



MEETING DATE: 6/2/08

ITEM NO: 6

COUNCIL AGENDA REPORT

DATE: MAY 13, 2008

TO: MAYOR AND TOWN COUNCIL

FROM: GREG LARSON, TOWN MANAGER

SUBJECT: PPW JOB NO. A08-011 – SIGNAL AND STREET LIGHT MAINTENANCE
ADOPT RESOLUTION AUTHORIZING THE TOWN MANAGER TO
EXECUTE A CONTRACT AGREEMENT FOR A PERIOD OF TWO YEARS
WITH REPUBLIC INTELLIGENT TRANSPORTATION SERVICES, INC.
TO PROVIDE SIGNAL AND STREET LIGHT MAINTENANCE SERVICES
IN THE TOWN OF LOS GATOS

RECOMMENDATION:

Adopt resolution authorizing the Town Manager to execute a contract agreement (Exhibit A) for a period of two years with Republic Intelligent Transportation Services, Inc. to provide Signal and Street Light Maintenance services in the Town of Los Gatos.

BACKGROUND:

The Town of Los Gatos has been using contractors to provide maintenance and repair of the Traffic Signal and Street Light facilities. Staff reviews such maintenance contracts annually to ensure the services provided are satisfactory and meet Town expectations and contract terms. The Town policy requires that every five years on-going contractor service contracts go through a process of soliciting bids from other vendors for the services the Town requires.

DISCUSSION:

Staff prepared a Request for Proposals for Traffic Signal and Street Light Preventive Maintenance and Repair services and it was advertised in newspapers per Town requirements.

PREPARED BY: KEVIN ROHANI

Interim Director of Parks and Public Works

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Reviewed by: PSJ Assistant Town Manager DL Town Attorney
____ Clerk Administrator SE Finance ____ Community Development

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MAYOR AND TOWN COUNCIL

SUBJECT: PPW JOB NO. A08-011 – SIGNAL AND STREET LIGHT MAINTENANCE

MAY 13, 2008

In response to this Request for Proposal, the Town received three (3) proposals from the following contractors:

Calwest Electric, Inc.	\$ 95,022.00
Republic Intelligent Transportation Services, Inc.	\$ 95,851.80
Team Econolite, Inc.	\$110,798.68

Town staff reviewed the proposals and had meetings with Republic Intelligent Transportation Services, Inc. and Calwest Electric, Inc. Staff recommends that Republic Intelligent Transportation Services, Inc. be awarded the maintenance contract due to their ability to provide a wide range of resources to the Town, both during normal operations and during emergencies. This firm is very familiar with the Town and its traffic signal and street lights and staff is satisfied with their service and response. The cost for the contract with Republic Intelligent Transportation Services, Inc. is about \$800 over the cost from Calwest Electric, Inc. However, staff believes this slight cost difference for a contract this size should not be the only factor in selecting a contractor. The consistency of services received by the Town, the reliability of the contractor, and the wide range of resources should also be taken into consideration.

Republic Intelligent Transportation Services, Inc. was hired in August, 2002 to perform Traffic Signal and Street Light Preventive Maintenance and Repair services. Two amendments to their agreement were approved by the Town Council. The contract for Republic Intelligent Transportation Services, Inc. will expire on June 30, 2008.

CONCLUSION:

It is recommended that Council adopt the attached Resolution authorizing the Town Manager to execute a Contract Agreement in the amount of \$95,851 with Republic Intelligent Transportation Services, Inc.

ENVIRONMENTAL ASSESSMENT:

The project is Categorically Exempt pursuant to Sections 15301©), 15303(e) and 15304(b) of the State CEQA guidelines.

FISCAL IMPACT:

Sufficient funds are available in the general fund for this agreement in the Streets Program 5401.

Attachments:

Resolution approving contract agreement with Republic Intelligent Transportation Services, Inc. with (Exhibit A - Contract Agreement) - (Exhibit B – Cost Proposal) – (Exhibit C – Detailed Specifications and Scope of Work)

RESOLUTION

**RESOLUTION OF THE TOWN COUNCIL
OF THE TOWN OF LOS GATOS
APPROVING AN AGREEMENT WITH
REPUBLIC INTELLIGENT TRANSPORTATION SERVICES, INC.
TO PERFORM SIGNAL AND STREET LIGHT MAINTENANCE
IN THE TOWN OF LOS GATOS**

WHEREAS, it is necessary for the Council to secure a contractor to provide Signal and Street Light Maintenance services in the Town of Los Gatos; and

WHEREAS, the Town Council has selected the firm of Republic Intelligent Transportation Services, Inc. to provide contract services in connection with Signal and Street Light Maintenance for two years; and

NOW, THEREFORE, IT IS RESOLVED that the Town Council of the Town of Los Gatos hereby approves the attached Contract Agreement (Exhibit A) with the firm of Republic Intelligent Transportation Services, Inc. to provide services in connection with Signal and Street Light Maintenance; and

BE IT FURTHER RESOLVED that the Town Manager is hereby authorized and directed to execute said Contract Agreement on behalf of the Council.

