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June 16, 2015

The Honorable Board of Supervisors
County of Los Angeles
383 Kenneth Hahn Hall of Administration
500 West Temple Street
Los Angeles, CA 90012

ADOPTED

BOARD OF SUPERVISORS
COUNTY OF LOS ANGELES

20 JUNE 16, 2015


PATRICK OGAWA
ACTING EXECUTIVE OFFICER

Dear Supervisors:

**AUTHORIZE THE CHIEF INFORMATION OFFICER TO
EXECUTE A WORK ORDER FOR CONSULTING SERVICES FOR THE
ASSESSOR'S MODERNIZATION
PROJECT (ALL DISTRICTS)
(3 VOTES)**

SUBJECT

Request approval to delegate authority to the Chief Information Officer to execute a Work Order for consulting services with Oracle America, Inc. to support the Assessor's Modernization Project.

JOINT RECOMMENDATION WITH THE CHIEF INFORMATION OFFICER THAT THE BOARD:

1. Approve and delegate authority to the Chief Information Officer (CIO), at the request of the Assessor, to execute a Work Order for consulting services under the Master Services Agreement (MSA) with Oracle America, Inc. (Oracle), effective upon execution for a period of one year, including any necessary subsequent Change Orders, for the Assessor's Modernization Project at a maximum amount of \$12,719,740, which includes a 10% contingency for Change Orders to be authorized by the Assessor.

2. Authorize the CIO to amend the Master Services Agreement with Oracle to increase the total annual amount authorized for expenditure under the Agreement from \$4,000,000 to \$17,000,000 for CY 2015; and, to revise language to clarify that the terms and conditions of the MSA are applicable to Work Orders with a term that extends beyond the termination or expiration date of the MSA.

PURPOSE AND JUSTIFICATION OF RECOMMENDED ACTIONS

Background

The Assessor's current system environment includes over 120 aging applications that are not well integrated. Many of the mainframe applications were originally implemented between 1965 and 1978. Some data, because of batch processing, can take weeks from the time data is entered into the system until the billing transactions, required by the Auditor-Controller, can be transmitted to the Auditor-Controller.

Maintenance of applications is cumbersome and risky because any changes that are made to accommodate new business rules have unanticipated processing consequences. Many departmental business functions are not automated and much of the department's data is not in electronic format which limits the degree to which application functionality serves the needs of department staff and management.

The Assessor's modernization efforts over the course of the last several years have had the aim of mitigating these inefficiencies through the development of an integrated property assessment replacement system. Through an extensive evaluation of Commercial-Off-the-Shelf (COTS) products, including property tax administration and assessment systems and middleware products, and consultation with Sierra Systems and Gartner, the software products and associated services were identified and a "targeted solicitation conducted". Based on the County's findings, it was determined that the two lead candidates for middleware products already had Master Agreements with the County of Los Angeles for software and services. The Assessor utilized the Work Order process promulgated by the CIO's MSA for consulting services and initiated two Work Orders, one each to Oracle and IBM. The department evaluated each response to the Work Order initiation and determined that Oracle's response proposed a more cost effective and complete solution to address the business needs of the Assessor's Office.

Recommendation

Approval of the recommended actions will enable the Assessor's Office to obtain professional services on a Fixed-Price Deliverable basis as outlined in the attached Work Order Submission Form for the AMP. (Exhibit I) Additionally, the CIO will execute Amendment No. 8 to the MSA to increase the total annual amount authorized for expenditure under the Agreement to allow the Assessor to obtain the professional services for the AMP. (Exhibit II)

The Assessor's Modernization Project will be comprised of five phases and developed with specialized software and professional services obtained through the recommended Work Order under the CIO MSA with Oracle. AMP aligns functional business objectives with an IT strategy and plan. Phase One of AMP will produce the overall enterprise architecture and plan for the entire system, and include the foundation components of AMP including the creation and population of a new assessment roll database, rewrite of the "Assessor Portal" interface for both personal computers and mobile devices, functionality to store base year value and compute trending for all assessment objects within the assessment roll, and a case management pilot designed for secure citizen self-service access.

With the approval of the recommended actions, the Assessor will purchase Oracle's middleware software products through an existing ISD Software License Master Agreement (SLMA) with Oracle.

Benefits

AMP will further enable the Assessor, other property tax departments and the public, the ability to access assessment data from the Assessor's data repository using a web based user interface. AMP will provide significant improvements in data transparency, security and audit, information accuracy, and support for future business and compliance requirements. The public will have direct access to information and improved service times through call center automation and the anticipated positive benefits to property owners gained from improvements in the quality and accuracy of the work. Security features will protect sensitive departmental and County information. The tight control of access to data and strong auditing capabilities will ensure the ability to identify individuals who access and change data. Point of entry data validation will increase accuracy of information and eliminate multiple data entry points at which errors could occur. Utilizing an enterprise architecture and middleware products provides a flexible foundation that is essential for the support of future business demands and compliance adherence.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

The recommended action supports Goal 1, Operational Effectiveness/Fiscal Sustainability and Goal 2, Community Support and Responsiveness of the County's Strategic Plan.

FISCAL IMPACT/FINANCING

Based on the Oracle Fixed-Price Deliverable proposal, the cost for this Work Order is \$11,563,400. A contingency in the amount of \$1,156,340 has been set aside for a total Work Order budget of \$12,719,740. Any unforeseen change orders will be authorized at the discretion of the Assessor. More importantly, payments will be made on a Fixed-Price Deliverable basis as requested and approved by the Assessor. A ten percent withhold will also be retained until full satisfaction of project delivery has been determined by the Assessor. Partial funding for this project is included in the Assessor's Fiscal Year 2014-15 final budget. The remaining portion is in the Assessor's Modernization Project Designated fund and will be included as needed in the Fiscal Year 2015-16 final budget.

The development software to be purchased under the SLMA with Oracle is \$5,998,283, and includes one year of software support in the amount of \$1,081,658. Funding for the software is included in the Assessor's Fiscal Year 2014-15 final budget. ISD will host AMP at a first year estimated cost of \$902,300 which is included in the project budget.

The total amount to proceed with Phase I of the AMP is \$19,620,323. The total projected cost for all five phases of AMP is estimated at \$80 million.

FACTS AND PROVISIONS LEGAL REQUIREMENTS

The Oracle MSA approved by the Board enables departments to utilize Work Orders for consulting services, employee training, design and expertise in the use and implementation of Oracle technology. As required by the Board's directive, Work Orders over \$300,000 to be issued under the County's MSA are submitted for Board approval.

Based on the recommended Work Order, Oracle will be responsible for providing professional services on a Fixed-Price Deliverable basis. The primary objective of this Work Order is to create the overall enterprise architecture and plan, build the foundation for all AMP phases. To achieve this vision, Oracle will use Oracle database, middleware, mobile, policy automation and security products to develop the enterprise architecture.

The MSA establishes the negotiated terms and conditions under which Oracle services will be acquired including: i) Work Order initiation processes; ii) a schedule of prices and fees; iii) termination provisions; and iv) County standards terms and conditions.

However, the MSA's Work Order Process also allows for departments to meet with contractors to discuss and agree on the specific terms of the Work Order needed to satisfy the department's needs. After several negotiation sessions between the Assessor, County Counsel, outside counsel and Oracle, key issues were negotiated and modified for the purposes of this Work Order, such as: i) joint ownership to intellectual property rights to the work created under the Work Order; ii) extended warranty period; iii) indemnification rights; and iv) limitation of liability capped at 2x fees paid under the Work Order.

While there might be some risk from the provisions of the Work Order in light of the MSA terms, including the limitation of liability, the Assessor believes that such risks are minimal based on several significant factors. The recommended Work Order specifies Fixed-Price Deliverables and define acceptance criteria that must be met before payment for any deliverable is made. The Work Order provides for a series of 40 deliverables over the course of the one-year term, with 21 payment milestones that are subject to hold back provisions.

To ensure deliverables are completed, the Assessor negotiated a five (5) business days period for acceptance or rejection of critical path deliverables, but also a ten (10) business day period for non-critical path deliverables. In addition, Oracle is not entitled to seek further costs of a deliverable associated with subsequent delay without pursuing a Change Order first. This process eliminates Oracle's immediate right to reimbursement for any increase costs. The County feels that the inclusion of the Change Order language along with the ten (10) business day acceptance period for non-critical path deliverables mitigates any risks of liability for increase costs to Oracle, and Assessor will institute mechanisms to provide for timely review of all tasks and deliverables submitted by Oracle.

CONTRACTING PROCESS

On February 20, 2007, your Board approved the MSA with Oracle that allows County departments to acquire Oracle database and application server consulting services. These MSAs offer a structure for acquiring needed services through a streamlined acquisition process and standard across the entire enterprise. All of the software components used in the AMP project will be Oracle products and other software packages the County is already licensed to use.

Although the County's MSAs are not set up as a competitive procurement process, the Assessor and CIO, with the concurrence of County Counsel, determined that a "targeted solicitation" focusing on two highly qualified vendors would be the most efficient and effective method to identify and secure agreements to purchase middleware software licenses and to procure consulting services, training, design and expertise in the use and implementation of its technology.

Due to their existing SLMAs with ISD for software procurement and MSAs with CIO for consulting services, and after extensive market research, Oracle and IBM were targeted to respond to a Work Order initiation pursuant to the CIO's MSAs. Both Oracle and IBM responded with Fixed-Price Deliverable proposals to provide services pursuant to their MSAs, and based on the procurement of software under existing SLMAs.

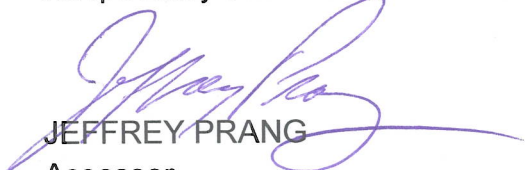
In lieu of a meeting with each contractor, the Work Order sought to provide an overview of the County's current application and business processes; and describe the statement of services, tasks, subtasks, milestones, deliverables, and specific personnel to be assigned to the task. A statement of services was attached as a reference for the contractors to prepare a proposal. The Assessor requested a detailed project plan, cost documentation including cost calculation worksheet, and technical development processes. A team of Assessor staff and other subject matter experts, using uniform criteria, reviewed the proposals and pricing. The CIO provided guidance and oversight during the entire procurement process to ensure that a fair and impartial process was conducted. At the end of this process Oracle was the top ranked, and lowest-cost proposer. IBM was notified about the results of the proposal review.

To procure Oracle middleware software products, the Assessor will be purchasing licenses through ISD's SLMA with Oracle executed on July 28, 2014. The purchase will be subject to the terms and conditions of the SLMA, as well as the terms of the Ordering Document.

IMPACT ON CURRENT SERVICES (OR PROJECTS)

Approval of this recommendation will not impact public service or the Assessor's production of the tax roll. Approval will enable the Assessor to lay the foundation for a 21st century state of the art Assessment System.

Respectfully submitted,


JEFFREY PRANG
Assessor


RICHARD SANCHEZ
Chief Information Officer

Enclosures

c: Chief Executive Office
County Counsel
Executive Office, Board of Supervisors

WORK ORDER SUBMISSION FORM

Agreement: This Work Order (this "Work Order") incorporates by reference the terms of the Master Services Agreement (as has been or may be further amended from time to time, the "MSA") between Oracle America, Inc. and the County of Los Angeles ("LAC") dated February 20, 2007. All references to "Oracle" in the agreement and this Work Order shall mean Oracle America, Inc.

Department: **Los Angeles County Office of the Assessor ("LAC Assessor", "Assessor", "you" or "your")**

Department
Project

Manager: Scott Thornberry

Effective
Date: June 16, 2015

- Enterprise Architecture Services
- Data Security/Protected Enterprise
- Middleware Architecture Services
- Business Integration Services
- Software Engineering Services
- Data Warehousing Services
- Other

HIPAA-Related Work Order (as defined herein)

Not a HIPAA-Related Work Order (as defined herein)

Limit of Liability changed to 2 times fees paid on Work Order

Federal Funds Project

WORK ORDER MANAGEMENT SUMMARY AND BUSINESS OBJECTIVE

Assessor Modernization Project ("AMP"), Phase 1

WORK ORDER PROJECT DEFINITION

The primary objective of this Work Order is to initiate the Assessor Modernization Project (AMP) project, create the overall enterprise architecture and plan, build the foundation for all AMP phases including the Assessment Roll Database Repository, an Assessment Roll Comparison Tool, Base Year Calculations, a new Assessor Portal, and a case management pilot. AMP will be designed for secure

citizen self-service access. AMP functionality will be implemented for access on mobile devices to enhance the efficiency and flexibility of County staff using AMP for assessment activities in County facilities and throughout the County. To achieve this vision, Oracle will provide the following services, related to AMP, Phase 1 using Oracle database, middleware, mobile, policy automation and security products, in your Development, Test, Training, Staging, Production, and Disaster Recovery environments. This Work Order does not apply to any ordering document that is made under that certain AGREEMENT BY AND BETWEEN COUNTY OF LOS ANGELES AND ORACLE AMERICA, INC. FOR SOFTWARE LICENSE MASTER AGREEMENT, dated July 28, 2014, and all amendments and addenda thereto (the “SLMA,” Oracle reference name: US-GMA-270549), nor does it apply to the SLMA.

Section headings in this Work Order are included herein for convenience of reference only and shall not constitute part of this Work Order for any other purpose.

1. WORK ORDER STATEMENT OF SERVICES (“SOS”)

Description of Services and Deliverables

A. Services

Oracle will provide the following services, related to your Assessor Modernization Project using Oracle database, middleware, mobile, policy automation and security products (collectively, the “Oracle Software”), in your development (“DEV”), Test (“TEST”), Training (“TRAIN”), Staging (“STAGE”), production (“PROD”), and Disaster Recovery (“DR”) environments:

1. Functionality

a. Functional, Technical, and Implementation Assessment (Oracle Enterprise Architecture Services)

Oracle will utilize the Oracle Architecture Development Process (“OADP”) and Oracle Enterprise Architecture Framework (“OEAF”) for Phase I of the AMP system as follows:

1. Create a high-level Functional/Business architecture for the full AMP system.
2. Create an architecture vision for the full AMP system.
3. Create a current state architecture including the current state Business, Application, Information, and Technology architecture.
4. Create a future state architecture for the full AMP system including the future state Business, Application, Information, and Technology architecture.
5. Create a strategic road map incorporating a phased approach and milestones to the delivery of the AMP functionality.
6. Create a governance assessment, model and plan that includes data

governance, data privacy and security with assistance and participation of all stakeholders, including appropriate staff of LAC, and access to current systems for AMP Phase 1.

7. Create an Implementation Assessment for your project that includes confirmation of hardware, software environments and mechanisms to procure Oracle software for AMP Phase 1.

b. Mentoring Workshops

Oracle will organize and conduct the following mentoring workshops for the purpose of knowledge sharing and technology transition to LA County resources,:

1. Weekly “Brown Bag” workshops of one (1) hour in duration will be conducted once the Construction phase of the project commences for the purposes of architecture reviews, technical code reviews, questions and answers of the deployment and use of Oracle technology as it relates to the AMP project and concludes with the completion of the Transition phase.
2. Oracle Software Mentoring Workshops for up to forty (40) person days total for up to ten (10) participants in each workshop for the purpose of reviewing the installation and configuration, architecture and integration of Oracle software used in the Assessor Modernization Project. The content of specific workshops will be mutually agreed to by LAC and Oracle and could include any of the Oracle technology products or custom software created within the scope of this Phase 1.
3. Information & Data Architecture Mentoring Workshop for up to ten (10) person days total for up to ten (10) participants in each workshop for the purpose of reviewing the information and data architecture designed and implemented for the Assessor Modernization Project.
4. Software Development Process Mentoring Workshops for up to seventy (70) person days total for up to ten (10) participants in each workshop for the purpose of reviewing the development processes, tools and techniques used in the Assessor Modernization Project. Specific workshops may include the following topics:
 - a) Functional and Technical Design
 - b) Software Development Techniques & Tools
 - c) Unit Testing Techniques
 - d) Debugging Techniques
 - e) The Software Build Process
 - f) Code Walkthroughs/Code Review
5. Testing Strategies Mentoring Workshops for up to forty (40) person days

total for up to ten (10) participants in each workshop for the purpose of designing the testing processes, tools and techniques used in the Assessor Modernization Project. Specific workshops may include:

- a) Integration Testing
 - b) UAT Planning
 - c) Performance Testing
- c. Assessment Roll Database Repository and Comparison Tool (AMP Component 1 & 2)

Oracle will create functionality described in this section to create a new database, the Assessment Roll Database Repository (“ARDR”), as part of AMP, and it will contain tables with assessment information on nearly 3 million properties. The ARDR will support both event based and cyclical reassessment. The Assessment Roll Comparison Tool will provide comparison functionality between the legacy roll and the new unified assessment repository. The ARDR tables will have data loads updated from up to three (3) existing legacy source system extracts using integrations described in this section.

Oracle Software

Oracle will install, configure and test the features and functionality as such features and functionality are described in applicable standard Oracle software documentation (as used in this Section A.1.b. “standard functionality”) contained in the Oracle Database and Oracle Data Integration Software Products specified below (collectively, the “Oracle Assessor Roll Software”) and as such standard functionality is described in the *Requirements Specifications* document and the *Must Have, Should Have, Could Have, and Won’t Have (“MoSCoW”) List* prepared as part of the services (as each document is defined below).

- a. Oracle Database Products (version 12c) (Collectively, the “Oracle Database Software”).
 - 1. Oracle Database Enterprise Edition
 - 2. Advanced Security Option (“ASO”)
 - 3. Advanced Compression Option (“ACO”)
 - 4. Partitioning
 - 5. Spatial & Graph
 - 6. Active Data Guard (“ADG”)
- b. Oracle Integration Products (version 12c)
 - 1. Oracle Data Integrator Enterprise Edition (“ODI”)
 - 2. WebLogic Server (“WLS”) Standard Edition (included in ODI license)
- c. Oracle Reporting Tools (version 12c)

1. Oracle Business Intelligence Publisher (BIP)

2. Configurations

Oracle will configure and test the following standard functionality using Oracle Database Software:

No.	Standard Functionality	Configuration Description
1	Encryption	Implement tablespace encryption and Oracle communications encryption using ASO.
2	Spatial & Graph	Configure the Oracle database spatial & graph features.
3	Compression	Configure compression with default compression using ACO (PROD, DR, and STAGE environments only).
4	Partitioning	Configure partitioning on large database tables.
5	Replication	Configure ADG for real time replication (PROD to DR only).
6	Application Express (“APEX”)	Configure Oracle APEX on database install.

