

THIS PRINT COVERS CALENDAR ITEM NO. : 10.5

**SAN FRANCISCO
MUNICIPAL TRANSPORTATION AGENCY**

DIVISION: Sustainable Streets

BRIEF DESCRIPTION:

Approving Contract No. SFMTA 2018-27, Transit Signal Priority System, Software License and TSP Maintenance Services, with Global Traffic Technologies (GTT) to provide transit signal priority system maintenance services for an amount not to exceed \$6,347,450, for a five-year term ending June 30, 2023, with four optional one-year extensions.

SUMMARY:

- The Transit Signal Priority (TSP) System is an on-board and wayside technology system that alters traffic signal timing to extend green lights and shorten red lights to favor buses and trolleys, which reduces traffic light delays to transit vehicles and thereby speeds transit service.
- San Francisco currently has more than 700 transit vehicles equipped with the TSP System. Work to complete TSP deployment includes the equipment installations and upgrades on transit vehicles, and installation of additional on-site equipment at bus yards.
- SFMTA has identified GTT as the only vendor currently capable of providing the products and expertise needed to extend and maintain the TSP System, because the TSP software and equipment are proprietary to GTT.
- GTT was approved by the City's Contract Monitoring Division on May 2, 2017 as a sole source contractor.
- This contract will allow the SFMTA to purchase equipment needed to complete TSP deployment, and to receive GTT services and support to effectively operate and maintain the TSP System.
- SFMTA has determined that the proposed TSP program is categorically exempt from the California Environmental Quality Act (CEQA).

ENCLOSURES:

1. SFMTAB Resolution
2. Contract No. SFMTA 2018-27, Transit Signal Priority (TSP) System, Software License and TSP Maintenance Services

APPROVALS:

| | DATE |
|-----------|---|
| DIRECTOR |  1/25/2018 |
| SECRETARY |  1/25/2018 |

ASSIGNED SFMTAB CALENDAR DATE: February 6, 2018

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PURPOSE

Approving Contract No. SFMTA 2018-27, Transit Signal Priority (TSP) System, Software License and TSP Maintenance Services, with Global Traffic Technologies for an amount not to exceed \$6,347,450, for a five-year term ending June 30, 2023, with four optional one-year extensions.

STRATEGIC PLAN GOALS AND TRANSIT FIRST POLICY PRINCIPLES

This action supports the following SFMTA Strategic Plan Goal and Objectives:

Goal 1: Create a safer transportation experience for everyone

 Objective 1.3: Improve the safety of the transportation system.

Goal 2: Make transit, walking, bicycling, taxi, ridesharing and carsharing the preferred means of travel

 Objective 2.2: Improve transit performance.

Goal 3: Improve the environment and quality of life in San Francisco

 Objective 3.1: Reduce the Agency's and the transportation system's resource consumption, emissions, waste, and noise.

 Objective 3.2: Increase the transportation system's positive impact to the economy.

 Objective 3.4: Deliver services efficiently.

The TSP system supports the City's Transit First Policy, specifically the following principles:

1. To ensure quality of life and economic health in San Francisco, the primary objective of the transportation system must be the safe and efficient movement of people and goods
2. Public transit, including taxis and vanpools, is an economically and environmentally sound alternative to transportation by individual automobiles. Within San Francisco, travel by public transit, by bicycle and on foot must be an attractive alternative to travel by private automobile
4. Transit priority improvements, such as designated transit lanes and streets and improved signalization, shall be made to expedite the movement of public transit vehicles (including taxis and vanpools) and to improve pedestrian safety
10. The City and County shall encourage innovative solutions to meet public transportation needs wherever possible and where the provision of such service will not adversely affect the service provided by the Municipal Railway

DESCRIPTION

The Transit Signal Priority (TSP) System is an on-board and wayside technology system that alters traffic signal timing to extend green lights and shorten red lights to favor buses and trolleys, which reduces traffic light delays to transit vehicles and thereby speeds transit service. The TSP System, manufactured and sold by GTT under the tradename Opticom, uses Global Positioning System (GPS) and wireless communication technologies to modify traffic signal timing.

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The SFMTA first installed GTT TSP technology as a pilot project in 2013 along a segment of Outer Mission Street, which resulted in a two-minute reduction in travel time between 11th Street and Randall Street, representing an eight-percent improvement in transit service on that line. The SFMTA extended the TSP System over the course of the following three years; the TSP System is currently installed on approximately 700 transit vehicles and 450 intersections. The remaining work to complete TSP deployment includes the final equipment installations and upgrades on SFMTA's entire fleet of transit vehicles, and installation of additional on-site equipment at bus yards to fully support TSP operations. This contract will also allow the SFMTA to receive GTT support and system management services needed to effectively operate and maintain the TSP system on a turnkey basis for up to the next nine years (five years base term, and four optional one-year extensions). The SFMTA's goal is to become capable of performing all TSP operations and maintenance. Under this contract, GTT will provide training to SFMTA staff designed to develop in-house expertise in the maintenance and repair of the TSP System

The TSP System, including its software and equipment, are proprietary to GTT, and software, equipment and maintenance services for the TSP System are only available from GTT. On that basis, the City's Contract Monitoring Division on May 2, 2017 approved GTT as the sole source contractor for TSP software and maintenance services, in compliance with the S.F. Administrative Code Section 21.5(b).

STAKEHOLDER ENGAGEMENT

Public outreach has largely been unnecessary, since the TSP improvements and enhancements are primarily internal to the agency's public transit and traffic signal operations and are largely invisible to the public. From the public's perspective, the only visible impacts would be small antennas at intersections, and expected improvements in transit service and reductions in transit delays.

Within the SFMTA, the TSP program brought together several disciplines to collaborate on this project, including the Sustainable Streets Division's Transit/SFgo Section and Traffic Signal Shop, the Transit Division's Operations and Fleet Management Divisions, and the Transportation Management Center Managers and Operations. Several meetings and discussions were held as the details and provisions of this managed services contract were being developed. These specific Divisions within the SFMTA are those who will be responsible for various aspects of the TSP system, including final deployment, system operation, and ongoing maintenance.

ALTERNATIVES CONSIDERED

The SFMTA originally considered integrating TSP with agency's Radio Replacement Project. But that option would have resulted in unnecessary delays and additional cost to the TSP program, since the Radio Replacement Project vendor did not have necessary TSP expertise or installation-ready technology. GTT's Opticom TSP product line, on the other hand, was readily available and provide close to an over-the-counter solution.

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FUNDING IMPACT

The contract for an amount not to exceed \$6,347,450 is funded through various local fund sources, as follows:

Year One – In-vehicle and bus yard equipment installations and integration; and first year of managed services and system maintenance.

- City and County General Fund (Prop B): \$3,311,450

Years Two through Five – Additional years of managed services and system maintenance (four years at \$759,000 per year).

- SFMTA Fund Balance: \$2,036,000
- SFMTA Transportation Sustainability Fees: \$1,000,000

No federal funds will be used for this contract.

ENVIRONMENTAL REVIEW

The TSP program is subject to the California Environmental Quality Act (CEQA). CEQA provides a categorical exemption from environmental review Existing highways and streets, sidewalks, gutters, bicycle and pedestrian trails, and similar facilities as defined in Title 14 of the California Code of Regulations Section 15301.

On May 31, 2013, SFMTA, under authority delegated by the Planning Department, determined (Case Number 2013.0599E) that the TSP program is categorically exempt from CEQA as defined in Title 14 of the California Code of Regulations Section 15301.

A copy of the CEQA determination is on file with the Secretary to the SFMTA Board of Directors, and may be found in the records of the Planning Department at 1650 Mission Street in San Francisco, and is incorporated herein by reference.

OTHER APPROVALS RECEIVED OR STILL REQUIRED

This contract will be presented to the Civil Service Commission as Contract Number 40202-17/18 on February 5, 2018.

The City Attorney has reviewed this report.

RECOMMENDATION

The SFMTA staff recommends that the SFMTA Board of Directors approve Contract No. SFMTA 2018-27, Transit Signal Priority System, Software License and TSP Maintenance Services, with Global Traffic Technologies to provide transit signal priority system maintenance services for an amount not to exceed \$6,347,450, for a five-year term ending June 30, 2023, with four optional one-year extensions.

**SAN FRANCISCO
MUNICIPAL TRANSPORTATION AGENCY
BOARD OF DIRECTORS**

RESOLUTION No. _____

WHEREAS, The Transit Signal Priority (TSP) System is an on-board and wayside technology system that alters traffic signal timing to extend green lights and shorten red lights to favor buses and trolleys, which reduces traffic light delays to transit vehicles and thereby speeds transit service; and,

WHEREAS, San Francisco currently has more than 700 transit vehicles equipped with the TSP System. Work to complete TSP deployment includes the equipment installations and upgrades on transit vehicles, and installation of additional on-site equipment at bus yards. This contract will allow the SFMTA to purchase equipment needed to complete TSP deployment, and to receive GTT services and support to effectively operate and maintain the TSP System; and,

WHEREAS, SFMTA has identified GTT as the only vendor currently capable of providing the products and expertise needed to extend and maintain the TSP System, because the TSP software and equipment are proprietary; and,

WHEREAS, The Transit Signal Priority (TSP) program supports the City's Transit First Policy by improving the public transit customer experience and encouraging transit ridership in San Francisco; and,

WHEREAS, GTT was approved by the City's Contract Monitoring Division on May 2, 2017 as a sole source contractor for this TSP project, in compliance with the S.F. Administrative Code Section 21.5(b); and,

WHEREAS, This contract will allow the SFMTA to purchase equipment needed to complete TSP deployment, and to receive GTT services and support to effectively operate and maintain the TSP system; and,

WHEREAS, The TSP vendor under this contract will provide training to SFMTA staff designed to develop in-house expertise in the maintenance and repair of the TSP System; and,

WHEREAS, This contract is consistent with the goals and objectives of the City's 2011 General Obligation Road Repaving and Street Safety Bond, from which it is funded; and,

WHEREAS, The TSP program is subject to the California Environmental Quality Act (CEQA); CEQA provides a categorical exemption from environmental review for operation, repair, maintenance, or minor alteration of existing highways and streets, sidewalks, gutters, bicycle and pedestrian trails, and similar facilities as defined in Title 14 of the California Code of Regulations Section 15301; and,

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WHEREAS, On May 31, 2013, SFMTA, under authority delegated by the Planning Department, determined that the TSP program is categorically exempt from CEQA as defined in Title 14 of the California Code of Regulations Section 15301; and,

WHEREAS, A copy of the CEQA determination is on file with the Secretary to the SFMTA Board of Directors, and may be found in the records of the Planning Department at 1650 Mission Street in San Francisco, and is incorporated herein by reference; now, therefore, be it

RESOLVED, That the San Francisco Municipal Transportation Agency Board of Directors approves Contract No. SFMTA 2018-27, Transit Signal Priority (TSP) System, Software License and TSP Maintenance Services, with Global Traffic Technologies (GTT) to provide transit signal priority system maintenance services for an amount not to exceed \$6,347,450, for a five-year term ending June 30, 2023, with four optional one-year extensions.

I certify that the foregoing resolution was adopted by the San Francisco Municipal Transportation Agency Board of Directors at its meeting of February 6, 2018.

Secretary to the Board of Directors
San Francisco Municipal Transportation Agency

**City and County of San Francisco
Municipal Transportation Agency
One South Van Ness Ave., 7th Floor
San Francisco, California 94103**

**Agreement between the City and County of San Francisco and
Global Traffic Technologies, LLC**

**Transit Signal Priority System
Software License and System Maintenance Services**

Contract No. SFMTA 2018-27

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**City and County of San Francisco
Municipal Transportation Agency
One South Van Ness Ave., 7th Floor
San Francisco, California 94103**

**Agreement between the City and County of San Francisco and
Global Traffic Technologies, LLC**

**Transit Signal Priority System
Software License and TSP Maintenance Services**

Contract No. SFMTA-2018-27

This Agreement for Transit Signal Priority System Software License and TSP Maintenance Services, Contract No. SFMTA 2018-27, dated for convenience as February 6, 2018, in the City and County of San Francisco, State of California, by and between Global Traffic Technologies, LLC, 7800 Third Street North, St. Paul, Minnesota 55128-5441 (Contractor) and the City and County of San Francisco (City), acting by and through its Municipal Transportation Agency (SFMTA).

Recitals

A. The SFMTA and Contractor have negotiated this Agreement to complete the final deployment phase of Transit Signal Priority (TSP) on the SFMTA's transit vehicles and facilities, including Wi-Fi configuration for data uploads and downloads; software configuration for system operations, maintenance, and support; and final system inspection and validation, all in preparation for SFMTA's acceptance of the TSP product and infrastructure provided and installed by the Contractor.

B. The SFMTA wishes to procure and the Contractor wishes to provide during the term of this Agreement additional TSP Equipment, Services, and Licensed Software upgrades to ensure the continued operation of the SFMTA's TSP System.

C. The SFMTA has identified the Contractor as a sole source vendor, in accordance with FTA Circular 4220.1F, Article VI.3.i(1)(b)1.a and the San Francisco Administrative Code, as the Equipment and Licensed Software to be provided under this Agreement for the TSP System are proprietary to, and only available from the Contractor.

D. Contractor represents and warrants that it is qualified and has the resources to perform the Services and provide the Equipment and Licensed Software required by City as set forth in this Agreement.

E. Approval for this Agreement was obtained when the Civil Service Commission approved Contract number 40202-17/18 on February 5, 2018.

Now, THEREFORE, the parties agree as follows:

Article 1 Definitions

The following definitions apply to this Agreement. Where any word or phrase defined below, or a pronoun used in place thereof, is used in any part of this Agreement, it shall have the meaning herein set forth:

1.1 Licensed Software Licensed “**Agreement**” means this contract document, including all attached appendices and exhibits, including any future written and executed amendments, and Task Orders issued under this Agreement, and all applicable City Ordinances and Mandatory City Requirements that are specifically incorporated into this Agreement by reference as provided herein.

1.2 “**City**” or “the City” means the City and County of San Francisco, a municipal corporation.

1.3 “**Contract Administrator**” means the contract administrator assigned to the Contract by the SFMTA, or his or her designated agent.

1.4 “**Contractor**” or “**Consultant**” means Global Traffic Technologies, LLC.

1.5 “**Deliverables**” means the reports and analyses concerning services, software and equipment that Contractor provides under this Agreement, including without limitation, the work product described in the “Scope of Services” attached as Appendix A.

1.6 “**Documentation**” means the content of the technical manuals and other publications relating to the use, function and Specifications of the TSP System, such as reference, installation, administrative and programmer manuals, provided by Contractor to City. (See Appendix I for list of Documentation.)

1.7 “**Effective Date**” means the date upon which the City’s Controller certifies the availability of funds for this Agreement as provided in Section 3.1.

1.8 “**Equipment**” means wayside and on-board hardware and equipment necessary for the operation of the System.

1.9 “**Firmware**” means permanent software programmed into the Equipment or components of the TSP System that control or provide instructions for how the device operates or communicates with the other System components.

