesforce Licensing agreement is signed</li> <li>Contractor Resources are identified, allocated and inducted into Project</li> <li>County resources are available to support Contractor for the Definition Phase</li> <li>Governance Bodies defined (include specifics)</li> <li>Physical Workspace for both Contractor and County resources is secured and available</li> </ol>	<ol style="list-style-type: none"> <li>Project Plan is reviewed, baselined and released</li> <li>Project Repository is created</li> <li>Completed all activities, tasks, Deliverables and milestones identified in the Definition Phase of the Project Plan (Exhibit A-5)</li> <li>QA/QC procedures are established</li> <li>Change Control Board (CCB) and APAS Architecture Review Board (ARB) are established</li> <li>Salesforce Environment Setup complete</li> <li>County to Accept and Sign off Solutions Design Document for Phase 1, Phase 2 and Phase 3</li> <li>County to Accept and Sign off on all Definition Phase Deliverables as defined in Exhibit A-3 (Deliverables)</li> <li>Adjustments to Contract documents are agreed to and signed off by both parties at the conclusion of the Definition Phase</li> </ol>

Refer to Exhibit A-3 (Deliverables) for the complete list of the Definition Phase Deliverables. The conceptual view of the Definition Phase and Phased implementation is presented below.



APAS project will be utilizing Contractor’s ValuePath Methodology, the above diagram is extracted from Attachment 4 – Contractor Development Methodology - ValuePath.

At the conclusion of the Definition Phase, the Contractor may adjust its original Phase 1, Phase 2 and Phase 3 cost estimates as a result of having a better understanding of the requirements. However, the combined Phase 1, Phase 2 and Phase 3 change in cost estimate may not exceed 10% of the original Cost Proposal for those three phases.

At the close of the Definition Phase, the Deliverables as listed in Exhibit A-3 (Deliverables) shall then constitute the complete and final APAS requirements. Any change in scope and/or requirements discovered after the completion of the Definition Phase will be managed through Exhibit A-7 (Change Control Process).

#### 4.2 Phase 1, Phase 2 and Phase 3 Approach

After the successful completion and County Acceptance of the Definition Phase, Contractor shall initiate the Build stage of the project, which will be implemented in multiple phases. Each Phase will be implemented and deployed utilizing the Build and Adapt stages of the Contractor ValuePath methodology summarized in Attachment 4 (Contractor Development Methodology – ValuePath) of the Agreement. The APAS Solution shall follow an Iterative system development and configuration approach, principles and practices that include early and continuous delivery of fully tested solution/software, regular collaboration between business subject matter experts and Contractor personnel and Sprint reviews to assure the County’s business needs are met. Each project phase will be built and tested in a number of releases. Contractor shall utilize the following key considerations when implementing a phased approach:

- ❑ At the close of each Phase, Contractor shall deliver a fully-tested and integrated, working APAS Solution that complies with APAS functional/general/technical Requirements, architecture as defined in the Solution Design Document.
- ❑ At each Phase, Contractor shall perform all activities identified in Exhibit A-4 (Roles and Responsibility Matrix) and deliver all deliverables identified in Exhibit A-3 (Deliverables) and get County acceptance and sign off.
- ❑ At each Release and Phase Contractor shall perform testing with actual Assessor data from existing systems. If available, it is preferable to use Converted Assessor production data for testing.
- ❑ During the entire duration of each Phase, Contractor shall:
  - ❑ Follow consistent processes across all work streams.
  - ❑ Facilitate knowledge sharing sessions between the County and Contractor personnel.
- ❑ At the end of each release/phase, Contractor shall:
  - Hold lessons learned sessions and carry over the best practices and lessons learned into subsequent releases.
  - Carry out a detailed root cause analysis of the Deliverables and identify and report on the opportunities for improvement that result in process improvement, automation, productivity improvements, utilities and improved templates and checklists. Such Root Cause Analysis reports along, with the corrective actions for Non-conformities taken by Contractor, will be made available to County to enhance its visibility into the Project's execution and progress.

Please refer to Exhibit A-3 (Deliverables) for the complete list and description of the Deliverables.

The Entry and Exit Criteria of each Phases are:

Entry Criteria	Exit Criteria
<b>Build Stage</b>	
<ol style="list-style-type: none"> <li>1. County to Accept and Sign off on all Definition Phase Deliverables as defined in Exhibit A-3 (Deliverables)</li> <li>2. Salesforce environments setup complete</li> <li>3. All sprint-related meetings established (daily standups, sprint reviews, sprint retrospectives)</li> <li>4. County &amp; Contractor resources are available to fulfill agreed to roles for Build Stage</li> </ol>	<ol style="list-style-type: none"> <li>1. Adjustments to project plan are completed, compared to baseline, and reported to County &amp; Contractor leadership</li> <li>2. All appropriate change control activities related to the Phase are complete</li> <li>3. Contractor and County have completed all activities, tasks, deliverables and milestones identified for Build Stage</li> </ol> <ol style="list-style-type: none"> <li>1. County to Accept and Sign off on all Deliverables as defined in Exhibit A-3 (Deliverables) from Build Stage</li> <li>2. County to Accept and Sign off on all modifications to Deliverables as defined in Exhibit A-3 (Deliverables) from the Definition Phase</li> </ol>

Entry Criteria	Exit Criteria
<b>Adapt Stage</b>	
<ol style="list-style-type: none"> <li>1. Contractor has met criteria for completing functional, system, regression, performance, and parallel testing efforts</li> <li>2. County &amp; Contractor resources are available to fulfill agreed to roles for Adapt Stage</li> <li>3. UAT environment setup complete including real data migration</li> </ol>	<ol style="list-style-type: none"> <li>1. Adjustments to project plan are completed, compared to baseline, and reported to County &amp; Contractor leadership</li> <li>2. County has met criteria for completing User Acceptance Testing efforts</li> <li>3. Contractor and County have completed all activities, tasks, deliverables and milestones identified for Adapt Stage</li> <li>4. County to Accept and Sign off on all Deliverables from Adapt Stage</li> <li>5. All data migration &amp; conversion activities are completed</li> <li>6. APAS solution has been deployed to production</li> </ol>
<b>Warranty</b>	
<ol style="list-style-type: none"> <li>1. APAS solution is live in production</li> </ol> <p>County &amp; Contractor resources are available to fulfill agreed to roles for Warranty Stage</p>	<ol style="list-style-type: none"> <li>1. 90 days have elapsed since start of warranty stage</li> <li>2. Contractor has completed the transition of knowledge from the project team to the support team</li> <li>3. Met all Acceptance Criteria defined in Exhibit A-10 (Warranty Services)</li> </ol>
<b>Maintenance and Operations</b>	
<ol style="list-style-type: none"> <li>1. Contractor has completed the transition of knowledge from the project team to the support team</li> <li>2. County &amp; Contractor resources are available to fulfill agreed to roles for Maintenance &amp; Operations Stage</li> <li>3. Warranty completed for the Phase</li> </ol>	<ol style="list-style-type: none"> <li>4. Within project: Completion of the project</li> </ol>

### 4.3 Testing, Quality Assurance and User Acceptance

Contractor shall leverage a highly scalable and flexible testing methodology that:

- Leverages automation
- Employs industry best practices, tools and custom accelerators
- Reusable components for cost savings and time to market
- Fungible skillsets leveraged across testing types/programs
- Strong knowledge management

Testing is an ongoing activity that will start during the first sprint and run throughout the rest of the project. Capabilities that are built during each sprint will go through the following test phases:

- Unit testing (UT)
- Functional testing
- Integration testing (IT)
- Other applicable testing such as security testing identified in the diagram below

Unit testing is performed for every capability, module, and deliverable to ensure the overall quality. From business coverage standpoint, each feature is individually tested for functionality in parallel with Unit Testing. After every sprint, a feedback session with the County will be performed. Feedback is then implemented in the next sprint. Integration testing is also performed to validate the business capabilities and functionality flow through multiple modules. Security testing will also be performed to ensure each role and respective rights to the solution are setup properly. Testing to be performed for all Salesforce supported browsers.