PASSED AND ADOPTED at a regular meeting of the Town Council of the Town of Los Gatos held on the 2nd day of June, 2008, by the following vote:

COUNCIL MEMBERS:

AYES:

NAYS:

ABSENT:

ABSTAIN:

SIGNED:

MAYOR OF THE TOWN OF LOS GATOS
LOS GATOS, CALIFORNIA

ATTEST:

CLERK ADMINISTRATOR OF THE TOWN OF LOS GATOS
LOS GATOS, CALIFORNIA

TOWN OF LOS GATOS

Form of Contract Agreement
For

TRAFFIC SIGNAL AND STREET LIGHT PREVENTATIVE MAINTENANCE AND REPAIR PROGRAM

This Agreement is made and entered into this ____ day of _____ 2008 by and between the **Town of Los Gatos** (hereinafter called Town) and **Republic Intelligent Transportation Services, Inc.** (hereinafter called Contractor). Witnessed, that the Town and Contractor for the considerations hereinafter named, agree as follows:

I - Scope of Work

Contractor hereby agrees to furnish all of the materials and all of the equipment and labor necessary, and to perform all of the work shown on the plans and described in the specifications for the project entitled: **Signal and Street Light Maintenance Services, 2009/2010**, all in accordance with the requirements and provisions of the Contract Documents as defined in the Special Provisions (**Exhibit C**) which are hereby made a part of this Agreement.

II - Time of Completion

- (a) The work to be performed under this Contract shall be commenced with **five (5) calendar days** after the date of written notice by the Town to Contractor to proceed.
- (b) The work shall be completed between, July 1, 2008 and June 30, 2010, and after the date of such notice and with such extensions of time as are provided for in the General Conditions.
- (c) At the discretion of the Town, this contract can be renewed for up to three subsequent two year terms at the same costs with Contractor's consent.

III - Liquidated Damages

It is agreed that, if the work required by the contract is not finished or completed within the specified time limits as set forth in the Special Provisions and the contract, damage will be sustained by the Town, and that it is and will be impracticable and extremely difficult to ascertain and determine the actual damage which the Town will sustain in the event of and by reason of such delay; and it is therefore agreed that Contractor will pay to the Town, **\$500** per hour, as specified in the special provisions; and Contractor agrees to pay said liquidated damages herein provided for, and further agrees that the Town may deduct the amount thereof from any moneys due or that may become due Contractor under the contract.

IV - Insurance

Section 4.1 – Contractor's Insurance

Contractor shall maintain throughout the term of the agreement the following insurance coverage, and upon request shall provide Contractor certificates of policies evidencing the following coverage:

1. Workers' compensation coverage in accordance with the laws of the State of Service.
2. Commercial general liability insurance with the following minimum limits of liability:
 - \$1,000,000 Each occurrence
 - \$2,000,000 General aggregate
 - \$2,000,000 Products aggregate
 - \$1,000,000 Personal and advertising injury
3. Contractual liability insurance with minimum limits of \$1,000,000.
4. Comprehensive automobile liability insurance with the minimum limits of liability at \$1,000,000 combined single limit.

All insurance policies shall be written by reputable companies, authorized to issue insurance in the State where work is performed, and shall name Contractor as an additional insured party by primary insured endorsement to such policies. Each policy shall provide that it will not be canceled or amended except after thirty (30) days advance written notice to Contractor, mailed to the address indicated in the Agreement.

V - Indemnification and Liability

Section 5.1 - Indemnification by Contractor

Notwithstanding the provisions of Section 5.4 herein, Contractor shall be liable for any claim, lawsuit, or damage to the property or facilities of the Town that results from an error or omission by Contractor. Contractor shall indemnify, defend and hold harmless the Town and its officers, directors, affiliates, agents, and employees from and against all claims, actions, damages, losses, and expenses, including reasonable attorneys' fees and disbursements, arising out of or resulting from a breach of this Agreement or the performance of the services performed under this Agreement, provided that such claim, actions, damage, loss or expense is caused in whole or in part by any act or omission of Contractor, or any subcontractor of Contractor, or anyone directly or indirectly employed by any of them, or anyone for whose acts any of them may be liable, regardless of whether or not it is caused in part by a party indemnified hereunder.

Section 5.2 - Third Party Claims

Promptly after the receipt by a party to this Agreement of notice of any claim, action, suit or proceeding by any person who is not a party to this Agreement (collectively, an "Action") which is subject to indemnification, such party (the "Indemnified Party") shall give reasonable written notice to the party from whom indemnification is claimed (the "Indemnifying Party." The Indemnified Party's failure to so notify the Indemnifying Party of any such matter shall not release the Indemnifying Party, in whole or in part, from its obligation to indemnify under this Agreement, except to the extent the Indemnified Party's failure to so notify actually prejudices the Indemnifying Party's ability to defend against such action.

The Indemnified Party shall be entitled, at the sole expense and liability of the Indemnifying Party, to exercise full control of the defense, compromise or settlement of any such action unless the Indemnifying Party, within a reasonable time after the giving of such notice by the Indemnified Party, shall: Admit to the Indemnified Party, the Indemnifying Party's liability to the Indemnified Party for such action under the terms of the Agreement.

1. Notify the Indemnified Party in writing of the Indemnifying Party's intention to assume the defense, and;
2. Retain legal counsel reasonably satisfactory to the Indemnified Party to conduct the defense of such action.

