



Addendum I

SUBJECT: Request for Offer – Cartegraph Operations Management System (RFX # 6100015946)
Scheduled to Open: August 30, 2022; Date of Issue: August 26, 2022

FROM: Kristen McAvoy, Procurement Manager

DATE: October 12, 2022

**THIS NOTICE SHALL SERVE AS ADDENDUM NO. I - TO THE ABOVE REFERENCED
REQUEST FOR OFFER**

THE ABOVE-MENTIONED REQUEST FOR OFFER IS HEREBY AMENDED AS FOLLOWS:

1. **MODIFY:** Section 005 – Supplemental Terms & Conditions, Original Contract Term, has been modified as follows:

Original Contract Term.

After approval of the San Antonio City Council, this contract shall begin on November 4, 2022, continue in full force and effect on a year-to-year basis, and shall terminate on February 23, 2026.

2. **MODIFY:** Section 009 – Attachments, **Attachment A**, Price Schedule, has been modified to align the service and subscription dates and contract years in the City's RFO and Contractor's Proposal as follows:
- a. Services "Year 1" shall mean 11/4/2022 - 11/3/2023.
 - b. Subscription "Year 1" shall mean 11/4/2022 - 2/23/2024.
 - c. Subscription "Year 2" shall mean 2/24/2024 - 2/23/2025.
 - d. Subscription "Year 3" shall mean 2/24/2025 - 2/23/2026.
 - e. Subscription "Optional Year 4" shall mean 2/24/2026 - 2/23/2027 and is a renewal option for the City as described in Section 005 – Supplemental Terms & Conditions, Renewals.
 - f. Subscription "Optional Year 5" shall mean 2/24/2027 - 2/23/2028 and is a renewal option for the City as described in Section 005 – Supplemental Terms & Conditions, Renewals

Parties agree any and all references to the service and subscription dates and contract years shall be as described above.

3. **MODIFY:** Section 009 – Attachments, **Attachment B**, Cartegraph Proposal / Cartegraph Purchase Agreement: PA-22-05058, previously dated 8/30/2022, has been replaced with Cartegraph Proposal / Cartegraph Purchase Agreement PA-22-05058 dated 10/12/2022, a true and correct copy which is attached hereto.

Kristen McAvoy

Kristen McAvoy
Procurement Manager
Finance Department – Purchasing Division

Acknowledged and Agreed:

Date 10/13/2022 | 9:24 AM CDT

Company Name Cartegraph Systems, LLC

Address 3600 Digital Drive

City, State, Zip Code Dubuque, IA, 52003-8962

DocuSigned by:

Signature

KM/js

City of San Antonio / 10/12/2022



City of San Antonio

Cartegraph Solutions

Purchase Agreement

Purchase Agreement: PA-22-05058

Date Prepared: 10/12/2022

Date of Expiration: 12/31/2022

For any questions or assistance, please contact:

Chad Walker

Sales Account Manager

Phone: 563-587-3359

Mobile: +1 5635640441

Email: chadwalker@cartegraph.com

Cartegraph Systems LLC
3600 Digital Drive
Dubuque, IA 52003-8962

<http://www.cartegraph.com>

Toll Free: (800) 688-2656

Phone: (563) 556-8120

Fax: (563) 556-8149

City of San Antonio / 10/12/2022

Purchase Agreement

Cartegraph Systems LLC is pleased to present this Purchase Agreement for its world-class technology solutions. This Purchase Agreement is made and entered into between City of San Antonio (hereinafter referred to as "City of San Antonio", or "Customer") and Cartegraph Systems LLC (hereinafter referred to as "Cartegraph"), each referred to as a "Party" or collectively as the "Parties" and is effective when fully executed by both Parties ("Effective Date").

This Purchase Agreement 1) will exclusively govern Customer's access to and use of Solution Subscriptions and/or Solution Services; 2) is the complete and sole understanding and agreement between the Parties, and supersedes any oral or written proposal, agreement, or other communication between the Parties; 3) may only be modified or amended in writing as permitted herein; 4) is governed by the terms and conditions of the Cartegraph Solutions Agreement (Addendum A), unless: (i) otherwise set forth herein, or (ii) there is an applicable written Customer Agreement executed by the Parties that directly references this Purchase Agreement, for the Solutions referenced in this Purchase Agreement. Any inconsistency between the documents shall be resolved by giving precedence to 1) a Customer Agreement (if applicable), 2) this Purchase Agreement, and 3) the Cartegraph Solutions Agreement.

The term of this Purchase Agreement shall begin on the Effective Date and continue until it is terminated as permitted herein.

BY EXECUTING OR REFERENCING THIS PURCHASE AGREEMENT, THE PARTIES ACKNOWLEDGE THAT THEY HAVE REVIEWED THE TERMS AND CONDITIONS SET FORTH HEREIN AND IN ANY EXHIBITS, AND THE PARTIES AGREE TO BE LEGALLY BOUND BY SUCH AGREEMENT.

CUSTOMER ADDRESS:

City of San Antonio
PO Box 839976
Finance
San Antonio, Texas
78283-3976

LICENSEE ADDRESS:

City of San Antonio
PO Box 839966
Finance
San Antonio, Texas
78283-3976

The following Addendums are attached to this Purchase Agreement and are incorporated by reference:

ADDENDUM A - SOLUTIONS AGREEMENT can be found at www.cartegraph.com/solutions-agreement
ADDENDUM B - SERVICES SCOPE OF WORK
ADDENDUM C - Not Used
ADDENDUM D - Not Used
ADDENDUM E - CARTEGRAPH OMS EDITIONS
ADDENDUM F - ESTIMATED PROJECT SCHEDULE

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Investment Summary

The following represents the requested Solution Subscriptions and/or Solution Services along with their related durations (Terms).

Term 01 - 11/4/2022 - 11/3/2023 - Services

No.	Product	Code	Quantity	Price
1	Implementation Services Phase One	CGPFSV	1	USD 39,900.00
2	Expense Reimbursement Phase One	LCG038	1	USD 4,800.00
3	Implementation Services Phase Two	CGPFSV	1	USD 39,800.00
4	Expense Reimbursement Phase Two	LCG038	1	USD 4,800.00
5	Implementation Services Phase Three	CGPFSV	1	USD 37,800.00
6	Expense Reimbursement Phase Three	LCG038	1	USD 4,800.00
7	Implementation Services Master Integrations	CGPFSV	1	USD 105,000.00
Term 01 - 11/4/2022 - 11/3/2023 - Services TOTAL:				USD 236,900.00

Term 01 - 11/4/2022 - 2/23/2024 - Subscription

No.	Product	Code	Quantity	Price
1	OMS Premium PWD Only	OMSPRM	1	USD 258,528.00
2	Signal Domain	DOM006	1	USD 0.00
3	Stormwater Domain	DOM007	1	USD 0.00
4	Transportation Domain	DOM008	1	USD 0.00
5	Walkability Domain	DOM009	1	USD 0.00
6	OMS Unlimited Users	OMSUNLIMITED	1	USD 0.00
7	Systems Integration Subscription Labor, Equipment, and GUMB 311 Requests integrations	SYITSB	1	USD 0.00
Term 01 - 11/4/2022 - 2/23/2024 - Subscription TOTAL:				USD 258,528.00

Term 02 - 2/24/2024 - 2/23/2025 - Subscription

No.	Product	Code	Quantity	Price
1	OMS Premium PWD Only	OMSPRM	1	USD 386,400.00
2	Signal Domain	DOM006	1	USD 0.00

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No.	Product	Code	Quantity	Price
3	Stormwater Domain	DOM007	1	USD 0.00
4	Transportation Domain	DOM008	1	USD 0.00
5	Walkability Domain	DOM009	1	USD 0.00
6	OMS Unlimited Users	OMSUNLIMITED	1	USD 0.00
7	Systems Integration Subscription Labor, Equipment, and GUMB 311 Requests integrations	SYITSB	1	USD 0.00
Term 02 - 2/24/2024 - 2/23/2025 - Subscription TOTAL:				USD 386,400.00

Term 03 - 2/24/2025 - 2/23/2026 -
Subscription

No.	Product	Code	Quantity	Price
1	OMS Premium PWD Only	OMSPRM	1	USD 400,000.00
2	Signal Domain	DOM006	1	USD 0.00
3	Stormwater Domain	DOM007	1	USD 0.00
4	Transportation Domain	DOM008	1	USD 0.00
5	Walkability Domain	DOM009	1	USD 0.00
6	OMS Unlimited Users	OMSUNLIMITED	1	USD 0.00
7	Systems Integration Subscription Labor, Equipment, and GUMB 311 Requests integrations	SYITSB	1	USD 0.00
Term 03 - 2/24/2025 - 2/23/2026 - Subscription TOTAL:				USD 400,000.00

Term 04 - 2/24/2026 - 2/23/2027 - Optional
Subscription

No.	Product	Code	Quantity	Price
1	OMS Premium All Departments. Other asset domains included and added upon request.	OMSPRM	1	USD 432,000.00
2	Signal Domain	DOM006	1	USD 0.00
3	Stormwater Domain	DOM007	1	USD 0.00
4	Transportation Domain	DOM008	1	USD 0.00
5	Walkability Domain	DOM009	1	USD 0.00
6	OMS Unlimited Users	OMSUNLIMITED	1	USD 0.00
7	Systems Integration Subscription Labor, Equipment, and GUMB 311 Requests integrations	SYITSB	1	USD 0.00
Term 04 - 2/24/2026 - 2/23/2027 - Subscription TOTAL:				USD 432,000.00