3. Oracle will install, configure or build and test the following custom data repository functionality for the following specified component(s) using Oracle database software:

No.	Component	Custom Functionality Description
1	ARDR	<p>One (1) database schema consisting of the following:</p> <ol style="list-style-type: none"> 1. Up to eighty (80) relational tables and audit triggers; 2. Up to forty (40) temporary tables; and 3. Up to two (2) audit tables.

4. Data Integrations

Oracle will build and test the following data integrations to Extract, Transform, and Load (ETL) flat files provided by LAC Assessor representing legacy data sources from Property (PDB) , XREF, and Unsecured Property to the custom data repository specified above (ARDR) using ODI routines as defined as:

No.	Source	Target	Real Time Integration Description
1	Flat file extracts from up to three (3) data sources	Assessor Repository	Up to fifty (50) ODI processes of low complexity.
2	Flat file extracts from up to three (3) data sources	Assessor Repository	Up to forty-eight (48) ODI processes of moderate complexity.
3	Flat file extracts from up to three (3) data sources	Assessor Repository	Up to twenty (20) ODI processes of high complexity.
4	Up to two (2) error handling process	Assessor Repository	Up to two (2) error handling process of moderate complexity.
5	Document data source assessment		Document data sources for the assessor repository, data quality assessment for identified data elements in the source extracts for the assessor repository.
6	Document Data Conversion Specifications		Document data conversion processes to extract data from identified data sources into the assessor repository

5. Assessment Roll Comparison Tool

Oracle will build and test the Assessment Roll Comparison Tool using Oracle APEX:

No.	Report	Report Description
1	Assessment Roll Comparison Tool / Report	<p>A tool to compare data records in the new ARDR with the same data from the legacy systems and identify records from the new ARDR that are missing or different.</p> <ul style="list-style-type: none"> The tool - a configurable Procedural Language / Standard Query Language (“PL/SQL”) procedure that computes total breakdowns from up to three (3) variance calculations , and identifies property values that are outside of acceptable variance

		<p>according to the roll balancing methods, classifies them according to degree of variance and flags them in the ARDR.</p> <ul style="list-style-type: none"> • Legacy System Extract database for the Assessment Roll comparison tool will include up to ten (10) data elements specifically required for variance calculation. • User Interface for the Tool - APEX application that shows the results of the variance calculations including breakdown by Tax Rate Area and Map-book, allows drill down to list of properties exceeding variance then drill down to the detailed property records, and ad hoc reporting on variance using reporting capability built into APEX. • Variance report using Business Intelligence (“BI”) Publisher that shows the results of the variance calculation and lists properties in variance.
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d. Assessor Portal (AMP Component 4)

Oracle will create functionality described in the Assessor Portal section to provide a new user interface for the Assessor's legacy system data. The Assessor Portal, which will be public facing in future phases, will provide property and assessment information in a modern, friendly, and intuitive web based user interface that is also accessible for mobility purposes.

1. Oracle Software

Oracle will install, configure, and test the features and functionality as such features and functionality are described in applicable standard Oracle software documentation (as used in this Section A.1.c., “standard functionality”) contained in the Oracle Middleware, WebCenter, Mobile and Oracle Policy Automation Software specified below (collectively, the “Oracle Assessor Portal Software”) and as such standard functionality is described in the *Requirements Specifications* document and the *MoSCoW List* prepared as part of the services (as each document is defined below).

a. Middleware Products (version 11g)

1. WebLogic Suite
2. Service Oriented Architecture Suite (“SOA”)
3. Unified Business Process Management Suite (“BPM”)
4. WebLogic Server Enterprise Edition (for WebCenter & Oracle Policy Automation Products)
5. Web Tier

- b. WebCenter Products (version 11g)
 - 1. WebCenter Portal (“WCP”)
 - c. Mobile Products (version 12c)
 - 1. Mobile Application Framework (“MAF”)
 - d. Oracle Policy Automation Products (version 10)
 - 1. Oracle Policy Automation (“OPA”)
 - 2. Oracle Policy Modeling (“OPM”)
 - e. Oracle Access Manager 11g (“OAM”)
 - f. Oracle Identity Manager 11g (“OIM”);
2. Configurations

Oracle will configure and test the following standard functionality using WCP/MAF/BPM/OPA/OIM/OAM:

No.	Software	Configuration Description
1	WCP	Integration of WCP with Oracle Access Manager for Single Sign-On (SSO)
2.	BPM	Integration of WebCenter Portal with Oracle BPM

Oracle will install, configure or build, and test the following custom functionality for the following specified component(s) using WebCenter Portal.

No.	Component	Custom Functionality Description
1	Assessor Portal	<p>Create a Portal Server application using Application Development Framework (“ADF”) technology to access property assessment data. The application will implement the following use cases:</p> <ol style="list-style-type: none"> 1. Portal landing page; 2. Property search view by Assessor ID or street address (anonymous user); 3. Property detail view based on existing Assessor portal page (anonymous and authorized users); 4. Property search view by formatted or unformatted Assessor ID, street address, owner name, or legal description (authorized user).Property search criteria may include additional elements but not to exceed total of 10 elements.

		<ol style="list-style-type: none"> 5. Access BPM worklist view (authorized user); 6. Access BPM approval view (authorized user); 7. Provide access to the Assessment Roll Comparison Tool interface; 8. Create Geographic Information System (“GIS”) map search functionality and enable map layers task flow; 9. Create property summary task flow integrated with Google Curbside View and Street Map Application Program Interfaces (“APIs”); 10. Create views and read only services to display imaged parcel documents, imaged deeds and other documents stored in TITAN and EMC2 Documentum; 11. Create Display Building and Land detail views, and Assessment history view task flows similar to legacy terminal green screens; 12. Create views for cross-reference roll information for mineral rights, etc. and unsecured roll information for business personal property accessed from AS400 and legacy system data staged in the ARDR. Create views of event history for permits, enrolled new constructions, assessment appeals, and up to 5 other additional history views; 13. Display base year and trended base values in detailed property data. 14. Create views to display assessment value information. 15. Create ADF forms that allow authorized users to perform create, edit, update, delete (CRUD) operations for property data; The portal will be created using responsive design which ensures the same portal will render on standard browsers and mobile devices such as iPad mini or mobile tablets of similar size; 16. Citizen or external user -registration and verification; and 17. Password reset functionality.
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e. Base Year Values Repository and Trend Calculator Functions (AMP Component 3)

Oracle will create functionality to identify base year value information currently residing in County legacy and other ancillary systems, to store that information and to allow end users to edit and maintain that information for future use ("Base Year Values Repository"). Functionality will also include automated calculation of trended land and improvement base year values, both actual and

projected ("Trend Calculator").

Oracle will provide functionality to load flat file data from; Paperless Transfer System (PTS), Decline in Values (DIV), Transfer Information and Title Analysis Network (TITAN), Permit Management System (PERMS), Assessment Appeals Tracking (ATS) into ARDR, compute the base value and trending for all assessment objects within the ARDR, determined by business rules, display base year value summary and drill down details on new responsive design based Assessor portal page, create a business process to schedule, accept, and approve changes to assessment values in an Assessment Roll, make the assessment data and approval process available from mobile devices, and provide flat file extract of property assessment updates to the legacy system.

1. Oracle Software.

Oracle will install, configure, and test the features and functionality as such features and functionality are described in applicable standard Oracle software documentation (as used in this Section A.1.d. "standard functionality") contained in the Oracle Middleware, WebCenter (implemented using responsive design), and Oracle Policy Automation Software specified below (collectively, the "Oracle Trend Calculator Software") and as such standard functionality is described in the *Requirements Specifications* document and the *MoSCoW List* prepared as part of the services (as each document is defined below).

- a. Middleware Products (version 11g)
 1. WebLogic Suite
 2. Service Orientated Architecture Suite ("SOA") Unified Business Process Management Suite ("BPM")
 3. WebLogic Server Enterprise Edition (for WebCenter & Oracle Policy Automation Products)
 4. Web Tier
- b. WebCenter Products (version 11g)
 1. WebCenter Portal ("WCP")
- c. Oracle Policy Automation Products (version 10.x)
 1. Oracle Policy Automation ("OPA")
 2. Oracle Policy Modeling ("OPM")

2. Configurations

Oracle will configure and test the following standard functionality using WCP /BPM/OPA:

No.	Software	Configuration Description
1.	BPM	Integration of WebCenter Portal with Oracle BPM
2.	BPM	Integration of task flow pages with OPA

Oracle will implement a Manage Base Year Value Changes BPM process using Oracle WCP (implemented using responsive design), Oracle BPM, OPA, and the Base Year Values stored in the ARDR. OPA will provide calculation of actual and projected assessment values along with trending and de-trending capabilities.

3. Custom Functionality

Oracle will install, configure or build, and test the following custom functionality for the following specified component(s) using BPM.

No.	Component	Custom Functionality Description
1	Create Base Year Values Repository	Create tables within ARDR to support Base Year Value calculations.
2	Manage Base Year Value Changes BPM Process	1. Up to two (2) BPM processes of moderate complexity to edit, review, and approve changes to Base Year value information.

4. Oracle will install, configure or build, and test the following custom functionality for the following specified component(s) using OPA and ODI.

No.	Component	Custom Functionality Description
1	Assessment Value Calculation Rulebase	OPA rulebase for calculating base year values and changes in assessment values over time, for property value components, based on business events and trending factors, using business policy rules comprised of the

		<p>following:</p> <ol style="list-style-type: none"> 1. Up to twenty-five (25) input attributes; 2. Up to seven (7) entity types; 3. Up to four (4) Excel data tables; 4. Up to ninety-three (93) pages of source rule descriptions.
2	Assessment Value Calculation Rulebase Web Service	Web service access to the rulebase.
4	De-Trending Calculation	Additions to the rulebase to derive an original base year value from a trended value.
6	Representational State Transfer / full Trend Calculator ("REST-ful") Trend Calculator API	REST-ful API access to the rulebase.
7	Extract Event Date, Event Type and Event Value from Paperless Transfer System ("PTS"), DIV, Permit Management System (PERMS), Assessment Appeals Tracking (ATS) and TITAN Systems and store in ARDR staging tables	Up to eight (8) ODI processes to extract event date, event type and event value from PTS, DIV, PERMS, ATS and TITAN systems to support the Base Year and Trend Calculation.
8	Base Year Values Repository	ODI process to generate one (1) flat file to update Base Year attributes of PTS, DIV, PERMS, ATS and TITAN systems.

f. Case Management Pilot (AMP Component 5)

Oracle will create an ADF form to initiate property data change request from external users and from external landing page, create a case management workflow process to review, assign, reassign, and approve the request for your, "Assessor" staff, create workflow user interface on new portal for internal staff and create a mobile case management application for field staff to perform case tasks on mobile devices. Property data change request form is accessible by external users.

Oracle will also create functionality to update property changes to new Assessor Roll database as part of case workflow and write property changes extracted to flat file for updating the legacy system. Oracle will build and configure a Case

Management process ‘Property Data Change Request (“PDCR”)’ to demonstrate Oracle’s leading practices and a development pattern. This development pattern shall be the template for future case management builds (by County staff).

1. Oracle Software.

Oracle will install, configure, and test the features and functionality as such features and functionality are described in applicable standard Oracle software documentation (as used in this Section A.1.e., “standard functionality”) contained in the Oracle Middleware, WebCenter, and Mobile Software specified below (collectively, the “Oracle Assessor Case Management Software”) and as such standard functionality is described in the *Requirements Specifications* document and the *MoSCoW List* prepared as part of the services (as each document is defined below).

- a. Middleware Products (version 11g)
 - 1. WebLogic Suite
 - 2. Service Oriented Architecture Suite (“SOA”)
 - 3. Oracle API Gateway (“OAG”)
 - 4. Unified Business Process Management Suite (“BPM”)
 - 5. WebLogic Server Enterprise Edition (for WebCenter & Oracle Policy Automation Products)
 - 6. Web Tier
- b. WebCenter Products (version 11g)
 - 1. WebCenter Portal (“WCP”)
- c. Mobile Products (version 12c)
 - 1. Mobile Application Framework (“MAF”)
 - 2. Mobile Security Suite version 3 (“OMSS”)
- d. Oracle will install (not configure) the following products in your DEV, TEST, TRAIN, STAGING (HA), PROD (HA) and DR environments:
 - 1. Oracle API Catalog
 - 2. Oracle API Manager

2. Configurations

Oracle will configure and test the following standard functionality using WCP/MAF/BPM:

No.	Software	Configuration Description
1.	BPM	Integration of Case/BPM process with EMC2Documentum to store attachments associated with case/process.

2	MAF	Integration of Mobile Application Framework with BPM.
3	WCP	Integration of WCP with Security, OPA, BPM and ADF.

3. Workflows

Oracle will implement the Case Management Pilot case application using Oracle WCP (with mobility), Oracle BPM, Assessor Roll Oracle database repository, Oracle Mobile Application Framework and interface to Documentum for storing attachments for BPM/case process.

More specifically, Oracle will build and test the following workflow(s) using Oracle BPM platform:

No.	Workflow	Workflow Description
1	Property Data Change Request (Case Management Pilot) Case Process	Case process to accept and approve a property value change comprised of the following: <ul style="list-style-type: none"> 1. One (1) BPM process of moderate complexity to accept and approve a property value change. 2. One (1) SOA process to monitor EZforms Extended Markup Language (“XML”) files and initiate the PDCR BPM process.

4. Oracle will install, configure or build, and test the following custom functionality for the following specified component(s) using ODI.

No.	Component	Custom Functionality Description
1	Flat File Extract to Legacy System	ODI process to create a flat file for legacy system update consisting of updates to property data resulting from the PDCR process.

5. Oracle will install, configure or build, and test the following custom functionality for the following specified component(s) using Mobile Application Framework and OAG. Target application can be deployed on iPad.

No.	Component	Custom Functionality Description
1	Case Management	Mobile application for Apple Internet Operating System (“iOS”) with the following features: <ul style="list-style-type: none"> 1. Authenticate user against the corporate

		<p>security provider and configure the app to provide offline authentication.</p> <ol style="list-style-type: none"> 2. Get the list of tasks that the user can access. 3. Allow the user to acquire a task to work on. 4. Allow the user to edit and update the task details, comments and status (only tasks assigned to current user) in both online and offline modes. 5. Collect the usage metrics from the app. 6. Encrypt any information stored on the device and synchronize the task list between offline and online data stores. 7. The app runs inside a secure container on the device. 8. The app can be installed on the device using an internal app store. 9. The app accesses ARDR data and services through OAG.
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f. Security: Directory Services, Access Management and Mobile Security

Oracle will install and configure the Oracle Directory Services software described in this section to provide a central identity repository for users of this application. Oracle Directory Virtualization software will be installed and configured to create a consolidated view of user identities stored in Lightweight Directory Access Protocol (“LDAP”) and Active Directory (“AD”) databases as described within this section to support existing LAC Assessor directories and new directories to be created to support Citizen access. Oracle Access Management and Mobile Security software will be installed and configured as described in this section to provide single sign-on for secure access by LAC Assessor staff and public user access.

1. Oracle Software.

Oracle will install, configure, and test the features and functionality as such features and functionality are described in applicable standard Oracle software documentation (as used in this Section A.1.f., “standard functionality”) contained in the Oracle Access Management, Identity Management Directory Services, and Mobile Security Software specified below (collectively, the “Oracle Identity Management Software”) and as such standard functionality is described in the *Requirements Specifications* document and the *MoSCoW List* prepared as part of the services (as each document is defined below):

- e. Access Management Suite comprised of the following Oracle software:
 - 1. Oracle Access Manager 11g (“OAM”);
- f. Directory Services Plus comprised of the following Oracle software:
 - 1. Oracle Internet Directory 11g (“OID”);
 - 2. Oracle Virtual Directory 11g (“OVD”).
- g. Mobile Security Products (version 3)
 - 1. Mobile Security Suite version 3 (“OMSS”)
- h. Identity Governance Suite comprised of the following Oracle software:
 - 1. Oracle Identity Manager 11g (“OIM”);
 - 2. Identity Manager Connector for Microsoft AD
 - 3. Identity Manager connector for Oracle Internet Directory
 - 4. Identity Manager connector for AD password synch
- i. Oracle Database 12c Security Options:
 - 1. Advanced Security Option (“ASO”)
 - 2. Oracle Audit Vault and Database Firewall (“AVDF”)
 - 3. Oracle Key Vault
- j. Oracle Entitlement Server (“OES”)
- k. Identity Management Pack Plus for Oracle Enterprise Manager (“OEM”)
 - 1. Oracle API Gateway (“OAG”)
- m. Oracle will install (not configure) the following products in your DEV, STAGING (HA), PROD (HA) and DR environments:
 - 3. Access Management:
 - a. Oracle Adaptive Access Manager (“OAAM”) 11g

2. Configurations

No.	Software Component	Configuration Description
1	OAM	<ul style="list-style-type: none"> 1. Configure up to three (3) webgates for OAM single sign-on for the web servers assigned to Oracle WebCenter Portal network traffic. 2. Configure up to three (3) webgates for OAM single sign-on for the web servers assigned to BPM network traffic. 3. Configure up to three (3) webgates for OAM single sign-on for the web servers assigned to OIM network traffic.