The indemnified Party and the Indemnifying Party shall cooperate with the party assuming the defense, compromise or settlement of any such action in any manner that such party reasonably may request. If the Indemnifying Party so assumes the defense of any such action, the Indemnified Party shall have the right to employ separate counsel and to participate in (but not control) the defense, compromise, or settlement, but the fees and expenses of such counsel shall be the expense of the Indemnified Party unless:

- a. The Indemnifying Party has agreed to pay such fees and expenses.
- b. Any relief other than the payment of money damages is sought against the Indemnified party or
- c. The Indemnified Party shall have been advised by its counsel that there may be one or more legal defenses available to it, which are different from or additional to those available to the Indemnifying Party, and in any such case the fees and expenses of such separate counsel shall be borne by the Indemnifying Party.

No Indemnified Party shall settle or compromise or consent to entry of any judgment with respect to any such Action for which it is entitled to indemnification hereunder without the prior written consent of the Indemnifying Party, unless the Indemnifying Party shall have failed, after reasonable notice, to undertake control of such action in the manner provided above in this section. No Indemnifying Party shall, without the written consent of the Indemnified Party, settle or compromise or consent to entry of any judgment with respect to any action in which any relief other than the payment of money damages is sought against any Indemnified Party unless such settlement, compromise or consent includes as an unconditional term thereof the giving by the claimant, petitioner or plaintiff, as applicable, to such Indemnified Party of a release from all liability with respect to such action.

Section 5.3 - Liability for Damaged Facility

In the event of any damage to Town property, which in the opinion of the Town may be related to the services performed hereunder, Town shall immediately (after making the site safe) but no later than 12 hours notify Contractor to investigate such damage, and Contractor shall submit a written investigation report to Town within 10 business days. If Contractor is notified of damage later than 12 hours, Contractor will still investigate but will not be held liable to Town's property. Should the investigation reveal that the damage resulted directly from an error or omission of Contractor, or because Contractor failed to perform work within reasonable accuracy as defined herein, Contractor shall reimburse Town for repair and restoration costs of said facility not to exceed \$1,000 per incident. Contractor shall not be responsible for down time/delays due to any facility damages.

VI - The Contract Sum

The Town will pay to Contractor for the performance of the Contract annual maintenance costs of \$74,109 per total number of traffic signals and street lights as shown on **(Exhibit B)**. Any work outside of the regular scheduled maintenance shall be paid based of unit costs for various items as shown on **(Exhibit B)**.

VII - Payments

Contractor shall bill the Town monthly for routine preventive maintenance, and as performed for all other work.

VIII - Acceptance and Final Payment

- (a) Upon receipt of written notice that the work is ready for final inspection and acceptance, the Engineer shall within 5 days make such inspection.
- (b) Before final payment is due, Contractor shall submit evidence satisfactory to the Engineer that all payrolls, material bills, and other indebtedness connected with work
- (c) have been paid, except that in case of disputed indebtedness or liens Contractor may submit, in lieu of evidence of payment, a surety bond satisfactory to the Town guaranteeing payment of all such disputed amounts when adjudicated in cases where such payment has not already been guaranteed by surety bond.
- (d) The making and acceptance of the final payment shall constitute a waiver of all claims by the Town, other than those arising from any of the following: (1) unsettled liens; (2) faulty work appearing within 12 months after final payment; (3) requirements of the specifications; or (4) manufacturers' guarantees. It shall also constitute a waiver of all claims by Contractor, except those previously made and still unsettled.
- (e) If after the work has been substantially completed, full completion thereof is materially delayed through no fault of Contractor, and the Engineer so certifies, the Town shall upon certificate of the Engineer, and without terminating the Contract, make payment of the balance due for that portion of the work fully completed and accepted.

Such payment shall be made under the terms and conditions governing final payment, except that it shall not constitute a waiver of claims.

IN WITNESS WHEREOF, Town and Contractor have caused their authorized representatives to execute this Agreement the day and year first written above.

TOWN OF LOS GATOS:

Greg Larson
Town Manager

RECOMMEND BY:

Kevin Rohani
Interim Director
Parks and Public Works

APPROVED AS TO FORM:

Orry P. Korb
Town Attorney

ATTEST:

Jackie Rose
Clerk Administrator

CONTRACTOR:

Republic Intelligent Transportation Services

(Signature)

(Print Name)

(Address, City, State, Zip)

(Contractor's License Number)

CONTRACT SPECIFICATIONS (2/22/2008)

A. SERVICES

The Contractor shall provide ongoing and field maintenance and repair of street lights, parking lot lights, parking garage lights, downtown tree lights, and traffic signal equipment by duly trained and qualified personnel.

The Contractor shall provide and maintain emergency service response on a 24-hour a day, 7 days per week basis, including all holidays, utilizing trucks equipped with radio dispatch and/or cellular communication capabilities, warning beacon/strobe lights; traffic cones; construction warning signs; a hydraulic bucket capable of reaching a height of 40 feet from the roadway surface; proper lighting for illuminating the work area at night; necessary computer laptop for programming, maintenance and testing of traffic signal controllers and various equipment. All of the required equipment shall be properly maintained and functional 24 hours a day, 7 days a week, including holidays.