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Term 05 - 2/24/2027 - 2/23/2028 - Optional
Subscription

No.	Product	Code	Quantity	Price
1	OMS Premium All Departments. Other asset domains included and added upon request.	OMSPRM	1	USD 466,560.00
2	Signal Domain	DOM006	1	USD 0.00
3	Stormwater Domain	DOM007	1	USD 0.00
4	Transportation Domain	DOM008	1	USD 0.00
5	Walkability Domain	DOM009	1	USD 0.00
6	OMS Unlimited Users	OMSUNLIMITED	1	USD 0.00
7	Systems Integration Subscription Labor, Equipment, and GUMB 311 Requests integrations	SYITSB	1	USD 0.00
Term 05 - 2/24/2027 - 2/23/2028 - Subscription TOTAL:				USD 466,560.00

Summary By Term - Includes Services & Subscriptions

Total Term 1	USD 495,428.00
Total Term 2	USD 386,400.00
Total Term 3	USD 400,000.00
Total Optional Term 4	USD 432,000.00
Total Optional Term 5	USD 466,560.00

Investment Notes:

- Any Customer Purchase Order, Contract, and/or Agreement must reference Cartegraph Purchase Agreement: PA-22-05058.
- Purchasing the Solutions presented herein through any alternative procurement method will require a revised price proposal which may include an associated price adjustment.
- Prices may include discounts, concessions, or incentives that are only applicable to this transaction and should not be assumed for future purchases.
- Prices do not include any taxes that may apply at the time of invoicing. If applicable, any such taxes are the responsibility of Customer and will appear on the respective invoice.
- Prices do not include any applicable Esri ArcGIS licenses.
- Prices are in U.S. Dollars (\$USD).
- Prices for the Initial Term are valid only if this Purchase Agreement is executed by 12/31/2022.
- The preprinted terms of a purchase order or any other similar document will not apply to or modify this Purchase Agreement or any other mutually agreed upon autorenewal thereof.
- For the pricing to be valid, City of San Antonio must notify Cartegraph in writing of its intent to exercise Optional Term 4 & Optional Term 5 no later than 90 days prior to the end of the then current Term.
- OMS and Domain Access
 - For Terms 1 & 2: Public Works Department Only. Only Four (4) OMS asset domains (Signal, Stormwater, Transportation, Walkability) are included.
 - For Terms 3, 4, & 5: All Departments. All OMS asset domains included and added upon request.

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Payment

In consideration for the Solutions provided by Cartegraph to Customer, Customer agrees to pay Cartegraph the Fees as described below:

DELIVERY

Upon execution of this Purchase Agreement, Cartegraph will provide the Solution Subscriptions and/or Solution Services as detailed in the Investment Summary.

SOLUTION SUBSCRIPTION INVOICING

Customer shall be provided with the ability to access and use the Solution Subscriptions upon execution of this Purchase Agreement. The payment for the initial term is due upon execution of the Purchase Agreement. Payment for any subsequent renewal terms will be due in annual installments as specified herein and prior to the anniversary of the initial term in the amount(s) that follow:

- Term 1: \$258,528.00
- Term 2: \$386,400.00
- Term 3: \$400,000.00
- Optional Term 4: \$432,000.00
- Optional Term 5: \$466,560.00

SOLUTION SERVICES INVOICING

Upon acceptance of this Purchase Agreement, invoicing for the Solution Services shall occur as follows for each Phase 1, 2, & 3 and Master Integrations for a total of 16 invoicing milestones:

- Kick-off: 25% on completion of External Project Phase Kickoff
- Training Agenda: 25% on Sign-off of Training Agenda or completion of System Admin Training, whichever occurs first.
- Testing Acceptance: 25% on sign-off of Testing Acceptance or Test Site Cutoff, whichever occurs first.
- Go-Live: 25% on production use of system.

EXPENSES

In providing the Solution Services included herein, Cartegraph shall be reimbursed for any reasonable out-of-pocket costs, including, but not limited to, travel, lodging, and meals. Out-of-pocket expenses are billed based on actual costs as incurred and are due separately.

PAYMENT

- All payments are due Net 30 days from date of invoice.
- All payments are to be in U.S. Dollars (\$USD).
- For customers within the United States, any applicable taxes required at the time of invoice will be determined based on the laws and regulations of the taxing authority(s) governing the "Customer Address" identified herein.

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Acceptance

BY SIGNING BELOW, EACH PARTY AGREES THAT 1) ITS SIGNATORY HAS THE AUTHORITY TO BIND THEIR PARTY TO THIS OBLIGATION, AND 2) THAT ALL USE AND ACCESS TO THE SOLUTION SUBSCRIPTION AND/OR SOLUTION SERVICES DESCRIBED HEREIN SHALL BE GOVERNED BY THE TERMS AND CONDITIONS IN THE FOLLOWING ORDER OF PRECEDENCE A) A CUSTOMER AGREEMENT (IF APPLICABLE), B) THIS PURCHASE AGREEMENT AND ALL AGREEMENTS AND ADDENDUMS SPECIFICALLY REFERENCED HEREIN, AND C) THE CARTEGRAPH SOLUTIONS AGREEMENT.

Cartegraph Systems LLC:

By:

DocuSigned by:



6C10B4ED9C3544F

(Signature)

Andrew Dingman

(Print Name)

Title:

CFO

Date:

10/13/2022 | 9:24 AM CDT

City of San Antonio:

By:

(Signature)

(Print Name)

Title:

Date:

Addendum B

Services Scope of Work

The Solutions Services listed in the Investment Summary of the Purchase Agreement are specific Cartegraph services which will be delivered to the Customer based on the descriptions below and are subject to the limitations and terms and conditions set for the in the Purchase Agreement, and its reverence Addendums. Cartegraph will coordinate with the Customer on service delivery expectations and timeframes.

Cartegraph OMS – Implementation Scope of Work

City of San Antonio is expanding the Cartegraph Operations Management System (OMS) to include both work management and asset management for all Public Works Department teams. Scope contains three phases, with each phase being defined below. Integrations will be developed during phase one and continually supported through the remaining contract years. Implementation of the Operations Management System (OMS) includes the following professional services focusing on:

PHASE ONE - Traffic

Assets

Asset implementation includes the following professional services:

Cartegraph will provide installation and training on the following fourteen (14) asset types:

- Signals (8) - Signal Cabinets; Signal Controllers; Signal Heads; Signal Monitors; Signal Preemption; Signalized Intersections; Traffic Cameras; Traffic Detectors
- Transportation (3) - Markings (line); Signs; Supports
- Custom (3) - Markings; School Zones; Traffic Battery Backup Systems

Cartegraph will provide all services remotely via audio; video; and web conferences unless otherwise noted.

PHASE TWO - Streets

Assets

Asset implementation includes the following professional services:

Cartegraph will provide installation and training on the following eight (8) asset types:

- Transportation (3) - Bridges; Pavement; Safety Barriers;
- Walkability (2) - Curb Ramps; Sidewalks
- Custom (3) - Adapt a Spot; Bus Pads; Speed Humps

Cartegraph will provide all services remotely via audio; video; and web conferences unless otherwise noted.

PHASE THREE - Stormwater

Assets

Asset implementation includes the following professional services:

Cartegraph will provide installation and training on the following fourteen (14) asset types:

- Stormwater (7) - Storm Basins; Storm Channels; Storm Facilities; Storm Inlets; Storm Manholes; Storm Outlets; Storm Pipes
- Custom (7) - Dams; Low Water Crossings; Ponds; Tunnel Equipment; Tunnel Systems; Underground Filtration Systems; Vegetation Controls

Integration Services

- Cartegraph will provide the following bi-directional (two-way) integration service between GUMB and Cartegraph. Cartegraph services for this integration have been prepared based upon the Specifications Document (*Document Name: Cartegraph-LAGAN Interface Functional Requirements_Design V1.docx*) created by City of San Antonio. *In the event that additional or alternative functionality is desired, Cartegraph can provide an update to the scope and cost.*
 - The integration includes the following:
 - Integration points:
 - Cartegraph retrieve Requests from GUMB
 - Import Request data from GUMB into Cartegraph
 - A sync using a unique ID
 - If ID exists; information will be updated
 - If ID does not exist; Cartegraph will create a record or produce an error message
 - Cartegraph will update GUMB 311 request upon completion status.
 - Import updates made to case notes from GUMB into Cartegraph
 - Cartegraph will send back action updates to GUMB
 - 311 Request created in Cartegraph will create a Request (proactive cases) in GUMB
 - Cartegraph will import link-style attachments created in GUMB if available
 - Cartegraph will report Errors during retrieval and submission of records into onto GUMB Messages where applicable.
 - Cartegraph when send Error information where applicable to Remedy Service provided.
 - Cartegraph will provide that records that are failing can be picked up again for additional attempts at processing.
Cartegraph will access provided API to Cosa Enterprise GIS to validate address before submitting cases to GUMB.
 - Testing plan:
 - Incoming From Lagan
 - Incoming Request
 - Incoming Update Request
 - Incoming Request with Attachment
 - Incoming Cancel Request
 - Outgoing CG
 - Incoming Request
 - Outgoing Update Request Initial Action
 - Outgoing Update Request Action
 - Outgoing Update Request Completion Action
 - Proactive Create
 - Proactive Create
 - Proactive Create – Bad Address
 - Proactive Create – Get Lagan ID
 - Outgoing Update Request Initial Action
 - Outgoing Update Request Action
 - Outgoing Update Request Completion Action

