REQUEST FOR COUNCIL ACTION
CITY OF SAN DIEGO

TO: CITY COUNCIL
FROM (ORIGINATING DEPARTMENT): Dept of Information Technology
DATE: 4/27/2017

SUBJECT: Authorization to Execute Change Order 1 to the Agreement with SAP Public Services, Inc. for Geospatial Enablement Engineered Services (GEF-GEO.e) for the Infrastructure Asset Management (IAM) San Diego Project

PRIMARY CONTACT (NAME, PHONE):
Erin Noel, 619-533-3640, 58P
SECONDARY CONTACT (NAME, PHONE):
Becky Weber, 858-614-5716, 901A

COMPLETE FOR ACCOUNTING PURPOSES

<table>
<thead>
<tr>
<th>FUND</th>
<th>FUNCTIONAL AREA</th>
<th>COST CENTER</th>
<th>GENERAL LEDGER ACCT</th>
<th>WBS OR INTERNAL ORDER</th>
<th>CAPITAL PROJECT No.</th>
<th>AMOUNT</th>
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<tr>
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<td>See attached</td>
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COST SUMMARY (IF APPLICABLE): See attached accounting.

Original Contract Amount: $773,011.72

Performance of Contract Scope of Services for Change Order 1: $699,902.00
Contingency: $147,291.37
Total: $847,193.37

Total Contract amount: $1,620,205.09

ROUTING AND APPROVALS

<table>
<thead>
<tr>
<th>CONTRIBUTORS/REVIEWERS:</th>
<th>APPROVING AUTHORITY</th>
<th>APPROVAL SIGNATURE</th>
<th>DATE SIGNED</th>
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<tbody>
<tr>
<td>Environmental Analysis</td>
<td>Equal Opportunity Contracting</td>
<td>ORIG DEPT.</td>
<td>Behnke, Jonathan</td>
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<td>Financial Management</td>
<td>CFO</td>
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<td>Comptroller</td>
<td>DEPUTY CHIEF</td>
<td>Villa, Ron</td>
<td>05/18/2017</td>
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<td>Public Utilities</td>
<td>COO</td>
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<td>Liaison Office</td>
<td>CITY ATTORNEY</td>
<td>Lastomirsky, Steve</td>
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<td></td>
<td>COUNCIL</td>
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PRESIDENTS OFFICE

| PREPARATION OF: | □ RESOLUTIONS | □ ORDINANCE(S) | ☒ AGREEMENT(S) | □ DEED(S) |

1. Approve the resolution to authorize the Mayor or his designee to execute Change Order 1 to the agreement between the City of San Diego and SAP Public Services, Inc. for Geospatial Enablement Engineered Services to increase the total contract amount by up to an additional $847,193.37 for a total contract amount not to exceed $1,620,205.09 and as otherwise modified pursuant to the terms and conditions contained in the agreement modified by Change Order 1 on file with the City Clerk as Document No. RR-____________________________;

2. Authorize the Chief Financial Officer to expend an additional amount not to exceed $847,193.37 from CIP S14000 (IAM San Diego Project), of which $254,158.01 is from CIP Project Lease Financing, Fund 200724; $225,353.44 is from Muni Sewer Utility CIP, Fund 700008; $130,467.77 is from Metro Sewer Utility CIP, Fund 700009; and $237,214.15 is from Water Utility CIP, Fund 700010; for the purpose of funding Change Order 1 to the agreement with SAP Public Services, Inc. for Geospatial Enablement Engineered Services (GEF-GEO.e), contingent upon the City Comptroller furnishing one or more certificates certifying that the funds necessary for expenditure are, or will be, on deposit with the City Treasurer.

STAFF RECOMMENDATIONS:
Adopt the resolution.

SPECIAL CONDITIONS (REFER TO A.R. 3.20 FOR INFORMATION ON COMPLETING THIS SECTION)

<table>
<thead>
<tr>
<th>COUNCIL DISTRICT(S):</th>
<th>N/A</th>
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<tbody>
<tr>
<td>COMMUNITY AREA(S):</td>
<td>N/A</td>
</tr>
<tr>
<td>ENVIRONMENTAL IMPACT:</td>
<td>This activity is not a &quot;project&quot; as defined in CEQA Guidelines Section 15378 because it involves execution of a contract, which, on its own accord, will not cause a significant environmental impact. As such, this activity is not subject to CEQA pursuant to Section 15060(c)(3).</td>
</tr>
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</table>

CITY CLERK INSTRUCTIONS:
Upon Council approval, please forward two (2) copies of the 1472 and Resolution(s) to Becky Weber, at Public Utilities Dept, Asset Management Program, MS 901A, and one (1) copy of the 1472 and Resolution to Michael Pelayo, at Comptrollers, MS6A.
DATE: 4/27/2017
ORIGINATING DEPARTMENT: Dept of Information Technology
SUBJECT: Authorization to Execute Change Order 1 to the Agreement with SAP Public Services, Inc. for Geospatial Enablement Engineered Services (GEF-GEO.e) for the Infrastructure Asset Management (IAM) San Diego Project
COUNCIL DISTRICT(S): N/A
CONTACT/PHONE NUMBER: Erin Noel/619-533-3640, 58P

DESCRIPTIVE SUMMARY OF ITEM:
Council authorization to award Change Order 1 to the Agreement with SAP Public Services, Inc. (SAP) for Geospatial Enablement Engineered Service (GEF-GEO.e) for the Infrastructure Asset Management (IAM) San Diego Project. The services are needed to enable business process master data (functional location, equipment) with geospatial capabilities in order to present the spatial location of the data and perform spatial analysis. The Geo-enabled solution will also integrate geographic data with business process and transactional data. This will enable efficient processes and improved decision-making.

STAFF RECOMMENDATION:
Adopt the resolution.

EXECUTIVE SUMMARY OF ITEM BACKGROUND:
The City owns and maintains billions of dollars of infrastructure assets, like streets, storm drains, and water and sewer mains. The City is conducting the Infrastructure Asset Management (IAM) San Diego Project, a citywide strategic initiative to develop and implement an integrated SAP-based software solution to improve the City’s management of infrastructure assets. The IAM system will help the City address infrastructure-related challenges, including aging and deteriorating assets and a backlog of deferred maintenance and capital projects. IAM will transform the way the City prioritizes, plans, and delivers needed maintenance and capital projects to proactive asset lifecycle management.

The City has identified the IAM San Diego Project as a critical step toward full replacement of existing disparate and outdated maintenance management systems within the Phase 1 participating Departments of Information Technology, Public Utilities, Public Works and Transportation & Storm Water. In total, the Project is anticipated to replace 32 applications, and will equip City staff with state-of-the-art technology to support their work, including mobile work management solutions. Phase 2 of IAM San Diego is planned as a phased rollout over four fiscal years (FY 2019-2022) to five additional asset managing departments (Library, Police, Fire-Rescue, Environmental Services and Park & Recreation).

The SAP-based IAM solution will enable the City to integrate Asset Management business processes and data with other processes within Finance, Accounting, Controlling, Human Resources, Procurement, Inventory Management, Warehouse Management, and Sales and
Distribution. This will leverage the significant investments the City has made in the SAP system and enable major benefits to the IAM solution from the inherent out-of-the-box integration.

The Project will be implemented over three fiscal years (FY 2016-2018) and is currently in the Testing phase. The total approved project budget over the three-year period is $54.2 million. Key milestones include the initiation of business process consulting services in December 2015 and the onboarding of the Systems Integrator in May 2016. During Fiscal Year 2017, the Systems Integrator conducted and completed design and integration workshops with City staff to develop the “to be” solution and began testing in April. The Project also launched its proof of concept (POC) for the Asset Management Planning component of the system for right-of-way assets in February 2017.

As part of the IAM San Diego Project, the City is procuring a geographical enabled (Geoenabled) solution that will enable business process master data (functional location, equipment) with geospatial capabilities in order to present the spatial location of the data and perform spatial analysis. This will enable efficient processes and improved decision-making. The Geo-enabled solution will also integrate geographic data with business process and transactional data. This will decrease operational risk and increase compliance.

The Project team (with approval from the Governance Committee) selected SAP GEO.e, an engineered solution for integration of SAP with Environmental Systems Research Institute (ESRI) Aeronautical Reconnaissance Coverage Geographic Information System (ArcGIS). The integration framework on which GEO.e is to be implemented is SAP Geographic Enablement Framework (GEF).

The Professional Services Agreement with SAP (SAP Reference No. 302414146) was authorized for a total cost of $773,011.72 in FY 2017. This was approved as a sole source procurement since SAP is the developer of GEO.e and the only vendor that can install and implement this solution. Also, GEF is a new product and SAP is the only vendor currently with the specific expertise to design and implement on GEF for the Project.

During the blueprint phase of this implementation, business requirements and implementation costs were further refined. Additional business requirements were also identified to ensure the IAM System will maintain functionality of geographically enabled work management systems being replaced. This includes specific functionality supporting replacement of Planning and Scheduling Tools (PSTools) for cleaning and maintenance of sewer mains and GeoSAP for planning and scheduling of street sweeping.

This action is for authorizing execution of Change Order 1 to the agreement with SAP (SAP Reference No. 302414146) to increase the total not to exceed amount by $847,193.37, from $773,011.72 to a total not to exceed cost of $1,620,205.09.

Change Order 1 includes a 10% contingency of $147,291.37 in order to proactively plan for risks and unknowns associated with large-scale IT implementations.
The increase in the total not to exceed amount by $847,193.37 is budgeted in the I AM San Diego Project budget.

CITY STRATEGIC PLAN GOAL(S)/OBJECTIVE(S):

Goal #1: Provide high quality public service.
Objective #2: Improve external and internal communication.
Objective #4: Ensure equipment and technology are in place so that employees can achieve high quality public service.

Goal #2: Work in partnership with all of our communities to achieve safe and livable neighborhoods.
Objective #3: Invest in infrastructure.

FISCAL CONSIDERATIONS:
The total not to exceed amount for Change Order 1 to this agreement is $847,193.37, of which $254,158.01 is from CIP Project Lease Financing, Fund 200724; $225,353.44 is from Muni Sewer Utility CIP, Fund 700008; $130,467.77 is from Metro Sewer Utility CIP, Fund 700009; and $237,214.15 is from Water Utility CIP, Fund 700010; and is contingent upon the City Comptroller furnishing one or more certificates certifying that the funds necessary for expenditure are, or will be, on deposit with the City Treasurer. The total not to exceed amount for the entire Agreement is $1,620,205.09.

EQUAL OPPORTUNITY CONTRACTING INFORMATION (IF APPLICABLE):
This agreement is subject to the City’s Equal Opportunity Contracting (San Diego Ordinance No. 18173, Sections 22.2701 through 22.2708 and Non-discrimination in Contracting Ordinance (San Diego Municipal Code Sections 22.3501 through 22.3517).

PREVIOUS COUNCIL and/or COMMITTEE ACTION (describe any changes made to the item from what was presented at committee):
An agreement for systems integrator consulting services for the I AM San Diego Project was approved by Infrastructure Committee on March 16, 2016 and City Council on April 5, 2016. An agreement for business process consulting services for the I AM San Diego Project was approved by Infrastructure Committee on September 16, 2015 and City Council on October 6, 2015. Previous updates on the Project were provided to Infrastructure Committee on July 22, 2015 and December 9, 2013.

COMMUNITY PARTICIPATION AND PUBLIC OUTREACH: N/A

KEY STAKEHOLDERS AND PROJECTED IMPACTS: N/A

Behnke, Jonathan
Originating Department

Villa, Ron
Deputy Chief/Chief Operating Officer
Exhibit 1

To
Global Service and Support Order Form
SAP Reference No. 302414146
effective January 16, 2017 (“Effective Date”)

Scope Document 1

Project Definition

This Exhibit 1 to the Statement of Work (SOW) addresses the Implementation Consulting Services required of the Project. It is mutually understood that business requirements, resources and dates may change subject to the applicable terms of this Statement of Work and that any such material change requested by Licensee or as a result of Licensee inability to provide agreed upon resources, fulfill applicable assumptions and to perform the Licensee Responsibilities set forth herein or the result of Licensee errors or omissions may result in a Change Request in accordance with the Change Request Procedure as defined in Exhibit 2.

Licensee is responsible for requesting changes to the requirements for Services. The SAP Project Manager shall assist in planning the Project, and quality checking the activities and progress. It is understood by SAP and the Licensee that any material changes to scope that are requested, will be addressed through a formal change request process. Material changes are those which specifically will impact budget, scope, timeline or resources.

1. Spatial Enablement Engineered Service Scope of Work

The scope of this Change Order to the Spatial Enablement Service (SES) comprises the following:

- Realization of the following integrations / functionalities:
  - a. GEF/GEO.e Integration with Master Data Governance (MDG)
  - b. GEF/GEO.e Integration with Mobile Work Manager (MWM)
  - c. GEF/GEO.e Integration with Multiple Resource Scheduling (MRS)
    - i. Integration with CalAmp AVL for Truck Locations
  - d. GEO.e functionality supporting PSTools Requirements
  - e. GEO.e functionality supporting Street Sweeping requirements
- 8 weeks support for ITC2
- 4 weeks support for ITC3
- Final Preparation Activities
- Technical Knowledge Transfer Sessions for Licensee
- Go-Live Support for the SES only

1.1. Engineered Service for SAP EAM Spatial Implementation and SAP/GIS Synchronization

The functional scope for the following integrations / functionality is included in this project:

- a. GEF/GEO.e core functionality clarifications
- b. GEF/GEO.e Integration with Master Data Governance (MDG)
- c. GEF/GEO.e Integration with Multiple Resource Scheduling (MRS)
The above items are documented within the DRAFT blueprint documents for phase1 found within the referenced files below:

- I AM San Diego - GEO.e Business Blueprint - V1.11_E1.pdf
- I AM San Diego - SES Mobility Blueprint v0.8.pdf

1.1.1. Functional Locations and Equipment

- Please refer to the Blueprint document referenced in Section 1.1

1.1.2. Notifications

- Please refer to the Blueprint document referenced in Section 1.1

1.1.3. Work Orders

- Please refer to the Blueprint document referenced in Section 1.1

1.1.4. Geo Explorer Embedded Search

- Please refer to the Blueprint document referenced in Section 1.1

1.1.5. Geo Extended list edit Transactions:

- Please refer to the Blueprint document referenced in Section 1.1

1.1.6. Object Description Fly out

- Please refer to the Blueprint document referenced in Section 1.1

1.1.7. Referential Layers

- Please refer to the Blueprint document referenced in Section 1.1

1.1.8. Base Maps

- Please refer to the Blueprint document referenced in Section 1.1

1.1.9. GEO - Synchronization

- Please refer to the Blueprint document referenced in Section 1.1

1.1.10. GEO.e REST Feature Service

- Please refer to the Blueprint document referenced in Section 1.1

1.1.11. Specific CoSD GEO-Enablement requirements

- Please refer to the Blueprint document referenced in Section 1.1
1.1.12. **Document Access (Open Text)**

Access to documents will be through the native SAP transaction. GEO-Enablement will provide access to the native transaction from the map interface. This method does not require special consideration for specific document functionality.

- Please refer to the Blueprint document referenced in Section 1.1

1.2. **Specific GEF/GEO.e Integration with SAP Project Systems:**

It was determined in the blueprint sessions that integration with Project Systems will not be required. **Out of scope for this project**

1.3. **Specific GEF/GEO.e Integration with Multiple Resource Scheduling (MRS) Requirements:**

- Please refer to the Blueprint document referenced in Section 1.1

1.4. **Specific GEF/GEO.e Integration with Master Data Governance (MDG)**

- Please refer to the Blueprint document referenced in Section 1.1

1.5. **Specific Functionality Supporting PSTools Replacement**

There are 4 areas of development necessary to support the PSTools functionality

1. SAP transactions and reports
2. Mobile Work Manager Functionality
3. GEO.e functionality
4. Spatial Enablement of Mobile Work Manager

This SOW covers the functionality within areas 3 and 4 stated above. Items 1 and 2, as well as the overall solution architecture and final design is the responsibility of the Licensee’s Solution Integrator and are out of scope for this SOW.