Data flow through the modules are vital for a properly functioning solution. To ensure data completeness, data transformation and validation are performed as part of data certification in parallel with integration testing. End to end scenarios are tested once the stories are developed and development integration is completed. This ensures that each story is validated for correctness and completeness. In addition to end to end testing, performance testing will be performed on to ensure the solution performs as intended. Performance testing is conducted over a period of several days/weeks to ensure no loss of degradation. The solution is also tested for threats and vulnerability. Day-in-the-life testing is also performed to ensure processes that are leveraged by the County throughout the day are operating correctly.

Contractor shall leverage test tools which allows the efficient management and fulfillment of all aspects of testing. Quality Assurance resources will both write and fulfill test cases.

Please refer to section 3.1.4 for all testing activities.

#### **Development Coverage:**

- Integration Testing:** As part of the overall application integration testing, Contractor will conduct a deep dive into how data is acquired from various incoming sources (either through feeds, messages, events, etc.), gets transformed based on business rules (through ETL process, batch jobs, etc.) and is delivered to target systems.
- Regression Testing:** Regression testing ensures that functionalities that are added in the ongoing sprint don't break/impact the functionalities that are delivered in the

preceding sprint. Contractor will maintain and execute an optimum regression test suite including the automation of test cases to ensure the entire regression is quick and efficient. Here is an overview of how to select scripts that must be included within regression testing:

- Scripts or functionality that may cause catastrophic or damaging failures need to be included in the regression scripts list since this is the highest risk functionality. This is especially true with functionality that does not have a workaround.
- The functionality and test scripts that have generated the highest severity variances must be included in the functional tests.
- Evaluate each script on a script-level basis (i.e. what part of the function does it cover, how significant is it, is it supporting the main functionality, etc.)]

### **Business coverage**

Contractor will create high-level scenarios followed by detailed test cases to provide optimal test coverage and end to end requirement traceability of business centric scenarios. Functional testing of features will be performed from the start of sprint 1. End to end testing will ensure that the overall solution will work not only at an individual component/module level, but also in its entirety.

### **Data Coverage**

Contractor will create a Data Transformation and Synchronization Plan that will meet the County's data migration requirements. This will ensure all key activities are fulfilled within 'data certification', analyze and map the data transformation, extract from source, data cleansing/ transformation/validation.

### **Architecture coverage**

This component evaluates the status of the APAS initiative via usage and performance metrics. This includes performing adoption and performance health checks at defined milestones following each phase of the project. This also ensures that the solution will meet both current and future performance needs in terms of scalability, endurance and penetration.

Contractor will work with the County to develop a customized testing strategy based on the following elements:

- Criteria / scope
- Cost & resource constraints
- Technology / architecture
- Internal processes
- Business goals / expectations

As part of the Contractor's ValuePath methodology, testing is iteratively layered in and improved throughout the life of the project with an emphasis on re-usability.

Upon completion of the above, County will conduct Quality Assurance Testing of the end-to-end functionality of the APAS Solution to ensure the completeness of the application functional/general components.

### **Test Automation:**

Contractor QA approach and plan will include test automation to ensure activities and outcomes can be effectively measured and tracked throughout the project. Test automation will also improve the stabilization of functionality and generate desired outcomes more effectively and efficiently. Contractor propose to use Selenium as a test automation tool and will finalize this tool choice after discussions with the County during the Definition phase.

**User Acceptance Testing:**

Upon the successful attainment of the exit criteria for QA activities of each Release and Phase, the County shall conduct User Acceptance Testing.

The purpose of User Acceptance Testing (UAT) is to confirm that the System is developed according to the County's business functionality, performance and technical requirements and that it is ready for enterprise deployment and operational use. During UAT, County end-users will compare the System's functionality, features and performance to the APAS Requirements Documents, Design documents and County documented UAT exit criteria. Acceptance Criteria as defined in Exhibit A-9 (Acceptance Criteria) of the Agreement.

Upon the successful attainment of the exit criteria for UAT and Acceptance of the applicable Deliverables and Key Milestones as defined in Exhibit B (Fee Methodology and Payments) of the Agreement, all the components developed by Contractor in the respective phase will be deployed in production.

## **5 Project Schedule**

APAS Project is expected to be completed in June 2021, assuming a project start in January 2019. The completion date will be confirmed or updated by mutual agreement at the conclusion of the Definition Phase.

A high-level timeline of approximate activity start and end dates as well as a detailed Project Plan is included in Exhibit A-5 (Project Plan).

## 6 Measures, Metrics and Reporting

The Project's progress shall be closely monitored using indicators that accurately measure product and process quality. Ongoing process improvement shall be prioritized by regular evaluations of the Project's performance goals and metrics. The output of these evaluations shall be recommendations to improve support planning, defect containment and productivity.

To ensure that the Project status is accurately and effectively tracked, Contractor shall:

- Define all metrics, measures and reporting tools.
- Establish target values for each metric.
- Implement any process improvements required to achieve those targets.
- Refine the metric on a continuous basis to ensure they represent an appropriate measure of the Project status.
- Real time metrics and delivery dashboards provide visibility into every aspect of project delivery including:
  - Progress against plan including planned work, and work completed
  - Milestones and target dates for completion
  - Resources and resource burn for planned and actuals
  - Risks
  - Issues
  - Defects

Contractor will produce and provide to County, as part of the services, the operational, governance and performance reports as set forth in this SOW #1. The Contractor will modify such reports as requested by County to permit County to manage and monitor Contractor's performance of the Services. Contractor will provide reports in accordance with the Statements of Work to County and attend meetings/conference calls with County to discuss the same, including:

- Performance of the project activities, delivery of the deliverables and services against the Project Plan;
- Milestones, including Key Milestones, as set forth in the Project Plan and Exhibit B (Fee Methodology and Payments) achieved and/or not achieved and (where not achieved) planned actions to address the failure;
- Risks and issues associated with the project, services, and Deliverables and plans and actions undertaken or planned to be undertaken to mitigate such risks and issues;
- Any proposed changes to the current Project Plan; and
- Other information and planning as is reasonably necessary to ensure that all services, Deliverables and other Contractor tasks and activities are completed on schedule.

As part of the services, Contractor will promptly correct any errors or inaccuracies in or with respect to the Reports or the information or data contained in such Reports.

Consistent with the above, Contractor shall capture and report the following key metrics (additional metrics will be defined during the Definition Phase) on a monthly or weekly basis as determined by the County:

The Target Metric Values for the defined metrics will be mutually agreed during the Definition Phase. An initial set of metrics is included in the table below:

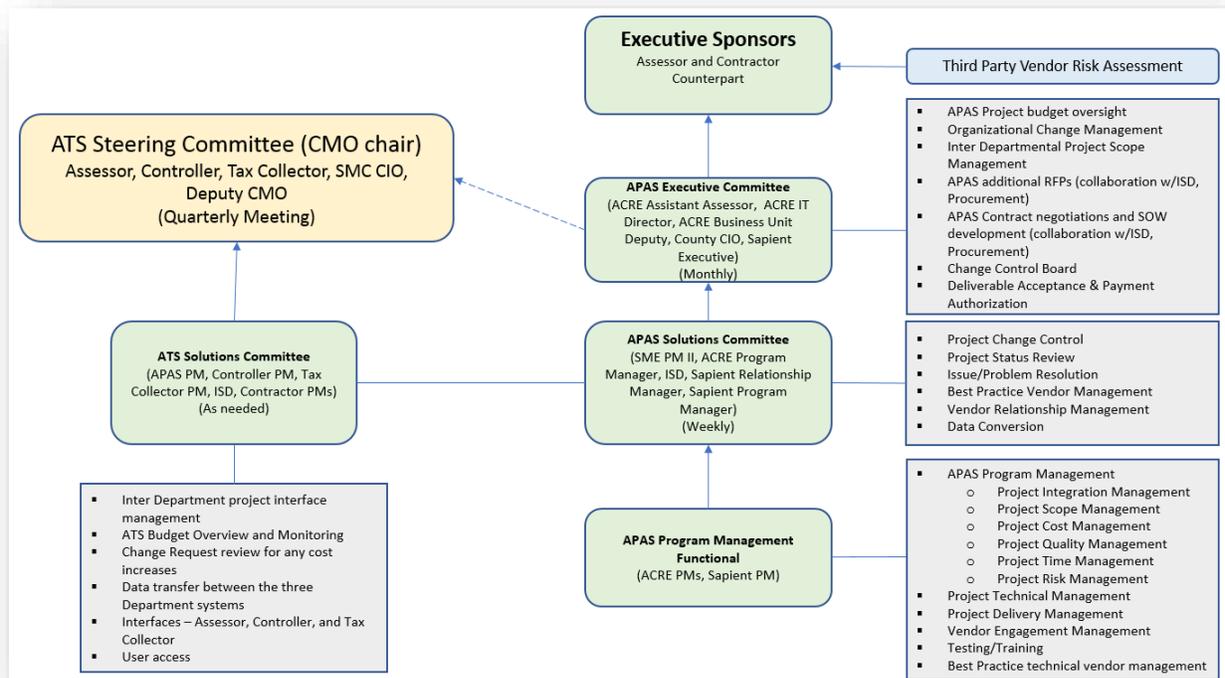
Metric	Purpose
Burn Down Chart	<p>A burndown chart is a graphical representation of work left to do versus time. The Y axis is the number of story points remaining in the release. The X axis shows the number of sprints. At the beginning of each sprint, the team plots the estimated number of story points remaining in the release. As the sprints progress, the team draws a line between the points to reflect their actual realized velocity relative to the story points. They can also plot the predicted high velocity line and the predicted low velocity line, as well as an average velocity line. The chart shows at a glance how the release is trending. It is useful for predicting when all of the work will be completed.</p>
Burn Up Chart	<p>A burnup chart shows the total amount of work in a release as a total or target line, and the progress each sprint toward achieving that goal. A release burnup chart shows how much progress a team is making each sprint toward achieving a target or total amount of work for the release</p> <p>The vertical axis is amount of work, and is measured in units customized to your own project. Some common units are number of tasks, estimated hours or story points (in agile project management methodologies). The horizontal axis is time, usually measured in days.</p>
Scrum Board	<p>Displays issues the project, in a flexible way of viewing, managing and reporting on work in progress for teams that work in sprints (iterations).</p>
Sprint Report	<p>Shows the list of issues in each sprint. It is useful for your Sprint Retrospective meeting, and also for mid-sprint progress checks.</p>
Velocity Chart	<p>Shows the amount of value delivered in each sprint, enabling to predict the amount of work the team can get done in future sprints.</p>
Created vs Resolved Issues Report	<p>Shows the number of issues created vs number of issues resolved over a given period of time.</p>
Resolution Time Report	<p>Shows the average time taken to resolve issues. (e.g. Defect resolution)</p>
Defect Tracking	<p>By creating an additional subtask type for the JIRA project called Defect, defects can be raised as subtasks of the story/bug that is being tested. Defects are directly associated with their related stories. Defects can automatically be seen in the Active Sprint in the Agile Board.</p>
Defect Density	<p>The number of bugs discovered during a sprint.</p>

Metric	Purpose
Defect Resolution Success Ratio	<p>It is a KPI that shows how many of the defects that are resolved are reopened.</p> <p>Defect Resolution Success Ratio = (Total Number of Resolved Defects – Total Number Reopened Defects)/ Total Number of Resolved Defects) * 100</p>

## 7 Governance Process

Governance Process is the management framework within which the Project decisions are made. The role of Project governance is to provide a decision-making framework that is logical, robust and repeatable.

The following governance structure will be implemented to facilitate seamless integration with all the stakeholders. This model with operational, tactical and strategic levels intends to align people, processes and technology for managing service delivery in a collaborative manner. County will retain control over, chair, manage and retain decision making power (including veto power) over all the committees, boards and groups listed in this Section 7.



County is responsible for the overall Program management of the APAS project. The Contractor is responsible for the project management of the Contractor Team.

### 7.1 APAS Executive Sponsor

The Program Sponsor and/or APAS Executive Management team shall perform the following functions:

- Assumes project ownership and is the highest possible level of project review.
- Provides policy leadership and oversight as needed. Reviews and resolves policy, fiscal, and resource allocation issues that cannot be resolved at lower levels.
- Ultimately accountable for securing spending authority and resources. Acts as a vocal and visible champion, legitimizing goals and objectives.
- Engages third party for vendor risk assessment (optional) and make recommendations

based on third party vendor risk assessment reports.

## **7.2 APAS Executive Committee**

The APAS Executive Committee comprised of the Senior Management members from the ACRE, County Information Services Division (ISD) and Contractor. This Committee meets monthly or as required and shall perform the following functions:

- APAS Project budget oversight
- Organizational Change Management
- Inter Departmental Project Scope Management
- Change Control Board
- APAS additional RFPs (Collaboration w/ISD, Procurement)
- APAS Contract negotiations and SOW development (collaboration w/ISD, Procurement).

## **7.3 APAS Solutions Committee**

The APAS Solutions Committee comprised of members from the Project Leadership team from ACRE, ISD and Contractor. This Committee meets weekly and shall perform the following functions:

- Project Status Review
- Issue/Problem Resolution
- Project Change Control
- Best Practice Vendor Management
- Vendor Relationship Management
- Deliverable Acceptance and Payment Authorization
- Data Conversion

## **7.4 APAS Program Management**

The APAS Program Management team comprised of Project/Program Managers and Leads from the County and Contractor. This team meets weekly and shall perform the following functions:

- APAS Program Management
  - Project Integration Management
  - Project Scope Management
  - Project Cost Management
  - Project Quality Management
  - Project Time Management
  - Project Risk Management
- Data Conversion

- Project Technical Management
- Project Delivery Management
- Vendor Engagement Management
- Testing
- Best Practice technical vendor management
- Organizational Change Management
  - Business Process Re-engineering
  - Training
  - Communication

### **7.5 ATS Steering Committee**

A Steering Committee comprised of County resources shall perform the following functions:

- Inter Department project interface management
- ATS Budget Overview and Monitoring
- Data transfer between the three Department systems
- Interfaces – Assessor, Controller, and Tax Collector
- User access

This Committee will meet once a quarter.

### **7.6 ATS Solutions Committee**

The ATS Solutions Committee comprised of members from the Project Managers from Assessor, Controller and Tax Collector and ISD. ISD ATS Project Manager will chair this meeting and this Committee meets as needed and shall perform the following functions:

- Project Status Review
- Issue/Problem Resolution
- Project Change Control
- Deliverable Acceptance
- Data Conversion

## 8 Management Approach

### 8.1 Plan Management

Contractor will develop a Detailed Project Plan/Schedule for the Definition Phase at the beginning of the Project using an appropriate ALM tool. The Project Plan will be baselined at the beginning of the Project. The baseline will only be adjusted pursuant to the Change Control Procedures. Contractor will develop detailed project plan for each phase of the project towards the end of Definition Phase.

The Contractor Project/Program Manager will update the Detailed Project Plan weekly with data supplied by all team members in the progress reporting process. Project Sprints of 2-3 weeks in length will be defined with high level dates and objectives for each Sprint. The details will be defined prior to the start of each Sprint. Contractor will track and report progress for each Sprint throughout the project. The Contractor Project/Program Manager will control potential changes to the baseline Project schedule and/or estimates through the use of the Change Control Procedures.

### 8.2 Communications Management

Communications Management is described below and will focus on providing regular updates on the contributions, commitments and challenges for the Project effort to all Project participants.