- Create Bad Incoming
 - Test 5 Attempts
 - Test Remedy Workflow
 - Test 2 Day Workflow
 - Test Bad result can be retried after 5 attempts
- Create Bad Outgoing
 - Test 5 Attempts
 - Test Remedy Workflow
 - Test 2 Day Workflow
 - Test Bad result can be retried after 5 attempts
- Testing Address Verification
 - Post UI pre-transfer
 - Valid Address Pass check get moved to Gumb
 - Invalid Address Does No Pass Mark Record as Needing Additional Follow up, Notify User
- Testing Workflow Rules Validation
 - Based on UI Activity Add New Action Must Be of Same Order Id or Greater.
 - Integration Sort Order Updates Not sent to send in Action Order
 - Validation Action Are in Wrong Order? Missing Order?
- Test CG Re-request Records from Gumb Last 3 days
 - Import Missing Records
 - Update Existing Records if support is added during the design process
- Test CG Re-Sending Record to Gumb
 - Filter to x time period.
 - Get all Request and Resend all Updates for those requests during that period
- Annual Integration Support will include the following:
 - Support in troubleshooting issues related to the integration. Including help in communication with customer and third party of the integration to resolve the issue.
 - Updates to the integration needed due changes made to Cartegraph product updates.
 - Updates to the integration due to minor save version update to third party ape to maintain existing functionality.

Requirements

- Cartegraph will provide error logging capability to easily identify potential integration issues.
- Cartegraph will provide a customer-configurable time interval to manage integration frequency.

Exclusion

- Cartegraph will not send attachments to GUMB as GUMB does not support upload of binary attachments files

Assumptions

- All functionality related to Integration based on assumption that GUMB, COSA enterprise GIS and Remedy Service provides necessary functionality via API to accomplish.
 - GUMB, COSA enterprise GIS And Remedy Service must be accessible from Hosting Location of Cartegraph via HTTPS on port 443.
 - During development the environments for GUMB, COSA enterprise GIS And Remedy Service must be accessible from Development Locations of Cartegraph via HTTPS on port 443.
- Cartegraph will provide the following standard, uni-directional (one-way) integration service of Employee and Labor Rate data between HR System/Source System and Cartegraph.

The standard integration includes the following:

 - Integration points:
 - HR System/Source Sytem Employee records will be integrated with the Cartegraph Labor recordset.

- HR System/Source System Job Class and Calculated Labor Rate records will be integrated with the Cartegraph Labor Rates recordset.
- Customer is responsible for providing the properly calculated Labor Rates prior to Cartegraph integrating into Labor recordset.
- Cartegraph will integrate the completed calculated Labor Rates into the Labor recordset.

Assumptions

- The integration includes up to twelve (12) fields in the same Cartegraph table per integrated data point.
 - All data must be available to the Cartegraph service via a flat file (.csv or .txt)
 - The flat file will contain one row per employee, and one column per rate type, containing the hourly dollar value for that rate type
 - Cartegraph will provide error logging capability to easily identify potential integration issues.
 - Cartegraph will provide a customer-configurable time interval to manage integration frequency.
 - A unique ID per Labor record exists in the HR System and will be the unique identifier across systems
- Cartegraph will provide the following standard, uni-directional (one-way) integration service of Equipment and Equipment Rate data between FASTER and Cartegraph.
The standard integration includes the following:
 - Integration points:
 - FASTER Equipment records will be integrated with the Cartegraph Equipment recordset.
 - FASTER Equipment Rate records will be integrated with the Cartegraph Equipment Rates recordset.
 - FASTER Next Service Due value will generate an Equipment Task on the corresponding Equipment record in Cartegraph.

Assumptions

- The integration includes up to twelve (12) fields in the same Cartegraph table per integrated data point.
- All data must be available to the Cartegraph service via a flat file (.csv or .txt)
 - The flat file will contain one row per Equipment, and one column per rate type, containing the hourly or mileage dollar value for that rate type
- Cartegraph will provide error logging capability to easily identify potential integration issues.
- Cartegraph will provide a customer-configurable time interval to manage integration frequency.
- A unique ID per Equipment record exists in FASTER and will be the unique identifier across system

Implementation Outline for Each Phase

Setup

- Cartegraph will setup a hosted, test and production OMS environment.
- Cartegraph will provide an overview, up to two (2) hours, of Cartegraph and ArcGIS Online user-based logins and User/Role functionality.
- Cartegraph will provide a template file to be utilized by your staff to populate Roles and Users to be utilized for OMS.
- Cartegraph will utilize the template to create users and roles in OMS. (Note: Subsequent User and/or Role changes will be your administrator's responsibility.)
- Cartegraph will provide documentation and guidance, up to four (4) hours, for your technical GIS staff to configure Esri Basemap Services for OMS integration. Guidance will be geared towards OMS/Esri integration functionality and requirements.

- Cartegraph will setup the OMS Platform, including the Request, Work, Resource, and Asset Management areas of the software. *Asset Management solutions will be setup for all solutions referenced in the Assets section of the scope unless otherwise noted.*

Consulting

Cartegraph will provide a twelve (12) hours remote requirement gathering workshop to increase our understanding of your business and functional goals. Through workshops and interviews, Cartegraph will identify best fit scenarios for OMS and provide a brief including any challenges as well as recommendations for OMS best practices relevant to your implementation.

Configurations

Cartegraph will provide configuration services, including:

- Up to five (5) custom fields and up to one (1) custom layout per asset type listed in the Assets section below
- Up to ten (10) custom fields and up to five (5) custom layouts to be utilized in any of the shared areas of the system, such as Tasks
- Up to five (5) automations
- Up to five (5) preventative maintenance plans

Cartegraph will provide up to eight (8) hours of configuration review workshops to ensure configurations resulting from the requirement gathering workshop effectively support all workflows and processes discussed, and to reinforce such configurations with customer stakeholders to adequately prepare to train-the-trainer training.

Training

- Cartegraph will provide remote train-the-trainer training, up to one (1) hour, on overall system navigation and functionality to help familiarize your staff with the software environment and its common functions. Training topics include:
 - Dashboards
 - Standard KPI/ROI Gadgets
 - Logins/Permission
 - Layers
 - Filters
 - Maps
 - Grids
 - System Navigation
 - Views (List & Detail)
 - Standard Reports
 - Attachments
 - Requests, Work, Assets, Resources, Reports, and Administrator Tabs
- Cartegraph will provide remote train-the-trainer training, up to two (2) hours, on OMS Esri integration functionality. Training topics include:
 - OMS Esri integration configuration options
 - Integration functionality (basemap and feature)
 - Overall Esri integration requirements, considerations, and Cartegraph recommended best practices
- Cartegraph will provide a two-day (2-day) onsite "train-the-trainer" training event. The training agenda will be defined and agreed upon by both Cartegraph and your project manager. Topics may include any of the following:
 - Request Management:

- Requests
- Requesters
- Task Creation from Requests
- Issue library (including settings such as Applies to Asset and Non-Location)
- Cartegraph recommended best practices for Request and Requester Management
- Work Management:
 - Create Task(s) (Asset/Non-Asset)
 - Assignments (Add, Edit, Remove)
 - Task Menu Actions
 - Related Work Items
 - Create Work Order
 - Associate Task to WO
 - Repeat Work Orders
 - Work Order Menu Actions
 - Enter Resources
 - Timesheets
 - Activity library (including settings such as Applies to Asset, Inspection, Key Dates, Cost, and Productivity)
 - Cartegraph recommended best practices for Work Management
- Asset Management:
 - Asset Details
 - Preventative Maintenance Plans
 - Inspections
 - Linked assets (if applicable)
 - Container/Component Relationships (if applicable)
 - Cartegraph recommended best practices for Asset Management

To avoid redundancy, and to utilize service time efficiently, training may cover a subset of the assets listed in the Asset section of the scope.

- Fleet Management:
 - Preventative Maintenance
 - Task Management
 - Vehicle Replacement Ratings (VRR) Equipment Detail information
 - Fleet Reports
 - Cartegraph recommended best practices for Fleet Management
- Resource Management:
 - Resource Details
 - Labor/Equipment Rates
 - Material Management (Stock, Usage, Adjustments)
 - Vendor Price Quotes
 - Cartegraph recommended best practices for Resource Management
- Cartegraph Mobile:
 - Overall system functionality (Navigation, Interface, Maps, Attachments, Sorting)
 - Work Management
 - Create and Update Tasks (Asset/Non-Asset)
 - Assign Tasks
 - Enter Resources
 - Inspections
 - Asset Management
 - Create and Update Assets
 - Request Management
 - View and Update Requests
 - View Requester information
 - Create Task from Request
 - Cartegraph recommended best practices for mobile device use

- Administrator:
 - Administrator:
 - User Administration, Role Administration, Asset Administration, Record Filter Administration, Import/Export, Scheduled Process Log, Error Log
 - Settings:
 - System Settings, Map Administration, Geocode Settings, GIS Integration settings, Asset Color Manager
 - Manager:
 - Layout Manager, Library Manager, Preventative Maintenance, Asset Condition Manager, Notification Manager, Structure Manager, Automation Manager
- Cartegraph will provide remote train-the-trainer training, up to six (6) hours, on OMS Reporting functionality. Training topics include:
 - Security/Roles
 - Report Designer
 - Report Types, Report Styling, Filtering\Parameters, Basic Formulas, Grouping/Sorting
 - Report Viewer
 - Reporting best practices and solution tips/tricks.
- Cartegraph will provide remote train-the-trainer training, up to four (4) hours, on Preventative Maintenance Plans functionality. Training topics include:
 - Preventative Maintenance
 - Cartegraph recommended best practices for proactive asset management

To avoid redundancy, and to utilize service time efficiently, training may cover a subset of the assets listed in the Asset section of the scope.