		<ol style="list-style-type: none"> 4. Configure OAM to use OVD as the identity data store. 5. Create up to five (5) OAM authentication and authorization policies. 6. Create up to five (5) OAM access policies. 7. Configure auditing administrative and run-time events
2	OIM	<ol style="list-style-type: none"> 1. Install and configure the SOA Suite approval process provided with Identity Governance. 2. Configure authoritative source reconciliation against Active Directory. 3. Configure user account provisioning to OID. 4. Configure up to three (3) approval workflows and access policies. 5. Configure up to ten (10) enterprise roles and associated authorizations. 6. Configure up to ten (10) user defined fields. 7. Configure up to ten (10) email notifications. 8. Configure up to ten (10) scheduled tasks. 9. Configure standard out of the box (“OOTB”) user self-service registration for external users 10. Install and configure standard OOTB reports. 11. Configure auditing administrative and run-time events
3	OVD/OID	<ol style="list-style-type: none"> 1. Configure up to two (2) OVD LDAP Adapters. 2. Configure up to two (2) OVD Active Directory Adapters. 3. Configure up to two (2) Access Control Lists (“ACL”) for OVD and OID. 4. Create one (1) Directory Information Tree (“DIT”) structure. 5. Configure OID multi-master replication (PROD, STAGE, and DR environments only).
4	OMSS	<ol style="list-style-type: none"> 1. Configure OMSS for Apple iOS. 2. Configure OMSS load balancing (PROD, STAGE, and DR only). 3. Configure Microsoft Active Directory as the authentication

		<p>database for OMSS.</p> <ol style="list-style-type: none"> 4. Configure one (1) application to run within the OMSS container on an iOS device. 5. Configure the enterprise app store for app distribution.
5	Data Security	<ol style="list-style-type: none"> 1. Configure Database Firewall enforcement points for one (1) target non-production database and one (1) target production database. 2. Configure the Database Firewall in Data Analysis Mode. 3. Configure Audit Vault collection for audit data and event log feeds for one (1) non-production database and one (1) production database and associated application servers and web servers. 4. Configure data encryption to encrypt up to six (6) databases at table space level. 5. Configure Key Vault management for the encryption keys of up to six (6) databases.
6	Oracle Entitlement Server	<ol style="list-style-type: none"> 1. Install and configure Oracle Entitlement Server in all environments. 2. Build up to five (5) entitlement policies.
7	Identity Management Pack for OEM	<ol style="list-style-type: none"> 1. Deploy OEM agents and monitoring plug-ins for up to six (6) hosts. 2. Build up to ten (10) monitoring and corrective actions.

g. Infrastructure

Oracle will install and configure the products described in this section to provide for system management, testing, and governance support.

1. Oracle Software.

Oracle will install, configure, and test the features and functionality as such features and functionality are described in applicable standard Oracle software documentation (as used in this Section A.1.g. “standard functionality”) contained in the Oracle Enterprise Management and Testing Software specified below (collectively, the “Oracle Infrastructure Software”) and as such standard functionality is described in the *Requirements*

Specifications document and the *MoSCoW List* prepared as part of the services (as each document is defined below).

- a. Oracle Enterprise Management Products
 1. Oracle Enterprise Manager Cloud Control (“OEM”) OEM12c Cloud Control
 2. OEM 12c Monitoring and Alerting
 3. Database (version 11g) in support of OEM
 - a. Diagnostic Pack
 - b. Tuning Pack
 - c. Database Lifecycle Management Pack
 - d. Cloud Management Pack for Oracle Database
 - e. Data Masking & Subsetting Pack
 4. Middleware
 - a. WebLogic Server Management Pack (version 12c)
 - b. SOA Management Pack Enterprise Edition (version 12c)
 - c. Management Pack for Oracle Data Integrator (version 12c)
 - d. Management Pack for WebCenter (version 11g)
 - e. Cloud Management Pack for Oracle Fusion Middleware (version 11g)
 - b. Testing Products
 1. Real User Experience Insight (“RUEI”) (version 12c)
 2. Oracle Application Testing Suite (“OATS”) (version 12c)
 - a. Functional Testing
 - b. Load Testing
 - c. Test Manager
 - c. Oracle will install (not configure) the following products to support future SOA governance initiatives.
 1. Development Repository Products (version 11g)
 - a. Enterprise Repository (“OER”)
2. Configurations
- Oracle will configure and test the following standard functionality using Oracle Infrastructure Software.

No.	Software	Configuration Description
1	OEM	Configure for up to fifty (50) Linux management agents.
2	OEM	Configure Enterprise Manager for the management packs described in this section.
3	OEM	Create an administration group to enable monitoring and compliance.
4	OEM	Configure Simple Network Mail Protocol (“SNMP”) monitoring to your email system.
5	OEM	Create up to ten (10) monitoring incident rules.
7	OEM	Configure Oracle Database provisioning.
8	OEM	<p>Configure one (1) OEM Dashboard that uses the SOA Management Pack Enterprise Edition to report on the following server and process performance metrics:</p> <ol style="list-style-type: none"> 1. BPM Server: <ol style="list-style-type: none"> a. CPU utilization b. Memory utilization 2. Property Data Change Request Process: <ol style="list-style-type: none"> a. Requests (per defined interval) b. Request Processing Time (per defined interval) 3. Base Value Calculation BPM Process: <ol style="list-style-type: none"> a. Requests (per defined interval) b. Request Processing Time (per defined interval)
9	RUEI	Configure RUEI to capture and playback http traffic (PROD and STAGE environments only).
10	Testing	Configure the testing products to test WebCenter Portal and BPM.

2. Implementation.

The services described in Section A.1. above will be performed in the following six (6) phases using the Oracle® Unified Method (“OUM”):

- a. Inception Phase:

1. Project Startup.
 - a. Oracle will conduct a project kickoff presentation which will include the topics identified in Attachment 1
 - b. Oracle will create the following project control documentation (“PCD”):
 1. Project Management Plan, as such document is defined in Section B. (Deliverables) below, which shall describe:
 - a. Executive Summary
 - b. Project Organization Chart
 - c. Scope management;
 - d. Work management;
 - e. Risk management;
 - f. Issue management;
 - g. Problem (defect) management;
 - h. Staff management;
 - i. Communications management;
 - j. Configuration management;
 - k. Quality management;
 - l. Business Intelligence and Reporting Strategy;
 - m. Training and Documentation Strategy
 - n. Transition Management Strategy
 2. Oracle will prepare a detailed Project Workplan that calls out all project tasks, project dependencies, is resource loaded, and can be used as the project plan baseline. Project Workplan will be updated bi-weekly for overall management of the project execution.
 3. Oracle will prepare a project status report every two (2) weeks after project start and continuing until the completion of Phase 1. Status reports will be distributed to all AMP stakeholders as described in the Communications Management Plan. Status reports will include an executive summary of key accomplishments and issues; tasks, subtasks, deliverables, goods, and services that were completed (including those that were unscheduled) and not completed for each reporting period, and those that are to be completed in the next reporting period; summary of project status, including progress toward completing milestones, key milestones, deliverables, and key deliverables; project issues and risks identified through quality assurance and risk management process, and status thereof; updates to the PMP (and associated documents); critical path analysis; status of any changes as documented in a plan; project schedule; and any other information that County or Oracle may, from time-to-time,

reasonably request in writing and mutually agree to.

4. Oracle will schedule and conduct bi-weekly status meetings starting at two (2) weeks from project start and continuing until the completion of Phase One. In preparation for each status meeting, Oracle will develop and distribute a meeting agenda ("Status Meeting Agenda"). Following the status meetings, Oracle will circulate status meeting minutes for County review and approval. During the status meeting, Oracle will keep an attendance log, document meeting minutes including decisions made during the meeting and outcomes for each agenda item, use an executive dashboard to present project progress at a high level, document issues and risks, including proposed resolutions and mitigations, and identify and track action items with, at minimum, an action item description, and owner, a due date, and a date of completion.
5. Oracle will establish a project document repository for use by all AMP stakeholders and will define procedures for document management and version control.
6. Provide up to two (2) person days for Oracle and LAC's Project Managers to engage a member of the Oracle Methods team with expertise in both OUM and Agile methods to define Agile options that are mutually agreed to and can be incorporated into the delivery process. E.g Daily Stand-ups.
7. Create the project Glossary document.

2. Requirements

Oracle will conduct the following workshops for the purpose of validating Oracle license software requirements, documenting and prioritizing your business requirements, use cases, creation of the Requirements Specification Document and MoSCoW list.

a. Assessor Roll Requirements

1. Conduct up to Seven (7) workshops, at dates mutually agreed to in the Project Workplan, each of which is up to four (4) hours in length, for up to ten (10) participants each, and for the purpose of gathering your business requirements relating to Assessor Roll functionality including the following:
 - a. Detailed data model design for ARDR.
 - b. Review and confirm in scope data sources and systems.
 - c. Perform an assessment of the data quality of the in scope data source extracts and document any data quality issues, data cleansing support needed on the source extracts and provide recommendations on mitigating the data quality issues.
 - d. Review the data extracts for any data risks specific to the in scope data sources for the assessor roll, document the risks and provide

recommendations for mitigating any identified data conversion challenges including historical data, cut over process issues, data quality issues that may limit conversions .

- b. Data Conversion / ETL Requirements for Loading the ARDR from all in scope data sources
 - 1. Conduct up to three (3) workshops, at dates mutually agreed to in the Project Workplan, each of which is up to four (4) hours in length, for up to ten (10) participants each, and for the purpose of gathering your business requirements relating to data conversion relating to legacy data sources.
 - 2. Prepare the Data Conversion Implementation Plan document specific to the in scope data sources for the assessor roll that outlines the benefits of data conversion, the approach for determining the conversion period, methodology for data conversion, data integrity analysis and cleansing and data validation. The document will include projected time and resource requirements to complete the data conversion, roles and responsibilities of Oracle and County resources and a contingency plans for any identified data conversion limitations.
 - 3. Document the data conversion specifications in the Data Conversion Implementation Plan document for the in scope data sources for the assessor roll, including a description of the data source, mapping of data elements to the Assessor Roll, requirements for data retention, amount and time range of data, type of conversion (automated, semi-automated, and manual), filtering rules for the migrated data, identify and merge duplicate data, roles and responsibilities for Oracle and County in the management of data quality issues.
 - 4. Provide recommendations on any tools, software and practices that may facilitate addressing the data conversion requirements of the assessor roll for all type of data conversions including automated, semi-automated, or manual. Document these recommendations within the Data Conversion Implementation Plan document.
- c. Assessor Roll Comparison Tool Requirements
 - 1. Conduct one (1) workshop, at dates mutually agreed to in the Project Workplan, which is up to four (4) hours in length, for up to ten (10) participants, and for the purpose of gathering your business requirements relating to Assessor Roll Comparison Tool functionality including the following:
 - a. Variance calculations
 - b. User interface and reporting requirements.
- d. Base Year value and Trend Value Calculator Requirements
 - 1. Conduct up to ten (10) workshops, at dates mutually agreed to in the Project Workplan, each of which is up to four (4) hours in length, for up to ten (10) participants each, and for the purpose of gathering your

business requirements relating to Base Year and Value Trend calculation functionality including the following:

- a. Trend value business rules.
- e. Assessor Portal Requirements
1. Conduct up to ten (10) workshops, at dates mutually agreed to in the Project Workplan, each of which is up to four (4) hours in length, for up to ten (10) participants each, and for the purpose of gathering your business requirements relating to Assessor Portal functionality.
- f. Case Management Pilot
1. Conduct up to ten (10) workshops, at dates mutually agreed to in the Project Workplan, each of which is up to four (4) hours in length, for up to ten (10) participants each, and for the purpose of gathering your business requirements relating to Case Management Pilot functionality including the following:
 - b. Property Data Change form and workflow process;
 - c. Property Data Change mobile functionality
- g. Security Architecture and Planning
1. Security Protection Requirements and System Security Plan:
 - a. Conduct up to five (5), two (2) hour workshops at dates mutually agreed to in the Project Workplan, for up to five (5) of your staff for each workshop to document and validate the security objectives and protection requirements for Assessor Modernization Project (“AMP”).
 - b. Prepare an initiation session event summary report for review and approval by LAC Assessor.
 - c. Conduct one (1), four (4) hour workshop at dates mutually agreed to in the Project Workplan, for up to five (5) of your staff to present the initiation summary review of existing protection requirements, network and system configurations, and security strategy for AMP.
 - d. Conduct up to two (2), two (2) hour workshops at dates mutually agreed to in the Project Workplan, for up to five (5) of your staff for each workshop to document and validate the monitoring and auditing requirements for AMP.
 - e. Conduct up to two (2), two (2) hour workshops at dates mutually agreed to in the Project Workplan, for up to five (5) of your staff for each workshop to identify and document AMP authorization and role requirements.
 - f. Document the “Security Objectives and Protection Requirements” outlining security threats, risk, and security objectives (confidentiality, integrity, availability, user control

and accountability) and relevant protection requirements to address current and predicted risks.

- g. Document the “System Security Plan” including application security risks and concerns, roles and responsibilities

2. Identity Management:

- a. Conduct up to three (3), two (2) hour workshops at dates mutually agreed to in the Project Workplan, for up to five (5) of your staff for each workshop to review the existing requirements, network and system configurations, and project strategy related to the internal user management requirements.
- b. Conduct up to three (3), two (2) hour workshops at dates mutually agreed to in the Project Workplan, for up to five (5) of your staff for each workshop to review the existing requirements, network and system configurations, and project strategy related to the external user management requirements including registration and self service requirements.
- c. Prioritize identity security requirements using the OUM MoSCoW *List* template (RD.045).
- d. Document use cases for finalized functional and non-functional access requirements.
- e. Document user identity management requirements in the Security Protection requirements section of the requirements specification document.
- h. Conduct one (1), two (2) hour workshop at dates mutually agreed to in the Project Workplan for up to five (5) of your staff to present and validate the documented security protection requirements for AMP.

3. Directory and Access Management:

- a. Conduct up to four (4), two (2) hour workshops at dates mutually agreed to in the Project Workplan, for up to five (5) of your staff for each workshop to review the existing requirements, network and system configurations, and project strategy related to the web and mobile access management requirements.
- b. Conduct up to four (4), two (2) hour workshops at dates mutually agreed to in the Project Workplan, for up to five (5) of your staff for each workshop to review the existing requirements, network and system configurations, and project strategy related to internal and external user identity repositories and consolidated identity view requirements.
- c. Prioritize access security requirements using the OUM MoSCoW *List* template (RD.045).

- d. Document use cases for finalized functional and non-functional access requirements.

4. Data Security:

Audit Vault Database Firewall (“AVDF”):

- a. Capture and document high level AVDF requirements to identify the data items to be collected and audited.
- b. Capture and document AVDF use cases.
- c. Generate a requirements traceability matrix that maps requirements to use cases.
- d. Review the current production database traffic for the one in scope database.
- e. Review target audit data and event log feeds.
- f. Review the reporting requirements and identify the OOTB reports to be utilized in your environment.
- g. Review the AVDF environment software pre-requisites and AVDF standard software installation specifications.

5. ASO Transparent Data Encryption (“TDE”):

- a. Review the ASO TDE based technical requirements to identify the data items to be encrypted in the six (6) in scope databases.

6. Security Architecture:

- a. Conduct up to four (4), two (2) hour workshops at dates mutually agreed to in the Project Workplan, for up to five (5) of your staff for each workshop for the purpose of defining AMP security system architecture and implementation roadmap.

h. Infrastructure Requirements

- 1. Conduct up to four (4) workshops, at dates mutually agreed to in the Project Workplan, each of which is up to four (4) hours in length, for up to ten (10) participants each, and for the purpose of gathering your business requirements relating to Infrastructure functionality.

i. Prioritization of requirements

- 1. Conduct up to four (4) workshops, at dates mutually agreed to in the Project Workplan each of which is up to four (4) hours in length, for up to eight (8) participants each, and for the purpose of prioritization of the requirements into the *MOSCOW List*.

3. AMP Phase 1 System Training Strategy.

Oracle will create a technical training and mentoring plan for LAC Assessor staff as part of the *Training Strategy* document. The training strategy will include the identification of Oracle University courses, mentoring workshop topics, and identification of recommended practice topics to become familiar

with as identified in the *Design and Implementation Guidelines*.

4. Phase 1 – System Architecture.

Oracle will conduct the following workshops necessary to create the Technical Architecture Document (TAD):

- a. Up to four (4) workshops, at dates mutually agreed to in the Project Workplan, each of which is up to four (4) hours in length, for up to ten (10) participants each, and for the purpose of defining the application architecture.
- b. Up to four (4) workshops, at dates mutually agreed to in the Project Workplan, each of which is up to four (4) hours in length, for up to ten (10) participants, for the purpose of defining the data implementation architecture.
- c. Up to four (4) workshops, at dates mutually agreed to in the Project Workplan, each of which is up to four (4) hours in length, for up to ten (10) participants each, and for the purpose of defining the security architecture.
- d. Up to six (6) workshop), at dates mutually agreed to in the Project Workplan, each of which is up to four (4) hours in length, for up to ten (10) participants each, and for the purpose of defining the technology architecture for project environment(s) and verify system hardware specifications.

5. Enterprise Architecture & Governance Planning

- a. Conduct up to eight (8) workshops, at dates mutually agreed to in the Project Workplan each of which is up to four (4) hours in length, for up to ten (10) participants each, and for the purpose of defining the Assessor Modernization System and Data Architecture, Implementation Roadmap, and Governance Plan (as defined in Section B (Deliverables) below).
- b. Create a plan for iterative creation of AMP and initial project phase plan.

6. Documentation and Review.

Oracle will perform the following tasks:

- a. Create the following documents (as each such document is defined in Section 2 (Deliverables) below) and review each document with you:
 1. *Project Kick Off Presentation*;
 2. *Project Management Plan*;
 3. *Project Workplan*;
 4. *Information Architecture Document* ;
 5. *Training Strategy Document*;
 6. *Technical Architecture Document*;

7. *Assessor Modernization System and Data Architecture Implementation Roadmap and Governance Plan;*
8. *Requirements Specification;*
9. *Moscow List;*
10. *Design and Implementation Guidelines;*
11. *Cut Over Plan/Transition Management Strategy Document*
12. *Data Conversion Strategy*
13. *Interface Strategy; and*
14. *Inception Phase Activity Report.*

b. Elaboration Phase:

1. Infrastructure.

Oracle will install the Oracle Software listed in Section 1.A.1, using the procedures described in the Oracle Software products installation documentation for each software product as a guide, onto the following software environments:

- a. DEV
- b. TEST

Oracle will conduct up to two (2), four (4) hour workshops with up to five (5) participants on the installed Oracle products.