1.10 “**Intellectual Property**” means all intellectual property and industrial property rights and assets belonging to Contractor provided to City under this Agreement, including without limitation any and all: (a) trademarks, service marks, trade names, brand names, logos, trade dress, design rights and other similar designations of source, sponsorship, association or origin, together with the goodwill connected with the use of and symbolized by, and all

registrations, applications and renewals for, any of the foregoing; (b) works of authorship, expressions, designs and design registrations, whether or not copyrightable, including copyrights, author, performer, moral and neighboring rights, and all registrations, applications for registration and renewals of such copyrights; (c) inventions, discoveries, trade secrets, business and technical information and know-how, databases, data collections and other confidential information and all rights therein; (d) patents (including all reissues, divisionals, provisionals, continuations and continuations-in-part, re-examinations, renewals, substitutions and extensions thereof), patent applications, and other patent rights and any other governmental authority-issued indicia of invention ownership (including inventor's certificates, petty patents and patent utility models); and (e) software and firmware, including data files, source code, object code, scripts, mark-up language, application programming interfaces, architecture, files, records, schematics, computerized databases and other related specifications and documentation.

1.11 "Licensed Software" means one or more of the proprietary computer software programs identified in the Authorization Document, all related materials, Documentation, all corrections, patches or updates thereto, and other written information received by City from Contractor, whether in machine-readable or printed form. The Authorization Document may identify more than one software product or more than one copy of any product.

1.12 "Mandatory City Requirements" means those City laws set forth in the San Francisco Municipal Code, including the duly authorized rules, regulations, and guidelines implementing such laws, that impose specific duties and obligations upon Contractor.

1.13 "Milestone" means of an agreed scope of work and completion date of Services to be performed by Contractor.

1.14 "Object Code" means machine readable compiled form of Licensed Software Licensed provided by Contractor.

1.15 "Party" and **"Parties"** mean the City and Contractor either collectively or individually.

1.16 "Project" means the provision by Contractor of the Services and tasks as-needed Task Orders (and any part of the Services and Task Orders) necessary to maintain the TSP for the term of this Agreement, as described in this Agreement.

1.17 "Project Manager" means the project manager assigned to the Contract for the SFMTA or the Contractor, as applicable.

1.18 "Services" means the managed services, extended warranty and services for up to 900 buses and 900 intersections, training, and related as-needed services and tasks and other work performed by Contractor under this Agreement as specifically described in the "Scope of

Services" attached as Appendix A, including all services, labor, supervision, materials, equipment, actions and other requirements to be performed and furnished by Contractor under this Agreement.

1.19 "Service Level Agreement" or "SLA" means the agreement between the Parties related to the response times promised to resolve issues via the Contractor's helpdesk support function.

1.20 "San Francisco Municipal Transportation Agency" or "SFMTA" means the agency of City with jurisdiction over all surface transportation in San Francisco, as provided under Article VIIIA of the City's Charter.

1.21 "Source Code" means the human readable compliable form of the Licensed Licensed Software to be provided by Contractor.

1.22 "Specifications" the functional and operational characteristics of the Licensed Licensed Software and TSP Equipment as described in Appendix A to this Agreement.

1.23 "System" or "TSP System" means the Opticom Transit Signal Priority System and its constituent Licensed Software, Equipment, components and subcomponents.

1.24 "Task Order" means a counter-signed amendment to this Agreement under which Contractor shall provide additional Services or Equipment described in the Task Order to SFMTA for a negotiated fee.

Whenever the words "as directed," "as required," "as permitted," or words of like effect are used, it shall be understood as the direction, requirement, or permission of the SFMTA. The words "sufficient," "necessary," or "proper," and the like, mean sufficient, necessary or proper in the judgment of the SFMTA, unless otherwise indicated by the context.

Article 2 Term of the Agreement

2.1 The base term of this Agreement shall five years commencing on the Effective Date, unless earlier terminated as otherwise provided herein.

2.2 The City has four options to renew the Agreement for a period of one year each. The City may extend this Agreement beyond the expiration date by exercising an option at the Director of Transportation's sole discretion and by providing written notice to Contractor as provided in Section 11.5 (Modification of this Agreement).

2.3 No Automatic Renewal. Notwithstanding anything to the contrary contained in this Agreement (including, without limitation, any terms and conditions of Contractor attached hereto): (a) any automatic renewal or extension (whether or not conditioned upon any notice or

absence thereof from either party) or any similar “evergreen” provision shall be deemed null and void ab initio; and (b) the term of this Agreement shall not be extended or renewed except by written agreement duly authorized, executed and delivered by City. In the event of any inconsistency within this Agreement relating to the duration of the initial term hereof, the shorter initial term shall govern. If no initial term is stated in this Agreement, then the term shall be one year from the date on which the term commences.

Article 3 Financial Matters

3.1 Certification of Funds; Budget and Fiscal Provisions; Termination in the Event of Non-Appropriation. This Agreement is subject to the budget and fiscal provisions of the City’s Charter. Charges will accrue only after prior written authorization certified by the Controller in the form of a Purchase Order, and the amount of City’s obligation hereunder shall not at any time exceed the amount certified for the purpose and period stated in such advance authorization. This Agreement will terminate without penalty, liability or expense of any kind to City at the end of any fiscal year if funds are not appropriated for the next succeeding fiscal year. If funds are appropriated for a portion of the fiscal year, this Agreement will terminate, without penalty, liability or expense of any kind at the end of the term for which funds are appropriated. City has no obligation to make appropriations for this Agreement in lieu of appropriations for new or other agreements. City budget decisions are subject to the discretion of the Mayor and the Board of Supervisors. Contractor’s assumption of risk of possible non-appropriation is part of the consideration for this Agreement. The SFMTA will provide written notice to Contractor confirming the Controller’s certification of funds for the Agreement and confirming the Effective Date.

THIS SECTION CONTROLS AGAINST ANY AND ALL OTHER PROVISIONS OF
THIS AGREEMENT.

3.2 Guaranteed Maximum Costs. The City’s payment obligation to Contractor cannot at any time exceed the amount certified by City’s Controller for the purpose and period stated in such certification. Absent an authorized Emergency per the City Charter or applicable Code, no City representative is authorized to offer or promise, nor is the City required to honor, any offered or promised payments to Contractor under this Agreement in excess of the certified maximum amount without the Controller having first certified the additional promised amount and the Parties having modified this Agreement as provided in Section 11.5 (Modification of this Agreement).

3.3 Compensation.

3.3.1 Contract Amount. In no event shall the amount of the Services or Deliverables provided under Appendix A to this document exceed Six Million, Three Hundred and Forty-Seven Thousand, Four Hundred and Fifty (\$6,347,450). The breakdown of charges

associated with this Agreement appears in Appendix B (Calculation of Charges). The City may withhold a portion of payment directly related to any nonconformity in Services as retention until conclusion of the Agreement, described in Appendix. In no event shall City be liable for interest or late charges for any late payments.

3.3.2 Payment. No less than 60 days before the end of an annual maintenance period, Contractor shall provide an invoice to the SFMTA for the maintenance fees for the following annual maintenance period, which SFMTA shall pay within 30 days of receipt unless the SFMTA terminates the Agreement. The SFMTA shall compensate Contractor for Services provided under a Task Order that are identified in the invoice that the Director of Transportation, or his or her designee, in his or her sole discretion, concludes has been satisfactorily performed. Payment shall be made within 30 calendar days of receipt of the invoice, unless the City notifies the Contractor that a dispute as to the invoice exists.

3.3.3 Payment Limited to Satisfactory Services. Contractor is not entitled to any payments from City for Services provided under Task Orders until the SFMTA approves said Services, including any furnished Deliverables, as satisfying all of the requirements of this Agreement. Payments to Contractor by City shall not excuse Contractor from its obligation to replace unsatisfactory Deliverables, including equipment, components, materials, or Services even if the unsatisfactory character of such Deliverables, equipment, components, materials, or Services may not have been apparent or detected at the time such payment was made. Deliverables, equipment, components, materials and Services that do not conform to the requirements of this Agreement may be rejected by City and in such case must be replaced by Contractor without delay at no cost to the City.

3.3.4 Withhold Payments. If Contractor fails to provide Services in accordance with Contractor's obligations under this Agreement, the City may withhold any and all payments due Contractor until such failure to perform is cured, and Contractor shall not stop work as a result of City's withholding of payments as provided herein.

3.3.5 Invoice Format. Invoices furnished by Contractor under this Agreement must be in a form acceptable to the Controller and City, and must include a unique invoice number. Payment shall be made by City to Contractor at the electronic address specified in Section 3.3.6, or in such alternate manner as the Parties have mutually agreed upon in writing.

3.3.6 Getting Paid for Goods and/or Services from the City.

(a) All City vendors receiving new contracts, contract renewals, or contract extensions must sign up to receive electronic payments through the City's Automated Clearing House (ACH) payments service/provider. Electronic payments are processed every business day and are safe and secure. To sign up for electronic payments, visit www.sfgov.org/ach.

(b) The following information is required to sign up: (i) The enrollee must be their company's authorized financial representative, (ii) the company's legal name, main telephone number and all physical and remittance addresses used by the company, (iii) the company's U.S. federal employer identification number (EIN) or Social Security number (if they are a sole proprietor), and (iv) the company's bank account information, including routing and account numbers.

3.4 Audit and Inspection of Records. Contractor agrees to maintain and make available to the City, during regular business hours, accurate books and accounting records relating to its Services. Contractor will permit City to audit, examine and make excerpts and transcripts from such books and records, and to make audits of all invoices, materials, payrolls, records or personnel and other data related to all other matters covered by this Agreement, whether funded in whole or in part under this Agreement. Contractor shall maintain such data and records in an accessible location and condition for a period of not fewer than five years after final payment under this Agreement or until after final audit has been resolved, whichever is later. The State of California or any Federal agency having an interest in the subject matter of this Agreement shall have the same rights as conferred upon City by this Section. Contractor shall include the same audit and inspection rights and record retention requirements in all subcontracts.

3.5 Submitting False Claims. The full text of San Francisco Administrative Code Chapter 21, Section 21.35, including the enforcement and penalty provisions, is incorporated into this Agreement. Pursuant to San Francisco Administrative Code §21.35, any contractor or subcontractor who submits a false claim shall be liable to the City for the statutory penalties set forth in that section. A contractor or subcontractor will be deemed to have submitted a false claim to the City if the contractor or subcontractor: (a) knowingly presents or causes to be presented to an officer or employee of the City a false claim or request for payment or approval; (b) knowingly makes, uses, or causes to be made or used a false record or statement to get a false claim paid or approved by the City; (c) conspires to defraud the City by getting a false claim allowed or paid by the City; (d) knowingly makes, uses, or causes to be made or used a false record or statement to conceal, avoid, or decrease an obligation to pay or transmit money or property to the City; or (e) is a beneficiary of an inadvertent submission of a false claim to the City, subsequently discovers the falsity of the claim, and fails to disclose the false claim to the City within a reasonable time after discovery of the false claim.

Article 4 Services and Resources

4.1 Services Contractor Agrees to Perform. Contractor agrees to perform the Services provided for in Appendix A (Contractor's Services) and summarized in Sections 4.1.1 – 4.1.3 below. Officers and employees of the City are not authorized to request, and the City is not required to reimburse the Contractor for, procurement of Services, Equipment or other

Deliverables beyond those Services, Equipment, or Deliverable listed in Appendix A, unless Appendix A is modified as provided in Section 11.5 (Modification of this Agreement).

4.1.1 Equipment and System Maintenance: Services to support, maintain and optimize entire TSP System (including all TSP Equipment and Licensed Software), and provide Services necessary to ensure reliable and uninterrupted System operation. Contractor shall provide the following Services: project planning and coordination; TSP System and equipment monitoring; TSP System vehicle on-boarding/retirement; TSP System optimization, technical support and troubleshooting; repair, replacement or reconfiguration of faulty in-vehicle equipment; equipment preventative maintenance, data reporting, intersection maintenance training and documentation, and transition planning.

4.1.2 Equipment Installation, Retrofitting and AVL Integration: Delivery, replacement, installation and connection of Opticom 2101 Model units and ASM (Lanner) New Flyer Kits; configuration and installation of J1708 connects to SFMTA's Automatic Vehicle Location System (AVLS) and associated installation project planning and coordination and documentation activities and services.

4.1.3 TSP Bus Yard Monitoring, Testing, Station Delivery, and Installation: Delivery and installation of TSP verification stations at each SFMTA yard exit across all bus yards, as well as site surveys, installation design and project management services.

4.2 Task Orders. During the term of this Agreement, the SFMTA may from time-to-time issue Task Orders for Services and Equipment. A Task Order shall be signed by both parties and shall modify this Agreement. A Task Order shall describe the Services and Equipment that Contractor shall provide, performance criteria and specifications, acceptance criteria, the price(s), and submission or delivery dates for Deliverables.

4.3 Qualified Personnel. Contractor shall utilize only competent personnel under the supervision of, and in the employment of, Contractor (or Contractor's authorized subcontractors) to perform the Services. Contractor will comply with City's reasonable requests regarding assignment and/or removal of personnel, but all personnel, including those assigned at City's request, must be supervised by Contractor. Contractor shall commit adequate resources to allow timely completion within the project schedule specified in this Agreement.

4.4 Subcontracting.

4.4.1 Contractor may subcontract portions of the Services only upon prior written approval of City. Contractor is responsible for its subcontractors throughout the course of the work required to perform the Services. All Subcontracts must incorporate the terms of Article 10 (Additional Requirements Incorporated by Reference) of this Agreement, unless inapplicable.

Neither Party shall, on the basis of this Agreement, contract on behalf of, or in the name of, the other Party. Any agreement made in violation of this provision shall be null and void.

4.5 Independent Contractor; Payment of Employment Taxes and Other Expenses.

4.5.1 Independent Contractor. For the purposes of this Article 4, "Contractor" shall be deemed to include not only Contractor, but also any agent or employee of Contractor. Contractor acknowledges and agrees that at all times, Contractor or any agent or employee of Contractor shall be deemed at all times to be an independent contractor and is wholly responsible for the manner in which it performs the services and work requested by City under this Agreement. Contractor, its agents, and employees will not represent or hold themselves out to be employees of the City at any time. Contractor or any agent or employee of Contractor shall not have employee status with City, nor be entitled to participate in any plans, arrangements, or distributions by City pertaining to or in connection with any retirement, health or other benefits that City may offer its employees. Contractor or any agent or employee of Contractor is liable for the acts and omissions of itself, its employees and its agents. Contractor shall be responsible for all obligations and payments, whether imposed by federal, state or local law, including, but not limited to, FICA, income tax withholdings, unemployment compensation, insurance, and other similar responsibilities related to Contractor's performing services and work, or any agent or employee of Contractor providing same. Nothing in this Agreement shall be construed as creating an employment or agency relationship between City and Contractor or any agent or employee of Contractor. Any terms in this Agreement referring to direction from City shall be construed as providing for direction as to policy and the result of Contractor's work only, and not as to the means by which such a result is obtained. City does not retain the right to control the means or the method by which Contractor performs work under this Agreement. Contractor agrees to maintain and make available to City, upon request and during regular business hours, accurate books and accounting records demonstrating Contractor's compliance with this section. Should City determine that Contractor, or any agent or employee of Contractor, is not performing in accordance with the requirements of this Agreement, City shall provide Contractor with written notice of such failure. Within five business days of Contractor's receipt of such notice, and in accordance with Contractor policy and procedure, Contractor shall remedy the deficiency. Notwithstanding, if City believes that an action of Contractor, or any agent or employee of Contractor, warrants immediate remedial action by Contractor, City shall contact Contractor and provide Contractor in writing with the reason for requesting such immediate action.