- Cartegraph will provide remote train-the-trainer training, up to four (4) hours, on Advanced Inspections and Asset Condition Manager functionality. Training topics include:
 - Performance Management
 - Prediction Groups
 - Minimum Condition Groups
 - Activities and Impacts
 - Criticality Factor
 - Install/Replaced Dates
 - Cartegraph recommended best practices for advanced inspections and condition management

To avoid redundancy, and to utilize service time efficiently, training may cover a subset of the assets listed in the Asset section of the scope.

- Cartegraph will provide remote train-the-trainer training, up to six (6) hours, on Scenario Builder functionality. Training topics include:
 - Scenario Builder
 - Settings:
 - Prediction Groups
 - Minimum Condition Groups
 - Activities and Impacts
 - Criticality Factor
 - Install/Replaced Dates
 - Scenarios:
 - Planned Work
 - Map Control
 - Work Order Creation

- Scenario Types
- Plan Years and Budgets
- Protocols
- Data Exports
- Cartegraph recommended best practices for scenario builder

To avoid redundancy, and to utilize service time efficiently, training may cover a subset of the assets listed in the Asset section of the scope.

- Cartegraph will provide remote train-the-trainer training, up to two (2) hours, on Asset Builder functionality. Training topics include:
 - OMS Administrator
 - Structure Manager
 - Library Manager
 - Layout Manager
 - User/Role Configurations
 - Cartegraph recommended best practices for expanding the system's use and/or building assets
- Cartegraph will provide remote train-the-trainer, up to eight (8) hours, on the Integration Toolkit functionality. Training topics include:
 - API
 - Webhooks
 - Scheduled Import/Export
 - Cartegraph recommended best practices for utilizing the Integration Toolkit
 - Consulting and Training on data extraction for Task Analysis for external Reporting System
- Cartegraph will provide remote train-the-trainer training, up to four (4) hours, on Cartegraph for Zapier functionality. Training topics include:
 - Trigger application
 - Action application
 - Automations and Record Types
 - Assumptions
 - Required accounts for Zapier and any other third-party application are the responsibility of the customer
 - Available number of Tasks and Zaps for automated functions in Cartegraph are contingent on customer's Zapier plan

Testing

- During the implementation project, Cartegraph and the CoSA will define the testing approach that will work best for the Customer.
- System testing will occur after the data load, configurations, and onsite training tasks are completed.
- System testing typically occurs over a 6-8 week period.
- Weekly sessions are scheduled and conducted by the Cartegraph Project Team to allow the Customer to ask questions and provide status updates throughout the test period.
- The Customer will provide a verbal or written notice of acceptance to conclude to the testing phase of the project.

Go-Live Support

- Cartegraph will provide up to two (2) remote web conferences (not to exceed 4 hours total) for Go-Live Support. The agenda will be defined, and agreed upon, by both your and Cartegraph's project managers. Topics may include any of the following:
 - Refresher training for items listed in the scope of work
 - Software and process support for staff during production roll out
 - Field, Layout, and Report configuration guidance, if applicable

Data Services

Cartegraph will provide one test and one production data load service through standard import/export functionality. Cartegraph will provide template documents for data population. Once populated by your staff, Cartegraph will load the data into your test or production OMS environment. Data loads may include data such as:

- Parent level asset records
- Asset location (spatial x/y) attributes
- Parent level resource (Labor, Equipment Material, Vendor) records
- Resource Rate (Labor, Equipment, Material) records
- Standard system libraries

Exclusions

The following service items are not included in the scope of this project:

Implementation of any custom modification or integration developed by Cartegraph; your internal staff; or any third-party is not included in the scope of this project unless specifically listed above.

Data conversion services from other software system(s) or sources (including Cartegraph Navigator databases) are not included in the scope of this project unless specifically listed above.

Any service items discussed during demonstrations; conference calls; or other events are not included in the scope of this project unless specifically listed above.

Customer/Cartegraph Responsibilities

Project representatives from Customer and Cartegraph accepts responsibility for all aspects of project planning, management, and execution not specifically identified as the responsibility of Cartegraph in the Agreement or in the Purchase Agreement. Ongoing management of the day-to-day allocation of Customer and Cartegraph resources and management of project tasks is the responsibility of the Customer and Cartegraph project representatives. Customer and Cartegraph project representatives will provide overall guidance and direction for the project and will direct the project accordingly. Further, and with regard to the Cartegraph obligations listed in this Purchase Agreement, Customer understands that it is vital to the success of the project that Customer provides assistance in the following matters:

1. For those services listed under Field Services, Cartegraph personnel will conduct information gathering and evaluation sessions with various Customer Users and management. While Cartegraph respects the time and workload of Customer staff, dedicated time on the part of the appropriate Customer resources is necessary to complete these exercises.
2. The installation process requires the assistance of Customer personnel and suitable access to hardware and systems (e.g., security clearance). Customer is required to supervise the installation process while systems are accessible to Cartegraph. All hardware and software, for both personal computers and servers, is expected to be available, installed, and operating as specified in Cartegraph's system requirements documentation such that delivery and execution of Cartegraph Field Services will not be impeded.
3. Customer and Cartegraph understand that the successful performance of Field Services depends upon Customer fulfilling its responsibilities. The Project assumes that Customer will provide all personnel required to achieve a successful implementation, including a dedicated project manager responsible for reviewing the implementation scope of work, ensuring all attended meetings are attended by invited staff, and providing leadership and insight on all relevant internal issues such as policy/procedure, organizational structure, project stakeholders, technical architecture, data, and current systems. Customer responsibility also includes internal documentation, internal change management, task completion, staff coordination and schedule commitment.
4. Customer will provide Internet access and IT staff support as required. For those services that are web-based, Cartegraph utilizes WebEx Meeting (or similar) technology.

5. Customer shall ensure that their workstation platform and database meet Cartegraph system requirements as specified in the Cartegraph System Requirements documentation. Solutions will be supported within new versions of these workstation platforms and databases within a reasonable period of time from their release from their manufacturer. Cartegraph will discontinue support of its Solutions within older versions of these workstation platforms and databases as their support is discontinued by their manufacturers.
6. Customer agrees to work with Cartegraph to schedule Field Services in a timely manner. All undelivered Field Services shall expire 730 days from the execution of this Purchase Agreement, unless noted differently in Services Scope listed above. Upon expiration of services, the project may be cancelled at Cartegraph's discretion.

Not-to-Exceed Purchase Agreement

Cartegraph will not exceed the total included in this Purchase Agreement without written approval from Customer. In the event it becomes apparent to Cartegraph that additional Service will be needed due to any changes in the scope of this Purchase Agreement, Cartegraph will notify Customer prior to exceeding the approved efforts and obtain written approval if additional Services are required. If additional services are required, Cartegraph will provide the Customer with a written change order and scope of work (if necessary) outlining the additional services. The additional services will be performed once the change order document has been executed by Cartegraph and the Customer.

ADDENDUM E

Cartegraph OMS Editions

Cartegraph OMS supports customers in the operation, maintenance, and management of the following asset domains. By employing these features as applicable, customers can effectively manage and report on the assets that they care about. Indicated below are the capabilities and options available for each OMS Edition at the time this document was prepared, which are subject to change.