2. Analysis and Design.

Oracle will perform the following services for the requirements specified in the Requirements Specification document:

- a. Analyze requirements and design functionality using agile techniques;
- b. Document use cases;
- c. Document test cases including unit, system, and systems integration testing.
- d. Document performance test scenarios.
- e. Security Infrastructure Monitoring and Audit
 1. Review your Security Infrastructure monitoring and audit requirements using the System Security Plan document as a guide;
 2. Design and document Security Infrastructure Monitoring and Auditing Processes
- f. Document User Security Profiles covering:
 1. User security and access profiles
 2. User roles
 3. Policies for provisioning and de-provisioning user identities

- g. Document User Roles and Authorizations covering:
 - 1. User role setup
 - 2. User roles and required authorization
 - 3. Role management and governance
 - 4. Role provisioning
- h. Document User Roles and Authorizations Test Plan covering:
 - 1. Testing processes
 - 2. Process for reporting and fixing testing defects
 - 3. Security test scripts for monitoring and auditing
 - 4. Security module specific test scripts
- i. Document analysis and design for loaded and transformed Assessment Roll Database Repository
- j. Document analysis and design for Assessment Roll Comparison Tool and User Interface
- k. Document analysis and design for Base Year Value Repository, Trend Calculator, loaded & transformed Base Year Repository and User Interface
- l. Document analysis and design for Assessor Portal. Specifically:
 - Full text search: By AIN, address, owner name, and legal description.
 - GIS map search: Zoom and pan to a parcel, enter cross-streets or an address, or search by location (for iPad, iPad mini, and other mobile tablets of similar size).
 - Map layers with on/off toggle options: Aerial imagery from 2008 to 2014, clusters, school districts, cities and unincorporated, zip codes, oil fields, oil wells, mapbooks, fieldbooks, PLSS, etc.;
 - Translation of codes and keys into English: Hover over a code to see the translation if it's not already spelled out in English on the page. Also, hover over labels to see the definition or explanation of that label;
 - Modern "Responsive Web Design": Same site for desktops and mobile tablet devices (for iPad mini screen size and larger);
 - Property summary: Overview of the parcel information along with a Google curbside view and a street map identifying location;
 - Interface with imaged parcel documents stored in EMC2 Documentum;
 - Building and land detail: Similar to the PDB's "BD" and "LD" screens;
 - Ownership history: All of the change in ownership events listed regardless if they were re-assessable or not. For some sales this

includes the reported sale price, DTT value, and the assessed value side-by-side;

- Interface with imaged deeds and other documents stored in TITAN;
- Assessment history: This is the roll history similar to what the PDB's "ON" and "SS" screens provide along with the "VA" screens P-Seg (Roll Being Prepared);
- Work queues, user updates and approval pages;
- Cross-Reference roll information for mineral rights, possessory interests, etc. currently stored on the legacy system;
- Unsecured roll information for business personal property currently stored on the AS400;
- Event history for permits, enrolled new construction, assessment appeals, decline-in-value reviews, and change in ownership appraisals;
- Calculation and storage of base values and trended base values;
- Edit capabilities to add additional property characteristics and notes; and

m. Document analysis & design for Case Management process for the Property Data Change Request (PDCR), ETL Processes for PDCR, User interface for Case Management.

n. Document analysis & design for system monitoring, as described in section 1.A.1.

3. Test Plan.

Oracle will create a test plan document describing the test approach(es) and test case(s) for the following (collectively, the "Test Plan"):

- a. Unit testing;
- b. System testing;
- c. Systems Integration testing;
- d. User Acceptance Testing (performed by you);
- e. Performance Testing.

4. Documentation and Review.

Oracle will perform the following tasks:

- a. Create the following documents (as each such document is defined in Section 2 (Deliverables) below) and review each document with you:
 1. *Technical Design Document*;
 2. *Design Specifications*;
 3. *User Security Profiles*;
 4. *Data Conversion Implementation Plan*;

5. *Source Code and Environment Management Guidelines;*
6. *Training Plan;and*
7. *Data Governance Plan.*

c. Construction Phase:

1. Configure and/or Build.

Oracle will perform the following tasks:

- a. Configure or build and unit test functionality listed in Section 1.A.1. above, using the specifications in the Design Specification document as a guide;
- b. Document installation and configuration instructions, and scripts for the functionality specified in the Design Specification document; and
- c. Document Test Scenarios (as such document is defined in Section B (Deliverables) below).

2. Review.

Oracle will perform the following tasks:

- a. Conduct the following workshops:
 1. Up to twelve (12) workshops, each of which is up to four (4) hours in length, for up to eight (8) super users each, and focused on end user functionality;
 2. Up to three (3) workshops, each of which is up to four (4) hours in length, for up to eight (8) super users each, and focused on end user administration functionality; and
 3. Up to six (6) workshops, each of which is up to four (4) hours in length, for up to eight (8) information technology (“IT”) or operations staff members each, and focused on systems administration functionality.
- b. Revise functionality based on variances identified between the Requirements Specification and Design Specification documents, as applicable.
- c. Demonstrate the unit-tested system components after incorporation of revisions, and record all observations and comments made during the demonstration in a document (“Unit-Tested System Components Review Results”).

3. Documentation Review.

Oracle will perform the following tasks:

- a. Create the following documents (as each such document is defined in Section 2 (Deliverables) below) and review each document with you:
 1. *System Management Guide;*

2. *Testing Strategy and Test Scenarios;*
 3. *Installation Plan;*
 4. *Installation Instructions;and*
 5. *Final Platform and Network Architecture.*
- b. For source code and executables objects created during the Construction Phase:
1. Create a test set consisting of all unit-tested functionality (“Test Set”); and
 2. Define and formalize the Test Set from which future changes are measured (the “Baseline Test Set”).
- d. Test Phase:

1. Infrastructure.

Oracle will perform the following tasks:

- a. Oracle will install the Oracle Software listed in Section 1.A.1., using the procedures described in the Oracle Software products installation documentation for each software product as a guide, onto the following software environments:
 1. TRAIN; and
 2. STAGE.
- b. Install the Test Set functionality, using the procedures described in the Installation Instructions document as a guide, into each of the test environments listed above.

2. Testing.

Oracle will perform the following tasks:

- a. Perform testing using the Test Plan and the Test Scenarios as a guide;
- b. Build and configure all components (Assessment Roll Database Repository, Assessment Role Comparison Tool, Base Year Values Repository and Trend Calculations, Assessor Portal, Case Management Pilot - Property Data Change) outlined in Section 1.A.1,
- c. Revise Test Set functionality which does not pass testing and re-test revisions, as applicable;
- d. Update the Test Set with changes with any revisions; and
- e. Demonstrate the tested system components after incorporation of revisions to you, and record all observations and comments made during the demonstration in a document (“*System Integration Test Results*”).

3. End User "Train the Trainer" Training.

Oracle will perform the following tasks:

- a. Provide content for Train-the-Trainer workshops leveraging deliverables within this Work Order, including component screenshots.
- b. Conduct up to four (4) Train-the-Trainer training workshops, each of which is up to four (4) hours in length and for up to five (5) of your trainers each; and
- c. Provide up to twenty (20) person days to assist with training development for end user training performed by you. Assistance will include, mutually agreed items such as attending meetings scheduled by LAC, providing document templates, reviewing and commenting on draft materials, and providing source materials.
- d. Complete *Train-The-Trainer Acceptance Certificate*.

2. System User Documentation.

Oracle will perform the following tasks:

- a. Provide up to twenty (20) person days to create a User Reference Manual (as such document is defined in Section B (Deliverables) below); and
- b. Provide up to ten (10) person days to create a User Guide (as such document is defined in Section B (Deliverables) below).

3. Mobile Deployment Strategy

- a. Oracle will create a Mobile Application Deployment Strategy for all LAC Assessor mobile apps including for the Property Data Change mobile application.

- 1. Mobile device management;
- 2. Mobile application deployment;
- 3. Secure container procedures and policies
- 4. Mobile deployment approach including specifics for PDCR app.

4. Documentation and Review.

Oracle will perform the following tasks:

- a. Create the following documents (as each such document is defined in Section 2 (Deliverables) below) and review each document with you:

- 1. *User Reference Manual User Guide;and*
- 2. *System Integration TestResults.*

- b. Manage any source code and executable objects created during this Testing Phase:

- 1. Create a set of functionality consisting of all tested functionality (the “Release Set”); and
- 2. Define and formalize the Release Set from which future changes are measured (the “Baseline Release Set”).

e. Transition Phase:

1. Infrastructure.

Oracle will perform the following tasks:

- a. Install the Oracle Software listed in Section 1.A.1., using the procedures described in the Oracle Software products installation documentation for each software product as a guide, onto the following software environments:
 1. PROD; and
 2. DR
- b. Install the Release Set functionality, using the procedures described in the Installation Instructions document as a guide, to each of the production environments listed above.
- c. Verify the synchronization of data between the PROD and DR database environments and the operation of the PROD and DR application environments during the performance of UAT testing, as described in the User Acceptance Test Plan document.

2. UAT Testing.

Oracle will perform the following tasks:

- a. Create a User Acceptance Test Plan document which shall serve as your guide to performing the user acceptance test and includes information about tester roles and responsibilities, test types, test data and test estimates and scheduling.
- b. Establish the UAT environment based on the Technical Architecture Document;
- c. Configure the application and toolsets and install AMP Components to support production operations, and set up test data and IDs required to support County's acceptance testing;

During your performance of UAT testing, Oracle will provide up to eighty (80) hours over two (2) consecutive business weeks to assist you with the following:

- d. Document issues and issue resolutions identified during UAT.
- e. Address any defects in functionality or configuration according to standards defined in your User Acceptance Test Plan.
- f. Provide guidance and mentoring while County develops test cases, test code, and test data according to County provided test scenarios;
- g. Assist you to create a *User Acceptance Test Results* document by performing the tasks defined in Section B (Deliverables) below.

3. Performance Testing

- a. Oracle will provide up to one-hundred fifty one (151) person days of performance testing, analysis, and tuning services (“Performance Testing”) as defined in the Test plan.
- b. Oracle will perform up to three (3) Performance Testing iterations where each iteration is defined as the execution of up to ten (10) of the same load test scripts.
- c. Oracle will document all Performance Testing results in the Test Results document and will work with you to prioritize troubleshooting efforts.
- d. During active performance testing, Oracle will schedule daily meetings as needed to discuss with your staff:
 1. Review performance test results;
 2. Provide test results analysis;
 3. Provide recommended corrective action(s) to resolve performance issues; and
 4. Provide results of remediation efforts.
- e. Oracle will perform performance tuning activities to remediate performance-related issues identified during Performance Testing.
- f. Oracle will conduct two (2) workshops each of up to four (4) hours in length to provide your staff guidance regarding on-going monitoring and tuning strategies.
- g. Performance test results will be recorded in the *Performance Test Results* document.

4. Production Migration.

During your performance of production migration, Oracle will provide up to fifteen (15) person days over two (2) business weeks to assist you with the following activities during production migration (such assistance hereinafter referred to as the “Production Migration Support”):

- a. Execute cutover strategy as described in the Cutover Strategy document to migrate historical production data to the production environment.
- b. Demonstrate the validated system components in the production environment after performing historical data load to you, and record observations and comments made during the demonstration in a document (“Validated System Components Review Results”).
- c. Complete *Production Cutover Procedure*
- d. Complete *Production Go-live Checklist*.
- e. Complete *Production Cutover Acceptance Certificate*

2. Future Phase Planning

- c. Oracle will create an AMP Phase 2 planning document that includes a proposed scope, budgetary cost estimate and high level plan.

3. Documentation and Review.

Oracle will perform the following tasks:

- a. Create the following documents (as each such document is defined in Section 2 (Deliverables) below) and review each document with you:

1. *User Acceptance Test Results;*
2. *Performance Test Results;*
3. *Train the Trainer Acceptance Certificate;*
4. *Scope and Plan for Phase 2;*
5. *Production Go Live*
6. *Production Cutover Acceptance Certificate*

g. Production Phase:

1. Production Support.

During your performance of production activities, Oracle will provide the following production support beginning with system go-live:

- a. Provide up to seventy (70) person days over four (4) consecutive business weeks of operational support (the “operational support period”) related to the functionality described in Section 1.A. above by:
1. Regularly assessing the status of the production deployment;
 2. Reviewing issues and tracking the progress on resolutions; and
 3. Recommending corrective actions to you and to the extent reasonably permitted within the operational support period, Oracle will document applicable changes, recommend any corrective actions to you, and perform any mutually agreed-upon corrective actions.
 4. Conduct performance assessment activities to verify the performance testing results meet or exceed the stated requirements for a maximum 5 second page load time with 1500 concurrent users.
 5. Incorporate County feedback and proposed changes into the performance assessment report and submit a final version to County for approval.
 6. Create and review the Product Support Plan and update as required to provide for new releases, upgrades, and revisions gathered from County feedback and submit a final version to County for approval. Plan will cover:

- a. Contractor-provided support services;
 - b. Support services delivery model;
 - c. Maintenance of deployed system and user documentation;
- b. Provide up to seventy (70) person days over four (4) consecutive business weeks of functional support (the “functional support period”) for the purpose of reviewing issues related to the Functionality described in Section 1.A. above on a biweekly basis with you. To the extent reasonably permitted within the functional support period, Oracle will document applicable changes and enhancements, recommend any corrective actions to you, and perform any mutually agreed-upon corrective actions.

2. Project Closure.

Oracle will perform the following tasks:

- a. Prepare a Project Closure and Checklist (Engagement Summary) document, a document that summarizes the project achievements and performance and includes the findings, recommendations, and outcomes for the services provided under this Work Order; and
- b. Conduct one (1) workshop which is up to two (2) hours in length which reviews the Project Closure (Engagement Summary) document with your project team.

3 Documentation and Review.

Oracle will perform the following tasks:

- a. Create the following documents (as each such document is defined in Section 2 (Deliverables) below) and review each document with you:
 - 1. *Post Production Support*
 - 2. *Engagement Summary*;

B. Deliverables.

Services performed by Oracle under this Work Order shall be for the purpose of providing the following deliverables:

Deliverable No	OUM Phase	Work Order Deliverable	Details	Section
1	INCEPTION	Project Kick Off	A two hour presentation at project inception facilitated by the Oracle and LAC PM's to formally begin the project. Presented using a MS .ppt document (Kick Off Presentation). Meeting attendees are entire project team, including Steering Committee Members for both Oracle and LAC. Presentation to review, Charter, Team, Scope of Project, Communication Plan, High Level Timeline. Deliverable sign off at the conclusion of the meeting.	1.A.2.a.1. a
2	INCEPTION	Project Management Plan (PMP)	A document that contains: a) an executive summary and Project Charter; b) Project Organization Chart to describe the team configuration; c) Project scope including an updated diagram providing project context and narrative, an updated system context diagram and narrative; d) A project Staffing Plan including fully loaded resource staffing with designation of FT or PT; e) A configuration Change Management Plan that defines the process for managing project changes; f) An Issues, Risk and Problem management Plan that allows for tracking prioritizing of risks and issues defining and document of action plan for risk and issue resolution and identification of risk and issue owners who are responsible for driving the risk or issue to closure or solution; g) Deliverable expectation document template (DED); g) Work Management Plan; h) Communications Management Plan; i) Quality Management Plan.	1.A.2.a.1. b.1
3*	INCEPTION	Project Work Plan	A MS Project workplan that contains detailed project tasks, is resource loaded and baselined.	1.A.2.a.1. b.2
4	INCEPTION	Information Architecture	Provide an Architecture Description Document for information architecture and data architecture for AMP, including roadmap. This may include but is not limited to designs on user interfaces, reporting, access control, coexistence/synchronization/dependency on the old legacy system architecture and the new AMP	1.A.2.a.5

			architecture.	
5	Row Not Used			
6	INCEPTION	Training Strategy	A document that describes the strategy for mentoring and training for LAC for approved information and data architecture. Describe the approach for technical and user training	1.A.2.a.3
7*	INCEPTION	Technical Architecture Document (System Architecture)	Technical architecture describing how the environments will be deployed including key findings, auditing recommendations, and auditing specifications for the 6 instances defined in this work order.	1.A.2.a.4
8	INCEPTION	Assessor Modernization System and Data Architecture, Implementation Roadmap and Governance Plan	A document that describes the full system as components, and provides a roadmap for implementing the components by project phase, as follows: a) High level summary of each component; b) Interactions and dependencies between components; c) Map of components to requirements and c) Component implementation roadmap by project phase.	1.A.2.a.5
9*	INCEPTION	Requirements Specification	A document that describes the requirements (high level and detail defined) for the system and requirements traceability, identified from the Inception Phase performed in Section 1.A.1, consolidated and organized into a single document. This will include security protection requirements and protection requirement for AMP and all components outlined in the work order. Also will include Data models to represent your data architecture, Use Case models that represent expected end user usage, and Wireframes for User Interface modeling	1.A.2.a.6
10*	INCEPTION	MoSCoW List	A document that includes a prioritized list of the high-level requirements. This document will be used to prioritize the requirements for AMP Phase 1 and will also include those requirements that are identified for potential inclusion in future phases.	1.A.2.a.6

11	INCEPTION	Design and Implementation Guidelines	A document that describes the design governance for the project as follows: a) Design patterns by technology; b) Standard practices for design and implementation by technology; c) Cross technology integration standard practices; d) User experience and branding standards; e) Security design standards as applicable for design and implementation by technology.	1.A.2.a.6
12	INCEPTION	Cut Over Plan/Transition Management Strategy	A document that defines the communication plan, checklist for implementation readiness assessment, and an approach for user support after the completion of the production cutover.	1.A.2.a.6
13	INCEPTION	Data Conversion Strategy	A document that describes the approach and processes for designing, developing, and testing conversion routines, roles and responsibilities for Oracle and LAC, and procedures to ensure controls are in place in accordance with LAC policies for moving converted data into STAGE, PROD and DR environments.	1.A.2.a.6
14	INCEPTION	Interface Strategy	A document that describes the approach and processes for designing, developing, and testing inbound and outbound interfaces included in Phase 1.	1.A.2.a.6
15	Row Not Used			
16*	ELABORATION	Technical Design Document	Provide a Technical Design Document for the Assessment Roll Database Repository, Assessment Role Comparison Tool, Base Year Values Repository and Trend Calculations, Assessor Portal, Case Management Pilot - Property Data Change.	1.A.2.b.2
17*	ELABORATION	Design Specifications	High level diagrams for all functional product components, including a physical data model for each component outlined in Section 1.A.1. Included for a central identity repository and databases for users of the AMP application.	1.A.2.b.4