4.5.2 Payment of Employment Taxes and Other Expenses. Should City, in its discretion, or a relevant taxing authority such as the Internal Revenue Service or the State Employment Development Division, or both, determine that Contractor is an employee for purposes of collection of any employment taxes, the amounts payable under this Agreement shall

be reduced by amounts equal to both the employee and employer portions of the tax due (and offsetting any credits for amounts already paid by Contractor which can be applied against this liability). City shall then forward those amounts to the relevant taxing authority. Should a relevant taxing authority determine a liability for past services performed by Contractor for City, upon notification of such fact by City, Contractor shall promptly remit such amount due or arrange with City to have the amount due withheld from future payments to Contractor under this Agreement (again, offsetting any amounts already paid by Contractor which can be applied as a credit against such liability). A determination of employment status pursuant to the preceding two paragraphs shall be solely for the purposes of the particular tax in question, and for all other purposes of this Agreement, Contractor shall not be considered an employee of City. Notwithstanding the foregoing, Contractor agrees to indemnify and save harmless City and its officers, agents and employees from, and, if requested, shall defend them against any and all claims, losses, costs, damages, and expenses, including attorneys' fees, arising from this section.

4.6 Assignment. The Services to be performed by Contractor are personal in character, and neither this Agreement nor any duties or obligations hereunder may be assigned or delegated by Contractor unless first approved by City by written instrument executed and approved in the same manner as this Agreement. Any purported assignment made in violation of this provision shall be null and void.

4.7 Warranties.

4.7.1 TSP System. Contractor warrants that during the Term of this Agreement and any authorized extension that the TSP System and its component Licensed Software and Equipment shall function in accordance with the Specifications set out in this Agreement.

4.7.2 Performance of Services. Contractor warrants to City that the Services will be performed with the degree of skill and care that is required by current, good and sound professional procedures and practices, and in conformance with generally accepted professional standards prevailing at the time the Services are performed so as to ensure that all Services performed are correct and appropriate for the purposes contemplated in this Agreement.

4.8 Force Majeure. Contractor shall not be liable for failure to provide contracted Services when such failure is due to causes beyond its reasonable control, such as acts of God, acts of civil or military authority, fires, strikes, floods, epidemics, quarantine, war, riot, delays in transportation, care shortages, and inability due to causes beyond its reasonable control to obtain necessary labor, materials or manufacturing facilities, and in such event the Contractor shall perform as soon as such cause is removed.

Article 5 Insurance and Indemnity

5.1 Insurance.

5.1.1 Required Coverages. Without in any way limiting Contractor's liability pursuant to the "Indemnification" section of this Agreement, Contractor must maintain in force, during the full term of the Agreement, insurance in the following amounts and coverages:

(a) Workers' Compensation, in statutory amounts, with Employers' Liability Limits not less than \$1,000,000 each accident, injury, or illness; and

(b) Commercial General Liability Insurance with limits not less than \$2,000,000 each occurrence for Bodily Injury and Property Damage, including Contractual Liability, Personal Injury, Products and Completed Operations; and

(c) Commercial Automobile Liability Insurance with limits not less than \$2,000,000 each occurrence, "Combined Single Limit" for Bodily Injury and Property Damage, including Owned, Non-Owned and Hired auto coverage, as applicable.

5.1.2 Commercial General Liability and Commercial Automobile Liability Insurance policies must be endorsed to provide:

(a) Name as Additional Insured the City and County of San Francisco, its Officers, Agents, and Employees.

(b) That such policies are primary insurance to any other insurance available to the Additional Insureds, with respect to any claims arising out of this Agreement, and that insurance applies separately to each insured against whom claim is made or suit is brought.

5.1.3 All policies shall be endorsed to provide 30 days' advance written notice to the City of cancellation for any reason, intended non-renewal, or reduction in coverages. Notices shall be sent to the City address set forth in Section 11.1 (Notices to the Parties). All notices, certificates and endorsements shall include the SFMTA contract number and title on the cover page.

5.1.4 Should any of the required insurance be provided under a claims-made form, Contractor shall maintain such coverage continuously throughout the term of this Agreement and, without lapse, for a period of three years beyond the expiration of this Agreement, to the effect that, should occurrences during the contract term give rise to claims made after expiration of the Agreement, such claims shall be covered by such claims-made policies.

5.1.5 Should any of the required insurance be provided under a form of coverage that includes a general annual aggregate limit or provides that claims investigation or legal defense costs be included in such general annual aggregate limit, such general annual aggregate limit shall be double the occurrence or claims limits specified above.

5.1.6 Should any required insurance lapse during the term of this Agreement, requests for payments originating after such lapse shall not be processed until the City receives satisfactory evidence of reinstated coverage as required by this Agreement, effective as of the lapse date. If insurance is not reinstated, the City may, at its sole option, terminate this Agreement effective on the date of such lapse of insurance.

5.1.7 Before commencing any Services, Contractor shall furnish to City certificates of insurance and additional insured policy endorsements with insurers with ratings comparable to A-, VIII or higher, that are authorized to do business in the State of California, and that are satisfactory to City, in form evidencing all coverages set forth above. Approval of the insurance by City shall not relieve or decrease Contractor's liability hereunder.

5.1.8 The Workers' Compensation policy(ies) shall be endorsed with a waiver of subrogation in favor of the City for all work performed by the Contractor, its employees, agents and subcontractors.

5.1.9 If Contractor will use any subcontractor(s) to provide Services, Contractor shall require the subcontractor(s) to provide all necessary insurance and to name the City and County of San Francisco, its officers, agents and employees and the Contractor as additional insureds.

5.2 Indemnification. Contractor shall indemnify and hold harmless City and its officers, agents and employees from, and, , shall defend them from and against any and all claims, demands, losses, damages, costs, expenses, and liability (legal, contractual, or otherwise) brought by any third party related to this Agreement for any: (i) injury to or death of a person, including employees of City or Contractor; (ii) loss of or damage to property; (iii) violation of local, state, or federal common law, statute or regulation, including but not limited to privacy or personally identifiable information, health information, disability and labor laws or regulations; (iv) strict liability imposed by any law or regulation; or (v) losses arising from Contractor's execution of subcontracts not in accordance with the requirements of this Agreement applicable to subcontractors; so long as such injury, violation, loss, or strict liability (as set forth in subsections (i) – (v) above) arises directly or indirectly from Contractor's performance of this Agreement, including, but not limited to, Contractor's use of facilities or equipment provided by City or others, regardless of the negligence of, and regardless of whether liability without fault is imposed or sought to be imposed on City, except to the extent that such indemnity is void or otherwise unenforceable under applicable law, and except where such loss, damage, injury, liability or claim is the result of the active negligence or willful misconduct of City and is not contributed to by any act of, or by any omission to perform some duty imposed by law or agreement on Contractor, its subcontractors, or either's agent or employee. The foregoing indemnity shall include, without limitation, reasonable fees of attorneys, consultants and experts and related costs and City's costs of investigating any claims against the City.

In addition to Contractor's obligation to indemnify City, Contractor specifically acknowledges and agrees that it has an immediate and independent obligation to defend City from any claim which actually or potentially falls within this indemnification provision, even if the allegations are or may be groundless, false or fraudulent, which obligation arises at the time such claim is tendered to Contractor by City and continues at all times thereafter. The foregoing indemnification obligations are conditioned upon the City giving Contractor prompt written notice of any liability giving rise to such indemnification obligation, allowing Contractor to control the defense of such liability, and providing Contractor with reasonable cooperation in such defense. Notwithstanding the foregoing, Contractor may not settle any claim for liability without the City's written consent, which shall not be unreasonably withheld.

5.2.1 Limitations. No insurance policy covering the Contractor's performance under this Agreement shall operate to limit the Contractor's Liabilities under this provision. Nor shall the amount of insurance coverage operate to limit the extent of such Liabilities. The Contractor assumes no liability whatsoever for the sole negligence, active negligence, or willful misconduct of any Indemnitee or the contractors of any Indemnitee. The Contractor assumes no liability for the sole negligence, active negligence, or willful misconduct of any Indemnitee or the contractors of any Indemnitee.

5.2.2 Intellectual Property Infringement.

Contractor shall also indemnify, defend and hold harmless all Indemnitees from all suits or claims for infringement of the patent rights, copyright, trade secret, trade name, trademark, service mark, or any other proprietary right of any person or persons in consequence of the use in accordance with this Agreement by the City, or any of its boards, commissions, officers, or employees of the Licensed Software, Equipment, or other articles, work or Deliverables supplied in the performance of Services. Infringement of patent rights, copyrights, or other proprietary rights in the performance of this Agreement, if not the basis for indemnification under the law, shall nevertheless be considered a material breach of contract.

If notified promptly in writing of any judicial action brought against City based on an allegation that City's use of the TSP System (as defined in this Agreement) or any of component infringes a patent, copyright, or any right of a third party or constitutes misuse or misappropriation of a trade secret or any other right in intellectual property (Infringement), Contractor will hold City harmless and defend such action at its own expense. Contractor will pay the costs and damages awarded in any such action or the cost of settling such action, provided that Contractor shall have sole control of the defense of any such action and all negotiations or its settlement or compromise. If notified promptly in writing of any informal claim (other than a judicial action) brought against City based on an allegation that City's use of the TSP System constitutes Infringement, Contractor will pay the costs associated with resolving such claim and will pay the settlement amount (if any), provided that Contractor shall have sole control of the resolution of any such claim and all negotiations for its settlement.

In the event a final injunction is obtained against City's use of the TSP System by reason of Infringement, or in Contractor's opinion City's use of the of the TSP System likely to become the subject of Infringement, Contractor may at its option and expense: (a) procure for City the right to continue to use the infringing component as contemplated hereunder, (b) replace the infringing component with a non-infringing, functionally equivalent substitute, or (c) suitably modify the infringing component or TSP System to make its use hereunder non-infringing while retaining functional equivalency to the unmodified TSP System. If none of these options is reasonably available to Contractor, then this Agreement may be terminated at the option of either party hereto and Contractor shall refund to City all amounts paid for the TSP System, amortized over a period of 9 years commencing with the Effective Date of this Agreement.

Any unauthorized modification or attempted modification of the components of the TSP System proprietary to Contractor by City or any failure by City to implement any improvements or updates to the Licensed Software or Equipment, as supplied by Contractor, shall void this indemnity unless City has obtained prior written authorization from Contractor permitting such modification, attempted modification or failure to implement. Contractor shall have no liability for any claim of Infringement based on City's use or combination of the Licensed Software with products or data of the type for which the Licensed Software was neither designed nor intended to be used.

Article 6 Liability of the Parties

6.1 Liability of City. City's payment obligations under this Agreement shall be limited to the payment of the compensation provided for in section 3.3.1 (Payment) of this Agreement.

6.2 Liability for Use of Equipment. City shall not be liable for any damage to persons or property as a result of the use, misuse or failure of any equipment used by Contractor, or any of its subcontractors, or by any of their employees, even though such equipment is furnished, rented or loaned by City.

6.3 Liability for Incidental and Consequential Damages. Neither party shall be responsible to the other party for incidental and consequential damages (that is special damages, including, but not limited to lost profits), regardless of whether the party's claim is based on contract or tort, resulting in whole or in part from the other party's acts or omissions arising out of or in connection with this Agreement or the Services performed in connection with this Agreement.

6.4 Limitation of Liability. Regardless of the legal theory being asserted, in no event shall Contractor's liability exceed the total amount paid by City to Contractor under this Agreement, excluding liability for infringement of intellectual property as set forth in 5.2.2.

Article 7 Payment of Taxes

7.1 Except for any applicable California sales and use taxes charged by Contractor to City, Contractor shall pay all taxes, including possessory interest taxes levied upon or as a result of this Agreement, or the Services delivered pursuant hereto. Contractor shall remit to the State of California any sales or use taxes paid by City to Contractor under this Agreement. Contractor agrees to promptly provide information requested by the City to verify Contractor's compliance with any State requirements for reporting sales and use tax paid by City under this Agreement.

7.2 Contractor acknowledges that this Agreement may create a "possessory interest" for property tax purposes. Generally, such a possessory interest is not created unless the Agreement entitles the Contractor to possession, occupancy, or use of City property for private gain. If such a possessory interest is created, then the following shall apply:

7.2.1 Contractor, on behalf of itself and any permitted successors and assigns, recognizes and understands that Contractor, and any permitted successors and assigns, may be subject to real property tax assessments on the possessory interest.

7.2.2 Contractor, on behalf of itself and any permitted successors and assigns, recognizes and understands that the creation, extension, renewal, or assignment of this Agreement may result in a "change in ownership" for purposes of real property taxes, and therefore may result in a revaluation of any possessory interest created by this Agreement. Contractor accordingly agrees on behalf of itself and its permitted successors and assigns to report on behalf of the City to the County Assessor the information required by Revenue and Taxation Code section 480.5, as amended from time to time, and any successor provision.

7.2.3 Contractor, on behalf of itself and any permitted successors and assigns, recognizes and understands that other events also may cause a change of ownership of the possessory interest and result in the revaluation of the possessory interest. (see, e.g., Rev. & Tax. Code section 64, as amended from time to time). Contractor accordingly agrees on behalf of itself and its permitted successors and assigns to report any change in ownership to the County Assessor, the State Board of Equalization or other public agency as required by law.

7.2.4 Contractor further agrees to provide such other information as may be requested by the City to enable the City to comply with any reporting requirements for possessory interests that are imposed by applicable law.

Article 8 Termination and Default

8.1 Termination for Convenience

8.1.1 City shall have the option, in its sole discretion, to terminate this Agreement, at any time during the term hereof, for convenience and without cause. City shall

exercise this option by giving Contractor no less than ninety (90) days written notice of termination. The notice shall specify the date on which termination shall become effective.

8.1.2 Upon receipt of the notice of termination, Contractor shall commence and perform, with diligence, all actions necessary on the part of Contractor to effect the termination of this Agreement on the date specified by City and to minimize the liability of Contractor and City to third parties as a result of termination. All such actions shall be subject to the prior approval of City. Such actions shall include, without limitation:

(a) Halting the performance of all Services under this Agreement on the date(s) and in the manner specified by the SFMTA.

(b) Terminating all existing orders and subcontracts, and not placing any further orders or subcontracts for materials, Services, equipment or other items.

(c) At the SFMTA's direction, assigning to City any or all of Contractor's right, title, and interest under the orders and subcontracts terminated. Upon such assignment, the SFMTA shall have the right, in its sole discretion, to settle or pay any or all claims arising out of the termination of such orders and subcontracts.

(d) Subject to the SFMTA's approval, settling all outstanding liabilities and all claims arising out of the termination of orders and subcontracts.

(e) Completing performance of any Services that the SFMTA designates to be completed prior to the date of termination specified by the SFMTA.

(f) Taking such action as may be necessary, or as the SFMTA may direct, for the protection and preservation of any property related to this Agreement which is in the possession of Contractor and in which the SFMTA has or may acquire an interest.