	Essentials	Pro	Plus	Premium
Dashboard / Home Screen	Included	Included	Included	Included
User Management	Included	Included	Included	Included
Role Management		Included	Included	Included
Esri GIS Integration	Included	Included	Included	Included
Report Viewer	Included	Included	Included	Included
Library Management	Included	Included	Included	Included
Standard KPI / ROI gadgets	Included	Included	Included	Included
Esri Identity-Ready	Included	Included	Included	Included
Structure Manager		Included	Included	Included
Layout Manager		Included	Included	Included
Import / Export		Included	Included	Included
Record Filter Administration		Included	Included	Included
Container / Component	Included	Included	Included	Included
Embedded Maps	Included	Included	Included	Included
Report Designer		Included	Included	Included
Integration Toolkit		Option	Option	Included
Cartegraph for Zapier	Option	Option	Included	Included
Automation Manager			Included	Included
Notification Manager		Included	Included	Included
Routing – Esri Identity Required	Included	Included	Included	Included
Geocode Options- Esri Identity Required	Included	Included	Included	Included

Work

Task Management	Included	Included	Included	Included
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Work Orders			Included	Included
Task Calendar	Included	Included	Included	Included
Scenario Builder			Option	Included

Request

Request Management	Required w/ SeeClickFix	Included	Included	Included
SeeClickFix	Option	Option	Option	Option
Internal Requests		Option	Included	Included

Resources

Resource Management (LEMV)	Included	Included	Included	Included
Advanced Material Management			Option	Included
Fleet Management		Option	Included	Included

Assets

Asset Inventory	By Domain/Asset	By Domain/Asset	By Domain/Asset	By Domain/Asset
Container / Component	Included	Included	Included	Included
Preventative Maintenance Plans		Included	Included	Included
Asset Condition Manager / Advanced Inspections		Required w/ Fleet Mgmt.	Included	Included
Asset Builder		Option	Option	Included

ADDENDUM F

Estimated Project Schedule

Phase 1 Timeline										
*All dates are dependent on customer and Cartograph availability.										
#	PHASE ONE	Parent task	Sub Task/Checklist		Responsible Party	Attending Party	SA-LOE in Hours	Start Date	End Date	NEW Duration (Week Days)
1	DEFINE & PLAN PHASE									65
2		Pre-KO/Welcome Email		Email - Welcome and schedule Pre-KO	CG-PM			8/22/2022	11/18/2022	5
3				Conduct Pre-Kick-Off	CG-PM			8/22/2022	8/26/2022	5
4		Customer Roles and Responsibilities		Send Roles and Responsibility Template	CG-PM	SA-Admin	1	9/9/2022	9/9/2022	10
5				Customer Completes Roles and Responsibility Chart	CG-PM			9/12/2022	9/16/2022	5
6				Project Timeline Creation	CG-PM	SA-Admin		9/19/2022	9/30/2022	10
7				Send Project Timeline	CG-PM			9/19/2022	9/30/2022	10
8				Schedule Timeline Review with Customer	CG-PM			9/19/2022	9/30/2022	10
9				Customer Approves Timeline	CG-PM	SA-Admin		10/3/2022	9/30/2022	10
10		External Kickoff		Create External Kick Off PPT	CG-PM			10/10/2022	10/14/2022	5
11				Schedule External Kickoff	CG-PM			10/10/2022	10/14/2022	5
12				Conduct External Kickoff	CG-PM	SA-ALL	1	10/17/2022	10/21/2022	5
13		Schedule Status Updates		Schedule Weekly Status Updates	CG-PM			10/24/2022	10/28/2022	5
14		Goals Meeting		Create Goals Meeting PPT	CG-PM			10/24/2022	10/28/2022	5
15				Schedule Goals Meeting	CG-PM			10/31/2022	11/4/2022	5
16				Conduct Goals Meeting	CG-PM	SA-Admin	1	11/7/2022	11/11/2022	5
17		ESRI Technical Call and Project Asset Discussion		Schedule ESRI Technical Call and Project Asset Discussion	CG-PM			11/7/2022	11/11/2022	5
18				Conduct ESRI Technical Call and Project Asset Discussion	CG-ISS	SA-Admin, SA-GIS, SA-IT/Technical	1	11/14/2022	11/18/2022	5
19	DESIGN PHASE							11/28/2022	2/24/2023	65
20		Requirements Gathering (Remote)		Confirm RG Availability	CG-PM			11/28/2022	12/2/2022	5
21		RG Agenda		Create RG Agenda	CG-PM			12/5/2022	12/16/2022	10
22				Send Customer Agenda	CG-PM			12/5/2022	12/16/2022	10
23				Customer Approves Agenda	SA-Admin		3	12/19/2022	12/30/2022	10
24				Schedule RG (Sessions)	CG-PM			1/3/2023	1/6/2023	4
25		RG Event		Conduct RG	CG-IS		12	1/9/2023	1/13/2023	5
26				Attend RG: IT/GIS/SYSTEM Administrator Workshop	CG-IS	SA-Admin, SA-GIS, SA-IT/Technical	2	1/9/2023	1/13/2023	5
27				Attend RG: Resource Management Workshop	CG-IS	SA-Admin, SA-Operations	1	1/9/2023	1/13/2023	5
28				Attend RG: Request Management Workshop	CG-IS	SA-Admin, SA-Operations	2	1/9/2023	1/13/2023	5
29				Attend RG: Signals (3) Work and Asset Management Workshop	CG-IS	SA-Admin, SA-Operations	2	1/9/2023	1/13/2023	5
30				Attend RG: Transportation (8) Work and Asset Management Workshop	CG-IS	SA-Admin, SA-Operations	2	1/9/2023	1/13/2023	5
31				Attend RG: Custom (3) (Markings, School zones, Traffic Battery Back up systems) Work and asset Management workshop	CG-IS	SA-Admin, SA-Operations	2	1/9/2023	1/13/2023	5
32				Attend RG: Remote Wrap up and review of next steps	CG-IS	SA-Admin	1	1/9/2023	1/13/2023	5
33		RG Assessment Report		Complete RG Assessment Report	CG-IS			1/16/2023	1/27/2023	10
34				Send RG Assessment Report to Customer	CG-PM			1/27/2023	1/27/2023	1
35				Customer Reviews & Confirms Assessment Report	SA-Admin		1	1/27/2023	1/31/2023	3
36				Workbook Completed	CG-IS			1/16/2023	1/27/2023	10
37				Conduct Template Review Call	CG-ISS	SA-Operations, SA-Admin	2	1/9/2023	1/13/2023	5
38		Start Up Data Template Review Call		Schedule Additional Review Calls (as needed)	CG-PM			1/16/2023	2/24/2023	30
39				SA - Task Time for Start up template work	SA-Operations		10	1/16/2023	2/24/2023	30
40		Final Start Up Data Templates Due		Uploads Completed Start Up Data Templates & Notifies CG-PM	SA-Operations		0.5	2/24/2023	2/24/2023	1
41										
42										
43	BUILD & TEST PHASE							2/24/2023	6/6/2023	73
44		Test Data Load (Templates)		Copy Prod over Test	CG-ISS			2/27/2023	3/17/2023	15
45				Load startup data templates	CG-ISS			2/27/2023	3/17/2023	15
46		Test site configurations		Test buildout from workbook	CG-ISS			2/27/2023	3/17/2023	15
47		Internal Review of Test Site		Review & confirm workbook against site for accuracy	CG-IS			3/17/2023	3/17/2023	1
48				Sends test site to client (Send URL)	CG-PM			3/17/2023	3/17/2023	1
49		Configurations Workshops		Schedule Workshops	CG-PM			2/13/2023	2/17/2023	5
50				Conduct Workshops	CG-IS	SA-Admin, SA-Operations	8	3/20/2023	3/24/2023	5
51		GIS Connection Call		Schedule GIS Connection Training Call	CG-PM			2/21/2023	3/17/2023	19
52				Conduct GIS Connection Training Call	CG-ISS	SA-GIS, SA-Admin	2	3/13/2023	3/17/2023	5
53				GIS Integration - Test Connection Completed by Customer	SA-GIS	SA-GIS, SA-Admin	2	3/20/2023	3/24/2023	5
54		Train the Trainer (Onsite)			CG-PM					0
55				Confirm Training Availability	CG-PM			2/27/2023	3/3/2023	5
56				Book Travel	CG-IS			3/6/2023	3/10/2023	5
57		Training Agenda		Create Training Agenda	CG-PM			2/27/2023	3/3/2023	5
58				Send Customer Agenda	CG-PM			3/3/2023	3/3/2023	1
59				Customer Approves Agenda	SA-Admin		3	3/6/2023	3/10/2023	5
60				Schedule Training (sessions)	CG-PM			3/10/2023	3/10/2023	1
61		Conduct Training (Onsite)		Conduct Training Sessions	CG-IS		16	3/27/2023	3/31/2023	5
62				System Administrator Training	CG-IS	SA-Admin, SA-GIS, SA-IT/Technical	3	3/27/2023	3/31/2023	5
63				Resource Management Training	CG-IS	SA-Admin, SA-Operations	2	3/27/2023	3/31/2023	5