For the success of the project and to ensure effective communication amongst team members and appropriate reporting on engagement activities to the County management, Contractor shall implement a robust communication and reporting solution. Contractor Communication approach would aim at maintaining a transparent and “open-book” relationship. Contractor methodology (ValuePath) is designed to facilitate continuous customer engagement and full transparency among all the stakeholders to demonstrate visible progress throughout the lifecycle of a project.

The following diagram generally describes Contractor approach towards the project communication framework which is refined during Activate stage within the Definition Phase of the project in consultation with County.

	Status Reporting	Issue Resolution	Deliveries & Releases	Reviews
Artifacts	<ul style="list-style-type: none"> <li>Status Reports</li> <li>Action Plans</li> <li>Updated Support Plan</li> <li>Ticket Updates</li> <li>Problem Analysis</li> </ul>	<ul style="list-style-type: none"> <li>Issues Log</li> </ul>	<ul style="list-style-type: none"> <li>Delivery Documents</li> <li>Release Notes</li> </ul>	<ul style="list-style-type: none"> <li>Review Comments Logs</li> <li>Addendum to Deliveries</li> </ul>
Mechanisms	<ul style="list-style-type: none"> <li>Ongoing / Daily Communication</li> <li>Workshops</li> <li>Checkpoints</li> <li>Regular Status Calls</li> <li>Steering Committee Meeting</li> </ul>	<ul style="list-style-type: none"> <li>Issue Tracker</li> <li>Onsite Lead – Single Point for Issue Resolution</li> <li>Regular Status Calls</li> <li>Steering Committee Meeting</li> </ul>	<ul style="list-style-type: none"> <li>Use of CM Tool to Track Deliverables</li> <li>Delivery Made Through Secure FTP / Shared Servers</li> </ul>	<ul style="list-style-type: none"> <li>Use of CM Tool to Track Deliverables</li> <li>Review Meetings with Onsite Lead</li> </ul>
Models	Daily Email Updates			
	Audio / Video Conferences			
	Minutes of Meetings / Quality Reports			
	Pager / Mobile for Key Personnel (support emergency cases)			
	Ticketing System			

Here are few of the key activities (from the Project Management Plan) which Contractor will undertake to ensure full transparency of status of delivery for the County:

- Coordinate the overall project communication plan
- Develop and implement a communication plan which includes defining interfaces, meeting schedules, reports schedules, standards and communication prerogatives
- Collect and distribute information through established and defined communication channels
- Provide a first escalation point for the project
- Enable agreement on empowerment and escalation practices, and indicators of progress in making timely decisions
- Ensure alignment of teams and stakeholders around the path to successful completion and actions needed to stay on track

The following approaches will be used to effectively manage the Contractor team and ensure the County is properly informed of the project status as well as issues and risks:

- Team meetings once or twice daily to review status and schedules as well as team morale and synergy
- Workshops and checkpoints to review requirements, functionality, scope, usability and technology, and to validate decisions that have been made by team segments
- Weekly status reports and County checkpoints to review current project status, open issues, next steps and risks

### **8.2.1 Project / Program Level**

The Periodic Status Report shall address issues and concerns, action items, and other pertinent information needed by Contractor or requested by the County as necessary and applicable to that Project Task, sprint, release or phase. The presentation of the Status Reports shall be written. Contractor Project management staff are expected to attend all Status Report meetings, unless otherwise decided by the County.

The Regular Status Reports shall include a minimum of the following elements:

- Milestones reached
- Major tasks accomplished
- Schedule Performance
- County Approved Scope Changes
- Risks/problems identified and a detailed report of the planned or completed mitigation thereof
- Milestones not met on schedule
- Milestones or critical path items expected to occur during the next month

#### Weekly Status Reports and Meetings

The Contractor Project/Program Manager shall coordinate the following:

- In addition to the status report elements described above, this report shows

status of all the releases of specific Business Functional Area (BFA). It includes timeline of every engagement of a BFA, accomplishments of the week, upcoming milestones, issues and weekly work products:

- The format of the status report for the APAS Application will be discussed with the County Program Manager and mutually agreed upon by County and Contractor.
- The report is provided to the APAS Program Manager.

### Monthly Status Report

Contractor will also generate a monthly status report that covers the following:

- In addition to the regular status report elements described above, this report shows status of all the releases of all the Business Functional Areas (BFA). First sheet of this report provides the monthly status in terms of releases completed in the month, current status of the release in progress (Red, Green, Yellow), testing summary or issues and whether management action is required for given issues or not.
  - The format of the status report for the APAS Application will be discussed with the APAS Program Manager and mutually agreed upon with Contractor during ValuePath Activate activity.
  - The report is provided to the APAS Program Manager.
- Continuous tracking of all open issues.
  - If an issue is elevated to Critical, it will be escalated to the appropriate levels in Contractor and the County for immediate action.

## **8.3 Escalations Management**

APAS Project team will focus on the early identification and resolution of risks and potential issues. Risks and issues will be tracked continuously. All open issues and risks will be assigned an owner and a date by which a resolution is required.

All outstanding issues and risks will be listed in the weekly status reports and will be discussed at the weekly status meetings at the APAS Program Management Team.

If any issue marked as “critical” is not resolved in weekly status meeting, then the issue will be escalated to Contractor management and County Management to ensure quick resolution.

### **8.3.1 Issue Resolution**

The foremost objective of the issue resolution process is to have the issues resolved as effectively and efficiently as possible. As appropriate, this may or may not require application of the escalation process. The issue tracking and resolution process includes:

1. Contractor shall maintain an action item/issue tracker to track all open issues/action items.
2. All open issues and risks will be assigned an owner and a date by which a resolution is required.
3. An issue shall be considered to be open so long as there is a pending action for either Contractor or the County.
4. The APAS Program Management team will review the open issues on a weekly basis.

5. If the Contractor offshore team has questions, then the Contractor Project/Program Manager at onsite will follow up with County Program Manager.
6. Status of open issues will be provided in the weekly status report from Contractor and the County project team to the County Program Manager and will be discussed in weekly progress meetings.
7. Critical issues will be reported to the Team Leads and the APAS Program Management team as they are identified, without consideration to the standard status reporting procedures.

### **8.3.2 Escalation**

If an open issue cannot be resolved within the above issue resolution process, then the issue shall be escalated.

1. To resolve escalated issues, designated Contractor and County representatives will meet to discuss the concerns and interests;
2. If the issue remains unresolved within the “Unresolved Time” set forth below, it may be escalated to next higher level.
3. Contractor or the County may escalate an open issue directly to the appropriate level.

Escalation Level	County Rep.	Contractor Rep.	Escalation Categories	Unresolved Time
Level-1	APAS Leads	Contractor Leads	<ul style="list-style-type: none"> <li>Escalation of low severity of Project Issues related to milestones, deliverables, resources, quality of services</li> <li>Process Deviations / Non-compliance, Improvements</li> </ul>	Immediate
Level-2	County Program Manager	Contractor Project/ Program Manager	<ul style="list-style-type: none"> <li>Issues unresolved at Level -1</li> <li>Escalation of medium severity of project issues like delays in issues resolution, response and poor quality of deliverables, which impacts other interfacing groups</li> </ul>	2 Business Days
Level-3	ACRE IT Director	Contractor Equivalent	<ul style="list-style-type: none"> <li>Issues unresolved at Level-2</li> <li>Escalation of critical issues and governance issues requiring immediate management intervention of County and Contractor</li> <li>Decrease in Customer Satisfaction Ratings Issues</li> </ul>	3 Business Days
Level-4	ACRE Senior/ Executive Management	Contractor Executive Management team	<ul style="list-style-type: none"> <li>Issues unresolved at Level-3</li> <li>Final escalation that requires the intervention of the Executive team to resolve all issues and meet the required service levels</li> </ul>	5 Business Days

## **9 Project Documentation and Repository**

### **9.1 Project Documentation**

Contractor shall use best practices in the development and maintenance of all Project documentation. At the end of each release, all documentation must be completely accurate and up-to-date. At the completion of the project, Contractor shall conduct a review with the County and identify any documentation that must be updated as a result of changes during the 90-day Warranty period.