8.1.3 Within 30 days after the specified termination date, Contractor shall submit to the SFMTA an invoice setting forth the prorated amount due Contractor up to the effective date of termination, based on the percentage of the Services completed, as mutually agreed by the Parties, which shall set forth each of the following as a separate line item:

(a) The cost to Contractor, without profit, for all Services prior to the specified termination date, for which Services the SFMTA has not already tendered payment. Costs may include a reasonable allowance for actual overhead. Any overhead allowance shall be separately itemized. Contractor may also recover the reasonable cost of preparing the invoice.

(b) An allowance for profit on the cost of the Services described in the immediately preceding subsection (a), provided that Contractor can establish, to the satisfaction

of the SFMTA, that Contractor would have made a profit had all Services under this Agreement been completed.

(c) The cost to Contractor of handling material or equipment returned to the vendor, delivered to the SFMTA or otherwise disposed of as directed by the SFMTA.

(d) A deduction for the cost of materials to be retained by Contractor, amounts realized from the sale of materials and not otherwise recovered by or credited to the SFMTA, and any other appropriate credits to the SFMTA against the cost of the Services or other work.

8.1.4 In no event shall the City be liable for costs incurred by Contractor or any of its subcontractors after the termination date specified by the SFMTA, except for those costs specifically enumerated and described in Section 8.1.3. Such non-recoverable costs include, but are not limited to, anticipated profits on the Services under this Agreement, post-termination employee salaries, post-termination administrative expenses, post-termination overhead or unabsorbed overhead, attorneys' fees or other costs relating to the prosecution of a claim or lawsuit, pre-judgment interest, or any other expense which is not reasonable or authorized under Section 8.1.3.

8.1.5 In arriving at the amount due to Contractor under this Section, the SFMTA may deduct: (i) all payments previously made by the SFMTA for Services covered by Contractor's final invoice; (ii) any claim which the SFMTA may have against Contractor in connection with this Agreement; (iii) any invoiced costs or expenses excluded pursuant to the immediately preceding subsection 8.1.4. .

8.1.6 The City's payment obligation under this Section shall survive termination of this Agreement.

8.2 Termination for Default; Remedies.

8.2.1 Each of the following shall constitute an immediate event of default (Event of Default) under this Agreement:

(a) Contractor fails or refuses to perform or observe any term, covenant or condition contained in any of the following Sections of this Agreement:

- | | |
|-----------|--|
| 3.5 | Submitting False Claims. |
| 4.5 | Independent Contractor; Payment of Employment Taxes and Other Expenses |
| Article 5 | Insurance and Indemnity |
| Article 7 | Payment of Taxes |
| 10.10 | Limitations on Contributions |
| 11.10 | Severability |

13.1 Nondisclosure of Private, Proprietary or Confidential Information

(b) Contractor fails or refuses to perform or observe any other term, covenant or condition contained in this Agreement, including any obligation imposed by ordinance or statute and incorporated by reference herein, and such default continues for a period of ten days after written notice thereof from the SFMTA to Contractor.

(c) Contractor (i) is generally not paying its debts as they become due; (ii) files, or consents by answer or otherwise to the filing against it of a petition for relief or reorganization or arrangement or any other petition in bankruptcy or for liquidation or to take advantage of any bankruptcy, insolvency or other debtors' relief law of any jurisdiction; (iii) makes an assignment for the benefit of its creditors; (iv) consents to the appointment of a custodian, receiver, trustee or other officer with similar powers of Contractor or of any substantial part of Contractor's property; or (v) takes action for the purpose of any of the foregoing.

(d) A court or government authority enters an order (i) appointing a custodian, receiver, trustee or other officer with similar powers with respect to Contractor or with respect to any substantial part of Contractor's property, (ii) constituting an order for relief or approving a petition for relief or reorganization or arrangement or any other petition in bankruptcy or for liquidation or to take advantage of any bankruptcy, insolvency or other debtors' relief law of any jurisdiction or (iii) ordering the dissolution, winding-up or liquidation of Contractor.

8.2.2 On and after any Event of Default, City shall have the right to exercise its legal and equitable remedies, including, without limitation, the right to terminate this Agreement or to seek specific performance of all or any part of this Agreement. In addition, where applicable, City shall have the right to offset from any amounts due to Contractor under this Agreement or any other agreement between City and Contractor: (i) all damages, losses, costs or expenses incurred by City as a result of an Event of Default; and (ii), any damages imposed by any ordinance or statute that is incorporated into this Agreement by reference, or into any other agreement with the City.

8.2.3 All remedies provided for in this Agreement may be exercised individually or in combination with any other remedy available hereunder or under applicable laws, rules and regulations. The exercise of any remedy shall not preclude or in any way be deemed to waive any other remedy. Nothing in this Agreement shall constitute a waiver or limitation of any rights that City may have under applicable law.

8.2.4 Any notice of default must be sent by registered mail to the address set forth in Article 11.

8.3 Non-Waiver of Rights. The omission by either party at any time to enforce any default or right reserved to it, or to require performance of any of the terms, covenants, or provisions hereof by the other party at the time designated, shall not be a waiver of any such default or right to which the party is entitled, nor shall it in any way affect the right of the party to enforce such provisions thereafter.

8.4 Rights and Duties upon Termination or Expiration.

8.4.1 This Section and the following Sections of this Agreement listed below, shall survive termination or expiration of this Agreement:

| | |
|-----------|---|
| 3.3.2 | Payment |
| 3.3.6 | Getting Paid for Goods and/or Services from the City |
| 3.4 | Audit and Inspection of Records |
| 3.5 | Submitting False Claims |
| Article 5 | Insurance and Indemnity |
| 6.1 | Liability of City |
| 6.3 | Liability for Incidental and Consequential Damages |
| Article 7 | Payment of Taxes |
| 8.1.6 | Payment Obligation |
| 9.1 | Ownership of Results |
| 9.2 | Works for Hire |
| 11.6 | Agreement Made in California; Venue |
| 11.7 | Construction |
| 11.8 | Entire Agreement |
| 11.9 | Compliance with Laws |
| 11.10 | Severability |
| 11.11 | Cooperative Drafting |
| 13.1 | Nondisclosure of Private, Proprietary or Confidential Information |

8.4.2 Subject to the survival of the Sections identified in Section 8.4.1 above, if this Agreement is terminated prior to expiration of the term specified in Article 2, this Agreement shall be of no further force or effect. Contractor shall transfer title to City, and deliver in the manner, at the times, and to the extent, if any, directed by City, any work in progress, completed work, supplies, equipment, and other materials produced as a part of, or acquired in connection with the performance of this Agreement, and any completed or partially completed work which, if this Agreement had been completed, would have been required to be furnished to City.

Article 9 Rights In Deliverables

Contractor grants to the City a perpetual, non-transferable license to possess, use and copy as it may deem necessary all TSP Documentation, regardless of format, for the City's internal use and purposes.

Article 10 Additional Requirements Incorporated by Reference

10.1 Laws Incorporated by Reference. The full text of the laws listed in this Article 10, including enforcement and penalty provisions, are incorporated by reference into this Agreement. The full text of the San Francisco Municipal Code provisions incorporated by reference in this Article and elsewhere in the Agreement (Mandatory City Requirements) are available at http://www.amlegal.com/codes/client/san-francisco_ca.

10.2 Conflict of Interest. By executing this Agreement, Contractor certifies that it does not know of any fact which constitutes a violation of Section 15.103 of the City's Charter; Article III, Chapter 2 of City's Campaign and Governmental Conduct Code; Title 9, Chapter 7 of the California Government Code (Section 87100 *et seq.*), or Title 1, Division 4, Chapter 1, Article 4 of the California Government Code (Section 1090 *et seq.*), and further agrees promptly to notify the City if it becomes aware of any such fact during the term of this Agreement.

10.3 Prohibition on Use of Public Funds for Political Activity. In performing the Services, Contractor shall comply with San Francisco Administrative Code Chapter 12G, which prohibits funds appropriated by the City for this Agreement from being expended to participate in, support, or attempt to influence any political campaign for a candidate or for a ballot measure. Contractor is subject to the enforcement and penalty provisions in Chapter 12G.

10.4 Nondiscrimination Requirements

10.4.1 Non Discrimination in Contracts. Contractor shall comply with the provisions of Chapters 12B and 12C of the San Francisco Administrative Code. Contractor shall incorporate by reference in all subcontracts the provisions of Sections 12B.2(a), 12B.2(c)-(k), and 12C.3 of the San Francisco Administrative Code and shall require all subcontractors to comply with such provisions. Contractor is subject to the enforcement and penalty provisions in Chapters 12B and 12C.

10.4.2 Nondiscrimination in the Provision of Employee Benefits. San Francisco Administrative Code 12B.2. Contractor does not as of the date of this Agreement, and will not during the term of this Agreement, in any of its operations in San Francisco, on real property owned by San Francisco, or where work is being performed for the City elsewhere in the United States, discriminate in the provision of employee benefits between employees with domestic partners and employees with spouses and/or between the domestic partners and spouses of such employees, subject to the conditions set forth in San Francisco Administrative Code Section 12B.2.

10.5 Local Business Enterprise and Non-Discrimination in Contracting Ordinance. Contractor shall comply with all applicable provisions of Chapter 14B (LBE Ordinance). Contractor is subject to the enforcement and penalty provisions in Chapter 14B.

10.6 Minimum Compensation Ordinance. Contractor shall pay covered employees no less than the minimum compensation required by San Francisco Administrative Code Chapter 12P. Contractor is subject to the enforcement and penalty provisions in Chapter 12P. By signing and executing this Agreement, Contractor certifies that it is in compliance with Chapter 12P.

10.7 Health Care Accountability Ordinance. Contractor shall comply with San Francisco Administrative Code Chapter 12Q. Contractor shall choose and perform one of the Health Care Accountability options set forth in San Francisco Administrative Code Chapter 12Q.3. Contractor is subject to the enforcement and penalty provisions in Chapter 12Q.

10.8 First Source Hiring Program. Contractor must comply with all of the provisions of the First Source Hiring Program, Chapter 83 of the San Francisco Administrative Code, that apply to this Agreement, and Contractor is subject to the enforcement and penalty provisions in Chapter 83.

10.9 Alcohol and Drug-Free Workplace. City reserves the right to deny access to, or require Contractor to remove from, City facilities personnel of any Contractor or subcontractor who City has reasonable grounds to believe has engaged in alcohol abuse or illegal drug activity which in any way impairs City's ability to maintain safe work facilities or to protect the health and well-being of City employees and the general public. City shall have the right of final approval for the entry or re-entry of any such person previously denied access to, or removed from, City facilities. Illegal drug activity means possessing, furnishing, selling, offering, purchasing, using or being under the influence of illegal drugs or other controlled substances for which the individual lacks a valid prescription. Alcohol abuse means possessing, furnishing, selling, offering, or using alcoholic beverages, or being under the influence of alcohol.

10.10 Limitations on Contributions. By executing this Agreement, Contractor acknowledges that it is familiar with Section 1.126 of the City's Campaign and Governmental Conduct Code, which prohibits any person who contracts with the City for the rendition of personal services, for the furnishing of any material, supplies or equipment, for the sale or lease of any land or building, or for a grant, loan or loan guarantee, from making any campaign contribution to (1) an individual holding a City elective office if the contract must be approved by the individual, a board on which that individual serves, or the board of a state agency on which an appointee of that individual serves, (2) a candidate for the office held by such individual, or (3) a committee controlled by such individual, at any time from the commencement of negotiations for the contract until the later of either the termination of negotiations for such contract or six months after the date the contract is approved. The prohibition on contributions applies to each prospective party to the contract; each member of Contractor's board of directors; Contractor's chairperson, chief executive officer, chief financial officer and chief operating officer; any person with an ownership interest of more than

20 percent in Contractor; any subcontractor listed in the bid or contract; and any committee that is sponsored or controlled by Contractor. Contractor must inform each such person of the limitation on contributions imposed by Section 1.126 and provide the names of the persons required to be informed to City.

10.11 Consideration of Criminal History in Hiring and Employment Decisions

10.11.1 Contractor agrees to comply fully with and be bound by all of the provisions of Chapter 12T (City Contractor/Subcontractor Consideration of Criminal History in Hiring and Employment Decisions) of the San Francisco Administrative Code (Chapter 12T), including the remedies provided, and implementing regulations, as may be amended from time to time. The provisions of Chapter 12T are incorporated by reference and made a part of this Agreement as though fully set forth herein. The text of the Chapter 12T is available on the web at <http://sfgov.org/olse/fco>. Contractor is required to comply with all of the applicable provisions of 12T, irrespective of the listing of obligations in this Section. Capitalized terms used in this Section and not defined in this Agreement shall have the meanings assigned to such terms in Chapter 12T.

10.11.2 The requirements of Chapter 12T shall only apply to a Contractor's or Subcontractor's operations to the extent those operations are in furtherance of the performance of this Agreement, shall apply only to applicants and employees who would be or are performing work in furtherance of this Agreement, and shall apply when the physical location of the employment or prospective employment of an individual is wholly or substantially within the City of San Francisco. Chapter 12T shall not apply when the application in a particular context would conflict with federal or state law or with a requirement of a government agency implementing federal or state law.

10.12 Tropical Hardwood and Virgin Redwood Ban. Pursuant to San Francisco Environment Code Section 804(b), the City urges Contractor not to import, purchase, obtain, or use for any purpose, any tropical hardwood, tropical hardwood wood product, virgin redwood or virgin redwood wood product.

10.13 Discontinuation of Product. If Contractor discontinues producing the TSP System or any element or component of the TSP System utilized by the City, Contractor shall provide the City notice at the earliest point possible of its decision that it will discontinue production and the effective date of that decision. Contractor shall to the extent that parts and equipment are available or can be made available: (1) make available to the SFMTA for purchase sufficient parts and equipment necessary to operate and maintain the TSP System for a period of not less than five years; and (2) provide the City access to the Licensed Software source code, as provided in the Software License Agreement, appended to this document.

Article 11 General Provisions

11.1 Notices to the Parties. Unless otherwise indicated in this Agreement, all written communications sent by the Parties may be by U.S. mail or e-mail, and shall be addressed as follows:

To City: Cheryl Liu
Project Manager
San Francisco Municipal Transportation Agency
1 South Van Ness Avenue, 7th Floor
San Francisco, CA 94103
Cheryl.Liu@sfmta.com

To Contractor: Jason Lund
President
Global Traffic Technologies, LLC
7800 Third Street North
St. Paul, Minnesota 55128-5441
jlund@angienergy.com

Any notice of default must be sent by registered mail. Either Party may change the address to which notice is to be sent by giving written notice thereof to the other Party. If email notification is used, the sender must specify a receipt notice.

11.2 Compliance with Americans with Disabilities Act. Contractor shall provide the Services in a manner that complies with the Americans with Disabilities Act (ADA), including but not limited to Title II's program access requirements, and all other applicable federal, state and local disability rights legislation.

11.3 Sunshine Ordinance. Contractor acknowledges that this Agreement and all records related to its formation, Contractor's performance of Services, and City's payment are subject to the California Public Records Act, (California Government Code §6250 et. seq.), and the San Francisco Sunshine Ordinance, (San Francisco Administrative Code Chapter 67). Such records are subject to public inspection and copying unless exempt from disclosure under federal, state or local law.

11.4 Modification of this Agreement.

11.4.1 The term of this Agreement may be extended for the extension periods and for the compensation stated in this Agreement by written notice from the Director of Transportation to the Contractor that the SFMTA is exercising an option to extend the Agreement as provided in Section 2.2 (Term).