- Please refer to the Blueprint documents referenced in Section 1.1

1.6. **Specific Functionality Supporting Street Sweeping**

There are 4 areas of development necessary to support the PSTools functionality

1. Cal Amps Street Sweeping data by location, date, time
2. GIS Processing of Cal Amps Data which correlates Cal Amps data too street segments and routes
3. SAP specific transactions supporting Street Sweeping
4. GEO.e functionality supporting work order processing and Route Management

This SOW covers the functionality within functional area 4 stated above. Items 1,2, and 3, as well as the overall solution architecture and final design is the responsibility of the Licensee’s Solution Integrator and are out of scope for this SOW.

- Please refer to the Blueprint documents referenced in Section 1.1

1.7. **Knowledge Transfer**

The Licensee has expressed that they want to have the ability to maintain the Spatial Enabled System after the project is completed.
SAP will provide 5 days of Knowledge Transfer sessions at 6 hours per day in order to train up to 5 Licensee employees on all of the topics in scope for this implementation.

The timing for the sessions will be determined with the CoSD project leadership.

1.8. **Specific GEF/GEO.e Integration with Mobile Work Manager (MWM) Scope:**

- Perform configuration of the out-of-the-box Work Manager 6.4 mapping functionality. This includes configuration to the Agentry application and SMP, Feature and Map Service configuration, and packaging the client to include the map controls using Lemur
- Provide the following enhancements to Work Manager:
  - Provide enhanced offline capability
  - Create a notification from the map for "found" asset
  - Ability to search GIS layers by attribute
  - Validates the user's location when completing a work orders and notifications
  - User can submit a list of SAP or GIS objects and receive back an optimized route to visit each
  - Visualize Work Orders and Notification by Priority, date, and completion status
  - Show all work orders and notifications on the map vs. just those assigned to field user
- Development of the Work Manager/GEO.e / GEF integration and Work Manager integration with enterprise GIS
- Work Manager integration testing (including defect remediation), go-live and post production support activities

<table>
<thead>
<tr>
<th>Work Manager Work Products</th>
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<tbody>
<tr>
<td>1. Weekly Work Manager Status Report</td>
</tr>
<tr>
<td>2. Work Manager Geo-enablement Functional Specification</td>
</tr>
<tr>
<td>3. Work Manager Geo-enablement Technical Specification</td>
</tr>
<tr>
<td>4. Integration Test Cases/Scripts</td>
</tr>
<tr>
<td>5. Knowledge Transfer Sessions</td>
</tr>
<tr>
<td>6. Fully-tested GIS components of Work Manager (Out-of-the-box and Enhancements)</td>
</tr>
<tr>
<td>7. Fully-tested GeoCache solution for offline GIS</td>
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**Work Manager Activities**

Activities performed for the Work Manager implementation include:

- SAP Mobile GIS Integration – Support of the deployment of out-of-the-box functionality for the spatial component of Work Manager 6.4. This includes modification of the SMP server and Agentry application definition.
  - Configure Work Manager map and geospatial services:
    - Business objects
    - Feature layers (with simple roles)
    - Actions on business objects (e.g., Create notification)
  - Build branded Agentry client with map:
    - Package ESRI libraries into CoSD installer
    - Brand client with CoSD graphics
    - Default connection details into installer
    - Support CoSD deployment/silent installation requirements
- All settings to support out-of-the-box functionality will be configured. Out-of-the-box functionality released by SAP is understood to be:
  - Proper configuration will be performed and documented to enable the out of the box functionality for the GIS component of the Work Manager client. Standard SAP objects referenced below are Work Orders, Notifications, Functional Locations, and Equipment.
• Display SAP objects on the map as map points, lines or polygons.

• Turn on / off layers of SAP objects.

• Search displayed SAP objects.

• List of SAP objects.

• Popup of SAP object information (Title / Description).

• Display current GPS location of device.

• Ability to route from current location to SAP object.
- Near me functionality (Show objects within X radius of current location in miles or kilometers. X is defined with the system configuration).

- Ability to display base maps configured at the SMP server; only 1 base map will be visible at a time.

- Clustering (Windows only).

- Zoom to extent of SAP objects displayed on the map

- Turn on / off GPS tracking
**Work Manager – Enhancements**

This section includes functionality that is NOT provided as part of out-of-the-box Work Manager 6.4. but will be delivered as part of this project.

<table>
<thead>
<tr>
<th>Enhancement</th>
<th>Description</th>
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<tbody>
<tr>
<td>Provide enhanced offline capability</td>
<td>Deliver enhanced offline capabilities via Critigen's GeoCache solution which allows for the creation of pre-cached offline Geodatabases (.GDBs) and Tile Packages (TPKS - for raster layers). The Cached GIS files are then transmitted to the mobile device so end users don't have to manually pull data. These Cached files can be configured for different user groups (or roles) so only specific assets types are available for the different groups. This solution also includes SAP Work Manager Agentry application configuration to work with these pre-canned .GDB files and TPKs. Appendix A includes a system architecture diagram.</td>
</tr>
<tr>
<td>Create a notification from the map for “found” asset</td>
<td>User can click on SAP business object, GIS feature, or an empty spot on the map. Creating of notification and geometry that isn't tied to an existing SAP object.</td>
</tr>
<tr>
<td>User can search GIS layers by attribute</td>
<td>User would first select layer to search.</td>
</tr>
<tr>
<td>Mobile Work Manager validates the user’s location when completing a Work Order or Notification</td>
<td>The user's GPS position is collected and added to the WO/NO. The WO/NO unique ID, user, and location is also stored in a GIS Feature Class for later reporting.</td>
</tr>
<tr>
<td>User can submit a list of SAP or GIS objects and receive back an optimized route to visit each</td>
<td>Requires connectivity and access to Esri routing services.</td>
</tr>
<tr>
<td>Visualize Work Orders and Notification by Priority, date, and completion status</td>
<td>Color code and/or symbolize work orders and notifications by their priority, date, and completion status (requirements to meet current PSTools mobile capability).</td>
</tr>
<tr>
<td>Show ALL work orders and notifications on the map vs. just those assigned to field user</td>
<td>Assume we will show the GEO.e WO and NO feature service.</td>
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</tbody>
</table>
| GEF Adapter: Work Manager integration with GEF | - Connects Syclo API to GEO.e API  
- Supports retrieval of geometry from GEO.e  
- Support receipt and storage of geometry passed from WM to SAP/GEO.e  
- Points, Lines, Polygons supported |

**Mobile Work Manager / GEO.e Scope Assumptions**

1. Licensee will be responsible for the installation and configuration of SAP Mobile Platform (SMP) and Work Manager 6.4.
2. Licensee will be responsible for all ArcGIS Server licenses and configuration and data cleansing to support Work Manager Geo-enablement.
   Licensee will configure all ESRI ArcGIS Server environments and publish all required map and feature services to support the Work Manager Geo-enablement.implementation. Licensee will configure all required ESRI feature services to support GEO.e. This will include:
   a. Base maps  
   b. Reference Layers  
   c. Feature Services (Feature layer geometry and characteristics)  
   d. Any ESRI data model changes required to support business requirements.
3. Licensee will make all required geodatabase schema changes to support the synchronization process.
4. Customization only applies to the Windows platform for the Work Manager implementation.
5. Licensee will provide full systems access to project team.
6. Licensee will provide the business owners and internal technology team members to support the deployment.
7. Licensee to provide all mobile devices to be tested.
8. Licensee will be responsible for all ArcGIS Server licenses and configuration and data cleansing to support Work Manager Geoenablement.
9. ArcGIS Feature Services must be configured by Licensee to provide data as sync-enabled feature services available to the Critigen Lemur Geocache Server.
10. Licensee will make all required geodatabase schema changes to support the synchronization process.
11. Windows 7 has been selected as the sole mobile device OS. Additional platforms can be supported at additional cost.
12. Licensee will provide all required mobile hardware and all software licensing for ESRI and any other software or tools required to make the Lemur Map Control work in the Licensee’s environment.
13. SAP is not responsible for factors beyond SAP’s control that may impact system performance including: network, routers and switches, end-user computers, servers, or bandwidth.
14. Any warranties for 3rd party applications are outside this scope of work.
15. Key meetings, such as the implementation workshops, will have focused involvement by Licensee staff so that SAP can fully understand, document and implement the requirements of Licensee.
CUSTOM OFFLINE SOLUTION ARCHITECTURE

The City of San Diego requires enhanced offline capabilities within the SAP Work Manager solution. Critigen has built a GeoCache solution which allows for the creation of pre-cached offline Geodatabases (.GDBs) and Tile Packages (TPKS - for raster layers). The Cached GIS files are then transmitted to the mobile device so end users don't have to manually pull data. These Cached files can be configured for different user groups (or roles) so only specific asset types are available for the different groups. This solution also includes SAP Work Manager Agentry application configuration to work with these pre-canned GDB files and TPKs. The figure below shows the high-level architecture of the solution.

**Offline Geocache Service**

In order to provide offline GIS data to the end user, file-based GIS data will be created and then deployed to the mobile devices via a geocache server. The geocache server will read corporate GIS data and convert it into the file-based GIS formats that will be stored on the City's Network Storage devices. Client devices will download this data either as part of a nightly data download, or on an as needed basis.
There will be an integration of the Geocache client sync framework into the map control along with the client system as a windows service and system tray application:

**Geocache Mobile Client**

The geocache mobile client consists of a Windows Communication Foundation (WCF) Service component and a system tray user interface component that communicates with the Windows service component. It will run as a Windows service independently of Work Manager and make calls to the Geocache server via REST services. These calls include determining what geocache is available, initiating download of the cache files, and uploading drip feed data. The Hosted WCF Service component will run under a service account to allow for nightly downloading of caches.

The geocache mobile client controls the download of files from Geocache Server either as a scheduled service or as an ad-hoc data request. It will include the following features:

- The ability to initiate an ad-hoc geodata download (TPK and geodatabase files)
- The ability to configure the day of week and time of schedule downloads
- The ability to define the geographic extent (zone) to be downloaded
2. Licensee Duties and Responsibilities

The Licensee has, among others, the following duties and responsibilities related to this contract for the GEO.e Service:

- If required the licensee shall provide the necessary offices and infrastructure (computers, software, phones) without any additional charge to SAP. This includes a remote connection to the relevant SAP system(s) and the ArcGIS Server(s).
- The licensee provides a responsible contact. This contact is coordinating all required meetings with the necessary stakeholders.
- Provision and administration of the required hardware and software.
- Provision of the SAP landscape, the SAP basis administration to take care about the logistics of transport requests.
- Accepting the terms and conditions for the use of the tool JavaScript ESRI Inc. This ESRI tool is not part of this contract and not a contractual deliverable of SAP.
- Organization and Scheduling of required workshops.
- Creation of user manuals if required.
- Provision of a remote access to the SAP system(s) and ESRI server(s).
- Licensee must provide the right resources to support this GEO.e project. These resources must have the know-how and experience of the relevant business processes and must be empowered to take the relevant and final decisions.

These obligations are one of the major responsibilities of the Licensee and are the major prerequisites of a successful project to be delivered by SAP.

The Licensee is not only responsible for the required input and support in a proper and timely manner by its employees but also for 3rd party contractors which are contracted by the Licensee.
3. Spatial Enablement Service Pre requisites / Assumptions

Prerequisites for commencement of the package service:

- This Exhibit 1 is based on the requirements held within the attached blueprint documents. Any major deviations from the attached blueprint documents may require a change order.
- If objects that are required to be in place prior to geo-enablement are not available to SAP to start or complete the scope defined in this SOW, a Change Order (CO) will be required that will possibly impact scope, schedule, and cost.
- A HANA Server installed (See section 1.1). This server (hardware and software licenses) is not part of this package and has to be provided by the Licensee.
- This implementation will use GEO.e functionality and will utilize GEF / HANA database. The implementation will use GEF configuration, and therefore require GEF license which is the responsibility of the Licensee.
- A Geographical Enablement Framework (GEF) license will be required and is not included in this SOW.
- A remote system OSS R/3 connection is available. OSS HTTP Connection URL Access to be able to connect to the ArcGIS Server (ERP GDB), which will stay up and reasonably connected to the appropriate SAP project infrastructure from start of prototype. To be able to configure the ArcGIS Server a WTS or VPN connection (or similar) has to be granted by the Licensee.
- The Licensee will arrange for users with extended SAP authorization (ideally SAP_ALL) and developer keys.
- A SAP basis contact available to support the GEO.e team will be provided by the Licensee.
- One type of GIS projection is assumed.
- Referential layers to be provided by the Licensee.
- The Licensee is responsible for the relevant data objects in ESRI GIS to be configured. This must be in place before the realization phase of the Synchronization process of this SOW can start.

- The Licensee is responsible for the relevant data objects in SAP EAM to be configured. This must be in place before the realization phase of this SOW can start.
- The Licensee is responsible to ensure the relevant data objects are coded and configured before the realization phase of this SOW can start for the following integrations:
  - Master Data Governance
  - Mobile Work Manager
  - Multiple Resource Scheduling
  - Truck Routing History or Current Locations
- It is assumed that the connection between the ArcGIS Server and SAP ERP is based on HTTP and HTTPS.
- Licensee will be responsible for all ArcGIS Server licenses and configuration and data cleansing to support GEO.e implementation.
- Licensee will configure all ESRI ArcGIS Server environments and publish all required map and feature services to support the GEO.e implementation. Licensee will configure all required ESRI feature services to support GEO.e.
- Licensee will make all required geodatabase schema changes to support the synchronization process.
- Licensee will ensure that required key staff, including the process owners, process users, and appropriate supervisors, will be available at needed times and will be present at applicable project meetings and workshops. The meetings and workshops will be planned in advance to provide attendees sufficient time to plan availability.
- SAP resources will be able to work remotely (off-site) when project activities permit and with the agreement of Licensee. Requirements related meetings and design workshops will be conducted onsite.
- When required onsite, SAP and SAP acquired consultants will be available onsite from 11am EST Monday through 5 PM EST Thursday.
- SAP will be granted access to all documents, manuals and background information needed to properly execute requested services.