64		Asset, Request & Work Management Training Sessions	CG-IS	SA-Operations	8	3/27/2023	3/31/2023	5
65		Signals	CG-IS	SA-Operations		3/27/2023	3/31/2023	5
66		Transportation	CG-IS	SA-Operations		3/27/2023	3/31/2023	5
67		Custom	CG-IS	SA-Operations		3/27/2023	3/31/2023	5
68		Fleet Management	CG-IS	SA-Operations	1	3/27/2023	3/31/2023	5
69		Mobile Management	CG-IS	SA-Operations	2	3/27/2023	3/31/2023	5
70		Determine Testing Approach	CG-PM	SA-Admin	1	4/3/2023	4/5/2023	3
71		Define Additional Training	CG-PM	SA-Admin				0
72		Define Additional Training	CG-PM	SA-Admin	1	4/6/2023	4/7/2023	2
73		Schedule Weekly Testing Q&A Sessions	CG-PM			3/20/2023	3/24/2023	0
74		Conduct Weekly Testing Q&A Sessions (Testing period 6 to 8 weeks)	CG-SS	SA-Admin, SA-Operations	8	4/10/2023	6/2/2023	40
75		Schedule Additional Training	CG-PM					0
76		Additional Training (remote)	CG-PM					0
77		Conduct Additional Training Sessions	CG-SS			5/22/2023	6/2/2023	10
78		OMS Report Training	CG-SS	SA-Admin, SA-Operations, SA-Analytical	6	5/22/2023	6/2/2023	10
79		PM Plans Training	CG-SS	SA-Admin, SA-Operations, SA-Analytical	4	5/22/2023	6/2/2023	10
80		Advanced Inspections and Asset Condition Manager Training	CG-SS	SA-Admin, SA-Operations, SA-Analytical	4	5/22/2023	6/2/2023	10
81		Scenario Builder Training	CG-SS	SA-Admin, SA-Operations, SA-Analytical	6	5/22/2023	6/2/2023	10
82		Asset Builder Training	CG-SS	SA-Admin, SA-Operations, SA-Analytical	2	5/22/2023	6/2/2023	10
83		Integration toolkit functionality training	CG-SS	SA-Admin, SA-Operations, SA-Analytical	8	5/22/2023	6/2/2023	10
84		Zapier functionality training	CG-SS	SA-Admin, SA-Operations, SA-Analytical	4	5/22/2023	6/2/2023	10
85		Written or Verbal acceptance by SA Team	SA-Admin		1	6/6/2023	6/6/2023	1
86	DELIVER & SUPPORT PHASE	Testing Acceptance				5/30/2023	6/30/2023	24
87		Go Live Readiness Call	CG-PM		1	4/22/2023	4/26/2023	3
88		Schedule Go Live Readiness Call	CG-SS		1	5/30/2023	6/2/2023	4
89		Complete Test System Changes	SA-Admin, SA-Operations		5	6/6/2023	6/6/2023	1
90		CG-SS confirm product configurations/shares production URL with client/PM	CG-SS			6/7/2023	6/21/2023	11
91		Schedule GIS Connection Production Call (if applicable)	CG-PM			6/7/2023	6/9/2023	3
92		Conduct GIS Connection Production Call (if applicable)	CG-SS	SA-GIS, SA-Admin	1	6/16/2023	6/16/2023	1
93		GIS Integration - Production Connection Completed by Customer	SA-GIS		4	6/22/2023	6/26/2023	3
94		Confirm GL Availability	CG-PM			5/22/2023	5/26/2023	5
95		Create Go Live Agenda	CG-PM			5/30/2023	6/2/2023	4
96		Send Customer Agenda	CG-PM			6/2/2023	6/2/2023	1
97		Customer Approves Agenda	SA-Admin		3	6/5/2023	6/9/2023	5
98		Schedule Go Live (sessions)	CG-PM			6/12/2023	6/14/2023	3
99		Conduct Go live	CG-IS	SA-Admin, SA-Operations, SA-Analytical, SA-IT/Technical	4	6/26/2023	6/30/2023	5
100		Go Live (Remote)						0
101		4.6 Weeks	CG-PM					0
102		Schedule project transition meeting	CG-PM					0
103		Conduct project transition meeting	CG-PM		1			0
104		Close project in System/Begin Next Phase	CG-PM					0

Phase 2 Timeline									
*All dates are dependent on customer and Cartegraph availability.									
#	PHASE ONE	Parent task	Sub Task/Checklist	Responsible Party	Attending Party	SA-LOE in Hours	Start Date	End Date	Duration (Week Days)
1	DEFINE & PLAN PHASE						6/12/2023	7/7/2023	20
4		Customer Roles and Responsibilities	Send Roles and Responsibility Template	CG-PM			6/12/2023	6/14/2023	3
5			Customer Completes Roles and Responsibility Chart	SA-Admin			6/14/2023	6/16/2023	3
10		External Kickoff	Create External Kick Off PPT	CG-PM			6/12/2023	6/14/2023	3
11			Schedule External Kickoff	CG-PM			6/14/2023	6/16/2023	3
12			Conduct External Kickoff	CG-PM	SA-ALL	1	6/19/2023	6/23/2023	5
14		Goals Meeting	Create Goals Meeting PPT	CG-PM			6/19/2023	6/23/2023	5
15			Schedule Goals Meeting	CG-PM			6/26/2023	6/30/2023	5
16			Conduct Goals Meeting	CG-PM	SA-Admin	1	7/5/2023	7/7/2023	3
17		ESRI Technical Call and Project Asset d	Schedule ESRI Technical Call and Project Asset Discussion	CG-PM			6/26/2023	6/30/2023	5
18			Conduct ESRI Technical Call and Project Asset Discussion	CG-ISS	SA-Admin, SA-GIS, SA-Technical	1	7/5/2023	7/7/2023	3
19	DESIGN PHASE						6/12/2023	9/1/2023	60
20		Requirements Gathering (Remote)	Confirm RG Availability	CG-PM			6/20/2023	6/23/2023	4
21		RG Agenda	Create RG Agenda	CG-PM			6/26/2023	6/30/2023	5
22			Send Customer Agenda	CG-PM			6/30/2023	6/30/2023	1
23			Customer Approves Agenda	SA-Admin		3	7/5/2023	7/7/2023	3
24			Schedule RG (Sessions)	CG-PM			7/7/2023	7/7/2023	1
25		RG Event	Conduct RG	CG-IS		12	7/10/2023	7/14/2023	5
26			Attend RG: IT/GIS/SYSTEM Administrator Workshop	CG-IS	SA-Admin, SA-GIS, SA-IT/Technical	2	7/10/2023	7/14/2023	5
27			Attend RG: Resource Management Workshop	CG-IS	SA-Admin, SA-Operations	1	7/10/2023	7/14/2023	5
28			Attend RG: Request Management Workshop	CG-IS	SA-Admin, SA-Operations	2	7/10/2023	7/14/2023	5
29			Attend RG: Walkability (2) Work and Asset Management Workshop	CG-IS	SA-Admin, SA-Operations	2	7/10/2023	7/14/2023	5
30			Attend RG: Transportation (3) Work and Asset Management Workshop	CG-IS	SA-Admin, SA-Operations	2	7/10/2023	7/14/2023	5
31			Attend RG: Custom (2) (Adapt a Spot; Bus Pads; Speed Humps) Work and asset Management workshop	CG-IS	SA-Admin, SA-Operations	2	7/10/2023	7/14/2023	5
32			Attend RG: Remote Wrap up and review of next steps	CG-IS	SA-Admin	1	7/10/2023	7/14/2023	5
33		RG Assessment Report	Complete RG Assessment Report	CG-IS			7/17/2023	7/28/2023	10
34			Send RG Assessment Report to Customer	CG-PM			7/28/2023	7/28/2023	1
35			Customer Reviews & Confirms Assessment Report	SA-Admin		1	7/28/2023	8/4/2023	6
36			Workbook Completed	CG-IS			7/17/2023	7/28/2023	10
37		Start Up Data Template Review Call	Conduct Template Review Call	CG-PM			7/10/2023	7/14/2023	5
39			Schedule Additional Review Calls (as needed)	CG-PM			7/17/2023	8/25/2023	30
40			Conduct Final Data Review Session	CG-ISS	SA-Operations, SA-Admin	2	8/23/2023	8/25/2023	3
41		Final Start Up Data Templates Due	SA - Task Time for Start up template work	SA-Operations		10	7/17/2023	9/1/2023	35
42			Uploads Completed Start Up Data Templates & Notified	SA-Operations		0.5	9/1/2023	9/1/2023	1
43	BUILD & TEST PHASE						8/28/2023	11/22/2023	63
44		Test Data Load (Templates)	Copy Prod over Test	CG-ISS			9/5/2023	9/15/2023	9
45			Load startup data templates	CG-ISS			9/5/2023	9/15/2023	9
46		Test site configurations	Test buildout from workbook	CG-ISS			9/5/2023	9/15/2023	9
47		Internal Review of Test Site	Review & confirm workbook against site for accuracy	CG-IS			9/20/2023	9/15/2023	-4
48			Sends test site to client (Send URL)	CG-PM			9/20/2023	9/20/2023	1
49		Configurations Workshops	Schedule Workshops	CG-PM			9/11/2023	9/15/2023	5
50			Conduct Workshops	CG-IS	SA-Admin, SA-Operations	8	9/18/2023	9/22/2023	5
51		GIS Connection Call	Schedule GIS Connection Training Call	CG-PM			9/11/2023	9/15/2023	5
52			Conduct GIS Connection Training Call	CG-ISS	SA-GIS, SA-Admin	2	9/11/2023	9/15/2023	5