18	ELABORATION	User Security Profiles	A document that contains the approach to defining and documenting standardized user security and access profiles and required authorizations for system access. User roles for accessing licensed software, and hosting software (if applicable to phase 1), Policies and procedures for provisioning and de-provisioning user identities based on best practices for identity and access management solutions .	1.A.2.b.4
18a.	ELABORATION	TEST PLAN	A document that describes the plan for unit, system, system integration, and performance testing of each component. This will include test configuration, test coverage, procedures, pass/fail criteria, and expected results.	1.A.2.b.3
19	ELABORATION	Data Conversion Implementation Plan	A document that contains a data conversion implementation plan that describes the benefits of data conversion, the approach for determining the conversion period, and process for data validation.	1.A.2.b.4
20	ELABORATION	Source Code and Environment Management Guidelines	A document that describes implementation governance for the project as follows: a) Source code management procedures; b) Code promotion procedures between environments; and c) Code retesting and promotion guidelines.	1.A.2.b.4
21	ELABORATION	Training Plan	Develop a training plan that includes description of training courses, train the trainer program, and procedures for administering the training environment and training data.	1.A.2.b.4
22	ELABORATION	Data Governance Plan	Provide a roadmap, strategy and plan which includes recommendations for governance structure and roles and responsibilities. Provide Documentation assessing the LAC's current state to implement data governance.	1.A.2.b.4

23	CONSTRUCTION	<i>System Management Guide</i>	<p>A document that includes a systems administration and operations guide that details procedures for maintaining system tables and configuration, application of software patches and upgrades, an inventory of all offline jobs, as well as scheduling, monitoring and troubleshooting offline jobs (e.g. batch jobs, interfaces, and reports).</p> <p>Comprised of the following:</p> <ul style="list-style-type: none"> • Overview, to include: Purpose and usage, target audience, and document organization • System administration, to include: User management, application security, and table maintenance (scheduled and unscheduled) • Batch operations, to include: Offline processing, interfaces, reports, offline schedules – jobs and dependencies (daily, weekly, monthly, and annual), and troubleshooting 	1.A.2.c.3
24*	CONSTRUCTION	<i>Testing Strategy and Test Scenarios</i>	A document that contains the approach and processes that will be used for testing each component, including the test steps for the following test cases provided by LAC and described in the Test Plan: a) Unit testing; b) System testing; and c) Systems Integration Testing	1.A.2.c.3
25*	CONSTRUCTION	<i>Installation Plan</i>	A document that identifies the approach, tools, and resources required to install the functionality identified in Section 1.A.1	1.A.2.c.3
26	CONSTRUCTION	<i>Installation Instructions</i>	A document that describes the sequence of steps to install the functionality described in Section 1.A.1 into your environments, including Production Installation	1.A.2.c.3
27	Row Not Used			
28	CONSTRUCTION	<i>Final Platform and Network Architecture</i>	A document that describes the production deployment architecture (software, hardware, and network) in the PROD environment.	1.A.2.c.3

29	TEST	<i>User Reference Manual User Guide</i>	<p>Oracle will deliver the following user documentation:</p> <ul style="list-style-type: none"> • User reference manual – that includes step-by-step desk procedures for performing business operations using the AMP solution. • Quick reference guides – that serves as a “cheat sheet” that highlights how to perform common key operations using the AMP solution. 	1.A.2.d.4
30*	TEST	<i>System Integration Test Results</i>	<p>A document describing the Unit Tested, System Tested, and System Integration Tested AMP system by the Oracle team to meet the requirements in the work order and validating that they work together in an integrated manner as documented in the Requirements Specification and Design Specifications documents. Deliver and install all components (Assessment Roll Database Repository, Assessment Role Comparison Tool, Base Year Values Repository and Trend Calculations, Assessor Portal, Case Management Pilot - Property Data Change) in the LAC-specified environment (which shall include, to the extent applicable, source code for those components <u>that have been created solely for purposes of this Work Order and that, for the avoidance of doubt, are not Oracle products licensed under the SLMA</u>). Test results including requirements test matrix presented to LAC</p>	1.A.2.d.4
31*	TRANSITION	<i>User Acceptance Test Results</i>	<p>A document describing the User Acceptance Test Results in accordance with the User Acceptance Test Plan. Test cases, incidents encountered incident resolution and demonstration the AMP requirements have been met as defined in the Requirements Specification.</p>	1.A.2.g

32*	TRANSITION	Performance Test Results	A document containing performance test results in accordance with performance test plan. Updated performance test plan with test results, incident logs, and system tuning recommendations demonstrating performance targets and requirements have been met.	1.A.2.e.3.g
33	TRANSITION	Train the Trainer Acceptance Certificate	A document that signifies the Train-The-Trainer activities listed in the work order have been completed.	1.A.2.d.3.d
34	TRANSITION	Scope and Plan for Phase 2	A document that describes the scope and high level project workplan for Phase 2.	1.A.2.e.7
35	Row Not Used			
36*	TRANSITION	Production Cutover Acceptance Certificate	A document that signifies the components listed in the work order have been deployed to the production (PROD) instance as defined by the Cutover Strategy.	1.A.2.e.4.e
37	Row Not Used			
38*	TRANSITION	Production Go Live	Provide LAC with Production Migration Support, which shall include creating a Production Go Live checklist and procedures and problem troubleshooting. Deliver all components in LAC-specified environment (which shall include, to the extent applicable, source code for those components that have been created solely for purposes of this Work Order and that, for the avoidance of doubt, are not Oracle products licensed under the SLMA)	1.A.2.e.4.d.
39	PRODUCTION	Post Production Support (70 Days)	A document that tracks progress on resolving or closing issues, tracks severity levels. Document will be presented at the end of the post production support phase for review with LAC.	1.A.2.g.4

40*	PRODUCTION	<i>Engagem ent Summar y</i>	A document that represents a project close out checklist. Summarizes the project achievements and performance and includes the finding, recommendation and outcomes for the services provided under this work order, update all documentation included in this work order, to so that all revisions and other changes have been made and latest version is posted to the shared repository.	1.A.2.g.4
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(*) Denotes those deliverables currently identified to be on the critical path, subject to change upon completion of the baselined Workplan.

WORK ORDER PAYMENT SCHEDULE (FP) or LABOR RATES AND ESTIMATED EXPENSES (T&M)

A. Fees and Expenses

You agree to pay Oracle a fee of Eleven Million Five Hundred Sixty Three Thousand Four Hundred and Two dollars (\$11,563,402.00) for services and deliverables described in this Work Order. This fee includes travel and out of pocket expenses. This fee does not include taxes. Upon completion of a milestone, ninety percent (90%) of the corresponding milestone fee specified below becomes due and payable and Oracle shall thereafter invoice, and you shall pay, such milestone fee; this payment obligation shall become noncancelable and the sum paid nonrefundable on your acceptance date. A milestone is completed once all the deliverable(s) under such milestone are accepted, or deemed accepted, in accordance with the WORK ORDER ACCEPTANCE DEFINITION section. The remaining ten percent (10%) of each corresponding fee not originally invoiced shall be due upon the acceptance, or deemed acceptance, in accordance with the WORK ORDER ACCEPTANCE DEFINITION section, of all milestones.

1. As of the Effective Date of this Work Order, the below estimated delivery dates are estimated dates and are intended for planning purposes only. As such Oracle does not guarantee that these dates will be met and failure to meet such estimated dates shall not, in and of itself, constitute a breach of contract. Oracle will, however, use commercially reasonable efforts to meet the estimated dates.

Notwithstanding the foregoing, the Project Workplan shall set forth mutually agreed upon dates for the below deliverables. Upon acceptance by you of the Project Workplan, such dates shall no longer be deemed to be estimates, unless the parties' project managers mutually agree in writing to alternative timeframes.

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Payment Milestone No.	OUM Phase	Deliverable	Estimated Delivery Date	Milestone Fee	10% Holdback	Payment US\$
1.a	Inception	1- Project Kickoff	Month 1	\$0		
1.b	Inception	2 - Project Management Plan	Month 1	\$0		
1.c	Inception	3 - Project Workplan	Month 1	\$0		
1	Inception	Deliverable 1		\$650,000	\$65,000	\$585,000
2.a	Inception	12 - Cut Over Plan/Transition Management Strategy	Month 2	\$0		
2.b	Inception	13- Data Conversion Strategy	Month 2	\$0		
2.c	Inception	14- Interface Strategy	Month 2	\$0		
2	Inception	Deliverable 2	Month 2	\$425,000	\$42,500	\$382,500
3	Inception	4 - Information Architecture	Month 3	\$300,000	\$30,000	\$270,000
4	Inception	6 - Training Strategy	Month 3	\$150,000	\$15,000	\$135,000
5.a	Inception	8 - Assessor Modernization System and Data Architecture, Implementation Roadmap and Governance Plan	Month 3	\$0	\$0	\$0
5.b	Inception	10 - MoSCoW List	Month 4	\$0		
5.c	Inception	9 - Requirements Specification	Month 4	\$0		
5	Inception	Deliverable 5	Month 4	\$1,100,000	\$110,000	\$990,000
6.a	Construction	25- Installation Plan	Month 3	\$0		
6.b	Construction	26-Installation Instructions	Month 3	\$0		
6.c	Inception	7 - Technical Architecture Document (system architecture)	Month 4	\$0		
6	Construction	Deliverable 6	Month 4	\$800,000	\$80,000	\$720,000
7.a	Inception	11 - Design and Implementation Guidelines	Month 4	\$0		
7.b	Elaboration	16 - Technical Design Document	Month 4	\$0		
7	Elaboration	Deliverable 7	Month 4	\$750,000	\$75,000	\$675,000
8	Elaboration	18 - User Security Profiles	Month 4	\$650,000	\$65,000	\$585,000
9.a	Elaboration	19 - Data Conversion Implementation Plan	Month 4	\$0		
9.b	Elaboration	22 - Data Governance Plan	Month 4	\$0		
9.c	Elaboration	21 - Training Plan	Month 4	\$0		
9	Elaboration	Deliverable 9	Month 4	\$800,000	\$80,000	\$720,000

10	Construction	24 - Testing Strategy and Scenarios	Month 5	\$350,000	\$35,000	\$315,000
11	Elaboration	17 - Design Specification	Month 6	\$761,598	\$76,160	\$685,438
12	Elaboration	20 - Source Code and Environment Management Guidelines	Month 6	\$300,000	\$30,000	\$270,000
13.a	Construction	23 - System Management Guide	Month 6	\$0		
13.b	Construction	28 - Final Platform and Network Architecture	Month 6	\$0		
13	Construction	Deliverable 13	Month 6	\$350,000	\$35,000	\$315,000
14	Construction	System Integration Testing	Month 9	\$826,804	\$82,680	\$744,124
15.a	Transition	33 - Train the Trainer Complete	Month 9	\$0		
15.b	TEST	29 - User Reference Manual and User Guide	Month 10	\$0		
15	Transition	Deliverable 15	Month 10	\$300,000	\$30,000	\$270,000
16.a	Transition	32 - Performance Test Complete	Month 9	\$0		
16.b	Transition	31 - User Acceptance Test Results	Month 10	\$0		
16	Transition	Deliverable 16	Month 10	\$600,000	\$60,000	\$540,000
17	Transition	34 - Scope and Plan for Phase 2	Month 10	\$550,000	\$55,000	\$495,000
18	Transition	38 – Production Go Live	Month 11	\$0		
19	Transition	36 - Production Cutover Acceptance Certificate	Month 11	\$1,450,000	\$145,000	\$1,305,000
20	Production	39 - Post Production Support	Month 12	\$200,000	\$20,000	\$180,000
21	Production	40 - Engagement Summary	Month 12	\$250,000	\$25,000	\$225,000
		Total Fixed Fee		\$11,563,402	\$1,156,340	\$10,407,062

The parties acknowledge that temporary living reimbursements to Oracle provided resource(s) may be deemed compensatory under federal, state, and local tax laws if a resource's assignment in a particular location will exceed or has exceeded one year. Where reasonably possible, Oracle will plan with you to limit the duration of a resource's assignment in a particular location to less than one year.

B. Project Management

You and Oracle each agree to designate a project manager who shall be responsible for coordinating its activities under this Work Order. You and Oracle each shall direct all inquiries concerning the services to the other party's project manager. Your project manager shall have the authority to approve services on your behalf. Oracle's project manager shall have the sole right to exercise direct control and supervision over the work assignments of Oracle resources.

WORK ORDER ACCEPTANCE DEFINITION

Attachment 1 Work Order Statement of Services Section B. You will be responsible for any additional review and testing of such deliverable in accordance with any mutually agreed test scripts as may be included in Oracle's Project Management Plan, as amended. You shall have five (5) business days for deliverables on the project Critical Path or ten (10) business days for deliverables not on the project Critical Path after Oracle's submission of the deliverable ("acceptance period") to give Oracle written notice that you accept the particular deliverable, or that you reject the deliverable. If the deliverable is rejected, including because it does not conform with the description or performance requirements for such deliverable specified in the Attachment 1 Work Order Statement of Services Section B and/or any such test scripts, you will specify the deficiencies in reasonable detail. Oracle shall use reasonable efforts to promptly cure any such deficiencies. After completing such cure, Oracle shall resubmit the deliverable for your review and testing as set forth above. Upon accepting any deliverable submitted by Oracle, you shall provide Oracle with written acceptance of such deliverable. If you fail to provide written notice of any deficiencies within the acceptance period, as provided above, such deliverable shall be deemed accepted at the end of the acceptance period. Your failure to provide notice of acceptance or rejection of a deliverable in the applicable time period set forth above will entitle Oracle to pursue a Change Order to account for any reasonable impact, whether delays, increased costs, etc., resulting from such delay by you.

c. **MODIFICATIONS.** For the purposes of this Work Order only, the following sections of the MSA shall be deemed modified as set forth below:

1. **Proprietary Considerations.** Notwithstanding the provision 19 of the MSA, the following provision shall apply:

"Joint Property" means those deliverables developed by Oracle solely for you under this Work Order (including software code generated solely for you pursuant to the

performance of the Services provided hereunder) and those deliverables developed jointly by Oracle and you under this Work Order; Joint Property does not include any Oracle Works (defined below). Upon payment of all fees due under this Work Order, Oracle and you agree that we each jointly own the copyright interest in Joint Property and that we each do not have to account to one another for use of Joint Property. "Oracle Works" means: (a) anything provided by or on behalf of Oracle from an Oracle repository (except from a repository created solely for purposes of providing Services to you pursuant to a Work Order); (b) any software code generated by Oracle that is not generated solely for you pursuant to the performance of the Services provided hereunder; (c) any tools, interfaces, and utilities and other related materials developed by or on behalf of Oracle (other than prepared solely for you in connection with Oracle's response to your request for a Work Order (e.g., as demonstration scripts)) and/or outside the scope of Services of this Work Order, and provided by or on behalf of Oracle from a repository that has not been created solely for purposes of this Work Order; and (d) any derivative works of (a) through (c) above. Oracle retains all right, title and interest, including all copyrights, in any Oracle Works. Upon payment of all fees due under this Work Order, you have the non-exclusive, non-assignable, royalty free, perpetual, limited right to use, solely as a component of Joint Property, Oracle Works that are incorporated into Joint Property. You may allow your agents and contractors (including, without limitation, outsourcers) to use, as set forth in the preceding sentence, Oracle Works that are incorporated into Joint Property and you are responsible for their compliance with this Work Order in such use. This Work Order does not grant, amend, or modify any license for any products or documentation owned or distributed by Oracle.

2. **Limitation of Liability.** The first sentence of Section 16.2.2 of the Master Services Agreement shall be deemed modified or superseded as follows:

You and Oracle agree that neither party's liability for damages (including those based on fundamental breach, negligence, misrepresentation, or other contract or tort claim) arising out of or related to this Work Order shall exceed two times (2X) fees paid under this Work Order.

3. **Warranty.** The first sentence of Section 9.1 of the MSA shall be deemed modified or superseded as follows:

For the purposes of this Paragraph 9.1 and this Work Order, the "Warranty Period" for any Deliverables provided, and Services performed by Oracle pursuant to this Work Order shall be one hundred eighty (180) days from each deliverable (Warranty Period). Acceptance of a deliverable shall not limit any obligations of Oracle under Section 9 of the MSA and/or this Section C.3.

4. **Indemnification.** Clause (b) of Section 20.4 of the MSA shall be deemed modified or superseded as follows:

"(b) the combination, operation, or use of the Deliverable(s) with any other product, data, apparatus, or business method that Contractor did not provide, except where such combinations are necessary for proper operation or use of the Deliverable to perform its documented purpose

or functionality, or the distribution, operation or use of the Deliverable(s) for the benefit of a third party (excluding County Affiliates); ".

This quote is valid through June 30th, 2015 and shall become binding upon execution by LAC Assessor and acceptance by Oracle.

Work Order Approval

Signature

Date

Work Order Number Assigned

County's CIO MSA Manager

Department Project Manager

Oracle America, Inc.