11.4.2 This Agreement may not otherwise be modified, nor may compliance with any of its terms be waived, except as noted in Section 11.1 (Notices to Parties) regarding change

in personnel or place, and except by written instrument executed and approved as required under City law and under the policy of the SFMTA Board of Directors. Contractor shall cooperate with the SFMTA to submit to the CCO any amendment, modification, supplement or change order that would result in a cumulative increase of the original amount of this Agreement by more than 20% (CMD Contract Modification Form).

11.5 Dispute Resolution Procedure.

11.5.1 Negotiation; Alternative Dispute Resolution. The Parties will attempt in good faith to resolve any dispute or controversy arising out of or relating to the performance of services under this Agreement. If the Parties are unable to resolve the dispute, then, pursuant to San Francisco Administrative Code Section 21.35, Contractor may submit to the Contract Administrator a written request for administrative review and documentation of the Contractor's claim(s). Upon such request, the Contract Administrator shall promptly issue an administrative decision in writing, stating the reasons for the action taken and informing the Contractor of its right to judicial review. If agreed by both Parties in writing, disputes may be resolved by a mutually agreed-upon alternative dispute resolution process. If the parties do not mutually agree to an alternative dispute resolution process or such efforts do not resolve the dispute, then either Party may pursue any remedy available under California law. The status of any dispute or controversy notwithstanding, Contractor shall proceed diligently with the performance of its obligations under this Agreement in accordance with the Agreement and the written directions of the City. Neither Party will be entitled to legal fees or costs for matters resolved under this section.

11.5.2 Government Code Claim Requirement. No suit for money or damages may be brought against the City until a written claim therefor has been presented to and rejected by the City in conformity with the provisions of San Francisco Administrative Code Chapter 10 and California Government Code Section 900, et seq. Nothing set forth in this Agreement shall operate to toll, waive or excuse Contractor's compliance with the California Government Code Claim requirements set forth in San Francisco Administrative Code Chapter 10 and California Government Code Section 900, et seq.

11.6 Agreement Made in California; Venue. The formation, interpretation and performance of this Agreement shall be governed by the laws of the State of California. Venue for all litigation relative to the formation, interpretation and performance of this Agreement shall be in San Francisco.

11.7 Construction. All paragraph captions are for reference only and shall not be considered in construing this Agreement.

11.8 Entire Agreement. This contract sets forth the entire Agreement between the parties, and supersedes all other oral or written provisions. This Agreement may be modified

only as provided in Section 11.5 (Modification of this Agreement). This Agreement, including any documents attached hereto and incorporated by reference, supersedes any and all other prior Agreements, understandings, negotiations, or communications, either oral or in writing, between the Parties or their representatives and constitutes the entire understanding of the Parties with respect to its subject matter. No form, invoice, bill of lading, shipping document, order, purchase order, receipt or other document provided by City or Contractor shall operate to supersede, modify or amend any provisions of this Agreement, even if the opposite party has initialed, signed or otherwise acknowledged such document regardless of the timing of the execution or presentment in relation to the execution of this Agreement, unless the document expressly states that it modifies or amends this Agreement and is signed by authorized representatives of both Parties. This Agreement may not be modified, altered, or waived, in whole or in part, except in a writing signed by the duly authorized representatives of the Parties hereto.

11.9 Compliance with Laws. Contractor shall keep itself fully informed of the City's Charter, codes, ordinances and duly adopted rules and regulations of the City and of all state, and federal laws in any manner affecting the performance of this Agreement, and must at all times comply with such local codes, ordinances, and regulations and all applicable laws as they may be amended from time to time.

11.10 Severability. Should the application of any provision of this Agreement to any particular facts or circumstances be found by a court of competent jurisdiction to be invalid or unenforceable, then (a) the validity of other provisions of this Agreement shall not be affected or impaired thereby, and (b) such provision shall be enforced to the maximum extent possible so as to effect the intent of the parties and shall be reformed without further action by the parties to the extent necessary to make such provision valid and enforceable.

11.11 Cooperative Drafting. This Agreement has been drafted through a cooperative effort of City and Contractor, and both Parties have had an opportunity to have the Agreement reviewed and revised by legal counsel. No Party shall be considered the drafter of this Agreement, and no presumption or rule that an ambiguity shall be construed against the Party drafting the clause shall apply to the interpretation or enforcement of this Agreement.

11.12 Order of Precedence. Contractor agrees to perform the services described below in accordance with the terms and conditions of this Agreement, including the contracts appended as Included Appendices (listed in below and in Article 16 of this document), and any Task Orders issued under this Agreement, in the order of precedence stated below. In the event of any discrepancy, inconsistency, gap, ambiguity, or conflicting language between the terms and conditions stated in this document (identified as document number n:\ptc\as2018\1000426\01246193.doc in the footer at the bottom of this page) and all prior contracts or purchase orders (Included Appendices) listed below, and any other agreements

between Contractor and the City concerning the TSP System, the following order of precedence shall apply and govern:

1. This document (identified as document number n:\ptc\as2018\1000426\01246193.doc in the footer at the bottom of this page).
2. Contract No. SFMTA 2017-02 (FTA) (September 1, 2016) G-1: Blanket Purchase Order No. BPMT17000026 (October 25, 2016).
3. Purchase Order No. DPMT17004759 (June 9, 2017) – Intersection Equipment
4. Contract No. SFMTA 2017-02 (FTA) (September 1, 2016) G-1: Blanket Purchase Order No. BPMT17000026 (October 25, 2016)
G-2: Purchase Order No. DPMT17001827 (October 26, 2016)
5. Purchase Order no. DPMT16004090 (May 16, 2016) – Managed Service Contract, Traffic Signal Priority Software Programming
6. Purchase Order No. DPMT16002429 (December 29, 2015) – Additional Installation Equipment and Central Management Software License Upgrade
7. Blanket Purchase Order No. BPMT15000017 (September 4, 2014)
D-1: Purchase Order No. DPMT15000727 (September 15, 2014)
D-2: Purchase Order No. DPMT15001719 (December 23, 2014)
8. Purchase Order No. DPMT14000156 (July 10, 2013) – City First – 14 Mission & 8X – Transit Signal Priority

Article 12 SFMTA Specific Terms

12.1 Large Vehicle Driver Safety Training Requirements.

12.1.1 Contractor agrees that before any of its employees and subcontractors drive large vehicles within the City and County of San Francisco, those employees and subcontractors shall successfully complete either (a) the SFMTA’s Large Vehicle Urban Driving Safety training program or (b) a training program that meets the SFMTA’s approved standards for large vehicle urban driving safety. The SFMTA’s approved standards for large vehicle urban driving safety is available for download at www.SFMTA.com/largevehicletrainingstandards. This requirement does not apply to drivers providing delivery services who are not employees or subcontractors of the Contractor. For purposes of this section, “large vehicle” means any single vehicle or combination of vehicle and trailer with an unladen weight of 10,000 pounds or more, or a van designed to carry 10 or more people.

12.1.2 By entering into this Agreement, Contractor agrees that in the event the Contractor fails to comply with the Large Vehicle Driver Safety Training Requirements, the City

will suffer actual damages that will be impractical or extremely difficult to determine; further, Contractor agrees that the sum of up to One Thousand Dollars (\$1,000) per employee or subcontractor who is permitted to drive a large vehicle in violation of these requirements is not a penalty, but is a reasonable estimate of the loss that City will incur based on the Contractor's failure to comply with this requirement, established in light of the circumstances existing at the time this Contract was awarded. City may deduct a sum representing the liquidated damages from any money due to Contractor. Such deductions shall not be considered a penalty, but rather agreed monetary damages sustained by City because of Contractor's failure to comply.

Article 13 Data and Security

13.1 Nondisclosure of Private, Proprietary or Confidential Information.

13.1.1 If this Agreement requires City to disclose "Private Information" to Contractor within the meaning of San Francisco Administrative Code Chapter 12M, Contractor and Subcontractor shall use such information only in accordance with the restrictions stated in Chapter 12M and in this Agreement and only as necessary in performing the Services. Contractor is subject to the enforcement and penalty provisions in Chapter 12M.

13.1.2 In the performance of Services, Contractor may have access to City's proprietary or confidential information, the disclosure of which to third parties may damage City. If City discloses proprietary or confidential information to Contractor, such information must be held by Contractor in confidence and used only in performing the Agreement. Contractor shall exercise the same standard of care to protect such information as a reasonably prudent contractor would use to protect its own proprietary or confidential information.

Article 14 MacBride Principles And Signature

14.1 MacBride Principles -Northern Ireland. The provisions of San Francisco Administrative Code §12F are incorporated herein by this reference and made part of this Agreement. By signing this Agreement, Contractor confirms that Contractor has read and understood that the City urges companies doing business in Northern Ireland to resolve employment inequities and to abide by the MacBride Principles, and urges San Francisco companies to do business with corporations that abide by the MacBride Principles.

Article 15 Approval by Counterparts

This Agreement may be executed in one or more counterpart signature pages, which may be delivered in electronic format, each of which shall be deemed to be an original, and all of which together shall constitute approval of this Agreement.

Article 16 Included Appendices

The following documents that are attached here as Appendices are incorporated into this Agreement:

Appendix A: Contractor's Services

- A-1: Equipment and System Maintenance
- A-2: In-Vehicle Equipment Installation, Retrofitting and AVL Integration
- A-3: TSP Bus Yard Monitoring & Testing Station Delivery and Installation
- A-4: Commitments & Contacts
- A-5: Other Terms & Conditions
- A-6: Licensed Software and License Agreement

B: Calculation of Charges

- C: Purchase Order No. DPMT14000156 (July 10, 2013) – City First – 14 Mission & 8X – Transit Signal Priority
- D: Blanket Purchase Order No. BPMT15000017 (September 4, 2014)
 - D-1: Purchase Order No. DPMT15000727 (September 15, 2014)
 - D-2: Purchase Order No. DPMT15001719 (December 23, 2014)
- E: Purchase Order No. DPMT16002429 (December 29, 2015) – Additional Installation Equipment and Central Management Software License Upgrade
- F: Purchase Order no. DPMT16004090 (May 16, 2016) – Managed Service Contract, Traffic Signal Priority Software Programming
- G: Contract No. SFMTA 2017-02 (FTA) (September 1, 2016) G-1: Blanket Purchase Order No. BPMT17000026 (October 25, 2016)
 - G-2: Purchase Order No. DPMT17001827 (October 26, 2016)
- H: Purchase Order No. DPMT17004759 (June 9, 2017) – Intersection Equipment

The remainder of this page has been intentionally left blank.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement on the day first mentioned above.

| CITY | CONTRACTOR |
|--|---|
| San Francisco Municipal Transportation Agency | Global Traffic Technologies, LLC |
| Edward D. Reiskin Director of Transportation | Jason Lund President 7800 Third Street North St. Paul, Minnesota 55128-5441 |
| Authorized By: | |
| Municipal Transportation Agency Board of Directors | |
| Resolution No: _____ | <u>Acknowledgement of Large Vehicle Driver Safety Training Requirements:</u> |
| Adopted: _____ | By signing this Agreement, Contractor acknowledges that it has read and understands Section 12.1: Large Vehicle Driver Safety Training Requirements. |
| Attest: _____ Roberta Boomer, Secretary | |
| Approved as to Form: | |
| Dennis J. Herrera City Attorney | |
| By: _____ Robert K. Stone Deputy City Attorney | City Supplier number: _____ |

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Appendix A-1: Equipment and System Maintenance

1. Project Description

The purpose of the parties Agreement, as memorialized in this Appendix A-1 is to ensure that the TSP System continuously operates in accordance with the Documentation and Specifications and other requirements stated in the Agreement, and provides accurate and reliable data aimed at increasing revenue per vehicle, ensuring schedule adherence and reducing transit travel time, throughout the term of this Agreement. To those ends, Contractor shall provide warranty, maintenance and repair services to the TSP System, Licensed Software updates, and vehicle installation services as described in this Appendix A-1, to ensure that the TSP System and its individual components, Equipment and Licensed Software operate as described in the Documentation and the Specifications stated in this Agreement. A further purpose of this Appendix A-1 is to provide SFMTA staff with the training and information necessary for the SFMTA to itself maintain the TSP System following the expiration of the Agreement and this Appendix A-1.

A. Project Planning

Task 1: Project Management Plan and Progress Meetings

Upon execution of Agreement, the Parties will schedule a mutually acceptable time to meet with key SFMTA and Contractor stakeholders, with the intent of determining plans to meet the requirements specified in the Agreement. Contractor will develop and maintain a Project Management Plan (PMP) to track progress of meeting the Milestones, Deliverables, and Project goals described in this Agreement.

The PMP will contain the following information (at a minimum):

- Detailed list of roles and responsibilities of Contractor, SFMTA and their respective staff
- Project Management
- Initial project schedule and Milestones (which will evolve into working document)
- Tasks to be performed
- Communication and collaboration plan that addresses:
 - SFMTA training schedule for Sustainable Streets Division, Transit Division and Transportation Management (TMC) staff
 - Issue tracking and resolution
 - Meeting frequency
 - Progress report structure

Contractor shall schedule and coordinate in-person or teleconference progress meetings by agreement and with SFMTA. During the scope of the managed services project, Contractor will facilitate weekly conference calls with SFMTA representatives to review any technical, schedule, action item, deliverable, coordination, and project management issues that need to be discussed and addressed. Contractor shall prepare and email a meeting agenda to SFMTA a

minimum of three days in advance of the meeting/teleconference date. Contractor shall take notes and email meeting minutes and action items to City within one week following the meeting date.

Task 1: Deliverables

1.1.PMP.

- 1.2. Weekly phone conferences and in-person meetings, agendas, preparation and distribution of meeting minutes.

B. Service Tasks

Task 1: Equipment and System Monitoring & Central Management System Maintenance

1. Via exception reports and scheduled maintenance, Contractor will proactively monitor the performance of the Opticom equipment in vehicles and intersections, utilizing remotely accessed data from the Central Management System (CMS) and data logs as to the following performance factors:
 - a. Potential network connectivity issues
 - b. Lack of activity (i.e., vehicles and/or intersections that are not functional)
 - c. Invalid requests in vehicles and/or at intersections
2. Contractor will add newly installed intersections and keep the CMS intersection database current.
3. Contractor will add or subtract vehicles and keep the CMS vehicle database current.
4. Contractor will install and configure all needed CMS clients and ensure that the CMS is up to date within 30 days of execution of this Agreement.
5. Contractor will ensure that the CMS software version is updated to the latest release, hardware is optimized with the current configuration and the TSP System operates and performs as specified in this Agreement.
6. The City will ensure that the CMS software is hosted on a server with the following minimum hardware and processing requirements, to ensure optimal performance:

Current-generation Intel Zeon server CPU – E5 v3 family or equivalent with: 10 core and 20 thread; 64GB RAM; 1TB storage (RAID 1, 5, or 6); 1GB Ethernet connection; data backup methodology in place.