4. Out of Scope

The following items are out of scope for this phase of the project:

- The Geo-enablement of Linear Asset Module (LAM) enabled Equipment, Functional Locations and Transactions is out of scope for this project.
• SAP is not responsible for the data migration / conversion of the asset geometry. SAP will assist with the definition of a process.
• Solution scenarios other than the predefined solution scenarios or services described herein; Solution scenarios and relevant business objects are not part of this framework and need to be individually agreed.
• Support and maintenance of the installation on the Licensee system, extension and configuration which are not mentioned in this document
• Licenses or other rights of use for other solutions, tools, map services or software (e.g. licenses for SAP software or other 3rd party software.), even if these are required to run this GEO.e service.
• Every type of a change or enhancements to the GEO framework which are not mentioned in this document
• Interfaces to a third party (beside the ESRI Enterprise GIS, Utopia MDG for EAM, SAP MRS, SAP Work Manager and ) or to legacy systems
• Licensee-specific authorizations/roles and security concept
• User training/education
• Country-specific adaptations
• Required industry-specific adaptations
• It is assumed that there will be only one shape file format and one projection.
• Functions and items that are not explicitly listed as “in scope” are “out of scope”.
• Test execution of product/Integration testing is the responsibility of Licensee.
• Creation of product test scripts is the responsibility of the Licensee

5. Spatial Enablement Service Deliverables
The deliverables for this service are:

For the scope defined in section 1:
• Conclusion of the Realization phase
• SAP provided assistance with integration test script scenarios.
• Integration testing defect resolution support for:
  o 8 weeks ITC2
  o 4 weeks ITC3
• SAP assistance and input into cutover planning
• Technical Knowledge transfer to Licensee technical team per parameters noted in section1.5
• 4-week duration of Production Support

<table>
<thead>
<tr>
<th>ASAP Phase</th>
<th>GEO.e Implementation Tasks</th>
<th>Primary Responsibility</th>
<th>Supporting Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Preparation</td>
<td>Create Realization project schedule based on timing of completed dependencies</td>
<td>SAP</td>
<td>Licensee</td>
</tr>
<tr>
<td>Realization</td>
<td>The relevant data objects in SAP EAM have to be configured before the realization phase of this SOW can start for the following integrations:</td>
<td>SAP</td>
<td>Licensee</td>
</tr>
<tr>
<td></td>
<td>o Master Data Governance</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>o Mobile Work Manager</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>o Multiple Resource Scheduling</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>o Truck Routing History or Current Locations</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Functional documentation (Blueprint) in regard to the spatial integrations with the following:</td>
<td>SAP</td>
<td>Licensee</td>
</tr>
<tr>
<td></td>
<td>o Master Data Governance</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>o Mobile Work Manager</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>o Multiple Resource Scheduling</td>
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<td></td>
</tr>
<tr>
<td></td>
<td>o Truck Routing History or Current Locations</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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6. General

**General Assumptions**
- All SAP objects and modules are configured and ready for geo-enablement. This includes all relevant objects and Transactions related to Plant Maintenance, Mobile Work Manager, Master Data Governance, Multiple Resource Scheduling and Truck Routing and history stored in Enterprise GIS.
- Required key staff, including the process owners, process users, and appropriate supervisors, will be available at needed times and will be present at applicable project meetings and workshops. The meetings and workshops will be planned in advance to provide attendees sufficient time to plan availability.
- On-site and remote access to relevant systems will be available.
- Supplier resources will be able to work remotely (off-site) when project activities permit and with the agreement of SAP. Requirements related meetings and design workshops will be conducted onsite.
- SAP will use, as appropriate, SAP’s intellectual property (pre-existing work, techniques, and methodologies) to deliver the requirements in this statement of work. City of San Diego is granted a perpetual non-exclusive license to use any SAP IP incorporated into SAP final deliverable(s) within the intended scope of the deliverable in exchange for SAP’s rights to reuse new techniques developed to meet the statement of work.
- All software and licenses necessary to make functional Supplier’s deliverables will be provided by Licensee which covers third party software.

7. Project Resource Load

Project resources will be on-site for initial requirements and blueprint Workshops. Follow up meetings required for clarifications will be held remotely. Realization phase will have a resource allocation of 90% remote and 10 % on-site.

The core team roles and responsibilities outlined below are the basis for SAP’s implementation plan, resource and cost estimates based on the following SAP Service Elements in scope for this engagement:

| Build/Configure GIS/SAP/MDG Synchronization Interface (sending) | SAP | Licensee |
| Build/Configure GIS/SAP/MDG Synchronization Interface (receiving) | SAP | Licensee |
| Build Configure Geoenablement of Mobile Work Manager | SAP | Licensee |
| Build Configure Geoenablement of Multiple Resource Scheduling | SAP | Licensee |
| Build Configure integration CALAMP Truck locations into MRS GEO Explorer | SAP | Licensee |
| Unit Test GEO.e | SAP | Licensee |
| Unit Test GIS/SAP Data Synchronization Interface | SAP | Licensee |
| Develop Test Scripts | Licensee | SAP |
| Develop Training Material | Licensee | SAP |
| Conduct Integration Testing on End to End Processes (8 weeks ITC2, 4 Weeks ITC3) | Licensee | SAP |
| Develop Data Sync Technical Specification Document | SAP | N/A |
| Develop GEO.e Technical Specification Document | SAP | N/A |
| Conduct User Acceptance Testing | Licensee | SAP |

**Final Prep**
- Conduct Go-Live Readiness Assessment | Licensee | SAP |
- Plan / Conduct Cutover Activities | Licensee | SAP |

**Go-Live Support**
- Support Production Release of Geoenablement Functionality | SAP | Licensee |
- Conduct Technical Knowledge Transfer Sessions (This can be performed in Final Prep stage if requested by Licensee) | SAP | Licensee |
Licensee will provide knowledgeable, decision empowered resources that are available to work on the projects as part of the project team. Lack of availability of core project team members or failure to complete the responsibilities in a timely manner as per the project timeline will affect the project schedules and SAP shall present to Licensee the impact of this to be handled as part of the Change Order procedures. The Licensee core team roles are identified and defined below; there may be other part-time subject matter experts or site resources required from Licensee over the course of the project.

<table>
<thead>
<tr>
<th>SAP Roles</th>
<th>Approx. Percent Onsite</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Manager</td>
<td>50</td>
</tr>
<tr>
<td>Quality Director</td>
<td>100</td>
</tr>
<tr>
<td>Spatial Enablement Services (SES) Architect</td>
<td>15</td>
</tr>
<tr>
<td>SES Developer 1</td>
<td>10</td>
</tr>
<tr>
<td>GIS Lead</td>
<td>15</td>
</tr>
<tr>
<td>SES/MWM Developer 1 (SAP)</td>
<td>20</td>
</tr>
<tr>
<td>SES/MWM Developer 2 (GIS)</td>
<td>15</td>
</tr>
</tbody>
</table>

### Licensee Roles

<table>
<thead>
<tr>
<th>Role Type</th>
<th>Headcount</th>
<th>Work Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Steering Committee</td>
<td>PT</td>
<td>Multiple</td>
</tr>
<tr>
<td>Executive Sponsor</td>
<td>FT</td>
<td>Single</td>
</tr>
<tr>
<td>Project Manager</td>
<td>PT</td>
<td>Multiple</td>
</tr>
<tr>
<td>Business Process Owner</td>
<td>FT</td>
<td>Single</td>
</tr>
<tr>
<td>Team Lead</td>
<td>FT</td>
<td>Single</td>
</tr>
<tr>
<td>Team Member</td>
<td>FT</td>
<td>Multiple</td>
</tr>
<tr>
<td>Subject Matter Expert</td>
<td>PT</td>
<td>Multiple</td>
</tr>
</tbody>
</table>

8. Project Governance

SAP will adhere to the Licensee project governance process as long as it does not add undue burden on the SES project team.

8.1. Escalation and Conflict Management

In the event that any issues are not resolved by the project team the Licensee and SAP shall be entitled to escalate such issue in accordance with the table below:

<table>
<thead>
<tr>
<th>SAP representative</th>
<th>Discusses the issue with</th>
<th>Licensee Representative</th>
<th>Time goal for each level to resolve the dispute before escalation to the next stage.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. SAP Project Manager</td>
<td>Discusses the issue</td>
<td>Licensee Project Manager</td>
<td>1 Business Day</td>
</tr>
</tbody>
</table>
## 9. Timeline

Realization will be completed the week of July 10th. Any adjustments to the timeline may result in a change order. This schedule will result in the ability to start integration testing during the last 2 weeks of ITC2. This assumes we are able to start development the week of May 8th.

### 9.1. General Project Timeline

|----------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
SOFTWARE LICENSE AGREEMENT
("Agreement")

This Agreement is made effective as of January 28, 2017, by and between SAP Public Services, Inc., a Delaware corporation, with offices at 3609 West Chester Pike, Newtown Square, PA 19073 ("SAP"), and City of San Diego, CA, a municipal corporation with offices at 1200 Third Avenue, San Diego, CA 92101 ("Licensee").

PREAMBLE: Notwithstanding the title of this Agreement, or any contrary language herein, the parties hereto acknowledge and agree that at Licensee's request, this Agreement is established for the sole and exclusive purpose of providing a standalone services agreement for use between the parties, and that the terms of this Agreement, excluding the attached Professional Services Schedule, shall be effective and applicable only to the extent they apply to the performance of services under the Professional Services Schedule, and for no other purpose. Licensing and support (maintenance) of SAP Software shall not be authorized hereunder, and, therefore, there shall be no license or support fees payable hereunder. The parties acknowledge that the terms of this Agreement are based upon the previously negotiated terms and conditions of Licensee's SAP Software License Agreement effective June 13, 2007.

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4. PRICE, PAYMENT AND DELIVERY.
4.1 License Fees. Licensee shall pay to SAP license fees for the Software and Support fees on the terms in Appendices hereto. Fees for Services will be paid as set forth in the Professional Services Schedule hereto or the applicable Statement of Work executed pursuant to this Agreement. Any fees not paid when due shall accrue interest at the rate of 18% per annum, but not to exceed the maximum amount as allowed by law.

4.2 Taxes. Fees and other charges described in this Agreement, and in SAP's most recent list of prices and conditions, do not include federal, state or local sales, foreign withholding, use, property, excise, service, or similar taxes ("Tax(es)") now or hereafter levied, all of which shall be for Licensee's account. With respect to statistical taxes applicable to SAP's products that are not the object of a VAT credit, the tax shall be remitted to SAP. If SAP is required to pay a tax, Licensee shall reimburse SAP for such amounts. Licensee hereby agrees to indemnify SAP for any Taxes and related taxes, interest and penalties paid on or payable by SAP.

4.3 Delivery of Software and Maintenance. SAP will use commercially reasonable efforts to cooperate with Licensee's request to deliver SAP Software.

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5.1 Term. This Agreement and the license granted hereunder shall become effective as of the date first set forth above and shall continue in effect thereafter unless terminated upon the earliest to occur of the following: (i) thirty days after Licensee gives SAP written notice of Licensee's desire to terminate this Agreement, for any reason, but only after payment of all Licensee Support Fees then due and owing; (ii) thirty days after SAP gives Licensee notice of Licensee's material breach of any provision of the Agreement (other than Licensee's breach of its obligations under Sections 6 or 10, which breach shall result in immediate termination), including more than thirty days delinquency in Licensee's payment of any money due hereunder, unless Licensee has cured such breach during thirty days from SAP's notice; and (iii) in the event Licensee files a petition in bankruptcy or is subject to an involuntary petition by SAP upon ninety (90) days after such filing if Licensee or its trustee-in-bankruptcy has not assumed this Agreement; (iv) immediately by SAP if Licensee makes an assignment for the benefit of creditors or (v) thirty (30) days after SAP gives Licensee notice of Licensee's breach of any obligations under separate agreement to SAP Reseller, including non-payment of any fees thereunder. Notwithstanding the foregoing, under no circumstances will the term of the Agreement, including any Schedule, extend for more than five (5) years from the effective date without approval by the City Council of an ordinance extending the term.

5.2 End of Term Duties. Upon any termination hereunder, Licensee shall immediately cease Use of all SAP Proprietary Information. Within thirty (30) days after any termination, Licensee shall deliver to SAP or destroy all copies of the SAP Proprietary Information in every form. Licensee agrees to certify in writing to SAP that it has performed the foregoing. Sections 3.4, 6, 7.2, 8, 9, 11.4, 11.6 and 11.8 shall survive such termination. In the event of any termination hereunder, Licensee shall not be entitled to any refund of any License fee payments made by Licensee.

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9. LIMITATIONS OF LIABILITY.

9.1 Licensee's Remedies. Licensee's sole and exclusive remedies for any damages or loss in any way connected with the Software or Services furnished by SAP and its licensors, whether due to SAP's negligence or breach of any other duty, shall be, at SAP's option: (i) to bring the performance of the Software into substantial compliance with the functional specifications; (ii) re-performance of Services; or (iii) return of an appropriate portion of any payment made by Licensee with respect to the applicable portion of the Software or Services.

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10. ASSIGNMENT. Licensee may not, without SAP's prior written consent, assign, delegate, pledge, or otherwise transfer this Agreement, or any of its rights or obligations under this Agreement, or the SAP Proprietary Information, to any party, whether voluntarily or by operation of law, including by way of sale of assets, merger or consolidation. SAP may assign this Agreement to its affiliates.

11. GENERAL PROVISIONS.
11.1 Severability. It is the intent of the parties that in case any one or more of the provisions contained in this Agreement shall be held to be invalid or unenforceable in any respect, such invalidity or unenforceability shall not affect the other provisions of this Agreement, and this Agreement shall be construed as if such invalid or unenforceable provision had never been contained herein.

11.2 No Waiver. If either party should waive any breach of any provision of this Agreement, it shall not thereby be deemed to have waived any preceding or succeeding breach of the same or any other provision hereof.

11.3 Counterparts. This Agreement may be signed in two counterparts, each of which shall be deemed an original and which shall together constitute one Agreement.

11.4 Export Control Notice. The Software, Documentation and Proprietary Information are being released or transferred to Licensee in the United States and are therefore subject to the U.S. export control laws. Licensee acknowledges its obligation to ensure that its exports from the United States are in compliance with the U.S. export control laws. Licensee shall also be responsible for complying with all applicable governmental regulations of any foreign countries with respect to the use of the Proprietary Information by its Subsidiaries outside of the United States. Licensee agrees that it will not submit the Software to any government agency for licensing consideration or other regulatory approval without the prior written consent of SAP.

11.5 Confidential Terms and Conditions. Licensee shall not disclose the terms and conditions of this Agreement or the pricing contained therein to any third party except as required to be disclosed pursuant to the requirements of the State of California Public Records Act. Neither party shall use the name of the other party in publicity, advertising, or similar activity, without the prior written consent of the other, except that Licensee agrees that SAP may use Licensee's name in customer listings or as part of SAP's marketing efforts.

11.6 Governing Law. This Agreement shall be governed by and construed under the laws of the State of California without reference to its conflicts of law principles. In the event of any conflict between foreign law, rules, and regulations, and United States of America law, rules, and regulations, United States of America law, rules, and regulations shall prevail and govern. The United Nations Convention on Contracts for the International Sale of Goods shall not apply to this Agreement. The Uniform Computer Information Transactions Act as enacted shall not apply.

11.7 Notices. All notices or reports which are required or may be given pursuant to this Agreement shall be in writing and shall be deemed duly given when delivered to the respective executive offices of SAP and Licensee at the addresses first set forth above.

11.8 Force Majeure. Any delay or nonperformance of any provision of this Agreement (other than for the payment of amounts due hereunder) caused by conditions beyond the reasonable control of the performing party shall not constitute a breach of this Agreement, and the time for performance of such provision, if any, shall be deemed to be extended for a period equal to the duration of the conditions preventing performance.

11.9 Entire Agreement. This Agreement and each Schedule and Appendix hereto constitute the complete and exclusive statement of the agreement between SAP and Licensee, and all previous representations, discussions, and writings are merged in, and superseded by, this Agreement. This Agreement may be modified only by a writing signed by both parties. This Agreement and each Appendix hereto shall remain in effect over any additional, conflicting, or inconsistent terms and conditions which may appear on any purchase order or other document furnished by Licensee to SAP.

11.10 Americans with Disabilities Act. SAP agrees and acknowledges that it is aware of and will comply with Council Policy 100-04, adopted by Resolution no. 282153 relating to the federally mandated Americans with Disabilities Act (ADA).