All documents identified in Exhibit A-3 (Deliverables) shall be updated and provided to the County at the completion of the Release/Phase.

Contractor shall also transfer all finalized required documentation to County. The format and transfer medium will be at the discretion of County. Contractor shall provide the following documentation to County:

- Declaration of Original Work (DOW): Written declaration stating that Contractor has delivered ownership of the System, signed by an appropriate legal representative of Contractor
- Statement of known System limitations, defects, issues that could impact operations, and/or existing System workarounds

### **9.2 Project Document Repository**

Contractor must maintain all documentation, along with all other Project Deliverables within the County SharePoint document management system. All generated documents must be editable by County staff using standard tools.

APAS Project team will use an Application Lifecycle Management (ALM) tool for the Lifecycle of the APAS project. All Contractor Personnel assigned to APAS project will be provided access to APAS ALM tool, to view real-time project progress, requirement level status and to collaborate on requirements, definition and testing. Approved requirements will be loaded in APAS ALM tool, once the County has signed off.

## 10 Quality Management

Contractor shall define and document the quality assurance activities that will be implemented to ensure the APAS Project conforms to all established and contracted requirements. The plan shall document how Contractor's development and release activities and processes shall be managed, tracked and audited (from both a project management and configuration control perspective) to ensure the delivered APAS Solution and components meet the quality standards and requirements required by the contract. In addition, the plan shall provide a comprehensive explanation of how Contractor will integrate its release process into County resource schedules.

In performing the Services, Contractor will follow the quality assurance procedures set forth in the Quality Management Plan section of the Project Management Plan to be developed by Contractor and approved by County, to help ensure, prior to delivery, that the Services have been performed with a high degree of professional quality and reliability. Such procedures shall include checkpoint reviews, testing, Acceptance and other procedures for County to confirm the quality of Contractor's performance. Contractor, as part of its quality management process, will provide continuous quality assurance and quality improvement through: (i) the identification and application of proven techniques and tools from other installations within its operations; and (ii) the implementation of quality management strategy, practices and measures designed to improve performance. Contractor will utilize tools/productivity aids to automate any and all parts of development of the life cycle of the Project.

Contractor's Quality Assurance program will focus on all aspects of project and application quality, with specific focus on application testing and deployment. Contractor shall use best-practices testing and deployment policies and procedures as part of its project methodology (ValuePath) which will be leveraged for APAS project.

Contractor's Quality Assurance Lead at onsite will work closely with County Quality Assurance Lead and drive the following activities to ensure quality:

- Manage a cross-functional team of project, technical and business personnel from all stakeholders to support Testing and Deployment activities.
- Coordinate and document testing and deployment activities, while writing test plans that enforce the acceptance criteria of features.
- Notify team leadership when production is blocked due to errors in development.
- Fulfill process for governance and quality control. Real time metrics and delivery dashboards provide visibility into every aspect of project delivery.

Quality Management status are reviewed with APAS Program Manager once per week; non-conformance issues and events are noted, and actions to address findings are determined.

Contractor shall develop a Quality Management Plan (a section in Project Management Plan) during the Definition Phase that must describe the Contractor's approach for assuring the quality of work and Deliverables that are completed during the Project.

The Contractor Quality Management Plan will:

- Define the methodology, checklists, metrics and tools that Contractor will use to measure and assess the quality and accuracy of its day-to-day performance.
- Provide the methodology that Contractor will use to correct identified deficiencies.
- Provide a quality measurement process applicable to plans and documents, as well as programs and operational functions.

- ❑ Provide a process for sampling, auditing and continuous quality improvement.
- ❑ Incorporate a proactive methodology for Quality Assurance – including analyzing and assessing the quality and accuracy of performance. (The Quality Assurance requirements apply for the entire project) This shall include the following:
  - Quality Assurance Activities – Description of the quality assurance activities to be performed by Contractor during the term of the contract.
  - Quality Control Activities – Description of the quality control activities to be performed on all Deliverables before submission to the County by Contractor during the term of the Contract.
  - Quality Assurance Process and Procedures – Description of Contractor internal processes and procedures for conducting quality assurance activities, including requirements for County staff time to review and Accept the Deliverables.

Throughout the term of this SOW #1, the County or its authorized agents will conduct Quality Assurance audits and/or Independent Verification and Validation (IV&V) activities at which time the Project artifacts will be audited to ensure that Contractor fulfills all requirements.

### **10.1 Process Improvements**

Contractor shall use reasonable efforts to propose process improvements/long-term solutions that shall result in improvements and an increase in efficiencies to the Deliverables or APAS Solution provided by Contractor under the SOW #1 or level of performance of Contractor's Services. If County agrees to implement such improvements/long-term solutions, then Contractor shall document for the County each such process improvement/long-term solution and the expected benefit to County. Contractor shall, throughout the duration of the project, develop and propose process improvements to the Deliverables and Services provided by Contractor.

Contractor's Defect and Release management approach shall be based on pro-actively reducing the discovery of issues by putting in place a quality improvement process (code coverage, regression automation, risk-based testing approaches).

### **10.2 County's Use of Advisors**

The County will use external advisors including third party entities (advisors) on an as-needed basis to review and assess the health of the project. This may include, solely at the discretion of the County, but will not necessarily be limited to, providing advice to the County and Contractor regarding best practices, solutions and recommendations, implementation guidelines, for specific deliverables and/or Phases. If the County retains such advisors, Contractor will be obligated to cooperate with the advisors and to analyze the recommendations and best practices promulgated by the advisors, subject to the approval of County. If any specific recommendations result in rework, then the Change Control Process will be followed. These advisors may interview Contractor personnel, assist in the assessment of Contractor or review APAS project materials prepared by Contractor. Contractor shall cooperate with all such advisors.

## **11 Review of Deliverables**

Contractor shall follow the Deliverables review process by segmenting the project into discrete stages with associated Deliverables so that Deliverables meet the required quality objectives, each Deliverable shall be reviewed first by Contractor's subject matter experts and then by the County's subject matter experts.

The objectives of the rigorous review process shall be to:

- Facilitate early error/fault or problem detection;
- Enhance the software quality in terms of its technical attributes;
- Ensure conformance to the standards and guidelines; and
- Ensure that root causes are identified, and corrective actions taken.

### **11.1 Contractor Internal Review of Deliverables**

Contractor shall utilize various onsite and offshore quality control activities before submitting any Deliverables:

All internal QA/QC review results shall be shared with the County on a timely basis.

Additionally, there are four primary review and oversight bodies within Contractor that will be providing oversight for APAS project:

1. Immediate oversight from assigned Engagement Lead. Deliverable and general project quality are governed by assigned Engagement Lead to ensure alignment at all levels within County.
2. Project Governance meets with the Contractor Project Manager on a weekly basis (or as needed) to review project health, scope, staffing, budget, schedule, risks and issues. The two discuss mitigation plans for any such concerns.
3. Technical Oversight from Contractor Technical Architect and Delivery Executive team in the form of technical design oversight, QA reviews throughout the project on proposed design patterns and documentation.
4. Technical Oversight from the Salesforce.com Program Architect in the form of technical design oversight, QA reviews on proposed design patterns and documentation.

### **11.2 County Review of Deliverables**

All Contractor deliverables identified in Exhibit A-3 (Deliverables) shall be subject to review by the County prior to final approval, acceptance, and payment. Acceptance of deliverables will be communicated formally via a deliverables acceptance form to be drafted by the County during the Definition Phase.

## 12 Project Team Structure

### 12.1 Contractor Team Structure

Contractor Team structure is shown below:



### 12.2 Estimated Project Staffing

The table below provides an estimate of the project resources required by County and Contractor.