The Contractor ensure that any vehicle used within the boundaries of the Town of Los Gatos where lane closures or work within the travel lanes is required shall be equipped with an arrow board, warning beacons/strobe lights, the proper quantity and sized cones for a lane closure, and advance warning signs. All of the Contractor's employees working within the boundaries of the Town shall be equipped with a communication device capable of instant 2-way communications for extended periods of time with the Contractor's shop or with Town staff.

The Contractor shall have available, and readily accessible in functioning order, all required tools, equipment, apparatus, facilities, and materials needed to perform all work necessary to maintain and repair the street lights, parking lot lights, garage lights, downtown tree lights, and traffic signals listed in Attachments A, B, C, D, and E in compliance with current Caltrans and Town standards and specifications and National Electric Code (NEC).

The Contractor is required to provide a 24-hour phone service for taking calls for reported inoperable lights. All calls shall be logged by Contractor.

During emergency conditions, the Contractor shall assure full cooperation with the Town of Los Gatos.

The Contractor shall provide traffic control, lane closures, sidewalk closure and/or detour that conform to Town requirements and CA MUTCD.

Street Lights/Parking Lot Lights

Maintain all street lights (including street lighting and intersection safety lighting) and parking lot lights owned by the Town in an operable and safe condition. The PG&E owned street lights (typically mounted on wood or utility poles), overhead feeder wires, and underground feeds on the PG&E side of junction box are not part of the contract.

Perform a quarterly night check for major streets and record outages and malfunctions including street lights, intersection safety lighting, and illuminated signs. These streets are Los Gatos Boulevard, Main Street, Winchester Boulevard, Santa Cruz Avenue, Blossom Hill Road, Lark Avenue, Los Gatos Saratoga Road, Los Gatos Almaden Road, Pollard Road, and Knowles Drive. Perform night check for problem locations as needed.

All reported inoperable lights shall be serviced and repaired within five (5) working days or less. The five working days shall be measured beginning the first full day following receipt of the outage report. When the inoperable lights are reported for pedestrian crosswalks, it shall be repaired before dark of the next day. When performing street lighting service, Contractor shall complete the Town's street light service form and report findings to Town staff. A copy of the street light service form is attached in Attachment F. All calls and services shall be entered into computer.

The Contractor is required to have on staff and available to perform Services under this contract, designated for the Town of Los Gatos, a lighting/electrical technician with a minimum of five years' of experience in street lighting repairs. The technician shall have experience with the operation, maintenance, and repair of street lights. The technician shall also have knowledge and experience of operation, maintenance, and repair of electrical service.

A complete inventory of street lights (based on PG&E database) is available at Parks and Public Works Department. A summary table for the number and type of street lights is included as Attachment A. A list of parking lot lights is shown in Attachment B. Town standard street light poles are Octafute. Other street light standards that may be found in Town are Type 15, Octagonal, and other decorative poles. It will be the Contractor's responsibility to verify to the extent necessary the accuracy of the inventory.

Town will provide a copy of street light map to the Contractor for use. It will be the Contractor's responsibility to verify the accuracy of the map. Contractor shall verify and mark street light pole and electric service locations on the street light map during maintenance/repair service and provide a copy to Town for updating the map. Contractor shall tag all light poles, if pole ID tags are missing or not apparently visible, in accordance with Town and PG&E requirements.

Parking Lot 4 Lower Deck (Parking Garage) Lights

Maintain the lights in the lower deck of Lot 4 (parking garage) in an operable and safe condition. A map showing the location of the lights is on Attachment C. These lights are turned on 24 hours a day every day. Perform monthly check and as needed.

All reported inoperable lights shall be serviced and repaired within five (5) working days or less. The five working days shall be measured beginning the first full day following receipt of the outage report. When performing garage light service, Contractor shall complete the Town's garage light service form and report findings to Town staff. A copy of the garage light service form is attached in Attachment G. All calls and services shall be entered into computer.

The Contractor is required to have on staff and available to perform Services under this contract, designated for the Town of Los Gatos, an electrical/lighting technician with a minimum of five years' of experience in parking garage lighting repairs. The technician shall have experience with the maintenance and repair of parking garage lights. The technician shall also have knowledge and experience of maintenance and repair of electrical service.

Downtown Tree Lights

Maintain the downtown tree lights along Santa Cruz Avenue, Main Street, and all around Town Plaza in an operable and safe condition. There are a total of approximately 156 trees with tree lights including the big Christmas tree in Town Plaza. Contractor shall tag all trees under this contract in a manner as approved by Town Arborist. A map showing the downtown tree light area is on Attachment D. Perform a quarterly night check and as needed.

The Contractor is required to have on staff and available to perform Services under this contract, designated for the Town of Los Gatos, an electrical/lighting technician with a minimum of two years of experience in tree lighting repairs. The technician shall have experience with the maintenance and repair of tree lights. The technician shall also have knowledge and experience of maintenance and repair of electrical service.

All reported inoperable lights shall be serviced and repaired within five (5) working days or less. The five working days shall be measured beginning the first full day following receipt of the outage report. When performing tree light service, Contractor shall complete the Town's tree light service form and report findings to Town staff. A copy of the tree light service form is attached in Attachment H. All calls and services shall be entered into computer.