11.11 Equal Opportunity Contracting and Non-Discrimination.
   a. Compliance with City's Equal Opportunity Contracting Program. SAP agrees to comply with the City's Equal Opportunity Contracting Program, San Diego Municipal Code Chapter 2, Article 2, Division 27 (Section 22.2701 et. seq.). SAP agrees not to discriminate against any employee or applicant for employment on any basis prohibited by law. SAP agrees to provide equal opportunity in all employment practices. SAP agrees to ensure that its subcontractors comply with the City's Equal Opportunity Contracting Program Consultant Requirements. Nothing in this Section shall be interpreted to hold SAP liable for any discriminatory practice of its subcontractors.
   b. Non-Discrimination Ordinance. SAP shall not discriminate on the basis of race, gender, religion, national origin, ethnicity, sexual orientation, age, or disability in the solicitation, selection, hiring or treatment of subcontractors, contractors or suppliers applicable to this Agreement. SAP shall provide equal opportunity for subcontractors to participate in subcontracting opportunities. SAP understands and agrees that violation of this clause shall be considered a material breach of the Agreement and may result in Agreement termination, debarment, and other sanctions. This language shall be in contracts between SAP and any subcontractors, contractors and suppliers.
Compliance Investigations. Upon City's request, SAP agrees to provide to City, within sixty (60) calendar days, a truthful and complete list of the names of all subcontractors, contractors, and suppliers that Consultant has used in the past five (5) years on any of its contracts that were undertaken within San Diego County, including the total dollar amount paid by SAP for each subcontract or supply contract. SAP further agrees to fully cooperate in any investigation conducted by City pursuant to City's Nondiscrimination in Contracting Ordinance [San Diego Municipal Code sections 22.3501-22.3517]. SAP understands and agrees that violation of this clause shall be considered a material breach of the Agreement and may result in remedies being ordered against SAP up to and including Agreement termination, debarment, and other sanctions for violation of the provisions of the Nondiscrimination in Contracting Ordinance. SAP further understands and agrees that the procedures, remedies and sanctions provided for in the Nondiscrimination Ordinance apply only to violations of said Nondiscrimination Ordinance.

IN WITNESS WHEREOF, the undersigned, intending to be legally bound, have duly executed this Agreement to become effective as of the date first above written.

Accepted and agreed by SAP:
SAP Public Services, ____________________________

By: __________________________
Title: __________________________
Date: __________________________

Accepted and agreed by Licensee:
City of San Diego, CA

By: __________________________
Title: __________________________
Date: __________________________

I HEREBY APPROVE the form of the foregoing Agreement this 28 day of January, 2017

By: __________________________
Title: City Attorney
The parties agree that this Schedule is hereby annexed to and made a part of the Agreement specified above. In each instance in which provisions of this Schedule contradict or are inconsistent with the provisions of the Agreement, the provisions of this Schedule shall prevail and govern.

1. **Services.** Upon request by Licensee, SAP will provide a Consultant(s) to perform, at Licensee's direction, consulting and professional services including support of installation and implementation of the applicable SAP Software ("Services"). Any Statement of Work ("SOW") more fully describing the project assumptions, scope, duration and fees for the Services shall reference this Schedule. All Services of the SAP Consultant(s) will be coordinated with the designated Licensor representative. Licensee is responsible for making the necessary internal arrangements for the carrying out of the Services on a non-interference basis.

2. **Satisfaction with Performance.** If at any time Licensor or SAP is dissatisfied with the material performance of an assigned Consultant or a Licensee project team member, the dissatisfied party shall immediately report such dissatisfaction to the other party in writing and may request a replacement. The other party shall use its reasonable discretion in accomplishing any such change.

3. **Compensation of SAP.** All Services will be provided by SAP on a time and expense basis at SAP's then current rates, unless otherwise agreed by the parties in a SOW.

4. **Taxes.** The fees listed in the applicable SOW do not include taxes. If SAP is required to pay sales, use, property, value-added or other taxes based on the Services provided under this Schedule, then such taxes shall be billed and paid by Licensee. This provision shall not apply to taxes based on SAP's income. Licensee also agrees to pay SAP for additional tax amounts if any, created by the taxability of Consultants reimbursed travel and living expenses resulting from long term assignments at Licensee's locations.

5. **Work Product.** Unless otherwise agreed to in writing by the parties in a SOW, SAP shall have the sole and exclusive right, title and ownership to any and all ideas, concepts, or other intellectual property rights related in any way to the techniques, knowledge or processes of the SAP Services and deliverables, whether or not developed for Licensee.

6. **Warranty.** SAP warrants that its Services shall be performed consistent with generally accepted industry standards. SAP MAKES NO WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, NOR ANY OTHER WARRANTIES, EXPRESS, IMPLIED OR STATUTORY, IN CONNECTION WITH THIS SCHEDULE AND THE SERVICES PROVIDED HEREUNDER.

7. **Limitation of Liability.** WITH RESPECT TO SERVICES, ANYTHING TO THE CONTRARY NOTWITHSTANDING, EXCEPT FOR DAMAGES RESULTING FROM UNAUTHORIZED USE OR DISCLOSURE OF THE PROPRIETY INFORMATION AND SAP'S RIGHT TO COLLECT UNPAID FEES, UNDER NO CIRCUMSTANCES SHALL SAP, ITS CONSULTANTS OR LICENSEE BE LIABLE TO EACH OTHER OR ANY OTHER PERSON OR ENTITY FOR AN AMOUNT OF DAMAGES IN EXCESS OF THE FEES PAID FOR THE APPLICABLE SERVICES HEREUNDER OR BE LIABLE IN ANY AMOUNT FOR SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR INDIRECT DAMAGES, LOSS OF GOOD WILL OR BUSINESS PROFITS, WORK STOPPAGE, DATA LOSS, COMPUTER FAILURE OR MALFUNCTION, OR EXEMPLARY OR PUNITIVE DAMAGES. The provisions of the Schedule allocate the risks between SAP and Licensee. The Licensee fees reflect this allocation of risk and the limitations of liability herein.

8. **Termination.** The terms of this Schedule shall be effective as of the Effective Date of the Agreement and shall remain in effect until terminated by either party upon thirty (30) days prior written notice or otherwise in accordance with a particular SOW. Notwithstanding the foregoing, under no circumstances will the term of the Agreement, including any Schedules or Statements of Work, extend for more than five (5) years from the Effective Date without approval by the City Council of an ordinance extending the term. Licensee shall be liable for payment to SAP for all Services provided prior to the effective date of any such termination, including any expenses incurred pursuant to the provision of such Services, in accord with the applicable SOW.

9. **General Provisions.**

9.1 SAP may subcontract all or part of the Services to be performed to a qualified third party.

9.2 With respect to the Services provided by SAP under this Schedule and any SOW hereto, the relationship of SAP and Licensor is that of an independent contractor.

9.3 This Schedule, including any applicable SOWs, constitutes the entire agreement between the parties with respect to the subject matter hereof and supersedes all prior agreements between the parties, whether written or oral, relating to the same subject matter. In the event of any inconsistencies between this Schedule and a SOW, the SOW shall take precedence over the Schedule. Any purchase order or other document issued by Licensee is for administrative convenience only.

10. **Survival.** Sections 5 and 7 above shall survive any termination of the Schedule.

11. **Insurance.** SAP shall not begin any work under this Agreement if it has: (a) obtained, and upon the City's request provided to the City, Insurance certificates reflecting evidence of all insurance required in this Section 11; (b) either obtained City approval of each insurance company or companies or provided evidence that each insurer is rated "A-" or better in the most recent edition of the AM Best Key Rating Guide; and (c) confirmed that all policies contain the specific provisions required below. SAP's liabilities, including but not limited to SAP's indemnity obligations, under this Agreement, shall not be deemed limited in any way to the insurance coverage required herein. Maintenance of specified insurance coverage is a material element of this Agreement and SAP's failure to maintain renew coverage or to provide evidence of renewal during the term of this Agreement may be treated as a material breach of contract by the City. SAP shall not modify policies in a way that would reduce availability of coverage as required under this Agreement.

11.1 **Types of insurance.** At all times during the term of this Agreement, SAP shall maintain insurance coverage as follows:

CONFIDENTIAL SUBJECT TO NON-DISCLOSURE
Commercial General Liability (CGL). Insurance written on an ISO Occurrence form CG 00 01 07 98 or an equivalent form providing coverage at least as broad which shall cover liability arising from any and all personal injury or property damage in the amount of $1 million per occurrence and subject to an annual aggregate of $2 million. There shall be no endorsement or modification of the CGL limiting the scope of coverage for either insured vs. insured claims or contractual liability. All defense costs shall be outside the limits of the policy. The policy shall provide that the Contractor's insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer's liability and shall provide cross-liability coverage.

Commercial Automobile Liability. For all of SAP’s automobiles Including owned, hired and non-owned automobiles, SAP shall keep in full force and effect, automobile Insurance written on an ISO form CA 00 01 12 90 or a later version of this form or an equivalent form providing coverage at least as broad for bodily injury and property damage for a combined single limit of $1 million per occurrence, insurance certificate shall reflect coverage for any automobile (any auto). The policy shall provide that the Contractor’s Insurance shall apply separately to each insured against whom claim is made or suit is brought, except with respect to the limits of the insurer’s liability and shall provide cross-liability coverage.

Workers' Compensation. For all of SAP's employees who are subject to this Agreement and to the extent required by the applicable state or federal law, SAP shall keep in full force and effect, a Workers' Compensation policy. That policy shall provide a minimum of $1 million of employers' liability coverage, and SAP’s policy shall contain an endorsement that the insurer waives the right of subrogation against the City and its respective elected officials, officers, and employees.

Professional Liability. Professional liability insurance in an amount not less than one million dollars ($1,000,000) per claim with an annual aggregate of two million dollars ($2,000,000).

11.2 Deductibles. All deductibles on any policy shall be the responsibility of SAP.

11.3 Acceptability of Insurers. Except for the State Compensation Insurance Fund, all insurance required by this Contract or in the Special General Conditions shall only be carried by insurance companies with a rating of at least "A-, VI" by A.M. Best Company, that are authorized by the California Insurance Commissioner to do business in the State of California. The City will accept insurance provided by non-admitted, "surplus lines" carriers only if the carrier is authorized to do business in the State of California and is included on the List of Eligible Surplus Lines Insurers (LESLI list). All policies of insurance carried by non-admitted carriers are subject to all of the requirements for policies of insurance provided by admitted carriers described herein.

11.4 Required Endorsements. The following endorsements to the policies of insurance are required to be provided to the City before any work is initiated under this Agreement:

Commercial General Liability Insurance Endorsements

ADDITIONAL INSURED. To the fullest extent allowed by law including but not limited to California Insurance Code Section 11580.04, the policy or policies must be endorsed to include as an Additional Insured the City of San Diego and its respective elected officials, officers, and employees, agents and representatives with respect to liability arising out of (a) ongoing operations performed by you, (b) your products, (c) your work, including but not limited to your completed operations performed by you, or (d) premises owned, leased, controlled or used by you.

PRIMARY AND NON-CONTRIBUTORY COVERAGE. The policy must be endorsed to provide that the insurance afforded by the Commercial General Liability policy or policies is primary to any insurance or self-insurance of the City of San Diego and its elected officials, officers, and employees as respects operations of the Named Insured. Any insurance maintained by the City of San Diego and its elected officials, officers, and employees shall be in excess of SAP’s insurance and shall not contribute to it.

Automobile Liability Insurance Endorsements

ADDITIONAL INSURED. To the fullest extent allowed by law including but not limited to California Insurance Code Section 11580.04, the policy or policies must be endorsed to include as an Additional Insured the City of San Diego and its respective elected officials, officers, and employees, agents and representatives with respect to liability arising out of automobile owned, leased, hired or borrowed by SAP.

Worker's Compensation Insurance Endorsements

WAIVER OF SUBROGATION. The Worker's Compensation policy or policies must be endorsed to provide that the insurer will waive all rights of subrogation against the City and its respective elected officials, officers, and employees for losses paid under the terms of this policy or these policies which arise from work performed by the Named Insured for the City.

11.5 Reservation of Rights. The City reserves the right, from time to time, to review SAP’s insurance coverage as described in the first paragraph of this Section 1.09, to determine if they are acceptable to the City. The City will reimburse SAP for the cost of the additional premium for any coverage requested by the City in excess of that required by this Agreement without overhead, profit, or any other markup.

11.6 Additional Insurance. SAP may obtain additional insurance not required by this Agreement.

11.7 Excess Insurance. All policies providing excess coverage shall follow the form of the primary policy or policies including but not limited to all endorsements.
Order Form No. 302414148 ("Order Form")
effective January 16, 2017 ("Effective Date")

between
SAP Public Services, Inc.
3999 West Chester Pike
Newtown Square, PA 19073
(hereinafter "SAP")

and
City of San Diego
1200 Third Avenue
San Diego, CA 92101
(hereinafter "Licensee" or "Customer")

<table>
<thead>
<tr>
<th>Contact Person</th>
<th>Email: <a href="mailto:matt.hornik@sap.com">matt.hornik@sap.com</a></th>
<th>Mobile: 480-228-0656</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contact Licensee</td>
<td>Email: <a href="mailto:mavilla@sandiego.gov">mavilla@sandiego.gov</a></td>
<td>Telephone: (619) 238-6810</td>
</tr>
</tbody>
</table>

SAP and Licensee agree that this Order Form is a binding agreement for Services incorporating the Professional Services Agreement (PSA) / Professional Services Schedule (PSS) to the Software License Agreement / End-User License Agreement (EULA) as entered into between SAP and Licensee with effective date ________ (attached in Exhibit 3). In the event of any inconsistencies between the PSA/PSS and any documents referred to therein or attachments thereto, this Order Form prevails.

Capitalized terms in this Order Form but not defined will have the meaning defined in the General Terms and Conditions (GTC) or applicable Service Description. Some versions of SAP agreements use the term "Customer" in place of "Licensee". For purposes of this Agreement including Order Form, references to "Customer" shall mean "Licensee".

1. SAP Services. The Services to be delivered to Licensee under this Order Form (OF) consist of the following Services.

   For purposes of this Order Form, "Service Description" means the Services as described in Exhibit 1 of this Order Form.

   Within the scope of this Project, SAP will provide the Services by providing Consultants as described in the remuneration section below. The Consultants provided may be SAP employees or SAP's third party subcontractors.

Licensee requires SAP Services related to its SAP Software. It is mutually understood that business requirements, resources and dates as well as the relevant remuneration may be subject to change via the Change Request Procedure, including if Licensee responsibilities and assumptions are not performed in a timely and appropriate manner and / or if the Project resources are not provided.

2. Assumptions and Responsibilities of Licensee

The assumptions and responsibilities for this Project are listed as follows:

* All supporting documentation work product will be developed for industry standard Microsoft Windows-based PCs using applicable (as reasonably determined by SAP) Microsoft Office applications (Word, Excel, and PowerPoint)
* Unless otherwise expressly stated, no software developments will be made under this Order Form.
* Unless otherwise expressly stated, any data cleansing or data cleanup is wholly the responsibility of Licensee.
* Licensee will provide knowledgeable, decision-empowered resources that are available to work on the Project as part of the Project team.
* The Project will have sponsorship from Licensee’s senior management, who will be available on a timely and regular basis to monitor the Project progress and to act as a decision maker for policy decisions and issue resolution.

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Order Form 1.2 enUS.v.6.2-2015
Licensee will provide a working environment and facilities adequate for SAP to perform their assigned duties. This includes, but is not limited to, adequate conference rooms, cubicle space and telephone access. Licensee will provide SAP with all necessary authorizations.

Licensee will support the use of the SAP team laptops on its network or Licensee will provide PCs with the Microsoft Office Suite and e-mail capability for the Project team.

Project team members will be given access to the Licensee’s SAP environment. Licensee shall provide secure dial-in and/or direct access to Licensee networks as necessary.

SAP will be provided with the necessary access to all of Licensee’s facilities necessary for the Project, including all necessary identification material (badges, cards, etc.), subject to the terms and conditions of the PSA/PSS. This includes necessary access to such buildings and systems during and after normal business hours, on weekends, and on holidays. Limitation of SAP access during these times may reduce SAP’s ability to maintain the proposed schedule. SAP will also be provided with the necessary authorizations for remote access to Licensee’s systems.

The responsibilities and assumptions are considered to be material contract duties of Licensee.