ASSESSOR	Annual Expected Resources (FTE)			
	Proposer Resources		ACRE Resources	
	Functional	Technical	Functional	Technical
Definition Phase	12 Onshore: 12 Offshore: 0	5 Onshore: 5 Offshore: 0	5.5	3
Phase 1 - Software Development, Testing, and Deployment Services	5 Onshore: 5 Offshore: 0	16 Onshore: 2 Offshore: 14	5.5	5
Phase 2 - Software Development, Testing, and Deployment Services	4 Onshore: 4 Offshore: 0	11 Onshore: 2 Offshore: 9	5.5	4.5
Phase 3 - Software Development, Testing, and Deployment Services	1 Onshore: 1 Offshore: 0	9 Onshore: 0 Offshore: 9	5.5	4.5

### 12.3 Key Positions

Contractor acknowledges that certain of the Contractor employees and Subcontractors are critical to the Project and are as set forth in this SOW #1 (“**Key Positions**”). Individuals assigned to a Key Position are referred to this SOW #1 “**Key Personnel.**” With respect to Key Positions, both the County and Contractor agree as follows:

Each individual in a Key Position will be dedicated to APAS project for the duration of the project and cannot be removed or reassigned from APAS project without County’s prior written approval, which approval shall not be unreasonably withheld. Contractor cannot change the number of or the position title of Key Positions, without County’s prior written approval. Contractor must obtain the prior written approval of County for any replacement individuals assigned to Key Positions;

Before assigning an individual to a Key Position, whether as an initial assignment or as a replacement, Contractor will (i) notify County of the proposed assignment, (ii) introduce the individual to appropriate representatives of County, (iii) provide County with a resume and any other information regarding the individual that may be reasonably requested by County, (iv) allow County to interview the individual, and (v) obtain County’s written approval for such assignment. Contractor will only assign an individual to a Key Position who is mutually agreed upon by County and Contractor; Contractor retains exclusive direction and control as to hiring, termination and right to discipline or reward such individuals in connection with their employment.

Contractor will not replace or reassign individuals in Key Positions (except as a result of voluntary resignation, involuntary termination for cause, serious illness, or disability or death) during the Term of the Agreement, unless County consents in writing to such reassignment or replacement of such individual in such Key Position, which consent shall not be unreasonably withheld;

If County decides in its reasonable judgment that any individual in a Key Position should not continue in that position, then County may, in its sole discretion and upon notice to Contractor, require removal of such individual in the Key Position from the Contractor Personnel in accordance with the following:

1. Contractor will, as soon as reasonably practicable, replace such individual in the Key Position with another person of suitable ability and qualifications in accordance with procedures set forth above, and to the extent practicable, have the individual to be replaced continue work on APAS project until the approved replacement starts work; and
2. In the event that an individual in a Key Position is suspected of criminal conduct or breach of Contractor’s obligations pursuant to Confidentiality or indiscipline, Contractor will immediately remove and replace such individual with another person of suitable ability and qualifications.

Contractor will not replace or reassign greater than twenty percent (20%) of individuals in Key Positions in any rolling six (6) month period.

The following table lists high level roles and responsibilities of Contractor Key Personnel assigned for APAS:

County has the right to review and accept the Key personnel and their commitment for APAS.

APAS Project Role	Named Key Personnel	% Commitment to Role	% Onsite	Roles & Responsibilities
Client Partner	Mudit Kapur	10%	As Needed	- Final escalation that requires the intervention of the Executive team to resolve all issues and meet the required service levels
Client Executive	Aseem Gupta	20%	As Needed	- Escalation of critical issues and governance issues requiring immediate senior management intervention of County and Contractor - Ensure the appropriate roles and resources are allocated to the team - Represent Contractor leadership during Steering Committee meetings
Relationship Manager	Brian Henning	20%	As Needed	- Primary point of contact for the relationship between the County & Contractor & Solution Vendors - Escalation point for contractual obligations - Represent Contractor leadership during Steering Committee meetings
Engagement Lead (Program Manager)	TBD	80% during Definition and Implementation	100%	- Establish and fulfill program governance - Ensure agreed-to scope, timeline, resources are being properly fulfilled - Provide guidance on the completion of deliverables - Provide contract management support - Evaluate and ensure the appropriate levels of throughput from the team - Escalation of project issues including delays in issue resolution, response and poor quality of deliverables, which impacts other interfacing groups

APAS Project Role	Named Key Personnel	% Commitment to Role	% Onsite	Roles & Responsibilities
Onshore Project Manager	TBD	100%	80%	<ul style="list-style-type: none"> <li>- Creation and maintenance of project plan</li> <li>- Scrum Master Responsibilities</li> <li>- Status reporting</li> <li>- Risk &amp; Issue Tracking</li> <li>- Backlog Management</li> <li>- Offshore Communication Management</li> <li>- Resolution of project issues related to milestones, deliverables, resources, quality of services, process deviations, non-compliance, improvements</li> </ul>
Offshore Project Manager	TBD	100%	100% during Definition	<ul style="list-style-type: none"> <li>-Management and oversight of offshore team</li> <li>Coordinate project activities, milestones, and deliverables with onshore project manager</li> </ul>
Functional Lead	TBD	100% during Definition; 50% during Implementation	80%	<ul style="list-style-type: none"> <li>- Primary facilitator of analysis and design sessions</li> <li>- Generate and maintain overall functional architecture</li> <li>- Provide guidance and direction to team of Business Systems Analysts</li> <li>- Provide quality assurance on functional deliverables</li> <li>- Provide subject matter expertise on the appropriate use of the Salesforce platform.</li> </ul>
Technical Architect	TBD	100% during Definition; 75% during Implementation	80%	<ul style="list-style-type: none"> <li>- Primary facilitator of technical architecture and design sessions</li> <li>- Generate and maintain overall technical architecture</li> <li>- Provide quality assurance on technical deliverables</li> <li>- Escalation point for resolution of technical issues</li> </ul>
Data Architect	TBD	100%	100% during definition, up to 20% afterwards	<ul style="list-style-type: none"> <li>- Generate and maintain data architecture/model that fulfills business functions and capabilities</li> <li>- Ensure team understands and fulfills data architecture/model</li> <li>- Provide oversight, guidance, and direction to team during data migration activities</li> </ul>

APAS Project Role	Named Key Personnel	% Commitment to Role	% Onsite	Roles & Responsibilities
Quality Assurance Manager	TBD	100%	80%	<ul style="list-style-type: none"> <li>- Provide oversight, guidance, and direction for all testing activities and team members</li> <li>- Generate QA strategy and plan</li> <li>- Track and report status on all QA activities</li> <li>- Ensure test cases fulfill agreed-to business requirements and scope</li> <li>- Publish release notes for each phase of the solution</li> </ul>
Property Assessment SMEs	TBD	100% during Definition, up to 25% afterwards	80%	<ul style="list-style-type: none"> <li>- Provide subject matter expertise on business capabilities and functions during analysis and design discussions</li> <li>- Review and provide feedback on analysis and design-related deliverables</li> <li>- Assist team during QA activities to ensure solution fulfills business needs and requirements</li> </ul>
Legacy System SMEs	TBD	80% during data migration, up to 50% otherwise	50%	<ul style="list-style-type: none"> <li>- Provide subject matter expertise re: the legacy system as needed</li> <li>- Ensure data from legacy system is properly transitioned to new solution</li> </ul>

The following table lists high level roles and responsibilities of County Key Personnel assigned for APAS.