Traffic Signal

Provide ongoing and routine preventive maintenance and repair of traffic signal equipment, associated lighting, and other pertinent apparatus by duly trained and qualified personnel. A list of Town traffic signals is shown in Attachment E.

The Contractor is required to have on staff and available to perform Services under this contract, designated for the Town of Los Gatos, a Traffic Signal Technician with a minimum of five years' of experience in traffic signal repairs. The Traffic Signal Technician shall have experience with the operation and maintenance of Econolite, Traxonex, and various NEMA controllers currently in use by the Town of Los Gatos. The Traffic Signal Technician shall also have knowledge and experience of the operation and maintenance of inductive traffic loops, video detection systems, emergency vehicle preemption devices, twisted pair interconnect, and fiber optic cables. The Traffic Signal Technician shall keep up to date on the operation and maintenance of all state-of-the-art traffic signal control device and related equipment to ensure that the Town's needs will also be supported in the future. The Traffic Signal Technician shall also be familiar with and adhere to national and State standards for programming traffic signal controllers.

The Contractor shall furnish temporary replacement traffic signal controllers, preemption units, traffic signal communications and monitoring equipment, detector amplifiers, conflict monitors, video detection systems, and uninterruptable power supplies for traffic signals and various other standard traffic signal equipment. Contractor furnished temporary spares shall be identical to the component being replaced in manufacture, make and model. The Contractor shall deviate from this requirement only upon written advance approval from the Town. The Contractor shall provide the temporary equipment at no additional charge to the Town whenever the original units are removed for repair or servicing.

The Contractor shall change the timing of traffic signals only upon the direction and approval of the Town.

Contractor shall install tag ID's for all signal equipment shown in the signal inventory in a manner and within a time frame as mutually agreed. A copy of the signal inventory will be provided to the Contractor. A sample copy is attached in Attachment K.

B. TRAFFIC SIGNAL PREVENTIVE MAINTENANCE

The Contractor shall perform routine preventive maintenance service to eliminate or reduce any incidence of malfunctions and complaints, and to maximize the useful life of the Town's traffic signal equipment including and may not be limited to signalized intersections and along the signal interconnect corridors.

The Contractor shall provide monthly and annual preventive maintenance for the signalized intersections listed in Attachment E and along the signal interconnect corridors. The Contractor shall complete Preventive Maintenance Checklists (Attachment I, J, K) for each maintenance inspection and shall indicate the work performed or required for each item. The Contractor shall maintain one copy of the completed form for each intersection and for each inspection in the controller cabinet and in the Contractor's business office throughout the term of this contract.

The monthly maintenance service shall be performed within the same week of every month. Between any two monthly maintenance services shall not be closer than three weeks. The Contractor shall notify Town staff the scheduled date for preventive maintenance service at least one week prior to performing the service.

The annual maintenance shall be performed in November, or at the months as agreed upon at the beginning of contract.

The Contractor shall maintain three copies of the full field test results of the traffic signal conflict monitor. One copy shall be left in the traffic signal controller cabinet, one copy shall be maintained at the Contractor's business office, and one copy shall be sent to the Town with the completed Annual Preventive Maintenance Checklist.

It is understood and agreed that failure on the part of the Contractor to perform monthly and annual preventive maintenance as required by this contract will cause the Town to suffer an unascertainable

amount of damage. Therefore, the Contractor agrees to pay to the Town, not as a penalty but as liquidated damages, the amount of \$500 per calendar day that the intersection is overdue for monthly or annual preventative maintenance. The total amount of liquidated damages will be totaled and deducted from the monthly invoice payment.

C. TRAFFIC SIGNAL EQUIPMENT

The Contractor shall repair, replace or otherwise render in good working order any and all defective parts of all traffic signal control equipment. Whenever the Contractor replaces any defective parts on either a temporary and/or permanent basis, the Contractor shall identify the parts being replaced by manufacturer's make, model, and serial number, and the locations of installation. Further, the Contractor shall only use new parts for permanent replacement. Exceptions to this requirement shall only occur on an individual basis upon advance written approval from the Town.

No permanent changes of traffic signal control devices shall be done without prior written approval from the Town. Whenever any traffic signal equipment is removed/replaced/modified, the Contractor shall notify the Town by telephone within two hours of the change, followed by written notification to the Town within one week. Furthermore, any changes shall also be indicated on the maintenance or repair log within the traffic signal controller cabinet. The Contractor agrees to notify the Town in advance of any planned or scheduled traffic signal turn-offs/turn-ons necessitated by the Contractor's operations. The Contractor shall make turn-offs/turn-ons of traffic signals only upon prior written approval by the Town.

All traffic signal control equipment shall be maintained in accordance with the manufacturer's recommendations. When the traffic signal equipment becomes obsolete or deteriorated to the point of being beyond reasonable or cost effective repair, the Contractor shall report such conditions to the Town and provide satisfactory evidence that replacements are necessary. The Contractor shall prepare estimates showing the cost breakdown of materials and labor for replacement of such traffic signal equipment and submit this information to the Town.