Task 1: Deliverables

1.1.Remote monitoring of in-vehicle equipment performance

1.2.Addition of all GTT/Opticom-equipped on the City's network into CMS intersection database

1.3.Addition of newly-delivered vehicles into and deletion of retired vehicles from vehicle CMS database

- 1.4. Setup and configuration of additional CMS clients, as requested by SFMTA within 30 days of Agreement execution and all clients updated within 30 days of available CMS updates
- 1.5. Firmware updates to intersection and on-board (vehicle) hardware as updates become available

Task 2: New Bus On-Boarding/Retirement

Contractor will update the TSP System and CMS database as needed (i.e., when SFTMA decides to add or remove certain vehicles) to on-board new buses and remove retired vehicles from SFMTA fleet using the following processes:

1. SFMTA fleet management will open a ticket upon receiving new or retirement of existing vehicles. Within 1 week of SFMTA's notice, Contractor will provide SFMTA with schedule for commissioning and testing new vehicles. For vehicles being retired, Contractor will remove such vehicles from CMS within 1 week.
2. Contractor will schedule with Fleet Management to test, commission and sign off on the correct operations of the installed TSP System.
3. Contractor will maintain a list of equipment and vehicles, to determine what equipment is installed on which vehicles and what equipment has been retired or otherwise disposed of. SFMTA will provide a list of bus ID numbers and any other required information.

Task 2: Deliverables

- 2.1 Update TSP System and CMS database as needed to onboard or retire vehicles from SFMTA Fleet, to be determined by SFMTA.
- 2.2 Schedule, complete and document TSP commissioning and signoff approval to confirm the correct operation of the TSP System on new vehicles added to the SFMTA fleet.
- 2.3 Remove TSP System from retired vehicles and provide removal documentation, return of spare parts or repurposing of parts

Task 3: System Optimization

Contractor will provide up to eight hours of engineering support per month to analyze system data and propose fine-tuning to improve performance, separate and apart from system monitoring, trouble shooting, and responding to service tickets. This optimization may include such aspects as identifying GTFS data issues, changing approach maps or activation methods to improve activation precision, modifying class code assignments, or implementing time plans or directional priority to further improve activation precision while limiting the cross impact on other traffic. Contractor will report or directly work with SFMTA Sustainable Streets Division during this process to ensure that SFMTA is learning best practices for optimization techniques. At a minimum of once per year, Contractor will be involved with SFMTA in working sessions to optimize corridors (minimum of 1; maximum of 6 with at least 20 signals each) working with signal shop and engineers.

Task 3: Deliverables

- 3.1 Eight hours (as directed by SFMTA) of engineering support per month to analyze system data and fine-tune performance.
- 3.2 Proposals on fine-tuning system performance.
- 3.3 Knowledge transfer on best practices for system optimization techniques, including all reports, manuals and system documentation relevant to the Agreement.
- 3.4 Contractor will provide monthly reports, including, but not limited to:
 - Optimization analysis and suggestions
 - Comparison of controller approach travel times with actual approach travel times distribution, provided SFMTA supplies controller data

Task 4: Technical Support and Troubleshooting

Contractor shall provide technical support and troubleshooting when TSP System and Equipment issues are reported by SFMTA or when a system/equipment anomaly is detected by Contractor. This refers to Contractor's helpdesk, which depending on the outcome of the call, will result in remote or on-site resolution of reported problems, per the SLA in Appendix A-1.

- a. **Reactive Support** - Contractor shall respond to technical issues per the timelines outlined in the service levels table in this Appendix A-1, questions or requests from any SFMTA department during Contractor's normal business hours (Monday to Friday, 8 a.m. to 5 p.m. Pacific Standard Time) in the following ways:
 - Toll Free: (800) 258-4610
 - Email: customercare@gtt.com
 - Website: www.gtt.com

Contractor will follow the technical support process as stated below.

- b. **Technical Support Process** - Should Contractor detect a system anomaly during the system monitoring, it will follow the technical support process as follows:
 - i. Contractor will open a service ticket in its internal Customer Record Management (CRM) system and monitor the performance of Service Level Agreements (SLA).
 - ii. Contractor will assign a technical support resource to determine the likely cause, then define and execute a corrective action plan.
 - iii. For vehicles, Contractor will arrive on-site to repair, replace and/or reconfigure the defective unit(s) within agreed upon service level criteria within this Appendix A-1.
 - iv. Should Contractor determine that a defective Opticom module exists at an intersection, Contractor will notify SFMTA and provide an appropriate replacement unit.
 - v. For any issue outside of scope of the Agreement, Contractor will notify SFMTA and provide a proposal to address the issue. Some examples of issues beyond the scope of this Agreement are:
 - Intersection damage or vandalism
 - Vehicle equipment damaged by another manufacturer or contractor while working in a bus cabinet.

- vi. Contractor will provide a weekly troubleshooting status updates to SFMTA. The purpose of this report is to track all Service Tickets with the status, stage (closed or in progress) and time to respond or complete.
- vii. Below is a sample of a troubleshooting tracking report:

| Number | Subject | Contact | Priority | Status | Stage | Assigned To | Incident Date | Origin | Last Modified | Last Message Date | days to |
|--------|-------------------------------------|----------|-----------|-------------|--------|---------------|-----------------|--------|-----------------|-------------------|---------|
| 7734 | Rescue Repair Emitter Wiring | customer | Immediate | Closed | Closed | Kyle Holgate | 6/1/2017 10:50 | Phone | 6/2/2017 4:05 | 6/1/2017 11:05 | 0.0 |
| 7735 | 2100 installation questions | customer | Urgent | Closed | Closed | Pat Cosgrove | 6/5/2017 8:07 | Phone | 6/5/2017 8:17 | 6/5/2017 8:17 | 0.0 |
| 7736 | Terminating IR detectors to 764 | customer | Urgent | Closed | Closed | Pat Cosgrove | 6/5/2017 9:00 | Phone | 6/6/2017 4:05 | 6/5/2017 9:53 | 0.0 |
| 7737 | [Pulling Data from 764 - IP Address | customer | Urgent | In Progress | Open | Kyle Holgate | 6/5/2017 10:08 | Phone | 6/6/2017 8:00 | 6/6/2017 8:00 | 0.9 |
| 7738 | TCC 764 Tech Support | customer | Urgent | Closed | Closed | Kyle Holgate | 6/6/2017 10:36 | Phone | 6/7/2017 7:31 | 6/7/2017 7:31 | 0.9 |
| 7739 | Sheriff's Office - Emitter Support | customer | Urgent | In Progress | Open | Mike Anderson | 6/7/2017 8:00 | Phone | 6/7/2017 10:13 | 6/7/2017 10:13 | 0.1 |
| 7753 | 764 shorting out | customer | Urgent | Closed | Closed | Kyle Holgate | 6/8/2017 11:25 | E-mail | 6/9/2017 4:06 | 6/8/2017 14:18 | 0.1 |
| 7761 | Programming emitters | customer | Immediate | Closed | Closed | Mike Anderson | 6/14/2017 15:48 | E-mail | 6/15/2017 4:07 | 6/14/2017 17:06 | 0.1 |
| 7762 | VDOT 764 Tech Support | customer | Planned | Closed | Closed | Kyle Holgate | 6/16/2017 10:04 | Phone | 6/17/2017 4:05 | 6/16/2017 12:14 | 0.1 |
| 7764 | Connect to 764 | customer | Urgent | In Progress | Open | Pat Cosgrove | 6/19/2017 12:51 | Phone | 6/19/2017 12:53 | 6/19/2017 12:53 | 0.0 |

Task 4: Deliverables

- 4.1 As-needed troubleshooting and technical support for TSP System and equipment maintenance
- 4.2 Repair, replacement or reconfiguration of faulty in-vehicle equipment within agreed upon service level criterial in this Appendix A-1.
- 4.3 Provision of replacements of faulty intersection equipment
- 4.4 Proposals for addressing out of scope equipment repair issues, as requested by SFMTA
- 4.5 Updating of intersection and in-vehicle equipment firmware and software during service checks
- 4.6 Weekly troubleshooting status tracking report.

Task 5: Repair, Replacement or Reconfiguration of Faulty In-Vehicle Equipment

- a. All repair, replacement or reconfiguration work shall occur in the bus depot (from which the vehicle is normally dispatched) during the evenings or other hours determined by SFMTA to avoid interruptions to vehicle revenue service.
- b. SFMTA will provide sign-in, security, safety and operating procedures to be followed by Contractor and its installers while on SFMTA property.
- c. SFMTA will ensure operable Wi-Fi and properly configured network access to FTP, server and CMS, at the yards.
- d. SFMTA will provide persons with authority to approve Contractor repair work by inspecting the work and confirming (signing-off) that the work was completed as required and bus is returned to revenue service state.
- e. Contractor shall coordinate with SFMTA to use its best efforts to limit or eliminate disruptions to regular transit service and have minimal or no interference with other ongoing SFMTA projects at each bus yard.

Task 5: Deliverable

- 5.1 Repair, replacement or reconfiguration of faulty in-vehicle equipment within agreed upon SLA criteria listed in Appendix A-1.

Task 6: Equipment Preventative Maintenance Services

Contractor will inspect each vehicle at least once per year as a preventative measure to verify the integrity of cabling, mounting and general physical integrity of the Opticom components. Contractor will document the results of the inspections and if any issues are uncovered, provide and execute a documented plan to address the issues (if within the scope of the Agreement) or provide a notification and optionally a proposal to address (if outside the scope of the Agreement).

Task 6: Deliverables

- 6.1 Annual preventative maintenance inspection of each vehicle covered under this Agreement.
- 6.2 Inspection report detailing any issues uncovered including:
 - a. A remediation plan to address issues covered under the scope of this Agreement; or
 - b. A notification report and optional proposal to address issues not covered under the scope of this Agreement.

C. Service Level Agreement

Contractor will provide verbal or written responses to inquiries, service requests or technical questions from SFMTA within 1 hour during business hours (non-holidays), which are 8AM-5PM, Mon-Fri, Pacific Time. Such responses shall be provided in accordance with the Response Times and Resolution Goals as set forth below.

- a. Acknowledgement of a service request or technical issue via phone call to the help desk, e-mail or website request will occur within the response time.
- b. Acknowledgement can be returned via phone or e-mail depending on SFMTA preference.
- c. Resolution means closing the open ticket with needed fix (see SLA goals in chart below).

| | Resolution category | Definition | Response Time | Service Ticket Resolution Goal |
|-------------------------------------|----------------------------|--|---|---------------------------------------|
| Included in Managed Services | Immediate | <p>Help desk inquiries. Reported issue requires immediate attention; or immediate technical support.</p> <ul style="list-style-type: none"> • Inquiries regarding standard CMS functions, logs and reports • Routine updates and adjustments to conditional TSP • Requests to add or delete CMS user accounts | Immediate – within 1 hour | Same business day (0-24 hours) |
| | Urgent | <ul style="list-style-type: none"> • Requests to install and activate CMS clients • TSP equipment troubleshooting (intersection, bus, or yard) • Corrections to any incorrect TSP configuration that adversely affects normal TSP operations or reports | A Service Ticket will be generated in 1 hour during normal business hours or the next business day if request is received after normal business hours | 48 business hours |
| | Planned | <ul style="list-style-type: none"> a. Any development work needed to address defects found b. Requests for special non-standard reports | As agreed | As agreed |

D. Service Level Agreement Metrics

Contractor will ensure that the TSP meets the following operations metrics, based on an individual intersection and vehicle level, unless otherwise noted. Metrics shall be based on 30 days of data, unless the Parties agree otherwise:

Intersection (based on 24 hours per day, 7 days per week):

- Intersection communicates with expected number of buses, 95% of the time
- Hardware up and running, 95% of the time
- Updated firmware on all devices, 98% of the time

Vehicle (based on 24 hours per day, 7 days per week):

- Other than near-side stops, doors open and turns, requests are not dropped, 95% of the time

- Places priority requests as expected (given route information, conditional priority, etc.), 95% of the time
- Hardware up and running, 95%
- Updated firmware on all devices, 98% of the time

CMS (based on 24 hours per day, 7 days per week):

- Latest software (client and server) available to SFMTA, 100% of the time
- Equipped intersections in CMS database, 98% of the time
- Equipped buses in CMS database, 98% of the time

90% of queries and pages loaded within 20 seconds for commonly used purposes (not reported on regularly, but rather when issues arise)

E. Reporting Requirements

Contractor will work closely with SFMTA staff to determine and then produce mutually agreeable and useful analytics reports and tools for determining basic metrics.

Contractor shall utilize various sources to deliver data and reports to SFMTA based on the Agency's needs, which are to be determined by SFMTA and agreed upon by the Parties. Reporting shall be provided electronically or the reporting information made available via web accessible business dashboard or desktop reporting tools.

Formatting of reports shall be customized and automated per specifications to be determined by SFMTA and agreed upon by the Parties. Delivery of reports will occur on SFMTA's preferred cadence depending on the report and information required.

At a minimum, Contractor shall provide the reports on the subject areas detailed below:

- a. Value of TSP
 - i. TSP effectiveness reports, annually and to the extent commercially reasonable and deemed feasible by the Parties. To include a version for SFMTA and a public version (case study), which is to be approved by SFMTA prior to release. Metrics to include (but not be limited to):
 - Travel time analysis
 - Percentage of vehicles arriving on green/red
 - Red light analysis, meaning pre/post use of the TSP System
 - Overall intersection delay, including cross-streets, etc.
 - General statistics on vehicle count, intersection count, overall deployment
 - (Optionally,) cost savings (fuel consumption, maintenance, buses out of service, etc.)
 - ii. System optimization reports, monthly
- b. Weekly system maintenance reports shall include, but not be limited to:
 - i. System usage:
 - Intersections are receiving the number requests for priority as expected (i.e. in comparison to how many buses have service through intersection)
 - Buses are requesting priority as expected

- ii. Manual check for conditional priority involving crossing routes for at least 3 intersections
 - iii. SLA metrics
 - iv. Buses equipped with TSP hardware and software, as compared to number of buses in the fleet
- c. Service Delivery reports shall be issued weekly (unless a different frequency is mentioned above) and shall address:
- i. Preventative measures taken by Contractor during the reporting period, including vehicle inspections and software upgrades and any related issues and/or follow-up actions.
 - ii. Reactive activities (i.e., response to service requests) provided by Contractor in the previous reporting period. This would include any break/fix activity.
- d. Additional data and reporting from new ASM platform, within 30 days of installation of new bus ASM hardware.
- i. 1-2 page GPS breadcrumb report (i.e., GPS locations and times) for urban area (i.e., routes using the TSP System), including the northwest area and financial district, with a map to be produced within 30 days of installation of new bus ASM hardware. Geographical areas to be determined, updated and agreed upon by the Parties.
 - ii. Via CMS or provided directly by Contractor, trip IDs, timestamps, latitudes and longitudes for all vehicle trips and this data (when bus is on a trip - 1 ping per second) will be made available to SFMTA at least weekly.

Reporting Requirement Deliverables:

- D.1 Create and provide reports as outlined above, weekly.

SFMTA reserves the right to obtain additional reports as required and within reason.

F. Intersection Maintenance Training & TSP User Manuals

Task 1: Intersection Maintenance Training

Contractor will provide on-site training to SFMTA to support intersection maintenance. Contractor's technical support team will deliver custom training for hardware or software to SFMTA's signal shop, TMC and transit as needed.

Task 1: Deliverables

- 1.1 At a minimum, annual intersection maintenance training.

Task 2: User Manuals

Contractor will develop and deliver reference manuals that describe the TSP System and the required operations associated with each user role. User Manuals will cover all on-bus and

off-bus functions of the TSP System. The User Manuals will describe the tasks required for maintaining/extending the delivered TSP System, including maintenance procedures and a troubleshooting guide.