Licensee agrees that any estimates provided in this Order Form may be subject to change if Licensee’s responsibilities and Project assumptions are not fulfilled.

2. **Invoicing.** SAP will mail invoices to the following Licensee billing address:

   City of San Diego – MOC II
   9182 Topaz Way
   San Diego, CA 92123
   Attn: Becky Weber

All invoices and payments shall be in United States dollars ("USD"). All payments are due thirty (30) days from the date of invoice.

Notwithstanding anything to the contrary, Licensee acknowledges and agrees that: i) it must provide SAP with a valid purchase order for the Services to be delivered under this Order Form, and SAP shall have no obligation to commence delivery of the Services hereunder until it receives such purchase order; ii) such purchase order shall be governed by the terms of the GTC and this Order Form; and (iii) should SAP, in its sole discretion, elect to commence delivery of Services hereunder in advance of its receipt of a purchase order, the same shall not operate as a waiver of any of SAP’s rights (including, without limitation, SAP’s right to stop its performance of Services at any time during the period where the purchase order remains outstanding):

**SAP contact** for invoice questions: Matt Homolka; matt.homolka@sap.com, 480-258-0868

**Licensee contact** for payment questions: Michelle Villa; mvilla@sandiego.gov; 619-236-6610

If any additional costs associated with providing Services outside the United States, such as, but not limited to, higher travel costs, visas, permits, special delivery arrangements, and taxes, withholdings, and/or deducts imposed on SAP and/or an individual consultant under applicable domestic or foreign law or regulation shall be reimbursable expenses hereunder.

The selection, staffing and deployment location of remote (off-site) resources assigned or deployed to deliver Services is at SAP's sole discretion.
3. **Fees and Payment Terms:**

Service Fees, excluding taxes, travel, and living expenses unless stated otherwise related to the performance of Services under this Order Form, are:

3.1 The Global Service and Support Service Elements as specified in Scope Document Exhibit 1 currently assigned and the associated Services Fees are as follows:

<table>
<thead>
<tr>
<th>Service Element</th>
<th>Rate (Hourly) in USD</th>
<th>Estimated # of Hours</th>
<th>Total in USD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Program Management</td>
<td>$421.75</td>
<td>36</td>
<td>$15,183.00</td>
</tr>
<tr>
<td>Project Management</td>
<td>$349.46</td>
<td>344</td>
<td>$120,210.80</td>
</tr>
<tr>
<td><strong>Project Management Support</strong></td>
<td>$265.10</td>
<td>36</td>
<td>$9,543.60</td>
</tr>
<tr>
<td><strong>Quality Assurance Management</strong></td>
<td>$421.75</td>
<td>24</td>
<td>$10,122.00</td>
</tr>
<tr>
<td>Design Services</td>
<td>$349.46</td>
<td>592</td>
<td>$206,880.32</td>
</tr>
<tr>
<td>Execution Services</td>
<td>$265.10</td>
<td>976</td>
<td>$256,737.60</td>
</tr>
<tr>
<td>Fixed Fee: GEO.e Services Package +</td>
<td>n/a</td>
<td>n/a</td>
<td>$105,000</td>
</tr>
<tr>
<td>Synchronization Framework</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subtotal</td>
<td></td>
<td></td>
<td>$725,677.32</td>
</tr>
<tr>
<td><strong>Services (if used) at no charge to Licensee</strong></td>
<td></td>
<td></td>
<td>($10,665.60)</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>$706,011.72</td>
</tr>
</tbody>
</table>

The estimated Services Fees for the Scope Document Exhibit 1 are $706,011.72 USD (excluding travel and expenses). This estimate is for Licensee's budgetary and SAP's resource scheduling purposes only and is non-binding. The estimate is based on the information provided by Licensee to SAP and SAP's understanding of the Project scope, based on Licensee information. The estimated fees, timeline and scope may be subject to change and the total actual amount of Services provided will be invoiced based on time and material. Services Fees shall be payable monthly in arrears.

SAP agrees to cease performing the Services upon reaching the agreed upon amount of $706,011.72 USD of Services Fees and $87,000.00 USD of Travel and Expenses under this Order Form ("Estimated Fees") unless the parties agree otherwise in the form of a mutually agreed change order extending such Services and fees ("Extended Change Order"). Customer shall not be responsible for payment in excess of the Estimated Fees unless both parties have signed such Extended Change Order. Customer agrees and understands that the project and any Services to be performed by SAP under this Order Form may not be completed upon SAP ceasing to perform such Services upon reaching the agreed upon amount and SAP shall have no liability in regard to the same.

SAP reserves the right to change the rates upon thirty (30) days' notice. Any increased rate(s) shall not exceed the prior rate(s) plus an adjustment made for increases in the consumer price index plus 3%. CPI as used herein means U.S. Consumer Price Index for all Urban Consumers, U.S. City Average - All Items 1982-1984 = 100 Base for the applicable twelve (12) month period as published by the Bureau of Labor Statistics.

The Services will be provided between the Expected Start Date: January 16, 2017 and the Expected End Date July 31, 2017.

The Expected Start Date and Expected End Date are estimated dates only. This Order Form will remain in effect until the Services agreed have been concluded unless otherwise agreed between the parties in writing, and as limited by the terms of the Software License Agreement.

Expenses will be billed on a monthly basis, as incurred, with Travel and Expenses not to exceed a total of $87,000, unless Customer and SAP otherwise agree to changes in the "Estimated Fees" amount. All Invoices are due net 30 days from date of invoice. Lodging and Per Diem must follow the guidelines as published/posted on the U.S. General Services Administration website (http://www.gsa.gov/portal/category/100120). Lodging will be reimbursed at
actual costs (receipts required) up to a maximum of 15% above the maximum allowance per GSA. Meals and Incidental Expenses (M&IE) will be reimbursed at actual costs (receipts required) up to the maximum allowance per GSA.

Air travel must be booked in Economy class.

4. Service Location

The location for the Services provided hereunder is identified by Licensee as: 1200 3rd Ave, San Diego, CA 92101 ("Service Location"). Licensee agrees and understands that the calculation of Taxes may be affected by the Service Location.

Fees and other charges described in this Order Form do not include federal, state or local sales, foreign withholding, use, property, excise, service, or similar transaction taxes ("Tax(es)"), now or hereafter levied, all of which shall be for Licensee's account. With respect to state/local sales tax, direct pay permits or valid tax-exempt certificates must be provided to SAP at the execution of this Order Form. If SAP is required to pay Taxes, Licensee shall reimburse SAP for such amounts. Licensee hereby agrees to indemnify SAP for any Taxes and related costs, interest and penalties paid or payable by SAP. Licensee also agrees to pay SAP for additional personal income tax amounts, if any, created by the taxability of Consultants reimbursed travel and living expenses resulting from long term assignments at Licensee's locations.

5. Term: The term of this Order Form shall commence January 16, 2017 ("Effective Date") and shall continue until all Services under this Order Form are completed or terminated ("Term").

6. Validity of Offer: The validity of this offer will expire on January 13th, 2017, unless sooner executed by Licensee and SAP, or extended in writing by SAP.

Accepted by:
SAP Public Services, Inc.
(SAP)
By: [Signature]
Title: Vice President, SAP Public Sector Services
Date: 18 January 2017

Accepted by:
City of San Diego
(Licensee)
By: [Signature] Kristina Peralta
Title: Director
Date: 18/01/2017 Purchasing & Contracting
Exhibit 1

To

Global Service and Support Order Form
SAP Reference No. 302414145

effective January 16, 2017 ("Effective Date")

Scope Document 1

Project Definition

This Exhibit 1 to the Statement of Work (SOW) addresses the Implementation Consulting Services required of the Project. It is mutually understood that business requirements, resources and dates may change subject to the applicable terms of this Statement of Work and that any such material change requested by Licensee or as a result of Licensee inability to provide agreed upon resources, fulfill applicable assumptions and to perform the Licensee Responsibilities set forth herein or the result of Licensee errors or omissions may result in a Change Request in accordance with the Change Request Procedure as defined in Exhibit 2. Licensee is responsible for requesting changes to the requirements for Services. The SAP Project Manager shall assist in planning the Project, and quality checking the activities and progress. It is understood by SAP and the Licensee that any material changes to scope that are requested, will be addressed through a formal change request process. Material changes are those which specifically will impact budget, scope, timeline or resources.

1. Spatial Enablement Engineered Service Scope of Work

   The scope of this Engineered Service comprises the following:
   - GIS Readiness Assessment
   - Engineered Service for SAP EAM Spatial Implementation and SAP/GIS Synchronization through Realization Phase
   - A Blueprint for the following integrations / functionalities:
     a. GEF/GEO.e Integration with Master Data Governance (MDG)
     b. GEF/GEO.e Integration with Mobile Work Manager (MWM)
     c. GEF/GEO.e Integration with Multiple Resource Scheduling (MRS)
     d. GEF/GEO.e Integration with SAP Project Systems (PS)
     e. GEF/GEO.e Integration with CalAmp AVL for Truck Locations and History
   - Preparation of an Estimate for the following
     a. Realization of the following integrations / functionalities:
        i. GEF/GEO.e Integration with Master Data Governance (MDG)
        ii. GEF/GEO.e Integration with Mobile Work Manager (MWM)
        iii. GEF/GEO.e Integration with Multiple Resource Scheduling (MRS)
        iv. GEF/GEO.e Integration with SAP Project Systems (PS)
        v. GEF/GEO.e Integration with CalAmp AVL for Truck Locations and History
     b. Final Preparation and Go-Live Support

1.1. Target SAP Environment

   Please refer to the following document:

   SAP.GEO.Activities
   atw Hướng
   Order Form 1.2 enUS.v.0-2-2015
1.2. Engineered Service for SAP EAM Spatial Implementation and SAP/GIS Synchronization

1.2.1. Functional Locations and Equipment

Sixty (60) Asset Types in SAP EAM either as functional locations or equipment are estimated to be geo-enabled during this project. These technical objects must be configured prior to the start of the realization phase of this spatial enablement service.

For these functional locations or equipment an additional tab will be provided in the master data transaction to show where this asset is located (local view).

- Geo tab user exit implementation and tab control
- On-save logic for geometry
- Business Layer reports (See Figure 1)
  - For Equipment or Functional Location (FL) there will be 3 default layers
    - Zoom to Layer (Local View)
    - Equipment FL with/without open Order
    - Equipment FL with/without open Notification
  - One custom layer based on standard SAP object data field (Status for example).
- Create Equipment and Geo locate from Local View (IE01)

![Figure 1 Business Layer Report](image)

1.2.2. Notifications

Geo-Enabled Notification Types will be determined during the blueprint sessions. This estimate assumes five (5) Notification Types will be geo-enabled

- Geo tab control via user exit
- Notification on-save
- Business Layer reports (See Figure 1)
  - Notifications default layers
    - Zoom to (Symbol Category TBD)
    - Open Status (Symbol Category TBD).

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Order Form 1.2 enUS.v.6-2-2015
1.2.3. Work Orders

Geo-Enabled Order Types will be determined: (possibly including: [Routine, Reactive, and Preventive]). This estimate assumes five (5) Order types will be geo-enabled

- Geo tab control via user exit
- Order on-save
- Business Layer reports (See Figure 1)
  - Orders default layers
    - Zoom to (Symbol Category TBD)
    - Open Status (Symbol Category TBD)
- Create Work Order from selecting Equipment record or Functional Location from within Geo Explorer
  - Geometry for work order initially copied from the header linked object.
  - Ability to modify work order geometry as Point, Polyline, Polygon from within Local view (ie: IW31, IW32)

1.2.4. Geo Explorer Embedded Search (See Figure 2)

Search Attributes (TBD) specific to object type, with display fields for the following Geo-enabled objects.

- Functional Locations and Equipment described in section 1.2.1
- Notifications described in section 1.2.2
- Work Orders described in section 1.2.3

[Diagram of Geo Explorer]

Figure 2 - Embedded Search

1.2.5. Geo Extended list edit from the following Transactions:

- IL05 Functional Locations
- IE05 Equipment
- IW38 Work Orders
- IW28 Notifications

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Order Form 1.2 enUS, v.6-2-2015
1.2.6. Object Description Fly out

SAP will blueprint and configure up to eight (8) attributes in the fly out window for each geo-enabled object type. (Provide the following type of object information when hovering over a geo-enabled object from within GEO Explorer). Not limited to the following list:

- Object number range identifier
- Object description
- Object ID
- Object Status

1.2.7. Referential Layers

SAP will blueprint and configure up to 30 (thirty) Reference Layers from the Enterprise GIS (feature services). Reference layers have to be provided by the customer. (See Figure 3)
1.2.8. Base Maps

SAP will blueprint and configure up to four (4) Base Maps (tiled and cached). Base maps have to be provided by the customer.
(See Figure 4)

![Base Maps Diagram](image)

Figure 4, Base Maps

1.2.9. GEO - Synchronization

For the Geo-enabled assets listed in section 2.1.1 SAP will blueprint and configure the functionality stated below:

**GEO.eSync** is the framework to exchange data from the Enterprise GIS into the geo-enabled SAP or the other way around.

GEO.eSync uses ESRI native REST feature services to pull data from the Enterprise GIS or to push data from the geo-enabled SAP into the Enterprise GIS. GEO.e Sync comes with configuration tables to configure:

- The mapping of feature services in the Enterprise GIS into objects in SAP
- The mapping of fields to be transferred from/to feature services in the Enterprise GIS into/from SAP
- Conversion rules for specific field values during the transfer from/to the Enterprise GIS in-to/from SAP

The GEO.eSync Framework starts processing based on triggers which insert synchronization messages into the message queue of the GEO.e Sync Framework. Messages will be inserted into the message queue...

- For any new, updated or to be terminated object in SAP (to be sync'd into the GIS) using standard BAdIs (Business Add-ins) within SAP.
- For new, updated or to be terminated objects by the Enterprise GIS (to be sync'd into SAP).

**Scope in regards to the Sync Framework:**

- New assets are created first in the Enterprise GIS and will be pulled by the geo-enabled SAP PM from ESRI GIS using the GEO.e Synchronization Framework. Maximum 5 attributes plus the geometry will be transferred in order to create or update functional locations or equipment in SAP Plant Maintenance.
- The same procedure applies for any update and termination of objects.
- It is assumed that the synchronization messages are inserted by a tooling support on the GIS side
- If a functional location has to be linked to an existing functional location hierarchy it is assumed that the GIS provides the superior functional location.
If equipment should be installed in a functional location it is assumed that GIS provides the functional location accordingly.
- LAM enabled Equipment, Functional Locations and Transactions is out of scope for this project
- Define the triggers for the synchronization process.
- Support SAP side of the GEO Synchronization process and framework.
- Support Licenses with the ESRI side of the GEO Synchronization process and framework.
- Licensee Functional Locations and Equipment record Hierarchy will be used for the Sync and will need to be defined for the geo-enabled assets prior to this project and configured before the start of the realization of this project.
- There will be one to one relationship between objects linked between SAP and the Enterprise GIS

1.2.10. GEO.e REST Feature Service

A REST feature service out of GEO.e will be configured for only 20 (Twenty) SAP geo-enabled objects. This feature service can be consumed by (SAP) external applications like ESRI ArcMap or ESRI ArcGIS Desktop (Version 10.1 or higher)

The REST feature service can include but not limited to the following attributes,
- Base Layer for Asset
- Asset Description
- Asset ID

This SOW is using Five (6) attributes per asset type for estimation purposes.