When Incandescent (or any non-LED) signal lamps are burned out, they shall be replaced with LED modules unless otherwise approved by Town staff. Signal LED modules shall be replaced when the light output and degradation fails specifications or when more than five percent of LED's are not working properly, such as burned out or flickering.

When pedestrian signal modules are replaced, they shall be replaced with pedestrian countdown solid (not outline) LED modules.

D. NEW INSTALLATIONS OR DELETIONS

The Contractor shall maintain any new street lighting, parking lot lights, parking garage lights, tree lights, and traffic signal equipment, which are installed for the Town throughout the term of the contract. These devices will be deemed to be added to the contract when the Town notifies the Contractor of the installation thereof. These added equipment or devices, regardless of the complexity of the technology shall be maintained in the same manner and for the same flat rate as those devices already covered by the contract.

Should responsibility for the maintenance of any current or future lighting or traffic signal device cease to be the Town's, the Town will notify the Contractor in writing of the last date to perform maintenance. The flat rate maintenance for any such affected device shall be prorated on the basis of the number of days that device was maintained by the Contractor.

E. WARRANTY

Contractor shall manage all lighting and traffic signal related materials and devices under warranty. During the manufacturer's warranty period, the Contractor shall be responsible for making contact with the equipment manufacturer regarding any service determined to be under warranty. The Contractor shall replace the warranted materials (or replace with temporary equipment pending replacement material from manufacturer) without any charges to Town.

A minimum of twelve- (12) month warranty shall apply to all work and materials installed by Contractor. During the Contractor's warranty period, the Contractor shall be responsible for repairing and/or replacing the equipment without any charges to Town. The warrantee on the repaired or replaced equipment shall again commence with the date of repair or replacement of equipment.

A minimum of three- (3) month warranty shall apply to all temporary replacement installed by Contractor. During the warranty period, the Contractor shall be responsible for repairing and/or replacing the equipment without any charges to Town. The warrantee on the repaired or replaced equipment shall again commence with the date of repair or replacement of equipment.

The warranties shall not apply to damage caused by negligence by others, acts of God, or use of equipment in a manner not originally intended.

F. CONTRACTOR SHOP

The Contractor shall have adequate shop and storage facilities. This facility shall house the necessary staff, traffic signal poles, signals, traffic signal controllers, traffic signal communications devices, LEDs, controller cabinets, service cabinets, wiring, pullboxes, pullbox lids, and other necessary materials and vehicular equipment to perform all maintenance required and to perform temporary and permanent repair of accident damage to traffic signal equipment/devices. This facility shall also be equipped to perform twenty-one day bench test of traffic signal controller cabinets in accordance to Caltrans and Town specifications.

The Contractor shall maintain a single local telephone number during the entire term of the contract where he/she or a designated representative can be reached 24 hours a day, 365 days a year.

The Contractor shall also maintain and provide direct phone numbers, cellular phone numbers, fax numbers, and email addresses of various pertinent staff/employees with which the Town can maintain regular and direct contact with regarding billing, estimating, service calls, status reports, scheduling, testing of equipment, and various other issues.

G. EMERGENCY SERVICE

When notified of any traffic signal device malfunction, failure, loss of indication, accident damage, construction damage, or any emergency traffic signal service call, the Contractor shall respond and be at the location within one hour following notification from the Town.

In the event of a knockdown, the Contractor shall provide temporary emergency replacement of a type acceptable to the Town until permanent repairs can be accomplished. The Contractor shall install a temporary device appropriate for the situation and consult with the Town to identify a permanent replacement. Required replacement of equipment will require prior written approval from the Town before such replacements are commenced in conjunction with an emergency call.

In the case of a 1A/1B pole knock-down where the foundation and anchor bolts are still intact, the Contractor shall make all necessary repairs with necessary new equipment to return the pole to its original, undamaged condition upon the initial response. No additional compensation shall be provided for subsequent work to the original damage.

At any time the Contractor is notified of an emergency situation by the Town, CHP, County Sheriff or other duly recognized authority, the Contractor shall immediately notify the designated contact staff at the Parks and Public Works Department the emergency call.

Upon completion of the response to the emergency call, the Contractor shall notify the appropriate Town staff by telephone and/or email the status of the emergency work. In addition, the Contractor shall notify the Town in writing within one week of the completion of the repair work.

It is understood and agreed that failure on the part of the Contractor to respond within one hour to any emergency service call as provided will cause the Town to suffer an unascertainable amount of damage. Therefore, the Contractor agrees to pay to the Town, not as a penalty but as liquidated damages, the amount of \$500 per hour. The time for such liquidated damages shall commence from the first hour after the required response time for emergency service calls indicated in the previous

sections. The total amount of liquidated damages will be totaled and deducted from the monthly invoice payment.

The Contractor shall enter any emergency service calls onto the log at the intersection controller cabinet along with the minimum required information as stated in the previous sections. Failure to do so will be construed to be a failure to respond to the emergency service calls.

H. EXTRA WORK

The Contractor shall install, modify, repair and/or upgrade lighting, traffic signals and all associated hardware or traffic safety devices as requested by the Town. All such work, if not covered in the flat rates, shall be considered extra work and shall be performed to the satisfaction of the Town. Please refer to the relevant maintenance checklists and the "Compensation" Section for details.