Task 2: Deliverables

2.1 Create and deliver reference manuals and troubleshooting guides required to maintain TSP System.

G. Transition Planning and Training

SFMTA will approve the delivery of a training transition plan which describes the scope of the training to be delivered with specific Milestones in years 1, 2, 3, 4 and 5. Contractor will assist SFMTA by providing tools and resources for effective knowledge transfer throughout the term of the Agreement.

Opportunities to observe Contractor will be made available when possible and SFMTA will be made aware of such opportunities during weekly team meetings. Twice annually, Contractor will train SFMTA personnel for a minimum of two days, including TMC, transit staff and the signal shop. CMS training will be among the topics covered. SFMTA will approve of all training agendas prior to the actual training event(s).

All written Deliverables, including any copies, shall be submitted on recycled paper and printed on double-sided pages to the maximum extent possible. All in-person training events will be recorded by Contractor and made available to SFMTA for any staff that may not be able to join at the time and place designated.

The following training and transition Milestones, at a minimum, shall be completed by the end of each contract year:

Year 1 – General User Training for SFMTA personnel

- First training to occur within 60 days of Agreement execution
- Vehicles – CMS monitoring and reports (Transit and TMC staff)
 - Staff to be trained on identifying vehicles that are not operating as expected and steps to rectify (i.e., call Contractor's helpdesk to have a service ticket issued)
 - Staff to be trained to utilize analytics software to identify problem areas to be further investigated
- Intersections – CMS monitoring and reports (Signal Shop and IT)
 - Staff to be trained on identifying if intersections are not operating as expected and steps to rectify (i.e., call Contractor's helpdesk to have a service ticket issued)

- Staff to be trained to utilize analytics software to identify problem areas to be further investigated
 - Signal shop training to include hardware/software/installation, repair/replacement
- CMS Clients – Installation, adding/removing client accounts, adding/removing vehicles/intersections and software updates

Year 2 – Signal Shop and IT

- Intersection database maintenance
- Intersection hardware – Installation, maintenance and firmware updates
- Intersection Hardware – Preventative maintenance
- Refresh training of topics covered in Year 1 and any other topics deemed necessary by the Parties

Year 3 – Transit Division, bus yards and TMC

- Vehicle database maintenance
- Vehicle hardware – Installation, maintenance and firmware updates
- Vehicle hardware – Preventative maintenance
- New and retired vehicles
- Refresh training of topics covered in Years 1 and 2 and any other topics deemed necessary by the Parties

Year 4 – TSP System Management

- Refresh training on topics covered in Years 1-3 and any other topics deemed necessary by the Parties
- Service tickets – Creating, monitoring and resolution

Year 5 – Final Transition

- Refresh training of topics covered in Years 1-4 and any other topics deemed necessary by the Parties
- Ongoing transition toward full capability of SFMTA to operate, support, and maintain the TSP System.

Appendix A-2: In-Vehicle Equipment Installation, Retrofitting and AVL Integration

1. Project Description

Contractor shall perform the following in-vehicle equipment installation, retrofitting and Automatic Vehicle Location System (AVLS) integration services as described below.

A. Equipment Installation and Retrofitting and AVL Integration

1. Contractor will provide new or updated hardware, installation and configuration to equip approximately 717 buses with the TSP System.
2. Contractor will also provide additional Opticom Model 2101 Low Priority Radio/GPS Control hardware, installation and configuration to equip 61 buses that need the base TSP equipment.
3. Contractor will configure and install a J1708 connection to SFMTA's Automatic Vehicle Location (AVL) system (See Section 1.B Automatic Vehicle Location (AVL) System Integration for a further description of services, requirements, and assumptions.)
4. Contractor will provide equipment installation project planning and coordination and documentation activities and services.

Equipment Installation Deliverables:

- A.1 Ship to address in Appendix A-4.
- A.2 Contractor will Install 61 new Opticom Model 2101 Low Priority Radio/GPS Control units to replace AVL uninstalls.
- A.3 Contractor will deliver and install 160 ASM (Lanner) New Flyer Kits and connect to the J1708 block and AVL system:
 - a. One hundred and fifteen (115) 60' articulated buses currently running as part of SFMTA/Muni TSP System fleet.
 - b. Forty five (45) buses operating within the fleet that did not receive a retrofit in previous installation projects.
- A.4 Contractor will replace 557 ASM (Treq) with new ASM (Lanner) platform computers and connect these to the J1708 block and AVL system. Note: prices of the Lanner platform have been discounted to reflect the earlier purchase of the Treq platform.
- A.5 Contractor will provide St. Paul-based project management services for most of the services below. However, 2 weeks of on-site project management services will be provided.
 - a. Installation coordination (SFMTA, yards, Contractor, other suppliers)
 - b. Contractor management.
 - c. Documentation of project status and checklists.
 - d. Updating of all 5 installation manuals to reflect new J1708 configuration.
 - e. Documentation of the build requirements and BoM (Bill of Materials) and train New Flyer, such that New Flyer can install Equipment prior to delivery of new buses to SFMTA.

B. Automatic Vehicle Location (AVL) System Integration

Contractor will integrate with the AVL system utilizing provided terminal block to retrieve “route,” “block” and “trip” data from the J1708 line, which is necessary for the operation of the ASM.

1. AVL System Integration Requirements

Contractor has determined the following specific requirements are associated with the AVL system integration.

| # | Category | Description |
|---|------------|---|
| 1 | J1708 | The AVL shall publish a message on the J1708 line each time a Trip changes and the bus is on a Revenue Trip. |
| 2 | J1708 | The AVL shall publish a message on the J1708 line every minute during a Trip and the bus is on a Revenue Trip. |
| 3 | J1708 | Contractor shall not be required to subscribe to the AVL to receive the J1708 message as the AVL should be broadcasting the required message. |
| 4 | Message | The AVL J1708 message shall contain route name, trip ID, and block ID data that shall correspond to the GTFS data that has been supplied by SFMTA. |
| 5 | Message | Contractor shall support a single J1708 message for this integration project and only buses configured in this manner shall be supported by this software release. |
| 6 | Message | Contractor shall be supplied documentation by SFMTA for the message protocol that shall be comparable to SFMTA-ICD0101, revision E (CDRL 12-3-16) for message PID 501 where route name, trip ID and block ID shall be clearly identified and correspond to the GTFS data supplied by SFMTA. |
| 7 | GTFS | SFMTA shall be responsible for providing updates and accurate GTFS data and processing the data via CMS and ensuring the data is uploaded to all vehicles. |
| 8 | Simulation | Contractor shall be supplied 20 minutes of data, from the J1708 line, that simulates at a minimum 15 trip changes and 5 route changes while the bus is considered to be on a revenue-generating trip. |
| 9 | TSP | If the Contractor’s 2800 software (Opticom Priority/Preemption software) cannot determine route or trip information for any reason, TSP shall be always on. |

2. AVL System Integration Assumptions

Contractor has made the following assumptions in calculating the charges associated with AVL system integration as presented in this Appendix. To the extent they change, the final price

may be affected.

| # | Assumption |
|----|--|
| 1. | Contractor's nodes and the AVL are the only nodes on the J1708 line. |
| 2. | Only buses with the updated terminal block and AVL configuration shall be supported via these requirements. Older configurations that are linked to the head sign will not be supported. |
| 3. | If GTFS data is available on the bus, it will be used even if it is out of date. If the Contractor's 2800 software is unable to identify a trip and route, TSP will be always on. Out of date GTFS data may lead to unexpected TSP behavior. |
| 4. | Contractor shall have access to knowledgeable SFMTA personnel who will be able to answer questions about the documentation and message specification. |
| 5. | The mapping between the route name, trip ID and block ID supplied by the AVL and the information that is supplied by the GFTS from SFMTA shall require no mapping. |
| 6. | If the simulated data is not supplied, Contractor's staff shall be required travel to acquire the data which may require 3 to 5 days of effort in addition to the expense of the travel. |

3. AVL System Integration Documentation

Contractor will document the new installation procedures and provide them to SFMTA and New Flyer, so that the new configuration can be installed on all new buses manufactured by New Flyer factory for the SFMTA.

Appendix A-3:
TSP Bus Yard Monitoring & Testing Station Delivery and Installation

1. Project Description

____ Contractor shall deliver equipment to the shipping address provided in Appendix A-4 and provide installation of TSP verification stations at each SFMTA vehicle maintenance facility yard exit (up to 2 per yard), in the following facilities: Woods, Flynn, Portrero, Kirkland, Presidio, Islais Creek, and Marin. Contractor will conduct site surveys, and will perform installation design and project management services as part of the TSP Testing Station Installation project.

The TSP Testing Station system will be used to enable SFMTA to verify that the TSP System is operating normally, while providing Contractor with the ability to monitor yards and buses for better performance of the overall TSP System.

2. TSP Testing Station Service and Equipment Deliverables

| Qty | | Description |
|------------|----|---|
| 14 | ea | Site survey, design and project management |
| 14 | ea | PepWave MAX BR1 Slim |
| 14 | ea | Opticom Infrared 770 gate opener card rack |
| 14 | ea | Opticom model 764 multimode phase selector |
| 14 | ea | Opticom model 3100 intersection radio unit |
| 1,000 | ft | Opticom GPS cable (shipped in 500 ft. spools) |
| 14 | ea | 120V plug to terminate 770 power |
| 14 | ea | Amber confirmation beacons, mounting hardware, conduit and cable |
| 14 | ea | Installation of electrical box, conduit, electrical lines, cabinet, radio, etc. |
| 14 | ea | Installation/programming of phase selector |

Appendix A-4: Commitments & Contacts

1. Best Efforts To Comply With Timeline

The Parties agree to use their commercial reasonable efforts to adhere to the mutually agreed upon Milestone dates and to notify the other as soon as possible whenever a Milestone may be delayed. The Parties understand that failure to respond in a timely manner could delay the completion of Services under this Agreement.

The purpose of this Roll-out Timeline (“Timeline”) is to demonstrate a proposed roll-out schedule for the duration and expected completion of the SFMTA Deliverables. Contractor will make every effort to comply with this Timeline, however, deviation from this Timeline will not be considered a breach of the Agreement due to the fact that various factors could impact the implementation of the Deliverables, such as availability City vehicles, the City’s readiness and other factors beyond the control of either Party.

Project Planning

Contractor will schedule a meeting with City to review and discuss plans to meet the requirements specified in the Agreement within thirty (30) days after the Agreement is executed.

GTT will develop and maintain a Project Management Plan (PMP) to track progress, the details of which are set forth in Appendix A.

Project Implementation – The estimates below are dependent upon availability of City vehicles and intersections.

1. Installation of ASM software and hardware on buses – Expected duration of 8 weeks

- Determine agreed upon start date with fleet and yards – 1 week duration
- Contractor assumes access to average of 20 buses per night – 6 weeks duration
- Verification – 1 week duration

2. CMS upgrade and configuration – Expected duration of 1 week

- Contractor will assist City to setup all needed CMS clients and ensure that the CMS is up to date within 30 days of installation start date.

3. Bus Yard monitoring and test stations – Expected duration of 2 weeks

- Assumes 2 per 7 yards = 2 weeks

4. Training – Expected duration of 2 weeks (for initial training). Additional training will be provided throughout the term of the Agreement as described in A-1,

- Vehicles – CMS monitoring and reports (Transit and TMC staff)
 - Staff to be trained on identifying vehicles that are not operating as expected and steps to rectify (i.e., call Contractor’s helpdesk to have a service ticket issued)

- Staff to be trained to utilize analytics software to identify problem areas to be further investigated
- Intersections – CMS monitoring and reports (Signal Shop and IT)
 - Staff to be trained on identifying if intersections are not operating as expected and steps to rectify (i.e., call Contractor's helpdesk to have a service ticket issued)
 - Staff to be trained to utilize analytics software to identify problem areas to be further investigated
 - Signal shop training to include hardware/software/installation, repair/replacement
- CMS Clients – Installation, adding/removing client accounts, adding/removing vehicles/intersections and software updates

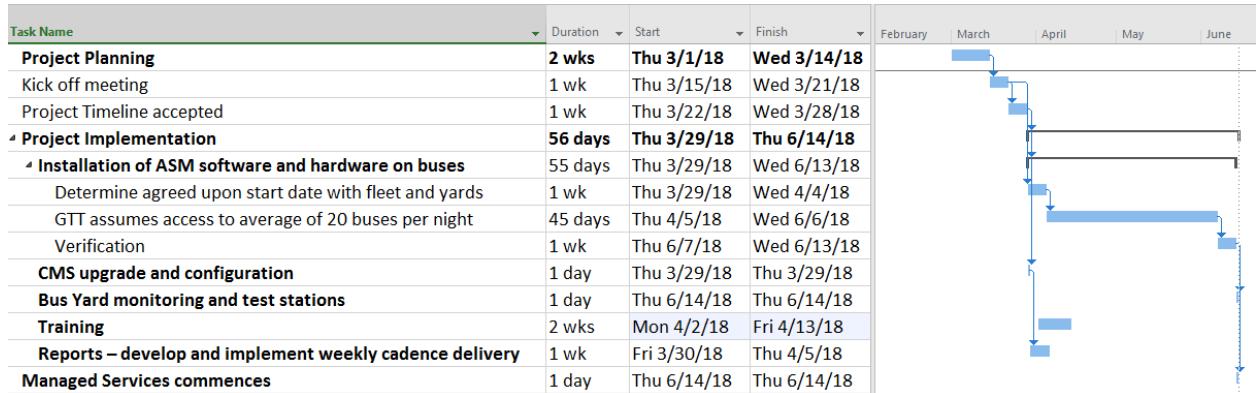
5. Reports – develop and implement weekly cadence delivery – Expected duration of 1 week

- System maintenance
- Service delivery
- TSP effectiveness

Managed Services commences

Proposed Timeline

(assuming agreement executed on or before 2/28/18)
Complete duration from project plan to training = 4 months



2. Issue Resolution

The Parties agree to use commercially reasonable efforts to resolve any issues that arise under this Agreement within a 72-hour timeframe so as not delay performance of the Services.

3. Staffing

The Parties agree to staff the tasks, deliverables, and projects described in this Agreement at an appropriate level, such that Services described in this Agreement can be completed within agreed timelines and prices.

A. Primary Contacts

Contractor Project Manager:

Rachel Cox

Phone: 651-789-7303

Email: rachel.cox@gtt.com

SFMTA Project Manager

Ramon S. Zamora

Sustainable Streets Division

Phone: 415-701-5668

Email: Ramon.Zamora@sfmta.com

SFMTA Approval Authority:

Cheryl Liu, Project Manager

Sustainable Streets Division

Office: 415-701-4696

Cell: 415-439-3361

Email: Cheryl.liu@sfmta.com

SFMTA Inspection & Technical authority:

Gary Chang

Fleet Engineering

Phone: 415-401-3173

Email: Gary.Chang@sfmta.com

SFMTA Point of contact for IT & Wi-Fi access:

John Tobias

IT Division

Phone: 415-579-9717

Email: John.Tobias@sfmta.com

SFMTA Shipping address & warehouse:

Adrian Scott
Flynn Division
1940 Harrison Street
San Francisco, CA 94103
Phone: 415-646-2830
Email: Adrian.Scott@sfmta.com

SFMTA Primary point(s) of contact for intersection installations:

Ferdinand Lumbad
Sustainable Streets Division
Phone: 415-550-2737
Email: Ferdinand.Lumbad@sfmta.com

SFMTA Primary point(s) of contact for vehicle installations:

Vernon T Ting
Phone: 415-695-7193
Email: Vernon.Ting@sfmta.com

Nelson Doon
Phone: 415-622-6357
Email: Nelson.Doon@sfmta.com

Tal Sztainer
Transit Division
Phone: 415-646-2746
Email: Tal.Sztainer@sfmta.com

Appendix A-5: Services Not Included in this Agreement

The following Services are not included in the Services provided under the annual Maintenance Service fee, but the City may procure said services from Contractor under Task Order(s).