1.2.11. Specific CoSiD GEO-Enablement requirements

- Ability to navigate between GIS features and corresponding SAP Plant Maintenance master data objects
- Ability to navigate between GIS features and corresponding SAP Plant Maintenance transactional data objects
- Capability for real time data synchronization between GIS and SAP for updates made in the system of record.
  - Estimate is based on Asynchronous mode
- Capability for GIS feature symbology based on SAP data attributes
- Ability to perform a search for data objects in SAP and view output on map
- Ability to perform a spatial search on map and view selected list in SAP
- Capability to search, display on a map work orders and notifications based on data attributes
- Ability to select features within an area on the map, or based on spatial relationships, and create a single order containing the technical objects corresponding to the selected features
- Ability to view pending work on a map with color codes or other symbology based on status and remaining days to required completion date
- Ability to associate geometry for transactional data (Work Order, Notification, Project WBS ) without a reference master data object
- Ability to access documents associated with the GIS object (documents linked to technical object as part of SAP-OpenText integration)
  - Access to document URL from GEO.e Explorer
- Ability to use a residential address as input criteria and search for nearby functional locations and equipment
- Ability to select features within an area on the map, or based on spatial relationships, and create a separate order/notifications for each selected feature.
  - This will be based on standard GEO.e functionality
- Ability to export map image or print map
  - Using standard GEO.e Explorer functionality
- Ability for user to select which base map is used.
- Ability to display all GIS attribute data related to a GIS object.
  - Based on features supplied through REST service created by Licenses GIS department

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SAP/ESRI Synch Capabilities

- Ability to identify system of record for master data attributes available in both SAP and GIS, and only enable data updates in the system of record.
- Capability for real-time data synchronization between GIS and SAP for updates made in the system of record will be evaluated per asset type during blueprinting phase.

ADD ON Capabilities

- Ability to measure the selected region with a Measure Tool (Area, Curves, Lines, 3D) to the GEO Explorer will be evaluated during the blueprinting phase.
- Ability to search map by (any existing) GIS attribute.
- Ability to View historical GPS data including ping and sensor data will be evaluated during the blueprinting phase. Realization of this functionality is outside the scope of this Order Form.
  - When a sweeping truck is in the field, GPS is used to provide the movement of the truck and it pings the co-ordinates at a certain frequency. This information is stored to check where all did the truck travel on a certain date, information on sweeping brush On and OFF is also captured and sent to GIS and is highlighted on the map with a color code. Every time the brush gets turned on and off the data is sent to GIS.

1.2.12. Document Access (Open Text)

Access to documents will be through the native SAP transaction. GEO-Enablement will provide access to the native transaction from the map interface. This method does not require special consideration for specific document functionality.

SAP will define the requirement in the blueprint workshop. It is possible to add a document URL for a geo-enabled object.

1.3. Specific GEF/GEO a Integration with SAP Project Systems:

SAP will provide a blueprint which will include the geo-enablement of:
- WBS Element and Project Header.

1.4. Specific GEF/GEO a Integration with Mobile Work Manager (MWM) Requirements:

SAP will provide a blueprint which will include the following functionality:
- Ability to view work list for a crew on a map in mobile application
  - Geometry for Orders and Notifications from GEO Database
- Ability to select a feature on a map and initiate a new notification or work order using mobile application
  - Geometry for new WO and Notification written to GEO Database
- Ability to select a feature on a map and initiate master data corrections using mobile application
  - Corrections for master data using mapping discrepancies notification type. Need to define process also with GIS team
- Ability to seamlessly navigate between work list and corresponding map view on mobile application
- Ability to capture coordinates at the time of work confirmations
  - SAP will blueprint the maintenance of geometry for confirmation object

1.5. Specific GEF/GEO a Integration with Multiple Resource Scheduling (MRS) Requirements:

SAP will provide a Blueprint which will include the following functionality:
- Capability for map-based work scheduling and dispatching - select, drag-and-drop orders and notifications to resources.
SAP will provide the ability to select orders for scheduling from the GEO Explorer and send the orders to MRS. SAP will not provide GEO functionality from within the MRS application.

- Capability to view truck location on a map based on real-time location updates from AVL system
  - SAP will provide a reference layer for truck locations in the GEO Explorer if it is available through a reference layer provided by the Enterprise ESRI GIS
- Ability to map inspection areas in order to support default assignment of specific inspectors to an area
  - SAP will blueprint the GEO. enablement of Responsible Maintenance Work Center polygons

1.6. **Specific GEF/GEO a Integration with Master Data Governance (MDG)**

SAP will provide a Blueprint for integration with Utopia Master Data Governance for EAM

1.7. **GIS Readiness Assessment**

The Readiness Assessment includes the following activities:

**Pre-visit Customer Questionnaire**

To fast-track the GIS Readiness Assessment, SAP will send a pre-visit customer questionnaire for initial information gathering to quickly understand the organizational structure, nature of the organization and GIS implementation(s), and information about key information technology (IT) standards and policies. This information will help inform SAP and shape the agenda for the on-site interviews.

**On-site Interviews**

Over the course of one (1) business day, SAP's geospatial experts will meet on-site with City of San Diego to perform information workshops and data gathering. Interviews will focus on additional information gathering from the pre-visit questionnaire and gaining feedback from stakeholders regarding anticipated opportunities and challenges and expected outcomes from the enterprise GIS.

1.7.1. **Readiness Assessment**

Preparation of the draft Readiness Assessment review. The Readiness Assessment will incorporate Metropolitan District Commission's feedback and then be finalized. The Readiness scorecard will assess the current (“as-is”) state of the following categories. Each of the categories will be given an overall readiness score (in red-yellow-green “stoplight” chart format) as well as a summary of findings:

**GIS Data Readiness**

Summarizing the availability and state (accuracy, completeness) of required spatial data, format of spatial data (ESRI or other formats including but not limited to CADD or analog/paper maps), and assessment of current processes used to maintain these spatial data. Major gaps between current and anticipated future data maintenance processes will be identified as well.

**GIS Technology Infrastructure Readiness**

Summarizing the availability of hardware and software (GIS, middleware/enterprise bus, etc...) including available licenses, appropriate/latest versions, and a summary of network/server capacity and scalability of existing relevant technology infrastructure.

**GIS Organizational Readiness**

An assessment of Licensor's readiness to support new software, hardware, data maintenance processes and application/system administration and support. This includes assessing the organization's staff readiness during both the implementation and ongoing operations and maintenance (O&M) phases. The presence of organizational
support for GEO.e implementation (typically, IT and GIS Department support) as well as staff bandwidth and skillsets to support the implementation will be assessed.

2. Licensee Duties and Responsibilities

The Licensee has, among others, the following duties and responsibilities related to this contract for the GEO.e Service:

- If required the customer has to provide the necessary offices and infrastructure (computers, software, phones) without any additional charge to SAP. This includes a remote connection to the relevant SAP system(s) and the ArcGIS Server(s).
- The customer provides a responsible contact. This contact is coordinating all required meetings with the necessary stakeholders.
- Provision and administration of the required hardware and software.
- Provision of the SAP landscape, the SAP basis administration to take care about the logistics of transport requests.
- Accepting the terms and conditions for the use of the tool JavaScript ESRI Inc. This ESRI tool is not part of this contract and not a contractual deliverable of SAP.
- Organization and Scheduling of required workshops.
- Creation of user manuals if required.
- Provision of a remote access to the SAP system(s) and ESRI server(s).
- Customer must provide the right resources to support this GEO.e project. These resources must have the know-how and experience of the relevant business processes and must be empowered to take the relevant and final decisions.

These obligations are one of the major responsibilities of the Licensee and are the major prerequisites of a successful project to be delivered by SAP.

The Licensee is not only responsible for the required input and support in a proper and timely manner by its employees but also for 3rd party contractors which are contracted by the Licensee.

3. Spatial Enablement Service Pre requisites / Assumptions

Prerequisites for commencement of the package service:

- A HANA Server installed (See section 1.1). This server (hardware and software licenses) is not part of this package and has to be provided by the Licensee.
- This implementation will use GEO.e functionality and will utilize GEF / HANA database. The implementation will use GEF configuration, and therefore require GEF license.
- A Geographical Enablement Framework (GEF) license will be required and is not included in this SOW.
- A remote system OSS R/3 connection is available. OSS HTTP Connection URL. Access to be able to connect to the ArcGIS Server (ERP GDB), which will stay up and reasonably connected to the appropriate SAP project infrastructure from start of prototype. To be able to configure the ArcGIS Server a WDS or VPN connection (or similar) has to be granted.
- The Licensee will arrange for users with extended SAP authorization (ideally SAP_ALL) and developer keys.
- A SAP basis contact available to support the GEO.e team.
- One type of GIS projection is assumed.
- Referential layers to be provided by the Licensee.
- The relevant data objects in SAP EAM have to be configured or a current blueprint exists before the blueprint phase of this SOW can start.
- The relevant data objects in SAP EAM have to be configured before the realization phase of this SOW can start.
- The relevant data objects are coded and configured or a current blueprint exists before the blueprint phase of this SOW can start for the following integrations:
  - Master Data Governance
  - Mobile Work Manager
  - Multiple Resource Scheduling

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4. Out of Scope

The following items are out of scope for this phase of the project:

- Final Preparation and Post go-live Support Phases
- Realization of the following integrations
  - Utopia Master Data Governance for EAM
  - SAP Mobile Work Manager
  - SAP Multiple Resource Scheduling
  - SAP Project Systems
  - Truck Routing History or Current Locations
- The Geo-enablement of Linear Asset Module (LAM) enabled Equipment, Functional Locations and Transactions is out of scope for this project.
- SAP is not responsible for the data migration / conversion of the asset geometry. SAP will assist with the definition of a process.
- Solution scenarios other than the predefined solution scenarios or services described herein. Solution scenarios and relevant business objects are not part of this framework and need to be individually agreed.
- Variants other than the predefined variants described herein. Variants are not part of the provisioning framework and need to be individually agreed.
- Support and maintenance of the installation on the customer system, extension and configuration which are not mentioned in this document.
- Licenses or other rights of use for other solutions, tools, map services or software (e.g., licenses for SAP software or other 3rd party software), even if they are required to run this GEO.e service.
- Every type of a change or enhancements to the GEO framework which are not mentioned in this document.
- Interfaces to a third party (beside the ESRI Enterprise GIS, Utopia MDG for EAM, and CalAmps AVL) or to legacy systems.
- Licensee-specific authorizations/roles and security concept.
- User training/education.
- Country-specific adaptations.
- Required industry-specific adaptations.
- It is assumed that there will be only one shape file format and one projection.
- Functions and Items that are not explicitly listed as “in scope” are “out of scope.”
- Test execution of product/integration testing is the responsibility of Licensee.
- Creation of product test scripts is the responsibility of the Licensee.
5. Spatial Enablement Service Deliverables

The deliverables for this service are:

- GIS Readiness Assessment
- Engineered Service for SAP EAM Spatial Implementation and SAP/GIS Synchronization through Realization Phase
  - GEO.e Readiness Assessment report
  - GEO.e Weekly Project Status Report
  - Blueprint design document
  - Configuration document
  - GIS/SAP Interface Functional Specification
  - GEO.e / GIS Data Synchronization Requirements
  - Realization of the functionality described in Section 1 above
  - Corrections required due to testing

- A Blueprint for the following integrations / functionalities:
  - GEO.e Integration with Master Data Governance (MDG)
  - GEO.e Integration with Mobile Work Manager (MWM)
  - GEO.e Integration with Multiple Resource Scheduling (MRS)
  - GEO.e Integration with SAP Project Systems (PS)
  - GEO.e Integration with CalAmp AVL for Truck Locations and History
- Preparation of a Statement of Work for the following:
  - Realization of the following integrations / functionalities:
    - GEO.e Integration with Master Data Governance (MDG)
    - GEO.e Integration with Mobile Work Manager (MWM)
    - GEO.e Integration with Multiple Resource Scheduling (MRS)
    - GEO.e Integration with SAP Project Systems (PS)
    - GEO.e Integration with CalAmp AVL for Truck Locations and History
  - Final Preparation and Go-Live Support

<table>
<thead>
<tr>
<th>ASAP Phase</th>
<th>GEO.e Implementation Tasks</th>
<th>Primary Responsibility</th>
<th>Supporting Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Preparation</td>
<td>Project Initiation and Kick-off Meeting</td>
<td>SAP</td>
<td>Licensee</td>
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<tr>
<td></td>
<td>Review existing or to-be SAP business processes</td>
<td>SAP</td>
<td>Licensee</td>
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<td></td>
<td>Review Client's existing GIS environment and data</td>
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<td>management processes</td>
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<td>Review Client's asset lifecycle as it relates to EAM and Gis</td>
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<td>Licensee</td>
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<td>Conduct GIS Readiness Workshop(s)</td>
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<td>Licensee</td>
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<tr>
<td></td>
<td>Develop GIS Readiness Checklist</td>
<td>SAP</td>
<td>Licensee</td>
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<tr>
<td>Blueprinting</td>
<td>Identify business processes for geo-enablement</td>
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<td>Licensee</td>
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<td>The relevant data objects in SAP EAM have to be</td>
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<td>configured before the realization phase of this SOW can</td>
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<td>The relevant data objects are coded and configured or a</td>
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<td>current blueprint exists before the blueprint phase of this</td>
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<td>SOW can start for the following integrations:</td>
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<td>Master Data Governance</td>
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<td>Mobile Work Manager</td>
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<td>Multiple Resource Scheduling</td>
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<td>Project Systems</td>
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<td></td>
<td>Truck Routing History or Current Locations</td>
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<td></td>
<td>Determine GEO.e requirements</td>
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<td>Licensee</td>
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<td>Rank and prioritize functional requirements</td>
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<tr>
<td>ASAP Phase</td>
<td>GEO.e Implementation Tasks</td>
<td>Primary Responsibility</td>
<td>Supporting Role</td>
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<td></td>
<td>Perform requirements gap analysis on existing GEO.e / GEF functionality</td>
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<td></td>
<td>Document data flow between GIS and SAP (including common editing scenarios)</td>
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<td>Licensee</td>
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<tr>
<td></td>
<td>Determine system of record (SOR) for data shared between GIS and EAM</td>
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<td>Licensee</td>
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<tr>
<td></td>
<td>Document requirements for enhancements to the GEO.e viewer measurement tool</td>
<td>SAP</td>
<td>Licensee</td>
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<td>Determine data conversion (including schema changes) needs to support implementation</td>
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<td>Develop GEO.e Functional Specification Document</td>
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<tr>
<td></td>
<td>Develop Data Sync Functional Specification Document (GAP and GIS side)</td>
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<td>Setup HANA Spatial Database for Dev and QA</td>
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<td>Realization</td>
<td>Create and Configure Work Order/Notification Feature Classes in SAP GDB</td>
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<td>Licensee</td>
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<td></td>
<td>Create and Configure Asset Feature Classes in SAP GDB</td>
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<td>Data Cleansing and Schema Modification in corporate GDB</td>
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<td>Install and configure GEO Frameworks</td>
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<td>Build/Configure GIS/SAP Synchronization Interface (sending)</td>
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<tr>
<td></td>
<td>Build/Configure GIS/SAP Synchronization Interface (receiving)</td>
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<tr>
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<td>Unit Test GEO.e</td>
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<tr>
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<td>Unit Test GIS/SAP Data Synchronization Interface</td>
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<td>Develop Licensee Executed Test Scripts</td>
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<td>Develop Training Material</td>
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<td>Conduct Integration Testing on End to End Processes</td>
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<td>Setup HANA Spatial Database for Prod</td>
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<td></td>
<td>Develop Data Sync Technical Specification Document</td>
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<td>Develop GEO.e Technical Specification Document</td>
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<tr>
<td></td>
<td>Conduct User Acceptance Testing</td>
<td>Licensee</td>
<td>SAP</td>
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<tr>
<td></td>
<td>Conduct Go-Live Readiness Assessment</td>
<td>SAP</td>
<td>Licensee</td>
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</tbody>
</table>

6. General

**General Assumptions**

- All SAP objects and modules are configured and ready for geo enablement or a current blueprint for the same exist. This includes all relevant objects and Transactions related to Plant Maintenance, Mobile Work Manager, Master Data Governance, Project Systems, Multiple Resource Scheduling and Truck Routing and history stored in Enterprise GIS.
- Required key staff, including the process owners, process users, and appropriate supervisors, will be available at needed times and will be present at applicable project meetings and workshops. The meetings and workshops will be planned in advance to provide attendees sufficient time to plan availability.
- All work will be performed by US staff or staff augmentation team members.
- On-site and remote access to relevant systems will be available.
- Supplier resources will be able to work remotely (off-site) when project activities permit and with the agreement of SAP. Requirements related meetings and design workshops will be conducted onsite.
- SAP will use, as appropriate, SAP's intellectual property (pre-existing work, techniques, and methodologies) to deliver the requirements in this statement of work. City of San Diego is granted a perpetual non-exclusive license.
to use any SAP IP incorporated into SAP final deliverable(s) within the intended scope of the deliverable in exchange for SAP's rights to reuse new techniques developed to meet the statement of work.