No additional or extra work shall be commenced or undertaken by the Contractor unless authorized in advance in writing by the Town. Said written authorization is a condition precedent to the Contractor's entitlement to reimbursement or remuneration for such services. This work shall be performed within a specified time limit established by the Town and for a mutually agreed upon price.

The Town shall retain discretionary right to perform any extra work through the use of Town forces, by negotiated agreement, or to advertise such work by others.

I. RECORDS

Monthly Report

The Contractor shall submit to the Town, at the same time as the submission of monthly invoices, a computerized report covering all Contractor's activities within the Town during the previous month. This monthly activity report shall be provided in both electronic and hardcopy formats and shall be generated from a computerized database. Formatting shall be agreed by the Town. The monthly activity report shall include at a minimum:

- a. Time any service calls were received by the Contractor, time at which the service call was dispatched to the technician, the arrival time of the technician at the requested location, the departure time, the caller's name, and the results of diagnosis.
- b. A complete record of any and all work performed on the lighting and traffic signal equipment during the period covered by the monthly activity report, including the make, model, and serial number of any replacement or newly installed equipment at each intersection. The report shall also detail the make, model and serial number of any equipment replaced.
- c. Asset ID's (if applicable) and detailed location description of any repaired/replaced equipment.
- d. The date and time that any preventive maintenance work was performed and any findings.
- e. Any and all pending repair work needed at each intersection along with Repair Order number.

The Contractor shall be required to maintain a copy of the monthly activity report (either electronic or hardcopy), preventive maintenance checklists, conflict monitor test results, and any service records for a period of not less than five years.

Service Forms

A copy of the completed maintenance and service forms shall be submitted to Town staff monthly.

Traffic Signal

The Contractor shall maintain a log at each signalized intersection included under this contract. The log shall detail each inspection, repair, and/or emergency/service call. The Contractor shall complete at a minimum on this log, the date, arrival time, departure time, type of inspection/service, any

findings or repairs, the Contractor's employee name and/or ID, the employee's job title, and in the event of signal outage/flash, display message on conflict monitor, controller, loadswitch position, etc.

The Contractor shall maintain and provide all required preventive maintenance checklists. The Contractor shall provide copies of the maintenance checklists monthly to the Town along with the Contractor's invoices. The Contractor shall enter the traffic signal inventory forms (performed as part of annual preventive maintenance) in computer and submit a hardcopy and an electronic copy (format to be agreed by Town staff) along with the annual maintenance invoice.

A copy of the traffic signal inventory will be provided to the Contractor. Whenever the Contractor modifies the traffic signals the Contractor shall update the inventory and submit an updated copy to Town.

Quarterly Report

The Contractor shall submit to the Town a quarterly report summarizing the repair work by intersection. Formatting shall be agreed by the Town and shall include at a minimum the work order number (if applicable), date of repair, the location (intersection corner), the description of problem and repair, and the asset ID and detailed location description of the repaired/replaced equipment.

J. MEETINGS/CONSULTATION

The Contractor shall be available to meet, when deemed necessary, with Town staff on a monthly basis or at a mutually agreed upon time and place to review maintenance activities, operational and timing activities, pending work, estimates, work quality, and any items related to Contractor's work under this contract.

Contractor shall be available at all times to the Engineer for consultation at no added expense to the Town. The consultation may consist of explanation of technical details, upgrading of signal equipment, and operational improvement. The contractor shall provide cost estimate to the Engineer upon request for repair, installation, replacement, or any improvements containing lighting or traffic signal components

K. FAILURE TO PERFORM

Should the Contractor fail to properly execute the work in a timely or correct matter as provided under the terms of this contract, the Town, after providing the Contractor with three business days' notice, may perform or hire another Contractor to perform such work and deduct the cost plus 25% thereof from any payment due to the Contractor.

L. COMPENSATION

1. STREET LIGHTING SERVICE

The Contractor shall be compensated for service required under this contract at a flat rate per street light. Included in the flat rate is compensation for all related labor, equipment, and materials for all related street lighting components including fixtures (and all components within fixtures), lamps, photo cells, starters, ballasts, transformers, fuses, sockets, terminal blocks, breakers, contactors, pole hand hole covers, pole tags, and pull box lids. Also included in the flat rate is compensation for the 24-hour phone service, quarterly night check, logging of calls, reporting of service, and any other related service activities as specified in the Contract.

Not included in the flat rate compensation are poles, arms, pull boxes (except lids), service enclosures, and conduits and wires. Also not included is repair/replacement for damage caused by vehicular collisions, acts of God, or malicious damage.

2. LOT 4 LOWER LOT (PARKING GARAGE) SERVICE

The Contractor shall be compensated for service required under this contract at a lump sum flat rate. Included in the flat rate is compensation for all related labor, equipment, and materials for changing out the lamps and tubes. Also included in the flat rate is compensation for the 24-hour

phone service, routine check, logging of calls, reporting of service, and any other related service activities as specified in the Contract. The flat rate does not apply to repair/replacement for damage caused by vehicular collisions, acts of God, or malicious damage.