APAS Role	Name	% commitment to role	Responsibilities
ACRE IT Director	Randy Mellin	As Needed	<ul style="list-style-type: none"> <li>• Manage all Organizational Change Management activities</li> <li>• APAS project budget oversight</li> <li>• Inter Departmental Project Scope Management</li> </ul>
Deputy Assessor	Alex Tharayil	As needed	<ul style="list-style-type: none"> <li>• APAS project business sponsor</li> <li>• Review and accept APAS solution</li> </ul>
APAS Program Manager	Paul Paulose	100%	<ul style="list-style-type: none"> <li>• Overall program manager responsible for managing the project to completion</li> <li>• Focal point of communication between Contractor team and County team</li> <li>• Work with the Contractor Project/Program Manager to develop, manage and maintain the project plan</li> <li>• Identify and manage risks, issues impacting the project</li> </ul>
SME Lead (IS Project Manager II)	Terry Lashkoff	100%	<ul style="list-style-type: none"> <li>• Managing APAS Appraiser Services SME staff, interface with Contractor business analysts' teams, and other county assessor SME staff during all phases of the project.</li> <li>• Develop all aspects of the APAS business requirements, and re-engineering the Appraisal services work flows</li> <li>• Review and approve all APAS functional and general requirements</li> <li>• Support the APAS data conversion team</li> <li>• Provide User Acceptance Testing (UAT) leadership</li> </ul>
Data Conversion SME Lead	Edward Lim	100%	<ul style="list-style-type: none"> <li>• Managing APAS Appraiser Services SME staff working on Data Conversion,</li> <li>• Support User Acceptance Testing</li> </ul>
Data Conversion Project Manager	Preethy Thomas	100%	<ul style="list-style-type: none"> <li>• Manage a cross-functional team of project, technical and business personnel from all stakeholders to support Testing</li> <li>• Lead the County QA and QC activities</li> </ul>

APAS Role	Name	% commitment to role	Responsibilities
Web Portal Project Manager	Mary Scavarda	50%	<ul style="list-style-type: none"> <li>Lead the Web portal component of the APAS project</li> <li>Support Organizational Change Management initiatives</li> </ul>
Business Staff	Greg Wong Mara Terry Flynn Marsha Winters Other SMEs	50% 50% 30% 30% As needed	<ul style="list-style-type: none"> <li>Participate in the requirements definition process, data cleansing, QA, testing and training efforts.</li> <li>Review APAS functional and general requirements</li> </ul>
ACRE IT Team	Nelly Mikhael Annie Shim Patti Chow Rose Santos Greg Randich	25% 75% 30% 50% 50%	<ul style="list-style-type: none"> <li>Participate in the detailed business and technical requirements, architecture, design, data modeling, QA, testing and training efforts.</li> <li>Review APAS functional, general and technical requirements</li> <li>Support UAT</li> </ul>
Project Coordinator	Larry Kitagawa	100%	<ul style="list-style-type: none"> <li>Prepare and Manage Project schedules</li> <li>Managing the Project repository and APAS ALM tool</li> </ul>
APAS QA Lead	Contractor	100%	<ul style="list-style-type: none"> <li>Manage and coordinate all County QA and QC activities</li> <li>Work closely with Contractor QA Lead to ensure the quality of APAS deliverables</li> </ul>
APAS Program Architect	Salesforce	100%	<ul style="list-style-type: none"> <li>Work as an Enterprise Architect of APAS advising all aspects of technical and data architecture/design</li> <li>Optimize APAS architecture and design, drive efficiency &amp; productivity through simplicity and reduce complexity of APAS solution</li> <li>Security architecture and policy review and make recommendations</li> <li>Provide guidance on all industry best practices of Salesforce PaaS architecture and design</li> </ul>

## 12.4 Contractor Personnel

County shall have the right to approve the resume of all Contractor Personnel. Contractor shall ensure that the Contractor Personnel who each have less than twenty-four (24) months experience on their resume shall not constitute more than fifteen percent (15%) of the total number of Contractor Personnel. Without limiting and in addition to the foregoing:

1. Each Contractor Personnel providing Services on-site at the County Location will have at least twenty-four (24) months experience on their resume; and
2. Each Contractor Personnel who have twenty-four (24) months or less experience on their resume will be involved in activities that are less complex and suitable for their experience level, including without limitation, executing test scripts, capturing test results, creating test scripts based on test scenarios and test plans, building simple components rather than entire functionalities of Deliverables, and developing simple reports.

All Contractor Personnel will have suitable training, experience, and functional and language skills necessary to perform the Services in accordance with the time frames, quality requirements, and experience levels required. Contractor shall make available and assign an adequate number of qualified and trained personnel to perform the Services, including personnel with California Property Assessment experience, and experience with replacing legacy systems and Salesforce PaaS. Contractor will notify County as soon as possible after dismissing or reassigning any member of the Contractor Personnel whose normal work location is at a County Location. County will have the right from time to time to require Contractor to remove any member of the Contractor Personnel from working on the County account with or without cause (provided that County will be reasonable in requesting such removal), provided that Contractor may request to have a discussion regarding such removal, which discussion must be held within a reasonable time period, not to exceed five (5) days. At the end of such period, if County desires the person to be removed, Contractor will complete such removal within twenty-four (24) hours, or as agreed by the County and Contractor, and replace such individual as soon as practicable at no additional cost to County. Notwithstanding the foregoing, Contractor agrees that County shall have the right to require Contractor to immediately remove any member of the Contractor Personnel, without such discussion, from working on APAS, if in County's reasonable opinion:

1. The individual does not possess or perform at the applicable skill or experience level or have the expertise specified in the Agreement;
2. The individual does not deliver work which conforms to the performance standards and requirements stated in the Agreement; or
3. There are personality conflicts between the individual and County personnel which hinder effective progress of the Project.

If Contractor's fails to obtain County's prior written approval for the assignment of an individual to a Key Position to APAS, County may terminate this SOW #1 for cause.

The Contractor Personnel assigned to APAS is set forth in this SOW #1.

Contractor will be required to develop and maintain a plan for job sharing, job rotation, and cross-training of the Contractor Personnel and Key Positions to ensure that all functions and responsibilities of such persons can be adequately performed by other Contractor Personnel during the vacation and other temporary absences of the Contractor Personnel or Key Personnel.

The table below summarizes the average experiences of the proposed offshore and onshore resources for APAS:

Role	Years of Experience	Location
Subject Matter Experts	20+ Years	Onshore
Architects	12-15 Years	Onshore/Offshore
Project Managers	12-15 Years	Onshore/Offshore
Leads – Business Analyst, Developers, QA	7-12 Years	Onshore/Offshore
Developers & QA	6-10 Years	Offshore

The table below provides the number of Contractor’s Salesforce certified resources and their role in APAS within the boundaries of resources as per section 12.2:

Role	Location	Number of Contractor’s Salesforce Certified Resources
Solution Architect	Onshore	1
Salesforce SME	Onshore	1
Salesforce Business Analysts	Onshore	7
Salesforce Application Architect & Application Developers	Offshore	6

### 12.5 Subcontractors

Contractor will not subcontract or delegate any of its obligations under the Agreement or SOW #1, including to Affiliates, without the prior written approval of County, unless the Subcontractor is listed on Exhibit A-12 (Approved Subcontractors) for such SOW #1 or the Agreement.

County may, in its sole and reasonable discretion, withdraw its approval of a Subcontractor for any reason. Upon receipt of such request, Contractor will promptly remove such Subcontractor from APAS. In the event that a Subcontractor’s performance is deficient, Contractor shall promptly take steps to remedy the situation, which may include replacement of the Subcontractor.

### 13 Location of Services

Services will be provided at the County facilities at 555 County Center, Redwood City, California and at 40 Tower Road, San Mateo, California and Contractor facilities at the location(s) identified in Exhibit A-13 (Location of Services).

Contractor will not initiate a change to any Contractor Location from which it provides the Services as specified in Exhibit A-13 (Location of Services), without County’s prior agreement pursuant to the Change Control Procedures.