53			GIS Integration - Test Connection Completed by Custol	SA-GIS	SA-GIS, SA-Admin	2	9/18/2023	9/22/2023	5
54		Train the Trainer (Onsite)	Confirm Training Availability	CG-PM					0
55			Book Travel	CG-PM			8/28/2023	9/1/2023	5
56		Training Agenda	Create Training Agenda	CG-IS			8/28/2023	9/1/2023	5
57			Send Customer Agenda	CG-PM			9/1/2023	9/1/2023	1
58			Customer Approves Agenda	CG-PM			9/5/2023	9/15/2023	9
59			Schedule Training (Sessions)	SA-Admin		3	9/5/2023	9/15/2023	4
60			Conduct Training Sessions	CG-PM			9/15/2023	9/20/2023	4
61		Conduct Training (Onsite)		CG-IS		16	9/25/2023	9/29/2023	5
62			System Administrator Training	CG-IS	SA-Admin, SA-GIS, SA-JT/Technical	3	9/25/2023	9/29/2023	5
63			Resource Management Training	CG-IS	SA-Admin, SA-Operations	2	9/25/2023	9/29/2023	5
64			Asset, Request & Work Management Training Session	CG-IS	SA-Operations	8	9/25/2023	9/29/2023	5
65			Walkability	CG-IS	SA-Operations		9/25/2023	9/29/2023	5
66			Transportation	CG-IS	SA-Operations		9/25/2023	9/29/2023	5
67			Custom	CG-IS	SA-Operations		9/25/2023	9/29/2023	5
68			Fleet Management	CG-IS	SA-Operations	1	9/25/2023	9/29/2023	5
69			Mobile Management	CG-IS	SA-Operations	2	9/25/2023	9/29/2023	5
70		Determine Testing Approach	Define Testing Approach	CG-PM	SA-Admin	1	10/2/2023	10/6/2023	5
71			Define Additional Training	CG-PM	SA-Admin	1	10/2/2023	10/6/2023	5
72		Determine Additional Training Approach		CG-PM					0
73			Schedule Weekly Testing Q&A Sessions	CG-PM			9/15/2023	9/20/2023	4
74		Testing Q&A	Conduct Weekly Testing Q&A Sessions (Testing period 6 to 8 weeks)	CG-PM	SA-Admin, SA-Operations	8	10/9/2023	11/22/2023	33
75			Schedule Additional Training	CG-PM			11/15/2023	11/22/2023	6
76		Additional Training (remote)	Conduct Additional Training Sessions	CG-PM					0
77				CG-PM					0
78			OMS Report Training	CG-PM	SA-Admin, SA-Operations, SA-Analytical	6	11/13/2023	11/22/2023	8
79			PM Plans Training	CG-PM	SA-Admin, SA-Operations, SA-Analytical	4	11/13/2023	11/22/2023	8
80			Advanced Inspections and Asset Condition Management	CG-PM	SA-Admin, SA-Operations, SA-Analytical	4	11/13/2023	11/22/2023	8
81			Scenario Builder Training	CG-PM	SA-Admin, SA-Operations, SA-Analytical	6	11/13/2023	11/22/2023	8
82			Asset Builder Training	CG-PM	SA-Admin, SA-Operations, SA-Analytical	2	11/13/2023	11/22/2023	8
85		Testing Acceptance	Written or Verbal acceptance by SA Team	SA-Admin		1	11/22/2023	11/22/2023	1
86	DELIVER & SUPPORT PHASE						11/6/2023	12/8/2023	25
87		Go Live Readiness Call	Schedule Go Live Readiness Call	CG-PM			11/6/2023	11/7/2023	2
88			Conduct Go Live Readiness Call	CG-PM		1	11/6/2023	11/10/2023	3
89		Test Site Cutoff	Complete Test System Changes	SA-Admin, SA-Operations		5	11/14/2023	11/14/2023	1
90		Prod site configured	CG-PM confirm product configurations/shares production URL with client/PM	CG-PM			11/15/2023	11/29/2023	11
91		GIS Integration - Prod Connection Completed by Customer	Schedule GIS Connection Production Call (if applicable)	CG-PM			11/13/2023	11/17/2023	5
92			Conduct GIS Connection Production Call (if applicable)	CG-PM	SA-GIS, SA-Admin	1	11/17/2023	11/22/2023	4
93			GIS Integration - Production Connection Completed by Customer	SA-GIS		4	11/30/2023	12/4/2023	3
94		Go Live (Remote)		CG-PM					0
95			Confirm GL Availability	CG-PM			11/6/2023	11/9/2023	4
96		Go Live Agenda	Create Go Live Agenda	CG-PM			11/6/2023	11/9/2023	4
97			Send Customer Agenda	CG-PM			11/13/2023	11/15/2023	3
98			Customer Approves Agenda	SA-Admin		3	11/15/2023	11/22/2023	6
99			Schedule Go Live (sessions)	CG-PM			11/27/2023	12/1/2023	5

100		Go Live (Remote)	Conduct Go live	CG-IS	SA-Admin, SA-Operations, SA-Analytical, SA-IT/Technical	4	12/4/2023	12/8/2023	5
101		Post Go Live Support	4-6 Weeks	CG-PM					0
102		Project Closure	Schedule project transition meeting	CG-PM					0
103			Conduct project transition meeting	CG-PM	SA-Admin	1			0
									0

Phase 3 Timeline										
*All dates are dependent on customer and Cartegraph availability.										
#	PHASE ONE	Parent task	Sub Task/Checklist	Responsible Party	Attending Party	SA-LOE in Hours	Start Date	End Date	Duration (Week Days)	
1	DEFINE & PLAN PHASE						11/15/2023	12/15/2023	23	
4		Customer Roles and Responsibilities	Send Roles and Responsibility Template	CG-PM				11/15/2023	11/22/2023	6
5			Customer Completes Roles and Responsibility Chart	SA-Admin				11/27/2023	12/1/2023	5
10		External Kickoff	Create External Kick Off PPT	CG-PM				11/15/2023	11/22/2023	6
11			Schedule External Kickoff	CG-PM				11/15/2023	11/22/2023	6
12			Conduct External Kickoff	CG-PM	SA-ALL	1		11/27/2023	12/1/2023	5
13		Schedule Status Updates	Schedule Weekly Status Updates	CG-PM				11/27/2023	12/1/2023	5
14		Goals Meeting	Create Goals Meeting PPT	CG-PM				12/1/2023	12/6/2023	4
15			Schedule Goals Meeting	CG-PM				12/1/2023	12/6/2023	4
16			Conduct Goals Meeting	CG-PM	SA-Admin	1		12/4/2023	12/8/2023	5
17		ESRI Technical Call and Project Asset Discussion	Schedule ESRI Technical Call and Project Asset Discussion	CG-PM				12/4/2023	12/8/2023	5
18			Conduct ESRI Technical Call and Project Asset Discussion	CG-ISS	SA-Admin, SA-GIS, SA-Technical	1		12/11/2023	12/15/2023	5
19		DESIGN PHASE						12/1/2023	2/9/2024	51
20			Requirements Gathering (Remote)	Confirm RG Availability	CG-PM			12/1/2023	12/6/2023	4
21			RG Agenda	Create RG Agenda	CG-PM			12/1/2023	12/6/2023	4
22				Send Customer Agenda	CG-PM			12/6/2023	12/6/2023	1
23				Customer Approves Agenda	SA-Admin			12/7/2023	12/13/2023	5
24				Schedule RG (Sessions)	CG-PM			12/13/2023	12/15/2023	3
25	RG Event		Conduct RG	CG-IS		12	12/19/2023	12/22/2023	5	
26			Attend RG: IT/GIS/SYSTEM Administrator Workshop	CG-IS	SA-Admin, SA-GIS, SA-IT/Technical	2	12/19/2023	12/22/2023	5	
27			Attend RG: Resource Management Workshop	CG-IS	SA-Admin, SA-Operations	1	12/18/2023	12/22/2023	5	
28			Attend RG: Request Management Workshop	CG-IS	SA-Admin, SA-Operations	2	12/18/2023	12/22/2023	5	
30			Attend RG: Stormwater (7) Work and Asset Management Workshop	CG-IS	SA-Admin, SA-Operations	2	12/18/2023	12/22/2023	5	
31			Attend RG: Custom (7) Work and asset Management workshop	CG-IS	SA-Admin, SA-Operations	2	12/18/2023	12/22/2023	5	
32			Attend RG: Remote Wrap up and review of next steps	CG-IS	SA-Admin, SA-Operations	1	12/18/2023	12/22/2023	5	
33	RG Assessment Report		Complete RG Assessment Report	CG-IS	SA-Admin	6	12/27/2023	1/3/2024	6	
34			Send RG Assessment Report to Customer	CG-PM			1/3/2024	1/3/2024	1	
35			Customer Reviews & Confirms Assessment Report	SA-Admin			1/3/2024	1/5/2024	3	
36			Workbook Completed	CG-IS			1/9/2024	1/9/2024	1	
38	Start Up Data Template Review Call		Conduct Template Review Call	CG-ISS	SA-Operations, SA-Admin	2	12/18/2023	12/22/2023	5	
39			Schedule Additional Review Calls (as needed)	CG-PM			12/29/2023	2/2/2024	26	
40			Conduct Final Data Review Session	CG-ISS	SA-Operations, SA-Admin	2	1/15/2024	2/2/2024	15	
41		Final Start Up Data Templates Due	SA - Task Time for Start up template work	SA-Operations		10	1/15/2024	2/9/2024	20	
42			Uploads Completed Start Up Data Templates & Notifies CG-PM	SA-Operations		0.5	2/9/2024	2/9/2024	1	
43	BUILD & TEST PHASE						2/12/2024	4/30/2024	57	
44		Test Data Load (Templates)	Copy Prod over Test	CG-ISS			2/12/2024	3/1/2024	15	
45			Load startup data templates	CG-ISS			2/12/2024	3/1/2024	15	
46	Test site configurations		Test buildout from workbook	CG-ISS			2/12/2024	3/1/2024	15	
47	Internal Review of Test Site		Review & confirm workbook against site for accuracy	CG-IS			2/12/2024	3/1/2024	15	
48			Sends test site to client (Send URL)	CG-PM			3/1/2024	3/1/2024	1	
49	Configurations Workshops		Schedule Workshops	CG-PM			2/20/2024	2/23/2024	4	
50			Conduct Workshops	CG-IS	SA-Admin, SA-Operations	8	3/4/2024	3/8/2024	5	
51	GIS Connection Call		Schedule GIS Connection Training Call	CG-PM			2/26/2024	3/1/2024	5	
52			Conduct GIS Connection Training Call	CG-ISS	SA-GIS, SA-Admin	2	2/26/2024	3/1/2024	5	
53			GIS Integration - Test Connection Completed by Customer	SA-GIS	SA-GIS, SA-Admin	2	3/4/2024	3/8/2024	5	
54	Train the Trainer (Onsite)			CG-PM					0	
55			Confirm Training Availability	CG-PM			2/26/2024	3/1/2024	5	
56			Book Travel	CG-IS			2/26/2024	3/1/2024	5	
57	Training Agenda		Create Training Agenda	CG-PM			2/26/2024	3/1/2024	5	