1. Any investigation, repairs, replacements, or system modifications that are a result of any criminal activity or events outside of normal wear and tear (e.g., fire, theft, vandalism), Acts of God (e.g., flood, earthquake) or negligence by any employee or agent of the City.
2. The removal, relocation, re-installation and configuration of vehicle equipment from one SFMTA vehicle to another (e.g., to support a bus replacement).
3. On-site installation or replacement of intersection hardware.
4. Reconfiguration of vehicle or intersection equipment for a new purpose or one that includes incremental integration (e.g., integration with other vehicle or back-office systems) beyond that described in this Agreement.
5. Engineering or on-site support to reconfigure Opticom equipment as a result of changes in the interface behavior of systems with which Opticom components integrate.
6. Any interruption or change in GPS satellite behavior beyond the norm and out of the control of Contractor that results from reconfigurations done by the U.S. government or other similar situations beyond the control of Contractor.

Appendix A-6 **Licensed Software and License Agreement**

1. Software License. Subject to the terms and conditions of this Agreement, Contractor hereby grants to City a non-exclusive, non-sublicensable, non-transferrable, perpetual license to use for its internal purposes and business operations only, the Licensed Software identified below in object code form only and any applicable Documentation (the “Licensed Use”). City acknowledges and agrees that the Licensed Software is the proprietary information of Contractor and that this Agreement grants City no title or right of ownership in the Licensed Software. Ownership. Contractor is the sole owner (except to the extent owned by third-party licensors) of all right, title and interest in and to the Licensed Software and Documentation, and each component thereof, all modifications, bug fixes, enhancements, or upgrades thereto, and all Intellectual Property with respect thereto. City hereby assigns to Contractor all right, title, and interest including all Intellectual Property in and to all suggestions or feedback provided by City regarding the Software or Documentation.

1.1. Licensed Software. The Licensed Software consists of:

- 1.2.1. Central Management Software (CMS) – unlimited number of intersections
- 1.2.2. Preemption Software – unlimited number of vehicles
- 1.2.3. Automated Schedule Management (ASM) – unlimited number of vehicles
- 1.2.4. ASM Add-On to CMS – I unlimited number of vehicles
- 1.2.5. Firmware or other software flashed or otherwise encoded to chips in the Equipment

1.2. Additional License Terms.

- 1.2.1 The terms of this Agreement shall apply to all follow-on versions, all updates, upgrades, error corrections and bug fixes to the Software provided by Contractor. Except as set forth in this Agreement, Contractor shall have no obligation to provide such follow-on versions, updates, upgrades, error corrections, or bug fixes.
- 1.2.2 The Licensed Use shall include the right, subject to the license conditions and restrictions set forth in this Agreement, to make or install additional reasonable numbers of copies of the Software and Documentation for non-production archival or back-up purposes and non-production testing and security purposes, provided however, that any copy of the Software or Documentation made by City must bear the same respective copyright and other proprietary notices that appear on the copy of the Software or Documentation furnished to City by Contractor.

1.2.3 Except as set forth herein, Contractor reserves all other rights in and to the Software and Documentation and no implied licenses are granted by Contractor.

1.2.4 City is authorized to use the Licensed Software only for City's internal purposes and only on the Designated CPU or the Designated Site specified in the Authorization Document.

1.2.5 The City may install the Licensed Software on a back-up or replacement CPU to be used in case the CPU on which the Licensed Software was initially installed fails or requires maintenance.

1.2.6 Proprietary Markings. City agrees not to remove or destroy any proprietary markings or proprietary legends placed upon or contained within the Licensed Software or any related materials or Documentation.

1.2.7 Authorized Modification. City shall also be permitted to develop, use and modify Application Program Interfaces (API's), macros and user interfaces. For purposes of this Agreement, such development shall be deemed an authorized modification. Any such APIs, macros or other interfaces developed by the City shall become the property of the City.

1.2.8 Delivery and Risk of Loss. Contractor shall ship or otherwise deliver the Licensed Software and Updates to the SFMTA, as required under this Agreement, at no charge for shipping. If any of the Licensed Software products or Documentation are lost or damaged during shipment or before installation is completed, Contractor shall promptly replace such products, including the replacement of program storage media if necessary, at no additional charge to the City. If any of the Licensed Software products are lost or damaged while in the possession of the City, Contractor will promptly replace such products without charge, except for program storage media, unless supplied by the City.

1.3. License Restrictions. City shall not:

1.3.1. Access or use any portion of the Software not expressly licensed to City;

1.3.2. Disassemble, decompile or otherwise reverse engineer all or any portion of the Software;

1.3.3. Use the Software or Documentation for any unlawful purposes;

1.3.4. Export the Software or Documentation in violation of local, regional or national regulations;

1.3.5. Except as permitted in this Agreement, sublicense, relicense, distribute, disclose, rent or lease the Software or Documentation, or any portion thereof, for third party use; or

1.3.6. Use the Software or Documentation to develop any software application intended for resale which uses the Software in whole or in part.

1.4. EULA and Unauthorized Use. City shall use commercially reasonable efforts to prevent unauthorized access to, or use of, the Software, and shall notify Contractor promptly of any unauthorized use of which it becomes aware. The Software may also be accompanied by an End User License Agreement ("EULA") that is intended to provide further protection against unauthorized and uncontrolled use of the Software and may be presented as a click-through or otherwise and may be required to be accepted by end users of the Software. City and its Licensed Use and users are subject to this Agreement and the EULA, if any, is not intended to alter or abridge the terms of this Agreement. To the extent the terms of this Agreement are inconsistent with the terms of any such EULA, the terms of this Agreement shall control.

2. Source Code.

2.1 Contractor agrees that in the event it discontinues its obligations under the terms of this Agreement, , or ceases to market and/or provide maintenance and support for the Licensed Software, and there is no successor in interest by merger, operation of law, assignment, purchase, or otherwise, it will provide City, without charge, one (1) copy of the then-current Source Code for all of the programs and all supporting Documentation for the Licensed Software then operating and installed at City's locations. If City should obtain the Source Code and the Documentation pursuant to this section, the only use made of the Source Code and the Documentation will be for the proper maintenance of the Licensed Software in connection with City's use of the Licensed Software as provided for, and limited by, the provisions of this Agreement.

2.2 In furtherance of its obligations as stated above, if requested by City, Contractor shall within 15 days place into third party escrow a copy of the Source Code which corresponds to the most current version of the Licensed Software. The Source Code escrow agreement shall be a three-party agreement between Contractor, City and the escrow agent on terms and conditions agreeable to all three. Contractor agrees to update, enhance or otherwise modify such Source Code promptly upon its release of a new version of the Licensed Software to its other Licensees such that the Source Code is maintained as corresponding to the newest released version of the Licensed Software. The City shall pay Contractor an annual fee not to exceed \$4,000 per year should it require Contractor to place the Source Code in escrow. Contractor shall pay the fees of the Source Code escrow agent.

3. Warranties:

3.1 Right to Grant License. Contractor hereby warrants that it has title to and/or the authority to grant a license of the Licensed Software to the City.

3.2 Conformity to Specifications. Contractor warrants that when the Licensed Software and all Updates and improvements to the Licensed Software are delivered to City, they will be free from defects as to design, material, and workmanship and will function in accordance with the Specifications stated in this Agreement for the Term of this Agreement.

3.3 Software Performance Limited Warranty. Contractor represents and warrants

that the Software will substantially conform in all material respects to and perform substantially in accordance with the Documentation and this Agreement for a period of one (1) year from the Effective Date, provided that: (i) City gives Contractor written notice of any claimed breach of this warranty while this warranty is in effect; (ii) any such breach is not, in Contractor's reasonable opinion, a result of any modification of or damage to the Software or its operating environment by any party other than Contractor or a party acting under Contractor's control or direction; and (iii) City is in compliance with this Agreement. For any breach of the foregoing warranty, City's sole and exclusive remedy shall be as follows: (a) Contractor will endeavor to repair or replace the non-conforming Software within thirty (30) days, or such longer period as the parties may mutually agree, such that the Software conforms to the foregoing warranty. Contractor's warranty (including without limitation any extended warranty) applies solely to the Software and Documentation as it existed at the time of installation and warranties covering any follow-on versions, all updates, or upgrades are subject to a further written agreement by the Parties.

3.4 Viruses and Disabling Codes. Contractor represents and warrants that to the best of Contractor's knowledge, the Software shall not contain viruses, worms, or spyware (collectively, "Malicious Code"); provided, however, that, notwithstanding the foregoing, City acknowledges and agrees that Contractor reserves the right to remotely prevent access to and/or use of the Software in the event that (i) Contractor becomes aware, from City or otherwise, of unauthorized access or use of the Software by any third party, or (ii) this Agreement is terminated. Notwithstanding any provision of this Agreement to the contrary, in no event shall Contractor be in breach of the warranty set forth in this Section 3.3 if, at the time any Malicious Code was introduced into the Software, Contractor employed commercially-reasonable measures, consistent with the standards of Contractor's industry, to detect such Malicious Code in order to prevent its introduction into the Software.

4. City Responsibility. City is solely responsible for all actions taken by City, its employees, agents, and others accessing or using the Software. City is solely responsible for all necessary Internet connection and network hardware and software necessary to access and use the Software.

5. Audit Rights. City shall, throughout the term of this Agreement and for one year after its termination, keep true and accurate accounts and records in sufficient detail to enable an audit of the manner and extent of the use, sublicensing, transfer, or other disposition of the licensed Software, its derivatives, or any product or service based upon or incorporating or using all or portions of the Software, Contractor's Intellectual Property related to the Software, or Contractor's Confidential Information, to confirm City's compliance with the terms and conditions of this Agreement. At the reasonable request of Contractor, but no more than once per year unless there is a reasonable suspicion of a breach of this agreement, City shall allow Contractor to inspect and audit such information and City facilities as is necessary to ensure City's compliance with the terms and conditions of this Agreement. City shall ensure that Contractor also has the right to inspect the facilities and records of its sublicensees. City shall reasonably cooperate with any such inspection and audit and supply such information, data and records as may be reasonably requested by Contractor or its appointed auditor, and shall make available during any such inspection and audit one or more of its managers or senior officials with the appropriate level of expertise and authority to answer any inquiries by Contractor.

Unless set forth to the contrary herein or otherwise agreed to in writing by the parties, each Party will bear their own costs and expenses incurred in connection with preparing for, conducting or complying with the audit.

Appendix B

Calculation of Charges

Agreement costs will be as follows:

| Description | Reference | Quantity | Unit Price | Total Price |
|--|--------------------------------|----------|--|----------------|
| Equipment and System Maintenance | | | | |
| Managed services to support, maintain and optimize entire TSP System (including all TSP hardware and software), and provide services to ensure reliable and uninterrupted system operation. Price will be adjusted annually based on increases or decreases in the number of intersections and/or vehicles to be included for the upcoming year. Adjustments will be calculated in good faith in the month preceding the following year's billing period. Annual payments will be made in advance and not in arrears. | Appendix A-1 | 5 years | \$759,000.00 annually for years 1-5. Years 6-9: Year 6 - \$777,975 Year 7 - \$797,424 Year 8 - \$817,360 Year 9 - \$837,794 | \$3,795,000.00 |
| In-Vehicle Equipment Installation, Retrofitting and AVL Integration | | | | |
| Install 61 new Opticom Model 2101 units to replace AVL uninstalls | Appendix A-2 (Deliverable A.1) | 61 | \$4,234.00 each | \$258,274.00 |
| Deliver and install 160 ASM (Lanner) New Flyer Kits and connect to the J1708 block and AVL system: <ul style="list-style-type: none"> • 115 60' Artic buses currently running as part of SFMTA/Muni fleet • 45 buses operating within the fleet that did not receive a retrofit in previous installation projects | Appendix A-2 (Deliverable A.2) | 160 | \$4,863.00 each | \$778,080.00 |
| Replace 557 ASM (Treq) with new ASM (Lanner) platform computers and connect to the J1708 block and AVL system. <u>Note:</u> discounted to accommodate change of hardware | Appendix A-2 (Deliverable A.3) | 557 | \$2,385.00 each | \$1,328,445.00 |

| | | | | |
|---|-----------------------------------|-----|-----------|--------------|
| platform | | | | |
| St. Paul-based project management for most of the work, but includes 2 weeks on-site: <ul style="list-style-type: none">• Installation coordination (SFMTA, yards, Contractor, other vendors)• Contractor management• Documentation of project status and checklists• Update all 5 installation manuals to reflect new J1708 configuration.• Document the build requirements and BoM (Bill of Materials) and train New Flyer | Appendix A-2 (Deliverable A.4) | n/a | n/a | \$41,650.00 |
| TSP Bus Yard Monitoring & Testing Station Delivery and Installation | | | | |
| Engineering, design, installation, software, initial setup and configuration at Municipal Railway bus yards, for up to fourteen (14) stations for TSP maintenance, tracking and troubleshooting. | Appendix A-3 | 14 | 10,428.67 | \$146,001.30 |

No invoices for Services provided by law firms or attorneys, including, without limitation, as subcontractors of Contractor, will be paid unless the provider received advance written approval from the City Attorney.

Appendix C
Purchase Order No. DPMT14000156 (July 10, 2013)
City First – 14 Mission & 8X – Transit Signal Priority

Appendix D
Blanket Purchase Order No. BPMT15000017 (September 4, 2014)

This Appendix includes the following Purchase Order releases from BPMT15000017

- D-1: Purchase Order No. DPMT15000727 (September 15, 2014)**
D-2: Purchase Order No. DPMT15001719 (December 23, 2014)

Appendix E
Purchase Order No. DPMT16002429 (December 29, 2015)
Additional Installation Equipment and Central Management Licensed Software License
Upgrade

Appendix F
Purchase Order no. DPMT16004090 (May 16, 2016)
Managed Service Contract, Traffic Signal Priority Licensed Software Programming

Appendix G
Contract No. SFMTA 2017-02 (FTA) (September 1, 2016)

**This Appendix includes the following Blanket Purchase Order and Purchase Order release
resulting from Contract No. SFMTA 2017-02**

G-1: Blanket Purchase Order No. BPMT17000026 (October 25, 2016)

G-2: Purchase Order No. DPMT17001827 (October 26, 2016)

Appendix H
Purchase Order No. DPMT17004759 (June 9, 2017)
Intersection Equipment

Appendix I
TSP System – Technical Manuals
(Reference 1.6 Documentation)

Contractor will provide the following technical manuals relating to the use, function and Specifications of the TSP System:

- (1) Intersection installation manual,
- (2) Vehicle installation manual,
- (3) Central Management Software installation manual and user guide