#### 13.1 Services to be performed at the Onshore and Offshore

Contractor onsite staff shall be authorized to make decisions on the day-to-day operations of the Project. The table below provides more detail on the responsibilities split amongst the onshore and offshore resources. Contractor onshore resources will be at the County location:

Phase	Onsite/Onshore	Offshore
Definition	Business Analysis	N/A
	Detailed Requirements Gathering	
	Data Mapping	
	Prototyping	
	High Level Business Design	
	Architecture Design	
	Interface Cataloging	
	QA Strategy	
	Migration Strategy	
	Data Modeling	
	Ongoing Project Management	
	Ongoing Relationship Management	
Phase 1,2,3	Requirements/User Story Confirmation	Salesforce Detailed Design
	Design Confirmation	Interface Design
	Deliverable Client Reviews	Salesforce Configuration
	Salesforce Detailed Design	Salesforce Custom Development
	Salesforce Configuration	QA Test Scenario Identification
	UAT Coordination & Execution	QA Scripts & Automation
	Functional Testing	QA Test Execution
	Training	Non-Prod Deployment
	Change Management	Defect Fixes
	Defect Triaging	QA UAT Support
	Production Deployment	Ongoing Project Management
	Ongoing Project Management	Transition to Maintenance & Operations
	Ongoing Relationship Management	
	Transition to Maintenance & Operations	



## 14 Project Assumptions

### 14.1 General Project Assumptions

This SOW #1 and Contractor's estimates are based on the following list of key assumptions. Deviations that arise during the project will be managed through Exhibit A-7 (Change Control Procedures), and may result in adjustments to the Project Scope, Estimated Schedule, Charges, and other terms. These adjustments may consist of charges on a time and materials basis using the negotiated rates in effect at such time for any resulting additional work or waiting time. If an assumption deviation is not resolved through the documented Change Control Procedure within 30 days, then the issue will be resolved in accordance with the documented Escalation Procedure outlined in this SOW #1.

1. Native Salesforce functionality will be leveraged and the default approach to meet requirements. The County agrees to leverage as much out of the box configuration as possible. It is anticipated that the County will increase productivity by leveraging the way it uses Salesforce. The County may customize the core platform, or develop its own apps, by leveraging the full range of tools — everything from easy point-and-click interfaces, to advanced platforms for every programming language.
2. Any 3rd Party software deemed required, that is not specifically included in Contractor's pricing document, will be purchased directly by the County.
3. Contractor is constantly focused on Salesforce Certifications within its workforce. It is expected that the County will ensure at least 1 of its staff members become a Salesforce Certified Administrator. It is anticipated that the County will invite its project team-members to rapidly become familiar with Salesforce.
4. Custom pages developed by Contractor will be supported in the Salesforce supported browsers as shown in the link [https://help.salesforce.com/articleView?id=getstart\\_browsers\\_sfx.htm&type=5](https://help.salesforce.com/articleView?id=getstart_browsers_sfx.htm&type=5). If the County needs the pages to be supported by additional browsers, there may need to be an additional, billable, work effort to the custom effort that is not included in the current scope.
5. The County agrees to perform all data cleansing and data preparation prior to conversion.
6. Project materials will be delivered in electronic format and will be developed in U.S. English.
7. For training, the County will provide all meeting support, and logistics, for classroom training sessions, including but not limited to class schedules, meeting rooms, material reproduction, flipcharts, student PC's, and overhead projectors. The County will be responsible for student attendance.
8. The County will be responsible for the performance of the network for onsite services. The Contractor will be responsible for the performance of the network for offsite services.

#### **Contract Assumptions:**

9. The County will have obtained all necessary software licenses prior to the start of the project.
10. The cost of printing and shipping training, support and user guides (if applicable) is the responsibility of the County.
11. As it relates to printing, printer hardware, and setup, these tasks are expected to be managed by the County.
12. Contractor is not responsible for modifying systems external to the APAS solution based on any changes to applicable laws, regulations, and statutes.
13. The Contractor will leverage Salesforce to manage granular control over everything from

user authentication to data access. The Contractor will use the Salesforce multi-layered approach to data security, and the industry standard that is trusted by the world's most heavily regulated industries.

## **14.2 Technical Project Assumptions**

1. There is one FileNet repository that needs to be accessed from the APAS solution.
2. FileNet will continue to remain as document management system and there will be no change in retention policy. All scanning and indexing of documents will continue to be managed by the County in FileNet.
3. FileNet will continue to be entry point for some interfaces. The new APAS solution will integrate with FileNet to receive relevant files. These files must subsequently be available from within the new APAS solution. Additional details will be determined during the definition phase.
4. There are some interfaces that currently do not use FTP to transfer files and use alternative means (e.g. CDs sent in the mail, via download from a website, etc.). As a result, the new APAS solution must support the manual loading of files.
5. Any scanned copy of physical document or images will be stored in FileNet and subsequently displayed as an attachment/link within the APAS system. Data from Web forms and PDF Forms will be captured and stored as data in APAS and the original submitted form will be archived/ persisted in FileNet.
6. Third-Party, electronically-received files (e.g. regarding aircrafts, marinas) will have the data extracted and stored in APAS and the documents that originated the data will be stored in FileNet
7. Requirements related to Optical Character Recognition (OCR) will be defined during the definition phase. In the event OCR is required, appropriate hardware after consultation with County will be chosen. County does not utilize OCR functionality in FileNet
8. The data retention policy within the new APAS solution will be defined at the time of definition phase with the understanding that some data sets will need to be retained indefinitely.
9. SharePoint will be used for the purposes of project collaboration only. There is no integration needed between APAS and SharePoint. FileNet will continue to be used as the document management system for APAS.
10. Approximately up to 15 file formats will be provided for the data ingestion into the staging tables.
11. There is no integration needed between APAS and SharePoint.

## 15 Project Fees, Expenses and Invoicing

### 15.1 Fees and Expenses

See Exhibit B (Fee Methodology and Payments)

The County's not to exceed fiscal obligation for the Contractor (Sapient Corporation) within the Agreement consists of the following three components:

1. Contractor Best and Final Offer Proposed cost
2. The 10% maximum adjustment to the Contractor's proposed cost at the conclusion of the Definition Phase as specified in Section 3.1 (Scope of Services) of the Agreement
3. A maximum contingency amount \$1,275,000 as authorized by the County's BOS for scope modifications of Definition Phase, Phase 1, Phase 2 and Phase 3 in accordance with Exhibit A-7 (Change Control Procedures).

Item#	County Payment Obligations	Amount
1	Contractor Best and Final Offer Proposed cost	\$8,597,136
2	Contractor Post Definition Phase not to exceed adjustment	\$561,012
3.	County's Scope contingency amount for change orders	\$1,275,000
Total	APAS Development and Implementation Cost	\$10,433,148

The APAS Agreement dated 12/11/2018 includes the Fee Methodology and Payment schedule for a total amount of \$10,433,148 from the Best and Final Offer Proposed cost. At the conclusion of the Definition Phase, Item # 2 will be identified and once it is approved through the Change Control Process, it will result in a modified Fee Methodology and Payment Schedule. Throughout the duration of the project, the APAS Executive Committee may approve scope change orders as part of the Change Control process. These change orders may then be reflected in a modified Exhibit B (Fee Methodology and Payments).

### 15.2 Invoicing and Payment

Per Agreement.

### 15.3 Payment Holdback

A key component of the County's risk mitigation plan is to incorporate a Payment Holdback as a component of the Fee Methodology and Payment schedule until the Contractor has successfully met the conditions of the Warranty. Outlined below are the Holdback calculations.

- a. Ten percent (10%) of Contractor's fixed Fee amounts for the Definition Phase, Phase 1, Phase 2, and Phase 3 as set forth in Exhibit B (Fee Methodology and Payments) will be held back by the County ("Holdback") for each Key Milestone Payment. After Contractor has successfully completed the Warranty of each Phase as defined in Exhibit A-10 (Warranty Services), Contractor may invoice County for the Holdback amount associated with each Phase. The one exception to the Holdback amount payments as specified the Exhibit B (Fee Methodology and Payments) is that 50% of the Definition Phase Holdback will not be billable until the successful completion of Phase 1 Warranty period.

#### **15.4 Rate Card**

Exhibit B-1 (Rate Card for Additional Services). In no event should the rates being charged to the County by the Contractor exceed their standard GSA rates.