- All software and licenses necessary to make functional Supplier's deliverables will be provided by Licensee which covers third party software.
- The SAP resource(s) will not be available until after all of the following have occurred:
  - Receipt of a signed contract and notice to proceed.
  - SOW has been accepted by Supplier.

7. Project Resource Load

Project resources will be on-site for Initial requirements and blueprint Workshops. Follow up meetings required for clarifications will be held remotely. Realization phase will have a resource allocation of 90% remote and 10% on-site.

The core team roles and responsibilities outlined below are the basis for SAP's implementation plan, resource and cost estimates based on the following SAP Service Elements in scope for this engagement:

Licensee will provide knowledgeable, decision empowered resources that are available to work on the projects as part of the project team. Lack of availability of core project team members or failure to complete the responsibilities in a timely manner as per the project timeline will affect the project schedules and SAP shall present to Licensee the impact of this to be handled as part of the Change Order procedures. The Licensee core team roles are identified and defined below; there may be other part-time subject matter experts or site resources required from Licensee over the course of the project.

<table>
<thead>
<tr>
<th>SAP Roles</th>
<th>Percent Onsite</th>
</tr>
</thead>
<tbody>
<tr>
<td>Executive Sponsors</td>
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<tr>
<td>Client Partner</td>
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<tr>
<td>Delivery Executive</td>
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<td>Associate Project Manager</td>
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<td>Spatial Enablement Services (SES) Architect</td>
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<td>SES Functional</td>
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<td>GIS Lead</td>
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<td>SES/MWM Developer</td>
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<table>
<thead>
<tr>
<th>Licensee Roles</th>
<th>Role Type</th>
<th>Headcount</th>
<th>Work Location</th>
</tr>
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<tbody>
<tr>
<td>Steering Committee</td>
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<td>Multiple</td>
<td>On Site</td>
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<tr>
<td>Executive Sponsor</td>
<td>PT</td>
<td>Single</td>
<td>On Site</td>
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<td>Project Manager</td>
<td>FT</td>
<td>Single</td>
<td>On Site</td>
</tr>
<tr>
<td>Business Process Owner</td>
<td>PT</td>
<td>Multiple</td>
<td>On Site</td>
</tr>
<tr>
<td>Team Lead</td>
<td>FT</td>
<td>Single</td>
<td>On Site</td>
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<td>Team Member</td>
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<td>Subject Matter Expert</td>
<td>PT</td>
<td>Multiple</td>
<td>On Site</td>
</tr>
</tbody>
</table>
8. Project Governance

SAP will adhere to the Licensee project governance process

8.1. Escalation and Conflict Management

In the event that any issues are not resolved by the project team the Licensee and SAP shall be entitled to escalate such issue in accordance with the table below:

<table>
<thead>
<tr>
<th>SAP representative</th>
<th>Discusses the issue with</th>
<th>Licensee Representative</th>
<th>Time goal for each level to resolve the dispute before escalation to the next stage.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. SAP Project Manager</td>
<td>Discusses the issue with</td>
<td>Licensee Project Manager</td>
<td>1 Business Day</td>
</tr>
<tr>
<td>2. SAP Delivery Executive</td>
<td>Discusses the issue with</td>
<td>Licensee Project Director</td>
<td>2 Business Days</td>
</tr>
<tr>
<td>3. SAP Delivery VP</td>
<td>Discusses the issue with</td>
<td>Licensee Project Executive Sponsor</td>
<td>2 Business Days</td>
</tr>
</tbody>
</table>

9. Timeline

9.1. Readiness Assessment

<table>
<thead>
<tr>
<th>Task</th>
<th>Start Date</th>
<th>Completion Date</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-visit Customer Questionnaire sent to COSD</td>
<td>1/13/2017</td>
<td>1/30/2017</td>
<td>3 Business Days to review questionnaire responses, Q&amp;A, and prep Onsite Interviews</td>
</tr>
<tr>
<td>Onsite Interviews at COSD</td>
<td>2/6/2017</td>
<td>2/7/2017</td>
<td>2 Days Onsite (Mon/Tue)</td>
</tr>
<tr>
<td>SAP Prepares Draft Readiness Assessment</td>
<td>2/8/2017</td>
<td>2/10/2017</td>
<td>3 Business Days to prepare Readiness Assessment</td>
</tr>
<tr>
<td>COSD Reviews Readiness Assessment and provides comments</td>
<td>2/13/2017</td>
<td>2/17/2017</td>
<td>5 Business Days to review Readiness Assessment</td>
</tr>
<tr>
<td>SAP Addresses Comments and Prepares Final Readiness Assessment</td>
<td>2/20/2017</td>
<td>2/22/2017</td>
<td>3 Business Days to address comments and prepare final Readiness Assessment</td>
</tr>
<tr>
<td>Final Readiness Assessment Delivered</td>
<td>2/24/2017</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
9.2. **General Project Timeline**

<table>
<thead>
<tr>
<th>Program Phase</th>
<th>Dur Wks</th>
<th>Start Week</th>
<th>End Week</th>
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<tbody>
<tr>
<td>DIS Network Assessment</td>
<td>2</td>
<td>16-Jan-17</td>
<td>22-Jan-17</td>
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<tr>
<td>Architecture Review</td>
<td>2</td>
<td>16-Jan-17</td>
<td>22-Jan-17</td>
</tr>
<tr>
<td>Preparation</td>
<td>2</td>
<td>20-Jan-17</td>
<td>26-Jan-17</td>
</tr>
<tr>
<td>Installation Commission Testing</td>
<td>2</td>
<td>22-Feb-17</td>
<td>15-May-17</td>
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<tr>
<td>Total</td>
<td>13</td>
<td>03-May-17</td>
<td>15-May-17</td>
</tr>
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</table>

SAP Confidential
Order Form 1.2 enUS.v.6-2-2015
Exhibit 2

To
Global Service and Support Order Form
SAP Reference No. 302414146

effective January 16, 2017 ("Effective Date")

Change Request Procedure

1. Describe the requested change:

2. Define the impact, if any, on existing Services and Deliverables (if any):

3. Define additional Services required as a result of the requested change, if any:

4. Define the impact, if any, to the existing Project plan. Provide an updated Project plan if appropriate.

5. Provide an updated Services and payment schedule, if appropriate.

Accepted by:
SAP Public Services, Inc.
(SAP)
By: ____________________________
Title: __________________________
Date: __________________________

Accepted by:
City of San Diego
(Licensee)
By: ____________________________
Title: __________________________
Date: __________________________
Exhibit 3

To
Global Service and Support Order Form
SAP Reference No. 302414146

effective January 16, 2017 ("Effective Date")

Professional Services Agreement (PSA)/Professional Services Schedule (PSS)

City of San Diego -
PSA/PSR.pdf
Purchasing and Contracting Department  
City of San Diego  

REQUEST AND CERTIFICATION FOR SOLE SOURCE PROCUREMENT

To:  Purchasing and Contracting Director or Designee

From:  An Bui  
Program Manager  
Name  

Department of Information Technology  
Title  
Department  

Date:  January 11, 2017

1.  Describe goods or service(s) to be purchased. Include vendor’s cost, City stock number if applicable, name, and telephone number:
Geospatial Enablement Engineered Service (GEF/GEO.e) - $773,011.72
SAP – Matt Homolka  
(480) 258-0668

2.  Explain why strict compliance with a competitive process would be unavailing or would not produce an advantage, and why soliciting bids or proposals would therefore be undesirable, impractical, or impossible:
SAP is the developer of GEO.e, an engineered solution for the integration of SAP with ESRI GIS, and is the only vendor that can install and implement this solution. The integration framework on which GEO.e is to be implemented for the I AM San Diego Project is SAP Geographic Enablement Framework (GEF). GEF is a new SAP product and SAP is the only vendor currently with the specific expertise to design and implement on GEF for the Project. These factors combined with their proprietary and expert knowledge of their products is critical to the success of this Project. Other vendors in the marketplace do not have the depth and breadth of expertise that SAP has. Given these factors, solicitations for other solutions would not be to any benefit to the City at this time.

3.  This sole source procurement is necessary because:

☐ Goods are available from only one source

☐ The requested goods are replacement parts or components for existing City equipment or required by warranty and/or insurance coverage

☐ The contract is necessary for the reasons explained in San Diego Municipal Code (SDMC) section 22.3208(d) (explain) Click here to enter text.
Other (describe) Since SAP is the developer of GEO.e and GEF is a new SAP product, SAP is the only vendor capable of designing, installing, and implementing the GEF/GEO.e solution for the I AM San Diego Project. SAP has the proprietary and expert knowledge of their product which is critical to the success of this implementation.

4.  Goods and services evaluated (add additional pages, if needed):

Sole Source Request and Certification  
Effective: October 13, 2014  
OCA Document No. 881681
<table>
<thead>
<tr>
<th>A. Click here to enter text.</th>
<th>Click here to enter text.</th>
<th>Click here to enter text.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good/Service</td>
<td>Name of Vendor</td>
<td>Bid Amount</td>
</tr>
<tr>
<td>Click here to enter text.</td>
<td>Telephone Number</td>
<td>SLBE Status</td>
</tr>
<tr>
<td>Person Contacted</td>
<td></td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>B. Click here to enter text.</th>
<th>Click here to enter text.</th>
<th>Click here to enter text.</th>
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</thead>
<tbody>
<tr>
<td>Good/Service</td>
<td>Name of Vendor</td>
<td>Bid Amount</td>
</tr>
<tr>
<td>Click here to enter text.</td>
<td>Telephone Number</td>
<td>SLBE Status</td>
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<tr>
<td>Person Contacted</td>
<td></td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>C. Click here to enter text.</th>
<th>Click here to enter text.</th>
<th>Click here to enter text.</th>
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</thead>
<tbody>
<tr>
<td>Good/Service</td>
<td>Name of Vendor</td>
<td>Bid Amount</td>
</tr>
<tr>
<td>Click here to enter text.</td>
<td>Telephone Number</td>
<td>SLBE Status</td>
</tr>
<tr>
<td>Person Contacted</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

REVIEWED:  
Department Director of Designee  
1/12/17

APPROVED:  
Deputy Chief Operating Officer  
1/12/2017

DENIED:  
Deputy Chief Operating Officer  

Reason for denial:

5. Purchasing Department Comments:  
I recommend approval of this sole source

Buyer:  
S. Shoaf  
1/17/17

Given the information in your memorandum, I certify that strict compliance with a competitive process would be unavailing or would not produce an advantage, and that soliciting bids or proposals would therefore be undesirable, impracticable, or impossible. My approval is valid for five (5) years from the signature date below. The requesting department must submit a purchase requisition and a copy of this certification to Purchasing and Contracting in order for a Purchase Order to be issued.

APPROVED:  
Purchasing Director/Designee under SDMC §22.3016  
1/20/17

Sole Source Request and Certification  
Effective: October 13, 2014  
OCA Document No. 881681
DENIED:

Purchasing Director/Designee under SDMC §22.3016

Reason(s) for denial:

---

Sole Source Request and Certification
Effective: October 13, 2014
OCA Document No. 881681
## Project Preparations

<table>
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<tr>
<th>Phase</th>
<th>Project Prep</th>
<th>Blueprint</th>
<th>Realization</th>
<th>Final Prep</th>
<th>Go-Live &amp; Support</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phase 1</td>
<td>11%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>779,061.72</td>
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<tr>
<td>Phase 2</td>
<td>11%</td>
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<td>0%</td>
<td>0%</td>
<td>0%</td>
<td>1,020,205.09</td>
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## Blueprint

<table>
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<tr>
<th>Phase</th>
<th>Project Prep</th>
<th>Blueprint</th>
<th>Realization</th>
<th>Final Prep</th>
<th>Go-Live &amp; Support</th>
<th>Total</th>
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</thead>
<tbody>
<tr>
<td>Phase 1</td>
<td>$85,890.19</td>
<td>$171,780.38</td>
<td>$515,961.90</td>
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## Realization - 80%

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<tr>
<td>COST CENTER</td>
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<td>2000000013</td>
<td>2000000013</td>
</tr>
<tr>
<td>GENERAL LEDGER ACCT</td>
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<td>513302</td>
<td>513302</td>
<td>513302</td>
</tr>
<tr>
<td>WBS or INTERNAL ORDER</td>
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<td>CAPITAL PROJECT NO.</td>
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<tr>
<td>FACILITY</td>
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<td>156,778.05</td>
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## Final Preparation - 10%

<table>
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<tr>
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<th>BUDGETED</th>
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</thead>
<tbody>
<tr>
<td>FUND</td>
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<td>700009</td>
<td>700010</td>
</tr>
<tr>
<td>FUNCTIONAL AREA</td>
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<td>OTHR-00000000-PR</td>
<td>OTHR-00000000-PR</td>
<td>OTHR-00000000-PR</td>
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<tr>
<td>COST CENTER</td>
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</tr>
<tr>
<td>GENERAL LEDGER ACCT</td>
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<td>513302</td>
<td>513302</td>
<td>513302</td>
</tr>
<tr>
<td>WBS or INTERNAL ORDER</td>
<td>S-14000</td>
<td>S-14000</td>
<td>S-14000</td>
<td>S-14000</td>
</tr>
<tr>
<td>CAPITAL PROJECT NO.</td>
<td>S-14000</td>
<td>S-14000</td>
<td>S-14000</td>
<td>S-14000</td>
</tr>
<tr>
<td>FACILITY</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
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<tr>
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<td>57,969.90</td>
<td>33,461.36</td>
<td>60,838.84</td>
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## Go-Live & Support - 10%

<table>
<thead>
<tr>
<th>ACCOUNTING INFORMATION</th>
<th>BUDGETED</th>
<th>BUDGETED</th>
<th>BUDGETED</th>
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<tbody>
<tr>
<td>FUND</td>
<td>200724</td>
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<td>FUNCTIONAL AREA</td>
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<tr>
<td>COST CENTER</td>
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<tr>
<td>GENERAL LEDGER ACCT</td>
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<tr>
<td>WBS or INTERNAL ORDER</td>
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<tr>
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<tr>
<td>FACILITY</td>
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<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
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<tr>
<td>AMOUNT</td>
<td>20,997.06</td>
<td>18,617.39</td>
<td>10,778.49</td>
<td>19,597.26</td>
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</table>

## FY17 Contract Amount

<table>
<thead>
<tr>
<th>FY17 Contract Amount</th>
<th>847,193.37</th>
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</thead>
<tbody>
<tr>
<td>(Non-PUD) 847,193.37*50%</td>
<td>$254,158.01</td>
</tr>
<tr>
<td>(PUD) 847,193.37*70%</td>
<td>$239,393.44</td>
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</tbody>
</table>

**Summary**

- **Total Phase 2 Contract Amount**: $1,620,205.09
REQUEST AND CERTIFICATION FOR SOLE SOURCE PROCUREMENT

To: Purchasing and Contracting Director or Designee

From: An Bui
Program Manager
Name

Department of Information Technology
Title
Department

Date: May 10, 2017

1. Describe goods or service(s) to be purchased. Include vendor’s cost, City stock number if applicable, name, and telephone number:
Geospatial Enablement Engineered Service (GEF/GEO.e) - $843,193.37
SAP – Matt Homolka
(480) 258-0668

2. Explain why strict compliance with a competitive process would be unavailing or would not produce an advantage, and why soliciting bids or proposals would therefore be undesirable, impractical, or impossible:
SAP is the developer of GEO.e, an engineered solution for the integration of SAP with ESRI GIS, and is the only vendor that can install and implement this solution. The integration framework on which GEO.e is to be implemented for the I AM San Diego Project is SAP Geographic Enablement Framework (GEF). GEF is a new SAP product and SAP is the only vendor currently with the specific expertise to design and implement on GEF for the Project. These factors combined with their proprietary and expert knowledge of their products is critical to the success of this Project. Other vendors in the marketplace do not have the depth and breadth of expertise that SAP has. Given these factors, solicitations for other solutions would not be to any benefit to the City at this time.