Approving Manager

ATTACHMENT 1

1. WORK ORDER STATEMENT OF SERVICES (SOS)

A. Application systems design documentation:

N/A

B. Detailed description of tasks subtasks, milestones and deliverables:

1. Deliverables.

Services performed by Oracle under this Work Order shall be for the purpose of providing the following deliverables:

Deliverable No	OUM Phase	Work Order Deliverable	Details	Section
1	INCEPTION	<i>Project Kick Off</i>	A two hour presentation at project inception facilitated by the Oracle and LAC PM's to formally begin the project. Presented using a MS .ppt document (Kick Off Presentation). Meeting attendees are entire project team, including Steering Committee Members for both Oracle and LAC. Presentation to review, Charter, Team, Scope of Project, Communication Plan, High Level Timeline. Deliverable sign off at the conclusion of the meeting.	1.A.2.a.1.a
2	INCEPTION	<i>Project Management Plan (PMP)</i>	A document that contains: a) an executive summary and Project Charter; b) Project Organization Chart to describe the team configuration; c) Project scope including an updated diagram providing project context and narrative, an updated system context diagram and narrative; d) A project Staffing Plan including fully loaded resource staffing with designation of FT or PT; e) A configuration Change Management Plan that defines the process for managing project changes; f) An Issues, Risk and Problem management Plan that allows for tracking prioritizing of risks and issues defining and document of action plan for risk and issue resolution and identification of risk and issue owners who are responsible for driving the risk or issue to closure or solution; g) Deliverable expectation document template (DED); g) Work Management Plan; h) Communications Management Plan; i) Quality Management Plan.	1.A.2.a.1.b.1
3*	INCEPTION	<i>Project Work Plan</i>	A MS Project workplan that contains detailed project tasks, is resource loaded and baselined.	1.A.2.a.1.b.2

4	INCEPTION	Information Architecture	Provide an Architecture Description Document for information architecture and data architecture for AMP, including roadmap. This may include but is not limited to designs on user interfaces, reporting, access control, coexistence/synchronization/dependency on the old legacy system architecture and the new AMP architecture.	1.A.2.a.5
5	Row Not Used			
6	INCEPTION	Training Strategy	A document that describes the strategy for mentoring and training for LAC for approved information and data architecture. Describe the approach for technical and user training	1.A.2.a.3
7*	INCEPTION	Technical Architecture Document (System Architecture)	Technical architecture describing how the environments will be deployed including key findings, auditing recommendations, and auditing specifications for the 6 instances defined in this work order.	1.A.2.a.4
8	INCEPTION	Assessor Modernization System and Data Architecture, Implementation Roadmap and Governance Plan	A document that describes the full system as components, and provides a roadmap for implementing the components by project phase, as follows: a) High level summary of each component; b) Interactions and dependencies between components; c) Map of components to requirements and c) Component implementation roadmap by project phase.	1.A.2.a.5
9*	INCEPTION	Requirements Specification	A document that describes the requirements (high level and detail defined) for the system and requirements traceability, identified from the Inception Phase performed in Section 1.A.1, consolidated and organized into a single document. This will include security protection requirements and protection requirement for AMP and all components outlined in the work order. Also will include Data models to represent your data architecture, Use Case models that represent expected end user usage, and Wireframes for User Interface modeling	1.A.2.a.6
10*	INCEPTION	MoSCoW List	A document that includes a prioritized list of the high-level requirements. This document will be used to prioritize the requirements for AMP Phase 1 and will also include those requirements that are identified for potential inclusion in	1.A.2.a.6

			future phases.	
11	INCEPTION	Design and Implementation Guidelines	A document that describes the design governance for the project as follows: a) Design patterns by technology; b) Standard practices for design and implementation by technology; c) Cross technology integration standard practices; d) User experience and branding standards; e) Security design standards as applicable for design and implementation by technology.	1.A.2.a.6
12	INCEPTION	Cut Over Plan/Transition Management Strategy	A document that defines the communication plan, checklist for implementation readiness assessment, and an approach for user support after the completion of the production cutover.	1.A.2.a.6
13	INCEPTION	Data Conversion Strategy	A document that describes the approach and processes for designing, developing, and testing conversion routines, roles and responsibilities for Oracle and LAC, and procedures to ensure controls are in place in accordance with LAC policies for moving converted data into STAGE, PROD and DR environments.	1.A.2.a.6
14	INCEPTION	Interface Strategy	A document that describes the approach and processes for designing, developing, and testing inbound and outbound interfaces included in Phase 1.	1.A.2.a.6
15	Row Not Used			
16*	ELABORATION	Technical Design Document	Provide a Technical Design Document for the Assessment Roll Database Repository, Assessment Role Comparison Tool, Base Year Values Repository and Trend Calculations, Assessor Portal, Case Management Pilot - Property Data Change.	1.A.2.b.2
17*	ELABORATION	Design Specifications	High level diagrams for all functional product components, including a physical data model for each component outlined in Section 1.A.1. Included for a central identity repository and databases for users of the AMP application.	1.A.2.b.4

18	ELABORATION	User Security Profiles	A document that contains the approach to defining and documenting standardized user security and access profiles and required authorizations for system access. User roles for accessing licensed software, and hosting software (if applicable to phase 1), Policies and procedures for provisioning and de-provisioning user identities based on best practices for identity and access management solutions .	1.A.2.b.4
18a.	ELABORATION	TEST PLAN	A document that describes the plan for unit, system, system integration, and performance testing of each component. This will include test configuration, test coverage, procedures, pass/fail criteria, and expected results.	1.A.2.b.3
19	ELABORATION	Data Conversion Implementation Plan	A document that contains a data conversion implementation plan that describes the benefits of data conversion, the approach for determining the conversion period, and process for data validation.	1.A.2.b.4
20	ELABORATION	Source Code and Environment Management Guidelines	A document that describes implementation governance for the project as follows: a) Source code management procedures; b) Code promotion procedures between environments; and c) Code retesting and promotion guidelines.	1.A.2.b.4
21	ELABORATION	Training Plan	Develop a training plan that includes description of training courses, train the trainer program, and procedures for administering the training environment and training data.	1.A.2.b.4
22	ELABORATION	Data Governance Plan	Provide a roadmap, strategy and plan which includes recommendations for governance structure and roles and responsibilities. Provide Documentation assessing the LAC's current state to implement data governance.	1.A.2.b.4
23	CONSTRUCTION	System Management Guide	A document that includes a systems administration and operations guide that details procedures for maintaining system tables and configuration, application of software patches and upgrades, an inventory of all offline jobs, as well as scheduling, monitoring and troubleshooting offline jobs (e.g. batch jobs, interfaces, and reports). Comprised of the following: <ul style="list-style-type: none"> • Overview, to include: Purpose and usage, target audience, and document organization • System administration, to include: User management, 	1.A.2.c.3

			<p>application security, and table maintenance (scheduled and unscheduled)</p> <ul style="list-style-type: none"> • Batch operations, to include: Offline processing, interfaces, reports, offline schedules – jobs and dependencies (daily, weekly, monthly, and annual), and troubleshooting 	
24*	CONST RUCTI ON	Testing Strategy and Test Scenario s	A document that contains the approach and processes that will be used for testing each component, including the test steps for the following test cases provided by LAC and described in the Test Plan: a) Unit testing; b) System testing; and c) Systems Integration Testing	1.A.2.c.3
25*	CONST RUCTI ON	Installati on Plan	A document that identifies the approach, tools, and resources required to install the functionality identified in Section 1.A.1	1.A.2.c.3
26	CONST RUCTI ON	Installati on Instructi ons	A document that describes the sequence of steps to install the functionality described in Section 1.A.1 into your environments, including Production Installation	1.A.2.c.3
27	Row Not Used			
28	CONST RUCTI ON	Final Platform and Network Architect ure	A document that describes the production deployment architecture (software, hardware, and network) in the PROD environment.	1.A.2.c.3
29	TEST	User Referenc e Manual User Guide	<p>Oracle will deliver the following user documentation:</p> <ul style="list-style-type: none"> • User reference manual – that includes step-by-step desk procedures for performing business operations using the AMP solution. • Quick reference guides – that serves as a “cheat sheet” that highlights how to perform common key operations using the AMP solution. 	1.A.2.d.4
30*	TEST	System Integrati on Test Results	A document describing the Unit Tested, System Tested, and System Integration Tested AMP system by the Oracle team to meet the requirements in the work order and validating that they work together in an integrated manner as documented in the Requirements Specification and Design Specifications documents. Deliver and install all components (Assessment Roll Database Repository, Assessment Role Comparison Tool, Base Year Values Repository and Trend Calculations, Assessor Portal, Case Management Pilot - Property Data Change) in the LAC-specified environment (which shall	1.A.2.d.4

			include, to the extent applicable, source code for those components <u>that have been created solely for purposes of this Work Order and that, for the avoidance of doubt,</u> are not Oracle products licensed under the SLMA). Test results including requirements test matrix presented to LAC	
31*	TRANSITION	<i>User Acceptance Test Results</i>	A document describing the User Acceptance Test Results in accordance with the User Acceptance Test Plan. Test cases, incidents encountered incident resolution and demonstration the AMP requirements have been met as defined in the Requirements Specification.	1.A.2.e.2.g
32*	TRANSITION	<i>Performance Test Results</i>	A document containing performance tests results in accordance with performance test plan. Updated performance test plan with test results, incident logs, and system tuning recommendations demonstrating performance targets and requirements have been met.	1.A.2.e.3.g
33	TRANSITION	<i>Train-The-Trainer Acceptance Certificate</i>	A document that signifies the Train-The-Trainer activities listed in the work order have been completed.	1.A.2.d.3.d
34	TRANSITION	<i>Scope and Plan for Phase 2</i>	A document that describes the scope and high level project workplan for Phase 2.	1.A.2.e.7
35	Row Not Used			
36*	TRANSITION	<i>Production Cutover Acceptance Certificate</i>	A document that signifies the components listed in the work order have been deployed to the production (PROD) instance as defined by the Cutover Strategy.	1.A.2.e.4.e
37	Row Not Used			
38*	TRANSITION	<i>Production Go Live</i>	Provide LAC with Production Migration Support, which shall include creating a Production Go Live checklist and procedures and problem troubleshooting. Deliver all components in LAC-specified environment (which shall	1.A.2.e.4.d

			include, to the extent applicable, source code for those components that have been created solely for purposes of this Work Order and that, for the avoidance of doubt, are not Oracle products licensed under the SLMA)	
39	PRODUCTION	<i>Post Production on Support (70 Days)</i>	A document that tracks progress on resolving or closing issues, tracks severity levels. Document will be presented at the end of the post production support phase for review with LAC.	1.A.2.g.4
40*	PRODUCTION	<i>Engagement Summary</i>	A document that represents a project close out checklist. Summarizes the project achievements and performance and includes the finding, recommendation and outcomes for the services provided under this work order, update all documentation included in this work order, to so that all revisions and other changes have been made and latest version is posted to the shared repository.	1.A.2.g.4

C. Identification of all required Los Angeles County or LAC Assessor and Oracle resources and staff:

1. LAC Assessor staff:

- a. LAC Assessor Project Manager.
- b. LAC County Executive Sponsor (part-time).
- c. Subject Matter Experts (SMEs) from LAC Assessor.
- d. Database, infrastructure, system-specific personnel as required to complete all your responsibilities outlined in this Work Order.
- e. System and User Acceptance Testing team.

2. LAC Assessor Resources:

- a. Server, network, and database access as required.
- b. Desk and network access for each consultant.

3. Oracle Staff:

- a. Oracle Project Manager (full-time).
- b. Oracle Executive Sponsor
- c. Oracle Project Sponsor
- d. Oracle staff as required to complete milestone deliverables, at Oracle's discretion.

D. High Level Timeline:

See Attachment 2 for high level time line.

E. Detailed cost documentation including cost calculation worksheet:

See Section B above for fixed price deliverables. See Work Order Payment Schedule (FP) above for pricing.

F. Acceptance Criteria:

Delivery of documents in accordance with the descriptions provided in Section B above.

G. Final Acceptance:

Final acceptance shall be achieved upon acceptance or deemed acceptance (in accordance with the WORK ORDER ACCEPTANCE DEFINITION section) of all Deliverables in Section B. above.

H. Work Order Warranties:

I. The Warranty Period for anything provided under this Work Order shall be 180 days from performance of the Deliverables provided or Services performed. Acceptance of a deliverable shall not limit any obligations of Oracle under Section 9 of the MSA and/or this Section.

J. County of Los Angeles Office of the Assessor Responsibilities and Assumptions:

You acknowledge that your timely provision of and reasonable access to office accommodations, facilities, equipment, assistance, cooperation, complete and materially accurate information and data from your officers, agents, and employees, and suitably configured computer products (collectively, "cooperation") are essential to the performance of any services as set forth in this Work Order. Oracle will not be responsible for any deficiency in performing services to the extent such deficiency results from your failure to provide reasonable cooperation; provided however, that Oracle acknowledges its duty to endeavor reasonably to mitigate the effects of any such failures so as to avoid deficiencies.

You acknowledge that Oracle's ability to perform the services depends upon your reasonable fulfillment of the following responsibilities and the following project assumptions:

1. Your Responsibilities

a. General Responsibilities:

1. Maintain the properly configured hardware/operating system platform to support the services.
2. Obtain licenses under separate contract for any necessary Oracle software and hardware programs before the commencement of services.
3. Maintain annual technical support for the Oracle software and hardware under separate contract throughout the term of the services.

4. Provide Oracle with full access to relevant functional, technical and business personnel with adequate skills and knowledge to support the performance of services.
5. Provide, for all Oracle resources performing services at your site, a workspace that complies with applicable state and federal standards
6. Provide any notices, and obtain any consents, required for Oracle to perform on-site services.
7. Limit Oracle's access to any production environments or shared development environments to the extent necessary for Oracle to perform services.
8. As required by U.S. Department of Labor regulations (20 CFR 655.734), you will allow Oracle to post a Notice regarding Oracle H-1B employee(s) at the work site prior to the employee's arrival on site.
9. If while performing services Oracle requires access to other vendor's products that are part of your system, you will be responsible for acquiring all such products and the appropriate license rights necessary for Oracle to access such products on your behalf.

10. Provide Oracle with a written notice of any desired change in the established work schedule at least 48 hours prior to the date you desire such change to be implemented.
11. Provide Oracle with a written notice of any desired change in the established work location at least 48 hours prior to the date you desire such location change to be implemented.
12. Provide Oracle access to data structures, documentation, applications, databases and artifacts as required by Oracle to support the performance of services.
13. You are responsible for acquiring and maintaining any equipment, and performing any labor and/or activities necessary to set-up and maintain network connectivity at and to your Oracle software environment.
14. You will provide and maintain user accounts for, and access to, the VPN for the Oracle team members, including but not limited to, Oracle's onsite and remote resources for unforeseen or mutually agreeable Oracle team member support of your project.
15. Be responsible for any needed data cleansing activities.

b. Project Responsibilities:

1. Identify, schedule, and facilitate the necessary requirements gathering, analysis, design, and implementation planning sessions with your business user representatives and project team members, all according to the project schedule.

2. Ensure that the services will not be adversely impacted by other projects or initiatives currently underway at your facilities. Oracle is not responsible for adverse impact to the services arising from other concurrently scheduled projects or initiatives.
3. Be responsible for any and all deficiencies or delays attributable to your resources and/or your third party resources, and any resulting impact to the estimated timeline, work effort, and associated fees for services.
4. Provide the necessary and appropriate data (e.g. test data, configuration data, etc.) required by Oracle to support the performance of services.
5. Information concerning your hardware and network will be provided by you for inclusion in the Final Platform and Network Architecture deliverable.
6. Ensure that all Customer Tasks (specified in the table below) are completed prior to the corresponding Target Date or Project Milestone (as specified in the table below). You acknowledge and agree that (i) the below Customer Tasks are necessary prerequisites to Oracle’s performance of the corresponding dependent Oracle tasks, and (ii) that any impact to the services arising from your failure to perform any Customer Task below is subject to the Change Order Process, Section 7.3 of the MSA.

No.	Target Date or Project Milestone	Customer Tasks
1	Prior to the commencement of services	Ensure that the Oracle software products owned by you and listed in this Work Order adhere to the Oracle certification matrices, which can be found on metalink.oracle.com, and provide verification to the Oracle project manager.
2	Prior to the commencement of services	Ensure that all necessary backup and recovery procedures are established and functional for all project environments.
3	Prior to the completion of the Inception Phase	Install, configure, maintain and manage any and all 3 rd party software products required for the performance of services.
4	Prior to the completion of the Inception Phase	Ensure that your networks, including local area networks (“LANs”), wide area networks (“WANs”), and communication hardware/software including firewalls, routers, and load balancers, required for the performance of services will support your desired performance response(s).
5	Prior to the completion of the	Provide access to the legacy system extracts required to populate the Assessor Roll.

No.	Target Date or Project Milestone	Customer Tasks
	Inception Phase	
6	Prior to the completion of the Test Phase	Complete UAT test cases.

c. Design and Implementation Responsibilities:

1. Understand the architecture and implementation approach and participate in all aspects of the project.

d. Infrastructure Responsibilities:

1. Procure, install, setup/configure, and validate all hardware including, but not limited to, storage and servers, network infrastructure and operating system platforms required to support the performance of services.
2. Be responsible for installing patches or upgrading environment to meet minimum standards.
3. Be responsible for the legacy touch-points portion of any interface, e.g., the actual extract from and/or feed into the legacy applications.
4. Database and servers planning, architecting, installation, management and support will be performed by you in all legacy environments.
5. Provide the following environments:

Table of Environments

No.	Environment Name	Type	Support Required
1	Development (DEV)	New	Yes
2	Test (TEST)	New	Yes
3	Training (TRAIN)	New	Yes
4	Staging (STAGE)	New	Yes
5	Production (PROD)	New	Yes
6	Disaster Recovery (DR)	New	Yes

a. Environment Type:

1. Where the “Type” of environment type is identified as “New” in the Table of Environments above, you shall create the new environment infrastructure components in accordance with the schedule; such

environment(s) is/are presumed not to exist prior to the commencement of services.

b. Support Required: Where “Yes” is indicated for Support Required in the Table of Environments above, you shall provide hardware, operating systems, and network support for such environment(s).