58		Send Customer Agenda	CG-PM			3/1/2024	1	3/1/2024	1
59		Customer Approves Agenda	SA-Admin			3/4/2024	3	3/4/2024	5
60		Schedule Training (sessions)	CG-PM			3/8/2024		3/8/2024	1
61		Conduct Training (Onsite)	CG-SS			3/11/2024	16	3/11/2024	5
62		System Administrator Training	CG-IS		SA-Admin, SA-GIS, SA-IT/Technical	3/11/2024	3	3/11/2024	5
63		Resource Management Training	CG-IS		SA-Admin, SA-Operations	3/11/2024	2	3/11/2024	5
64		Asset, Request & Work Management Training Sessions	CG-IS		SA-Operations	3/11/2024	8	3/11/2024	5
66		Stormwater	CG-IS		SA-Operations	3/11/2024		3/11/2024	5
67		Custom	CG-IS		SA-Operations	3/11/2024		3/11/2024	5
68		Fleet Management	CG-IS		SA-Operations	3/11/2024	1	3/11/2024	5
69		Mobile Management	CG-IS		SA-Operations	3/11/2024	2	3/11/2024	5
70		Determine Testing Approach	CG-PM		SA-Admin	3/18/2024	1	3/18/2024	5
71								3/22/2024	0
72		Determine Additional Training Approach and Milestones	CG-PM		SA-Admin	3/22/2024	1	3/22/2024	1
73									0
74		Testing Q&A	CG-PM			3/18/2024		3/22/2024	5
75		Conduct Weekly Testing Q&A Sessions (Testing period 6 to 8 weeks)	CG-SS		SA-Admin, SA-Operations	3/18/2024	8	4/30/2024	32
76		Additional Training (remote)	CG-PM						32
77		Schedule Additional Training Sessions	CG-SS			3/18/2024		4/30/2024	0
78		OMS Report Training	CG-SS		SA-Admin, SA-Operations, SA-Analytical	3/18/2024	6	4/30/2024	32
79		PM Plans Training	CG-SS		SA-Admin, SA-Operations, SA-Analytical	3/18/2024	4	4/30/2024	32
80		Advanced Inspections and Asset Condition Manager Training	CG-SS		SA-Admin, SA-Operations, SA-Analytical	3/18/2024	4	4/30/2024	32
81		Scenario Builder Training	CG-SS		SA-Admin, SA-Operations, SA-Analytical	3/18/2024	6	4/30/2024	32
82		Asset Builder Training	CG-SS		SA-Admin, SA-Operations, SA-Analytical	3/18/2024	2	4/30/2024	32
85		Testing Acceptance	SA-Admin			3/18/2024	1	3/18/2024	32
86	DELIVER & SUPPORT PHASE					4/15/2024		5/24/2024	30
87		Go Live Readiness Call	CG-PM			4/15/2024		4/19/2024	5
88		Conduct Go Live Readiness Call	CG-SS			4/22/2024	1	4/26/2024	5
89		Complete Test System Changes	SA-Admin, SA-Operations			4/30/2024	5	4/30/2024	1
90		CG-SS confirm product configurations/shares production URL with client/PM	CG-SS			5/1/2024		5/15/2024	11
91		Prod site configured	CG-PM			5/6/2024		5/10/2024	5
92		GIS Integration - Prod Connection Completed by Customer	CG-SS		SA-GIS, SA-Admin	5/13/2024	1	5/14/2024	2
93		GIS Integration - Production Connection Completed by Customer	SA-GIS			5/16/2024	4	5/20/2024	3
94		Go Live (Remote)	CG-PM						0
95		Confirm GL Availability	CG-PM			4/22/2024		4/26/2024	5
96		Create Go Live Agenda	CG-PM			4/22/2024		4/26/2024	5
97		Send Customer Agenda	CG-PM			4/26/2024		4/26/2024	1
98		Customer Approves Agenda	SA-Admin			5/6/2024	3	5/6/2024	6
99		Schedule Go Live (sessions)	CG-PM			5/6/2024		5/10/2024	5
100		Go Live (Remote)	CG-IS		SA-Admin, SA-Operations, SA-Analytical, SA-IT/Technical	5/20/2024	4	5/24/2024	5
101		Post Go Live Support	CG-PM						0
102		Schedule project transition meeting	CG-PM						0
103		Conduct project transition meeting	CG-PM		SA-Admin		1		0
104		Close project in System/Begin Next Phase	CG-PM						0

GUMB Integration									
*All dates are dependent on customer and Cartegraph availability.									
#	PHASE ONE	Parent task	Sub Task/Checklist	Responsible Party	Attending Party	CG-LOE in Hours	SA-LOE in Hours	Start Date	End Date
1	DEFINE & PLAN PHASE								
2		Integration	Schedule Integration Review Session	CG-PM					
3			Conduct Integration Review Session	CG-AE	Operations SA-IT/Technical		1		
4	DESIGN PHASE								
5		Integration	Design and Build (GUMB 311)	CG-AE		250			
6			Consult and Review	CG-AE	SA-Admin, SA-Technical		2		
7			Follow up/work per consulting	CG-AE		8			
8			Consult and Review	CG-AE	SA-Admin, SA-Technical	2	2		
9			Follow up/work per consulting	CG-AE		8			
10			Consult and Review	CG-AE	SA-Admin, SA-Technical	2	2		
11			Follow up/work per consulting	CG-AE		8			
12			Consult and Review	CG-AE	SA-Admin, SA-Technical	2	2		
13			Follow up/work per consulting	CG-AE		8			
14			Consult and Review	CG-AE	SA-Admin, SA-Technical	2	2		
15			Follow up/work per consulting	CG-AE		8			
16	BUILD & TEST PHASE								
17		Integration Build	Finalize Workflow and Field Mapping	CG-AE		8			
18			Development (GUMB 311)	CG-AE		10			
19			Documentation	CG-AE		2			
20			Deployment	CG-AE		4			
21			Integration Customer Test	SA-Admin SA-Technical			2		
22	DELIVER & SUPPORT PHASE								

Labor-HR Integration									
*All dates are dependent on customer and Cartegraph availability.									
#	PHASE ONE	Parent task	Sub Task/Checklist	Responsible Party	Attending Party	CG-LOE in Hours	SA-LOE in Hours	Start Date	End Date
1	DEFINE & PLAN PHASE	Integration	Customer completes the integration document required	SA-IT/Technical					
2			Customer Uploads Integration Files	SA-IT/Technical			4		
3			Reviews Integration Information	CG-AE		1	1		
4			Schedule Integration Review Session	CG-PM					
5			Conduct Integration Review Session	CG-AE	SA-Admin, SA-IT/Technical	1	1		
7	DESIGN PHASE								
8	Integration		Consult and Review (if needed)	CG-AE	SA-Admin, SA-Technical	1			
9	BUILD & TEST PHASE	Integration							
10			Finalize Workflow and Field Mapping	CG-AE		5			
11			Build Integration	CG-AE		10			
12			Documentation	CG-AE		2			
13			Deployment	CG-AE		4			
14	DELIVER & SUPPORT PHASE								
15		Integration production deployment	Finalize Integration in Production	CG-AE					
16			Integration document	CG-AE					

Faster-Equipment Integration									
*All dates are dependent on customer and Cartegraph availability.									
#	PHASE ONE	Parent task	Sub Task/Checklist	Responsible Party	Attending Party	CG-LOE in Hours	SA-LOE in Hours	Start Date	End Date
1	DEFINE & PLAN PHASE	Integration	Customer completes the integration document required	SA-IT/Technical					
2			Customer Uploads Integration Files	SA-IT/Technical			4		
3			Reviews Integration Information	CG-AE			1		
4			Schedule Integration Review Session	CG-PM			2		
5			Conduct Integration Review Session	CG-AE	SA-Admin, SA-IT/Technical				
6				CG-AE			2		
7	DESIGN PHASE								
8		Integration	Consult and Review (if needed)	CG-AE	SA-Admin, SA-Technical	1			
9	BUILD & TEST PHASE								
10		Integration	Finalize Workflow and Field Mapping	CG-AE		7			
11			Build Integration	CG-AE		13			
12			Documentation	CG-AE		2			
13			Deployment	CG-AE		5			
14	DELIVER & SUPPORT PHASE								
15		Integration production deployment	Finalize Integration in Production	CG-AE					
16			Integration document	CG-AE					