3. This sole source procurement is necessary because:

☐ Goods are available from only one source
☐ The requested goods are replacement parts or components for existing City equipment or required by warranty and/or insurance coverage
☐ The contract is necessary for the reasons explained in San Diego Municipal Code (SDMC) section 22.3208(d) (explain) Click here to enter text.

Other (describe) Since SAP is the developer of GEO.e and GEF is a new SAP product, SAP is the only vendor capable of designing, installing, and implementing the GEF/GEO.e solution for the I AM San Diego Project. SAP has the proprietary and expert knowledge of their product which is critical to the success of this implementation.

4. Goods and services evaluated (add additional pages, if needed):

Sole Source Request and Certification
Effective: October 13, 2014
OCA Document No. 881681
<table>
<thead>
<tr>
<th>A.</th>
<th>Click here to enter text.</th>
<th>Click here to enter text.</th>
<th>Click here to enter text.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Good/Service</td>
<td>Name of Vendor</td>
<td>Bid Amount</td>
</tr>
<tr>
<td></td>
<td>Click here to enter text.</td>
<td>Click here to enter text.</td>
<td>Click here to enter text.</td>
</tr>
<tr>
<td></td>
<td>Person Contacted</td>
<td>Telephone Number</td>
<td>SLBE Status</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>B.</th>
<th>Click here to enter text.</th>
<th>Click here to enter text.</th>
<th>Click here to enter text.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Good/Service</td>
<td>Name of Vendor</td>
<td>Bid Amount</td>
</tr>
<tr>
<td></td>
<td>Click here to enter text.</td>
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<tr>
<td></td>
<td>Person Contacted</td>
<td>Telephone Number</td>
<td>SLBE Status</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>C.</th>
<th>Click here to enter text.</th>
<th>Click here to enter text.</th>
<th>Click here to enter text.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Good/Service</td>
<td>Name of Vendor</td>
<td>Bid Amount</td>
</tr>
<tr>
<td></td>
<td>Click here to enter text.</td>
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<td>Click here to enter text.</td>
</tr>
<tr>
<td></td>
<td>Person Contacted</td>
<td>Telephone Number</td>
<td>SLBE Status</td>
</tr>
</tbody>
</table>

REVIEWED:  
Department Director or Designee  
Date: 5/11/17

APPROVED:  
Deputy Chief Operating Officer  
Date: 5/11/2017

DENIED:
Deputy Chief Operating Officer  
Date

Reason for denial: __________________________________________

5. Purchasing Department Comments:
________________________________________________________________________
________________________________________________________________________
________________________________________________________________________

Buyer: ___________________________  Date: ___________________________

Given the information in your memorandum, I certify that strict compliance with a competitive
process would be unavailing or would not produce an advantage, and that soliciting bids or
proposals would therefore be undesirable, impracticable, or impossible. My approval is valid for
five (5) years from the signature date below. The requesting department must submit a purchase
requisition and a copy of this certification to Purchasing and Contracting in order for a Purchase
Order to be issued.

APPROVED:  
Purchasing Director/Designee under SDMC §22.3016  Date: 5/11/2017

Sole Source Request and Certification
Effective: October 13, 2014
OCA Document No. 881681
DENIED:

Purchasing Director/Designee under SDMC §22.3016

Reason(s) for denial: ____________________________________________


Sole Source Request and Certification
Effective: October 13, 2014
OCA Document No. 881681

Page 3 of 3
Exhibit 2

To
Global Service and Support Order Form
SAP Reference No. 302414146

effective January 16, 2017 ("Effective Date")

Change Request Procedure

1. Describe the requested change:
   Spatial Enablement Engineered Service (Detailed scope provided in Change Order 1, Exhibit 1 document)

2. Define the impact, if any, on existing Services and Deliverables (if any):
   Not applicable

3. Define additional Services required as a result of the requested change, if any:
   This is an extension to Phase 1, as previously agreed; it includes realization and integration based on blueprinting performed in Phase 1; and with the Lemur solution (On-Premise license) from Critigen (software licensing to be contracted separately between City of San Diego and Critigen)

4. Define the impact, if any, to the existing Project plan. Provide an updated Project plan if appropriate. Refer to Exhibit 1 (scope)

5. Provide an updated Services and payment schedule, if appropriate.
   T&M estimate for Phase 2 is estimated at $847,193 (excluding travel)

<table>
<thead>
<tr>
<th>Service Element</th>
<th>Rate (Hourly) in USD</th>
<th>Estimated # of Hours</th>
<th>Total in USD</th>
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</thead>
<tbody>
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<td>$177,049.00</td>
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<tr>
<td>*Project Management Support</td>
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<td>$12,573.00</td>
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<tr>
<td>Execution Services - Geo.e/MWM</td>
<td>$261.94</td>
<td>1,740</td>
<td>$455,796.00</td>
</tr>
<tr>
<td>Architectural/Functional Services</td>
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<td>256</td>
<td>$67,057.00</td>
</tr>
<tr>
<td>*Services (if used) at no charge to Licensee</td>
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<td></td>
<td>($12,573.00)</td>
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<tr>
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Accepted by:
SAP Public Services, Inc.
(SAP)
By: [Signature]
Title: VP, Professional Services
Date: 16 May 2017

Accepted by:
City of San Diego
(Licensee)
By: [Signature]
Title: [Blank]
Date: [Blank]

SAP Confidential
The City of San Diego
COMPTROLLER'S CERTIFICATE

CERTIFICATE OF UNALLOCATED BALANCE

I HEREBY CERTIFY that the money required for the allotment of funds for the purpose set forth in the foregoing resolution is available in the Treasury, or is anticipated to come into the Treasury, and is otherwise unallotted.

Amount: 

Purpose: 

Date: 

By: 

ACCOUNTING DATA

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<th>Doc. Item</th>
<th>Funded Program</th>
<th>Fund</th>
<th>Grant Number</th>
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TOTAL AMOUNT: $847,193.37

FUND OVERRIDE □

CERTIFICATION OF UNENCUMBERED BALANCE

I HEREBY CERTIFY that the indebtedness and obligation to be incurred by the contract or agreement authorized by the hereto attached resolution, can be incurred without the violation of any of the provisions of the Charter of the City of San Diego; and I do hereby further certify, in conformity with the requirements of the Charter of the City of San Diego, that sufficient moneys have been appropriated for the purpose of said contract, that sufficient moneys to meet the obligations of said contract are actually in the Treasury, or are anticipated to come into the Treasury, to the credit of the appropriation from which the same are to be drawn, and that the said money now actually in the Treasury, together with the moneys anticipated to come into the Treasury, to the credit of said appropriation, are otherwise unencumbered.

Not to Exceed: $847,193.37

Vendor: SAP Public Services, Inc

Purpose: To authorize the expenditure of funds not to exceed $847,193.37 to SAP Public Services, Inc for Contract Change Order No. 1 for the I AM San Diego Project.

Date: May 16, 2017

By: Michael Pelayo

ACCOUNTING DATA

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TOTAL AMOUNT: $847,193.37

FUND OVERRIDE □

CC 3000010036
# Request for Human Resources Approval for Purchase Requisition

## (Contracting Out Review Request Form)

**Requesting Department:** DCOO Infrastructure/Public Works  
**Vendor Name:** SAP Public Services Inc  
**WBS No. or Project Title:** S-140001 IAM San Diego Project  
**Purchase Requisition # (if available):** Existing PO# 4500087845  
**Department Contact:** Erin Noel, 619-533-3640  
**Date of Request:** 05/16/2017  
**Contract Amount/Estimate:** $1,620,205.09 (original amount $733,011.72 + this request $847, 193.37)  
**Contract/Service Duration:** 7 months  
**Litigation Services (if applicable):** ☐ Yes or ☐ No  
**Deputy City Attorney Assigned/Contact:**  
**P-Card Purchase (if applicable):** ☐ Yes or ☐ No

**NOTE:** Please provide a description of the activity/services requested and what the request to contract out work will cover. (Please use plain language for the terms/definitions)

Please submit request to HumanResources@sandiego.gov or MS 56L

<table>
<thead>
<tr>
<th>Question</th>
<th>Department Response</th>
</tr>
</thead>
</table>
| What is the contract/service for? (Please be specific as to the scope of work) | 1. Spatial Enabler/Engineering Service Scope of Work: The scope of this Change Order to the Spatial Enabler/Engineering Service (SES) includes the following:  
   - Realization of the following integrations/functionalities:  
     1. GIS/ITC, an Integration with Master Data Governance (MDG)  
     2. SDOT/IQC, an Integration with Multiple Financial Scheduling (MFS)  
     3. Integrates with O CALMS/UC for Truck Locations  
     4. Integrates with O CALMS/UC for Hydrant Locations  
     5. Integrates with O CALMS/UC for 911 Locations  
   - 6 weeks support for OOC  
   - 4 weeks support for ITC  
   - 4 weeks support for MFS  
   - Technical Knowledge Transfer Sessions for Licenses  
   - On-Line Support Kit for OOC only  
2. Engineering Service for SAP EAM: Special implementation of and EAM/BS334 (Syncronization): The functional scope for the following integrations/functionalities is included in the project:  
   - SAP EAM  
   - SAP EAM  
   - SAP EAM  
   - SAP EAM  
   - SAP EAM  
   - SAP EAM  
   - SAP EAM  
   - SAP EAM  |  
| What is the location of the project/service? | Civic Center Plaza  
1200 3rd Ave, 8th Floor  
San Diego, CA |
<p>| Are City employees currently performing any of the work? | No. |
| Do City employees currently have the expertise to do this work in-house? If not, why not? | No. This is for implementation of specialized software. City staff does not have the requisite expertise. |</p>
<table>
<thead>
<tr>
<th>Question</th>
<th>Answer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Will any City employees be displaced as a result of this contract/service?</td>
<td>No.</td>
</tr>
<tr>
<td>If this is a renewal of an existing contract, how long have these services been contracted out?</td>
<td>This is not a renewal of an existing contract. Services were procured through a Sole Source contract, as SAP is the sole service provider.</td>
</tr>
<tr>
<td>Is this a Public Works project? * (i.e. construction, reconstruction or repair of City buildings, street or other facilities)</td>
<td>No.</td>
</tr>
<tr>
<td>Is this a Tenant Improvement project? * (i.e. changes to the interior of a City facility, such as floors, wall coverings, shelves, ceilings, windows, partitions, etc.)</td>
<td>No.</td>
</tr>
<tr>
<td>Was another Department contacted to determine if they can or do perform this service (i.e. Streets, Facilities, etc.)? If so, please attach communication. If not, why was another Department not contacted?</td>
<td>NO. SAP is the developer of GEO.e, an engineered solution for the integration of SAP with ESRI GIS, and is the only vendor that can install and implement this solution. The integration framework on which GEO.e is to be implemented for the I AM San Diego Project is SAP Geographic Enablement Framework (GEF). GEF is a new SAP product and SAP is the only vendor currently with the specific expertise to design and implement on GEF for the Project. These factors combined with their proprietary and expert knowledge of their products is critical to the success of this Project. Other vendors in the marketplace do not have the depth and breadth of expertise that SAP has. Given these factors, solicitations for other solutions would not be to any benefit to the City at this time.</td>
</tr>
</tbody>
</table>

*NOTE: If Public Works project ($100,000 in labor costs or less) or Tenant Improvement project ($250,000 in labor costs or less) requires HR review/approval. All other contracts require HR review/approval regardless of dollar amount. Remember – Departments cannot intentionally bundle services to avoid the threshold labor costs.

**HUMAN RESOURCES DEPARTMENT USE ONLY**

Based on the Department's representation, this contract is **APPROVED** from a labor relations perspective.

[Signature]

Human Resources Department Liaison

[Date]
## Subcontracting Summary

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</table>

**APPROVED TASKS (1-34) TOTAL FEES:** $1,620,205.85

**Percent of Total Fees - Approved Task Orders:**

<table>
<thead>
<tr>
<th>Percent of Total Fees</th>
<th>Amount</th>
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</thead>
<tbody>
<tr>
<td>26%</td>
<td>$1,422,104.15</td>
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<tr>
<td>9%</td>
<td>$1,424,976.76</td>
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<table>
<thead>
<tr>
<th>Percent of Task Orders</th>
<th>Amount</th>
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</thead>
<tbody>
<tr>
<td>0%</td>
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**Total** $1,055,510.64

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**Special Notes/Comments:**

1. [REF]
2. [REF]
GENERAL CONTRACT INFORMATION

Recommended Consultant: SAP Public Services, Inc. (Not Certified, Cauc. M)

Amount of this Action: $ 847,193.37 (First Amendment)
Previous Action(s): $ 773,011.72 (Original Amount)
Cumulative Amount: $1,620,205.09 (Not to Exceed)

Funding Source: City of San Diego

Goals: N/A

SUBCONSULTANT PARTICIPATION

<table>
<thead>
<tr>
<th>Consultant</th>
<th>This Action</th>
<th>Percent</th>
<th>Cumulative</th>
<th>Percent</th>
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</thead>
<tbody>
<tr>
<td>Critigen (Not Certified, M Cauc)</td>
<td>$271,118.25</td>
<td>32.00%</td>
<td>$422,201.45</td>
<td>26.06%</td>
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<tr>
<td>Vesta Partners (Not Certified, M Cauc)</td>
<td>$ 67,059.20</td>
<td>7.92%</td>
<td>$142,493.76</td>
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<td>Total Certified Participation</td>
<td>$ 0.00</td>
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<td>Total Non-Certified Participation</td>
<td>$338,177.45</td>
<td>39.92%</td>
<td>$564,695.21</td>
<td>34.85%</td>
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<tr>
<td>Total Subconsultant Participation</td>
<td>$338,177.45</td>
<td>39.92%</td>
<td>$564,695.21</td>
<td>34.85%</td>
</tr>
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</table>

EQUAL EMPLOYMENT OPPORTUNITY COMPLIANCE

Equal Opportunity: Required


The Administrative Work Force indicates under representation in the following categories:

- African-American, Latino, Filipino and Female in Management & Financial
- African-American, Latino, Filipino and Female in Professional
- African-American, Latino, Filipino and Female in Sales
- African-American in Administrative Support

Based on the under representations in the workforce noted above, staff has an approved Equal Employment Opportunity (EEO) Plan on file as of October 1, 2015. Staff will continue to monitor the firm’s efforts to implement their EEO plan.

This agreement is subject to the City’s Equal Employment Opportunity Outreach Program (San Diego Ordinance No. 18173, Section 22.2701 through 22.2708) and Non-Discrimination in Contracting Ordinance (San Diego Municipal Code Sections 22.3501 through 22.3517).