6. Provide the Virtual Machines (VMs) listed in the table below or a mutually agreed upon equivalent that consolidates compatible products across fewer VMs

VM Server Requirements

Environ ment	Server Role	Servers Required	Server Configuration			
			CPU Count	Memory	Local Disk	Shared Disk
DEV	Database	1	2	24G	100G	200G
DEV	Audit Vault	1	1	24G	100G	0
DEV	Key Vault	1	1	24G	100G	0
DEV	SOA, BPM, EDI	1	2	32G	100G	0
DEV	WebCenter, MAF	1	2	32G	100G	0
DEV	OAG	1	2	24G	100G	0
DEV	Data Integrator	1	2	24G	100G	0
DEV	OPA	1	2	16G	100G	0
DEV	BIP	1	1	16G	100G	0
DEV	OEM	1	1	16G	100G	0
DEV	Web Tier	1	2	8G	100G	0
DEV	Testing Tools	1	2	24G	100G	0
TRAIN	Database	1	2	24G	100G	200G
TRAIN	SOA, BPM, EDI	1	2	32G	100G	0

TRAIN	WebCenter, MAF	1	2	32G	100G	0
TRAIN	OAG	1	2	24G	100G	0
TRAIN	OPA	1	2	24G	100G	0
TRAIN	BIP	1	1	24G	100G	0
TRAIN	OEM	1	1	24G	100G	0
TRAIN	Web Tier	1	2	15G	100G	0
TEST	Database	1	2	24G	100G	200G
TEST	Audit Vault	1	1	24G	100G	0
TEST	SOA, BPM, EDI	1	2	32G	100G	0
TEST	WebCenter, MAF	1	2	32G	100G	0
TEST	OAG	1	2	24G	100G	0
TEST	Data Integrator	1	2	24G	100G	0
TEST	OPA	1	2	24G	100G	0
TEST	BIP	1	1	24G	100G	0
TEST	OEM	1	1	24G	100G	0
TEST	Web Tier	1	2	16G	100G	0
TEST	OMSS	1	2	24G	100G	0
TEST	RUEI	4	2	24G	100G	0
TEST	Identity Governance	1	1	24G	100G	0
TEST	Access Management	1	2	24G	100G	0
TEST	Directory Service	1	2	24G	100G	0

STAGE	Database	1	4	24G	100G	200G
STAGE	SOA, BPM, EDI	2	2	48G	100G	0
STAGE	WebCenter, MAF	2	2	48G	100G	0
STAGE	OAG	2	2	32G	100G	0
STAGE	Data Integrator	2	2	48G	100G	0
STAGE	OPA	2	2	24G	100G	0
STAGE	BIP	2	1	24G	100G	0
STAGE	OEM	2	1	24G	100G	0
STAGE	Web Tier	3	2	16G	100G	0
STAGE	OMSS	1	4	24G	100G	0
STAGE	RUEI	1	12	24G	100G	0
STAGE	Identity Governance	2	1	24G	100G	0
STAGE	Access Management	2	2	32G	100G	0
STAGE	Directory Service	2	2	32G	100G	0
DR	Database	1	2	24G	100G	200G
DR	SOA, BPM, EDI	1	2	32G	100G	0
DR	WebCenter, MAF	1	2	32G	100G	0
DR	OAG	1	2	32G	100G	0
DR	Data Integrator	1	2	32G	100G	0
DR	OPA	1	2	24G	100G	0

DR	BIP	1	1	24G	100G	0
DR	OEM	1	1	24G	100G	0
DR	Web Tier	2	2	16G	100G	0
DR	OMSS	1	4	24G	100G	0
DR	RUEI	1	7	24G	100G	0
DR	Identity Governance	1	1	24G	100G	0
DR	Access Management	1	2	32G	100G	0
DR	Directory Service	1	2	32G	100G	0
PROD	Database	1	4	32G	100G	200G
PROD	Audit Vault	1	2	24G	100G	0
PROD	Key Vault	1	1	24G	100G	0
PROD	SOA, BPM, EDI	2	2	48G	100G	0
PROD	WebCenter, MAF	2	2	48G	100G	0
PROD	OAG	2	2	32G	100G	0
PROD	Data Integrator	2	2	48G	100G	0
PROD	OPA	2	2	24G	100G	0
PROD	BIP	2	1	24G	100G	0
PROD	OEM	2	1	24G	100G	0
PROD	Web Tier	4	2	16G	100G	0
PROD	OMSS	1	4	24G	100G	0
PROD	RUEI	1	12	24G	100G	0

PROD	Identity Governance	2	1	24G	100G	0
PROD	Access Management	2	2	32G	100G	0
PROD	Directory Service	2	2	32G	100G	0

7. Provide access to the following systems required for the creation of real time interfaces as follows:

No.	System	Associated Project Environments	Access Mode *(R,W,R/W)	Description
1	Active Directory	All	R	User store

*R=Read, W=Write, R/W=Read/Write

8. Provide access to the libraries necessary to perform the services (e.g., code), including merging of the libraries (e.g., code path changes), and migrating of libraries (e.g., code path) between all environments.
9. Be responsible for maintaining, administering, and supporting the relevant libraries.
10. Ensure that the system and its environments comply with your security guidelines, and all applicable governmental regulations.
11. Be responsible for reconstruction/restoration of any lost or altered files, data, and programs.
12. Provide a backup of each environment on a schedule agreed to by you and Oracle.
13. Be responsible for the installation, configuration, maintenance, and management of any and all third party products.
14. Provide the following support and response times for infrastructure-related issues:
 - a. Normal business hours support with response time within four (4) hours of the time the issue arises, during the Elaboration Phase.
 - b. Normal business hours support with response time within four (4) hours of the time the issue arises, during the Construction Phase.
 - c. Extended business hours support with response time within two (2) hours of the time the issue arises, during the Testing Phase, where extended

business hours will be agreed to, in advance of testing, between you and Oracle to cover all periods of active testing.

- d. Extended business hours support with immediate response during the Transition Phase where extended business hours will be agreed to, in advance of transition, between you and Oracle to cover all periods of active production environment setup, production data load, and UAT testing.
- e. Inception Phase Responsibilities:
 1. Provide access to the full set of flat file extracts from the three (3) source systems that represent Assessor Roll.
 2. Provide flat file specifications for update extracts to legacy system for data changes coming from Property Data Change Request process and from Trending.
 3. Provide specifications for current employee Microsoft Active Directory.
- f. Elaboration Phase Responsibilities:
 1. Define all alternative and exception paths for BPM processes.
 2. Design process to update legacy system from update extract flat files.
 3. Provide access to non-production employee Microsoft Active Directory.
- g. Construction Phase Responsibilities:
 1. Contribute to any necessary end user documentation, including, but not limited to documenting specific business practices and data examples and organization/end-user specific policies and procedures.
 2. Assess process and system compliance for the system created under this Work Order with any audit and control requirements.
 3. Maintain your directory of users (e.g., Microsoft Active Directory, Oracle Internet Directory, etc.) and apply all changes necessary to support the performance of services.
 4. Build and test legacy system flat file update processes.
 5. Create a link from the existing Assessor web site to provide external access to the Property Data Change Request process
- h. Transition Phase Responsibilities:
 1. Perform any and all data cleansing, reconciliation and quality control.
 2. Perform all organizational change management activities including, but not limited to corporate communications, business process changes, and procedural or policy changes.
 3. Be responsible for all communications to any of your employees, contractors, and agents that are not on the project team.

4. Establish any necessary help desk procedures for supporting functionality described in this Work Order.
 5. Establish production/post-production support infrastructure, including but not limited to the infrastructure needed to report issues and defects, and to fix, test, migrate, and promote resolution of any such issues and defects.
 6. Provide access to your production employee Microsoft Active Directory.
- i. Testing Responsibilities:
1. Be responsible for the following test types and testing activities described in the associated table columns:

No.	Test Type	Create Test Plan	Create Test Scenarios	Perform Testing	Review Test Results
1	Unit	No	No	No	Yes
2	System (Functional)	Participate	Participate	Participate	Yes
3	Systems Integration	Participate	Participate	Participate	Yes
4	User Acceptance Testing	Yes	Yes	Yes	Yes
5	Performance Testing	Participate	Participate	Participate	Yes

- j. Training Responsibilities:
1. Prepare the end user training material and presentations identified in the Training Strategy.
 2. Provide all training of end-users according to the Training Strategy and Project Workplan.
 3. Deliver all end user training.
- k. ODI Responsibilities:
1. All activities that require the knowledge of the legacy source systems and / or modifications required to the source systems to implement the data integration will be the responsibility of LAC Assessor. This includes providing data extracts from the IBM Hierarchical Database / Information Management System (“IMS”) and IBM Relational Database 2 (“DB2”) data sources that shall be the source for ODI integration routines.
 2. All test data will be provided by you and available within sixty (60) days from project start date.
 3. Activities required to be performed on any source system including installation of any adaptors, data conversion activities, data cleansing, data validation and change data capture are part of the implementation will be performed by you

1. Project Management Responsibilities:

1. Designate an executive sponsor who shall represent you during the performance of services, ensure performance of your responsibilities under this Work Order, establish and maintain an active line of communication with the Oracle project manager during the performance of the services, both on an informal basis and in a formal steering committee capacity, and make timely decisions on your behalf on all relevant issues.
2. Designate a project manager who shall (i) oversee and ensure your performance of the obligations you are tasked with during the performance of services, and (ii) work directly with the Oracle project manager on a daily basis to support the performance of services.
3. Conduct the project with Oracle according to the finalized Project Management Plan.
4. To facilitate the project, you must take the required action within the Maximum Turnaround Time on the specified Oracle Request Type listed in the table below. In the event that taking the required action is impracticable due to special circumstances, you and the Oracle project manager may mutually agree in writing to an alternative timeframe. If no mutual agreement as to an alternative time frame can be reached within two (2) business days of the end of the Maximum Turnaround Time, any impact to the project will be subject to the Change Order Process, Section 7.3 of the MSA.

Oracle Request Type	Your Maximum Turnaround Time (Business Days)
Review of Specifications or Non-Deliverable Document	Two (2)
Testing Feedback	One (1) or less
Requests for documentation on Systems and Processes	Five (5)
Requests for information on Systems and Processes	Five (5)
Requests for Meetings	Two (2)

5. Establish a project management steering committee to meet not less than monthly or upon the completion milestones for major activities in the project as set forth in the Project Work Plan, or when determined necessary by the

steering committee to review process and resolve issues. Ensure that your executive sponsor is a member of the project management steering committee.

6. Distribute project documentation or correspondence to your project stakeholders not directly involved with the project.
7. Provide an escalation process for management of the project or accept the proposed Oracle issue resolution process as defined in the Project Management Plan.
8. Your and the Oracle project managers will work together to revise the Project Workplan including resource loading and assessing potential scope changes according to the project scope management process and procedures as defined in the Project Management Plan, and report the impact and recommended next steps to your and Oracle's executive sponsors.
9. Be responsible for the contractual relationships with third party contractors and for directing such third parties to fully cooperate with Oracle, and the project team, as and when required by Oracle.

You acknowledge that your failure to meet, in a reasonable manner, the responsibilities listed above may result in increased costs and delays in completion of the obligations under the Agreement, and that Oracle will be entitled to pursue a Change Order to give account to such delays and increased costs, provided however, that Oracle further acknowledges its duty to endeavor to mitigate the impact of such failures.

2. Project Assumptions:

a. General Assumptions:

1. A person day is defined as one (1) person working up to eight (8) hours.
2. Oracle standard documentation format will be used for any documentation prepared and / or delivered during the performance of the services.
3. Services will be performed at 500 West Temple Street, Los Angeles, California or in other County facilities in the Los Angeles area.

b. Specific Project Assumptions:

1. Project timeline/duration is currently expected to be 12 months from start date.
2. All functionality will be created using English only.
3. All monetary values will use US dollars.
4. Design and implementation decisions made during an earlier phase of the services, (e.g., requirements specifications or design specifications identified during Inception and/or Elaboration phase) will be the basis for subsequent design and implementation tasks. Changes to such decisions will be subject to the Change Order Process, Section 7.3 of the MSA.
5. Oracle will make reasonable efforts to provide you publicly available reference architecture/blue prints for Oracle's technologies as requested.

6. Performance goals for the implementation are heavily dependent on technical architecture and hardware. Oracle does not warrant the performance of the servers, networks, or other hardware elements.
7. At Oracle's discretion, Oracle may assist you with your review of third party technology that may interact with the Oracle technology that is the subject of the services, provided, however, that you acknowledge and agree that (i) you must acquire any appropriate license rights necessary for Oracle to provide such assistance on your behalf, (ii) you will independently obtain and review the product and other documentation published by the third party technology provider, (iii) Oracle has no specific knowledge about, expertise in, or experience with third party technology, and (iv) notwithstanding any statement or interpretation to the contrary, any such assistance provided by Oracle is provided without warranty of any kind.
8. Any issues with Oracle staffing will be dealt with promptly as per Section 68, Dispute Resolution Procedure, as defined in the MSA.
9. If termination of work defined under this Work Order is necessary, termination procedures outlined in Sections 25 through 28 of the MSA will be followed.
10. Modification/upgrades/changes to the target Oracle base software versions for use on the project once identified must be mutually agreed to.
11. Oracle will install any new critical patches released over the duration of the project that are mutually agreed to.
12. All workshops will take place at a single location for all participants.
13. Customer may include observers in workshops that do not have active or participatory role for information purposes only.
14. Customer may record workshops not containing material subject copyright for internal LA County use only.
15. Customer may choose to deploy first to PROD environment, then secondarily to STAGE during initial and first deployment for tuning and configuration refinement purposes.
16. Mentoring workshops are bound person days. Duration, frequency and scheduling of mentoring workshops can be partial days and will be mutually agreed to by Oracle and Assessor PM.
17. Mentoring workshops are bound by person days and are exclusive of effort required to prepare material for workshops.
18. Final versions of installed software will be reviewed with customer before software installation.
19. PMP is a "living document" where the content of the plan may be updated over the duration of the project to reflect updates concerning risk management, issue management, quality management and other respective components of the PMP.

20. OUM/Agile workshops limited to two (2) person days.
21. The details of the workshops specifically the time and location will be mutually agreed to by LAC and Oracle.

c. Fee Estimate Assumptions

Anything not expressly specified in the description of services section of this Work Order is out of scope and not included or priced into the services to be performed under this Work Order. Any request to modify the scope of services will be subject to the Change Order Process, Section 7.3 of the MSA. Specific items that are out of scope include, without limitation, the following:

1. Backup and Recovery activities.
2. Disaster Recovery architecture planning, configuration, fail over testing.
3. Organizational change management.
4. Hardware installation, configuration and/or testing.
5. Non-Oracle software installation, configuration, development and/or testing.
6. Network installation and/or configuration, performance/tuning issues related to network architecture.
7. Security specific exclusions:
 - a. Custom reporting.
 - b. Bulk operations and custom workflows.
 - c. Callouts to external systems or services; e.g., to validate external user against 3rd party systems during registration.
 - d. Delegated administration for external users.
 - e. Custom user interface for user registration.
 - f. Integration with Oracle Adaptive Access Manager.
 - g. Provisioning and patching of IDM targets via OEM.

d. OPA specific exclusions:

1. OPA generated documents.
2. Time-based (retroactive event) reasoning within the Rulebase.
3. Creation of any custom functions for the Rulebase.
4. Preparation of workflow process rules.
5. Direct access to LAC Assessor data sources.

e. OEM specific exclusions:

1. Customization of alerts, notification & integration with 3rd party tools.
2. Reports from BI interface.
3. Incident Management.

4. Customized dashboard and reports not identified.
- f. Infrastructure Assumptions:
1. Updated environments may require new or upgraded components.
 2. The standard *Installation Instructions* provided by metalink.oracle.com or technet.oracle.com for all Oracle software products referenced in this Work Order will be incorporated into the *Installation Instructions* document.
 3. High Availability is limited to Staging and Production environments up to four (4) nodes.
 4. Oracle will validate environment prior to install and provide a list of necessary Oracle patches.
- g. Production Phase Assumptions
1. At Oracle's discretion, Oracle may assist you with modification of functionality during the Production Phase. However, any such assistance will cease once the Production Phase ends, regardless of whether any particular tasks with which Oracle is providing assistance is complete.
- h. ODI Assumptions:
1. Complexity of the data integration routines are defined as below:
 - a. Easy Complexity – Data integration routines that require no transformations. These are typically routines that source from relational structures and write into relational structures and may take up to two (2) days to create and are built using standard knowledge modules.
 - b. Medium Complexity – Data Integration routines that require transformations which may include temporary staging of data before writing into the target structures. The source and target data structures are completely different but knowledge modules may exist to transform the data from the source to the target data model. These may take up to six (6) days to create.
 - c. High Complexity – The highly complex routines may require complex transformations of data between the source and target data structures, customizations to knowledge modules, data audit steps, external process triggers and may take around ten (10) person days to complete.
 2. Documentation of existing legacy data points are limited to the information provided by your staff and the scope defined by the ETL Mappings that are included in project scope.
 3. Assessor Roll comparison tool variance calculation will require a PL/SQL routine of medium complexity.
 4. A medium complex PL/SQL routine will not include any statistical calculations and will take less than thirty-two (32) hours to create and unit test.
- i. Security Assumptions:

1. Oracle does not imply, state or make any obligation that the LAC Assessor will be certified to meet any regulatory or fiduciary requirements or responsibilities from the work, products, or recommendation that are provided to LAC Assessor from Oracle for the AMP project. Oracle will provide Oracle leading practices and work with the LAC Assessor to determine the security controls that LAC Assessor will implement for the LAC Assessor desired security profile.
2. The technical architecture will use a standard Oracle reference architecture.
3. A single unique identifier exists and is the same in all LDAP and Active Directory environments (example, userid or email address).
4. An existing Oracle database will be utilized to deploy and contain the database schemas for this solution.
5. Active Directory is the authoritative source for internal users.
6. This is a net new implementation for external users, and there is no need to bulk load or migrate external users from external data stores into OIM.
7. Standard functionality OIM user interface will be used to register external users. External users will be re-directed from Portal to the OIM UI for self-registration.
8. Active directory is the authentication store for Mobile Security.
9. User authentication will use user ID and password.
10. Mobile Security Suite is protecting only one (1) custom mobile application created using Oracle's mobile application framework.
11. Mobile Security Suite deployment is for internal users only.
12. All the mobile devices will be iOS based devices.
13. All external users will be provisioned to a separate OID instance.
14. There are no more than two (2) Active Directory Domains.
15. External User ID will be auto-generated in OIM, during user self-registration.
16. There are no more than three (3) enterprise roles defined for external users.
17. There are no defined enterprise roles for internal users.
18. Disaster Recovery is assumed to be an active-passive deployment.
19. ASO Transparent Data Encryption will be configured for tablespace encryption. No column only encryption will be used.
20. A maximum of four (4) tablespaces will be encrypted for each of the six (6) in scope databases.
21. One database will be configured for non-production Audit Vault and Database Firewall ("AVDF") in the DEV, TEST, TRAIN, and STAGE environments.
22. One (1) database will be configured for production AVDF in the PROD and in the DR environments.

23. Up to four (4) sources will be configured for auditing for the in scope database.
 24. Up to twenty-five (25) event triggers and twenty-five (25) alerting policies will be configured for the in scope databases for Audit Vault.
 25. Up to twenty-five (25) White List and twenty-five (25) Black List policies will be configured for the in scope databases for Database Firewall.
 26. Client has performed hardware sizing based on current and anticipated workloads to meet client specific performance requirements.
- j. Oracle Policy Automation Assumptions:
1. The base year value and trend calculations required are fully described in the ninety-three (93) pages of source rule description referenced in the SOS Exhibit B3.
 2. For base year value trend calculation purposes, the property value component data model involves no more than seven (7) distinct entities.
 3. Oracle will provide the version control repository for the Rulebase.
- k. Oracle Enterprise Manager Assumptions:
1. HA/RAC environments consist of up to four (4) nodes per cluster.
 2. Oracle Management Server (“OMS”) will co-exist on the OEM repository database servers, and not deployed on separate hardware.
 3. There is only one (1) Enterprise Manager (“EM”) environment to install and configure.
 4. The Database (“DB”) Server pools/zones, DB templates and Security model have been identified for Database provisioning.
- l. SOA/BPM/WebCenter Assumptions:
1. Complexity of BPM processes are defined as below:
 - c. Easy Complexity – Up to seven (7) process activities, including up to three (3) web pages/forms each with no more than ten (10) form elements. Processes may include up to two (2) web service integrations.
 - d. Medium Complexity – Up to fifteen (15) process activities, including up to ten (10) web pages/forms each with no more than fifteen (15) form elements each. Processes may include up to five (5) web service integrations.
 - e. High Complexity – More than fifteen (15) process activities, including more than ten (10) web pages/forms each with no more than twenty (25) form elements. Processes may include up to ten (10) web service integrations.
 2. BPM process(es) will provide basic exception handling of system errors to include logging the exception in server and/or application logs and providing a user-friendly error message to the User Interface.

3. Web service creation does not include OWMS security policy implementation.
 4. BPM forms will provide client side validation of data input limited to type, length, and format of the data submitted.
 5. BPM process task details will be limited to default metadata attributes.
 6. The Assessment Value Calculation Application web service request to OPA to calculate a property's proposed assessment value will contain no more than twenty-five (25) data attributes in the request.
 7. The Assessment Value Calculation Application web service response from OPA will contain no more than twenty-five (25) data attributes in the payload.
 8. Editable fields on all forms created in Phase 1 will be determined during requirements and design elaboration.
- m. Oracle Web Center Portal assumptions:
1. The assessor portal will not be designed to support internationalization.
 2. WebCenter Portal will be directly accessible internally by County staff.
 3. WebCenter Portal will be accessible externally by Citizens through a link on the existing County web site.
 4. All document access of existing stored documents will be limited to viewing existing documents only.
 5. EMC2 Documentum will be used to store all documents and attachments for all AMP functionality using existing Documentum REST services
 6. LAC Assessor will provide all mobile devices used for testing Appropriate development agreements should be signed with Apple and Google for custom application development / distribution.
- n. Mobility Assumption
1. Mobile applications will use OMSS containers and secure network connections.
 2. LAC Assessor will be responsible for deploying any mobile applications into production use.
- o. Testing Assumptions:
1. Testing will be done from your workstations or Oracle laptops that can access project servers.
 2. Test results will be managed, tracked, and reported from a central bug tracking system or list.
 3. You and Oracle will agree on test cases during the Elaboration Phase. These test cases will only represent core product and use case functionality.

4. Oracle will only address identified issues with functionality and/or documentation that arise during testing and directly from Oracle obligations specified in the description of services in this Work Order.
5. During unit, system, system integration, performance or user acceptance testing, defects will be recorded and classified according to the following table and the procedure specified under the table:

Level	Category	Description
1	Sev1	Essential Business Process Affected - Any highly critical system or service outage that results in loss or severe degradation of business processes and/or capabilities defined as “must have” in the finalized requirements, and for which there is no acceptable workaround. (Availability of workaround renders it “Sev2”).
2	Sev2	Part of an Essential Business Process or Workgroup Affected - Degradation of system or service performance that impacts end user service quality or significantly impairs business process control or operational effectiveness for functionality defined as “must have” in the finalized requirements, but for which there is an acceptable workaround.
3	Sev3	Non-Essential Business Process or Workgroup or Individual Affected - Minor degradation of system or service performance that does not have any impact on end user service quality. These are typically cosmetic defects.
4	Doc	Documentation Defect Error or omission in document.

6. Both you and Oracle may record and classify defects according to the levels in the above table. In the event of a disagreement about the classification level of a defect, you and Oracle will escalate the issue to project executives.
7. You and the Oracle project manager will review recorded defect levels during testing and, upon mutual agreement, may change the level of any defect.
8. Completion of unit, system, system integration, performance or user acceptance testing occurs when:
 - a. Identified Sev1 and Sev2 defects related to items tested during such testing have been addressed by Oracle as of the date the final items is made available to you, and
 - b. Oracle has identified a plan for addressing other related defects in such item.
9. Readiness for production use is achieved upon completion of unit, system, system integration, performance or user acceptance testing.

10. Performance Testing will occur in your STAGE environment.
 11. Oracle will develop functional test scripts for up to ten (10) use cases identified in the Test Plan.
 12. Development of load test scripts will be limited to the ten (10) functional test scripts.
 13. Performance metrics and/or SLAs have not been defined. Oracle will be operating under the premise of “Oracle Recommended Practices” for the Performance Assessment.
 14. For all performance testing scenarios executed in OATS, Oracle assumes the achievement of the following metric as a successful performance test:
 - a. Page load time of no more than five (5) seconds with up to one thousand five hundred (1500) concurrent users, as related to Oracle product functionality.
 15. Performance testing activities may include any of the following:
 - a. Generation and execution of functional test scripts using Oracle Functional Testing
 - b. Generation and execution of load test scripts using Oracle Load Testing
 - c. Generation and execution of ETL process performance tuning.
 - d. Configuration and implementation of load test profiles using Oracle Load Testing
 - e. Configuration of test data files to support load testing using Oracle Load Testing
 - f. Implementation of test plans using Oracle Test Manager
 - g. Configuration of OEM diagnostics and tuning packs, and other automated capabilities
 - h. Execution of standard Automated Workload Reports (AWR) from the database.
 - i. Integration of RUEI with Oracle Functional Testing
 16. Performance tuning activities may include the configuration of web, application, and database tier components.
 17. Any changes to the above process and standards will be subject to the Change Order Process, Section 7.3 of the MSA.
- p. Documentation Assumptions:
1. All written documentation and communication will be done in U.S. English. A document deliverable is a document in Microsoft Word 2007 or Microsoft Excel 2007 format and consists of both one (1) printed copy and one (1) electronic copy.

2. A project plan deliverable is a document in Microsoft Project 2007 format and consists of both one (1) printed copy and one (1) electronic copy.
 3. A diagram deliverable is a document in Microsoft Visio 2007 format and consists of both one (1) printed copy and one (1) electronic copy.
 4. A presentation deliverable is a document in Microsoft PowerPoint 2007 format and consists of both one (1) printed copy and one (1) electronic copy.
 5. User Guide will be created as an electronic pdf document and WORD that can be used as on-line help.
 6. Oracle will follow a process to provide drafts of Deliverable documents in advance of the finalized document.
- q. Training Assumptions:
1. Train-the-trainer training will be provided at a single location for all your trainers.
 2. Oracle's train-the-trainer training means assisting your trainers with how to document the use of the Oracle custom software in training materials prepared by your trainers.
 3. Training material will be based on existing functional use and test cases and will not include any material not covered in the requirements document.
- r. Project Management Assumptions:
1. Oracle's OUM Project Management Method ("PJM") will be used to manage the project.
 2. Scope control (change management) and document review will be performed using Oracle's standard processes and documented in the Project Management Plan.
 3. You and Oracle will work together to resolve project issues as specified in the Project Management Plan. Based on the tight timeframe, project issues must be resolved in a timely manner (24 hours for critical issues, 48 hours for less critical issues). Failure to resolve issues in accordance with the Project Management Plan and in a timely fashion may have an impact on the project schedule and/or price.
 4. You and Oracle will work together to review and mutually agree upon the baseline Project Workplan, including schedule timeframes, tasks, and resource assignments within two (2) weeks after the project start date.
 5. With mutual agreement, you and Oracle may alter the baseline Project Workplan, including the schedule. Finalized changes to the baseline Project Workplan will be saved as the new baseline Project Workplan. Any changes to the Project Workplan that affect the effort or fees will be subject to the Change Order Process, Section 7.3 of the MSA.
 6. Oracle will at its sole discretion determine the number and manner in which resources are assigned to perform the services described in this Work Order.

7. Oracle may assign or release a specific project resource, or may assign different resources, at different times, to a project task.
 8. If you assign resources to the project, those resources will represent you and will be empowered to make decisions on your behalf.
 9. Oracle is not responsible for any deficiencies in services performed by non-Oracle resources, or any delays attributable to the performance of non-Oracle resources.
 10. Your and Oracle's project managers will establish periodic project reviews to monitor scope, budget, and timeline of the services.
 11. You must answer implementation questions that Oracle presents in writing to your project manager within three (3) business days of the date you receive the questions. If you do not, Oracle reserves the right to make, and document, decisions to keep the project moving forward. Subsequent requests to change those decisions will be subject to the Change Order Process, Section 7.3 of the MSA.
- s. Scope Management Assumptions: This section defines how scope will be managed including change order processes and acceptance criteria. The process and format for addressing your requirement for deliverables using the Deliverable Expectation Document will be defined here including your review process then included in the project schedule for all deliverables.

1. Deliverables Expectations Document ("DED"):

All deliverables will be prepared in the form and format agreed to by you and Oracle using a Deliverables Expectations Document. No work will be performed on any deliverable associated with a payment milestone until the DED has been approved by LAC Assessor. As each deliverable is submitted, Oracle will include a copy of the approved DED as the cover sheet.

2. During the DED creation process Oracle will:

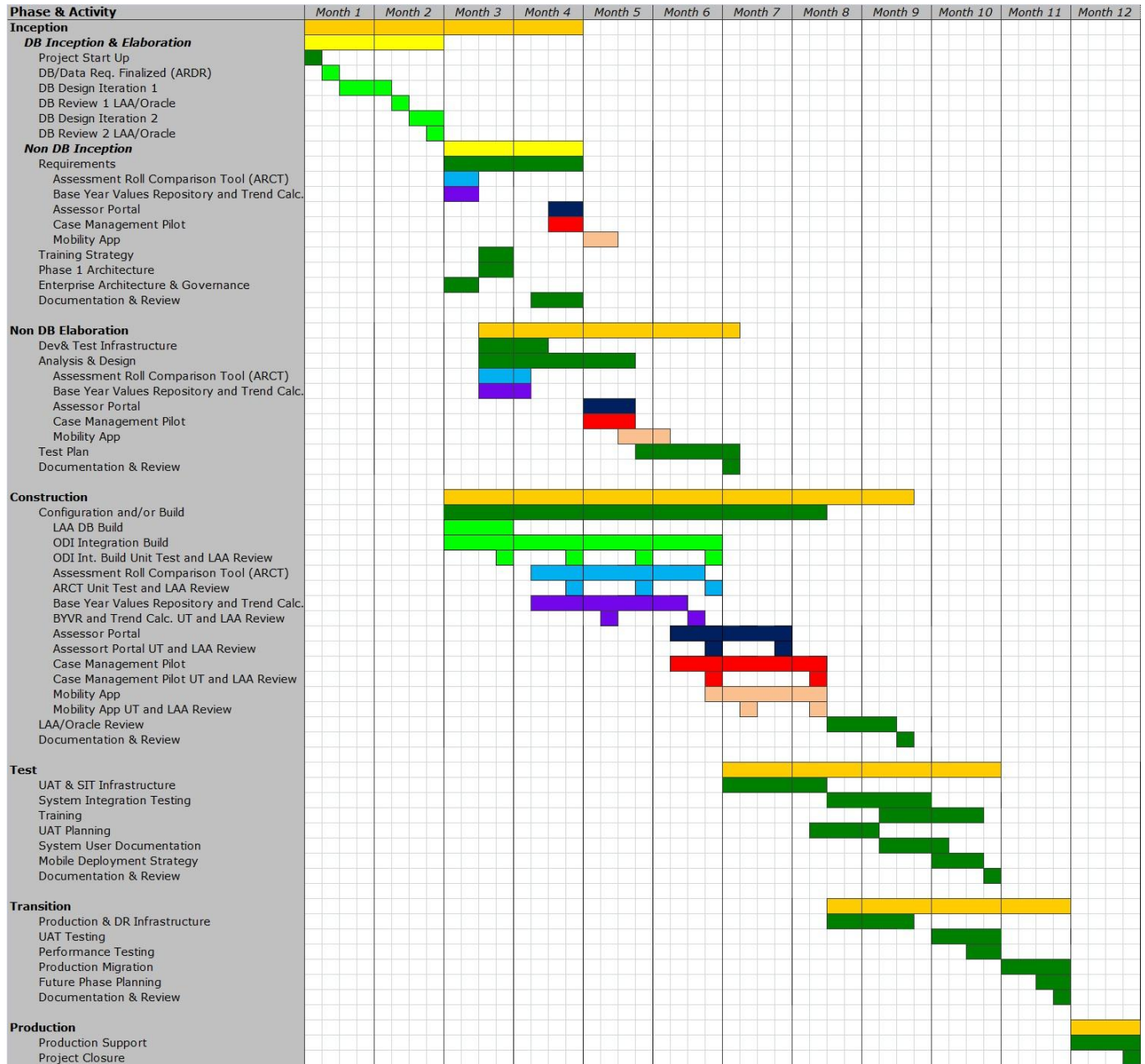
- a. Prepare agendas, and coordinate scheduling with you, for all necessary events (e.g., workshops, meetings) for the production of the deliverable.
- b. Facilitate events (e.g., workshops, meetings) as required for the creation of each deliverable.
- c. Record and analyze the input received from all events (e.g., workshops, sessions, and meetings,) and distribute results or minutes for review to event participants.
- d. With respect to documents identified in the DED, as part of the Workplan, the parties will endeavor to schedule, if and as appropriate, the delivery of draft documents to enable a preliminary review.
- e. Provide a structured process for you to provide feedback on drafts, including review meeting or other events, as appropriate.

- f. Compile and incorporate your feedback to the draft deliverable and prepare a revised deliverable.
 - g. Distribute the revised deliverable to you for review; obtain and analyze your feedback as above, and repeat if necessary.
 - h. Complete a final version of the deliverable and DED that both parties agree to.
3. Acceptance of all deliverables is defined in the Work Order Submission Form under Work Order Acceptance Definition (FP only).

You acknowledge that any change or alteration of the assumptions above may alter the estimated project scope including, but not limited to the approach, resources, staffing levels, cost, and schedule and shall be subject to the Change Control Process, Section 7.3 of the MSA. The assumptions are integral to the estimated scope and associated fees.

ATTACHMENT 2

HIGH LEVEL PROJECT TIMELINE



**AMENDMENT NUMBER EIGHT
TO
MASTER SERVICES AGREEMENT
BY AND BETWEEN
THE COUNTY OF LOS ANGELES
AND
ORACLE AMERICA, INC.
FOR INFORMATION TECHNOLOGY SERVICES**

**AMENDMENT NUMBER EIGHT TO
MASTER SERVICES AGREEMENT BY AND BETWEEN
THE COUNTY OF LOS ANGELES AND
ORACLE AMERICA, INC. FOR
INFORMATION TECHNOLOGY SERVICES**

This Amendment Number Five to Master Services Agreement for Information Technology Services (“Amendment No. 8”) is entered into as of _____ day of June, 2015 by and between the County of Los Angeles, a political subdivision of the State of California, (“County”), and Oracle America, Inc., a Delaware corporation (“Contractor”), with references to the following facts.

RECITALS

WHEREAS, County and Contractor entered into that certain Master Services Agreement for Information Technology Services, which was approved by the County’s Board of Supervisors on February 20, 2007 and modified by all Amendments thereto, including without limitation this Amendment Number Eight (the “Agreement”).

WHEREAS, the parties now wish to further amend the Agreement in order to increase the Maximum Contract Sum.

NOW, THEREFORE, pursuant to Paragraph 10 (Change Notices and Amendments) of the body of the Agreement and in consideration of the mutual covenants of the parties contained herein, County and Contractor agree to amend the Agreement as follows:

1. The Agreement is hereby incorporated by reference, and all of its terms and conditions, including capitalized terms defined therein, shall have full force and effect as if fully set forth herein.
2. Paragraph 12.2 of the body of the Agreement is hereby deleted in its entirety and replaced by the following new Paragraph 12.2 to read as follows:

"12.2 The "Maximum Contract Sum" shall be the total monetary amount payable by County to Contractor for supplying Services under this Agreement. The total amount which may be paid by County during each calendar year (January 1 through December 31) of the term of this Agreement, including all applicable taxes, authorized by County shall not exceed (i) three million dollars (\$3,000,000) for each of calendar years 2007, 2008, and 2009; (ii) four million dollars (\$4,000,000) for calendar year 2010; (iii) three million dollars (\$3,000,000) for each of calendar years 2011 and 2012; (iv) twelve million dollars (\$12,000,000) for calendar year 2013; (v) eleven million dollars (\$11,000,000) for calendar year 2014; (vi) and seventeen million dollars (\$17,000,000) for calendar year 2015, provided that the Agreement is extended beyond the current expiration date into calendar year 2015.

3. In all other respects, the Agreement, as amendment under all prior Amendments and this Amendment No. 8, shall remain in full force and effect.

IN WITNESS WHEREOF, Contractor has executed this Agreement or caused it to be duly executed, and the County of Los Angeles, by order of its Board of Supervisors has caused this Agreement to be executed on its behalf by the Chairman of said Board and attested by the Executive Officer-Clerk of the Board of Supervisors thereof, the day and year first above written.

COUNTY OF LOS ANGELES
CHIEF INFORMATION OFFICER

By _____
RICHARD SANCHEZ

CONTRACTOR: ORACLE AMERICA, INC.

By: _____
Signature

Print Name

Title

APPROVED AS TO FORM:

MARK J. SALADINO
County Counsel

By _____
EDWARD YEN
Deputy County Counsel