3. TREE LIGHT SERVICE

The Contractor shall be compensated for service required under this contract at a flat rate per tree. Included in the flat rate is compensation for all related labor, equipment, and materials for changing out the tree light lamps, strings, and receptacles. Also included in the flat rate is compensation for the 24-hour phone service, routine check, logging of calls, reporting of service, and any other related service activities as specified in the Contract. The flat rate does not apply to repair/replacement for damage caused by vehicular collisions, acts of God, or malicious damage.

4. PREVENTIVE TRAFFIC SIGNAL MAINTENANCE

The Contractor shall be compensated for services required under this contract at a flat rate per intersection.

Included in the flat rate shall be compensation for the preventive maintenance including labor, equipment, and materials, as identified in the maintenance checklists. In addition, the following items shall be the Contractor's responsibility to repair, install and/or replace without additional charges to Town whether they are maintained, repaired, or replaced at call-outs or emergency call-outs, or at the time of maintenance routine: loadswitches; flashers; detector amplifiers; audible pedestrian signal indicators; push button assembly; louvers; visors; back plates; and signal indication LED modules (including also replacement of bad non-LED lamps with LED modules) for all vehicle and pedestrian signal indication.

Also Included in the flat rate compensation is compensation for the logging of calls, reporting of service, record keeping, temporary equipment, and any other associated services as specified in the Contract.

Not included in the flat rate compensation are any items not specified in the above two paragraphs and not in the maintenance check list, e.g. poles, arms, pull boxes (except lids), conflict monitors, power supply units, video detection, underground conduits and wires, etc. Also not included in the flat rate compensation is repair/replacement for damage caused by vehicular collisions, acts of God, or malicious damage.

5. EXTRA WORK

Town shall compensate the Contractor for the performed extra work and repairs in accordance with agreed upon labor rates, material markups, equipment rates, and miscellaneous costs.

Town may solicit competitive bids for extra work from the Contractor and alternative vendors or contractors.

Extra work refers to the replacement, repair, upgrade or installation of any street lighting and traffic signal components that are not included in the compensation of the flat rates. The Contractor shall obtain Town approval prior to scheduling any work to be performed under this provision. The Contractor shall provide documentation to support invoiced charges, including but not limited to time cards and material invoices, upon request by the Town.

6. RATE INCREASE

Rates may be reviewed annually by the successful proposer and the Town; and rate increases may be requested in writing with detailed justification. Nevertheless, the maximum increase in labor and/or equipment costs in any calendar year shall be five percent (5%) or the most recent preceding increase in the Consumer Price Index (CPI) for the West Coast published by the United States Department of Labor, Bureau of Labor Statistics, whichever is less.

7. PAYMENT AND INVOICES

Payments will be made within thirty days following receipt of an accurate invoice and documentation of work performed. Invoices shall be submitted no later than 60 days after the completion of work and not more frequently than once per month.

Attachment 'A'

Street Light Summary

Town Owned Lights (Non Parking Lot Lights)

Circuit:	Lamp Size	Count
		6
	<i>HPS 250W</i>	1
	<i>HPS 70W</i>	4
Circuit: Mult 120v	Lamp Size	Count
	<i>HPS 100W</i>	104
	<i>HPS 150W</i>	20
	<i>HPS 200W</i>	1
	<i>HPS 250W</i>	15
	<i>HPS 70W</i>	676
	<i>MV 175W</i>	13
Circuit: Mult 240v	Lamp Size	Count
	<i>HPS 100W</i>	142
	<i>HPS 150W</i>	38
	<i>HPS 200W</i>	19
	<i>HPS 250W</i>	3
	<i>HPS 70W</i>	460
	<i>MV 175W</i>	41
	<i>MV 250W</i>	10
	<i>MV 400W</i>	10
Circuit: Series other	Lamp Size	Count
	<i>HPS 100W</i>	1
Total Number Street Lights		1564

not including Civic Center, Neighborhood Center, Library, and Police Parking Lots

<i>Lot ID</i>	Lot 1	Lot 2	Lot 3	Lot 4	Lot 5	Lot 6	Lot 7	Lot 8	Balzer Lot	Montebello Lot	North Side Lot	South Side Lot
<i>Location</i>	North of Bachman	North of Royce	North of Grays	North of Elm	South of Elm	Victory Ln	Park Av	Alpine	Miles Av	Montebello	SR 9	S Santa Cruz
<i>Meter?</i>	LS2A	LS2A	Meter	Meter	LS2A	LS2A	LS1A	Meter	Meter	Meter	LS2A	Meter
<i>P O L E I D</i>	1117	1167	M032	M038	972	1014	066	M055	M059	M060	20536	M026
	1118	1168	M033	M039	973	1015	154	M056		M061	20537	M027
	1119	1169	M034	M040	974	1016	200	M057		M062	20538	M028
	23528	1170	M035	M041	975		9637	M058		M063	20539	M029
		1171	M036	M042	976		9638			M064	20540	M030
			M037	M043			9639				20541	M031
				M044							20542	
				M045							20543	
				M046							20544	
				M047							20545	
				M048							20546	
				M049							20547	
				M050							20548	
				M051							20549	
				M052							20550	
				M053							20551	
				M054							20552	
											20553	
											20554	
											20555	
										20556		
<i># Fixtures</i>	4	5	6	21	10	5	6	4	2	5	21	6

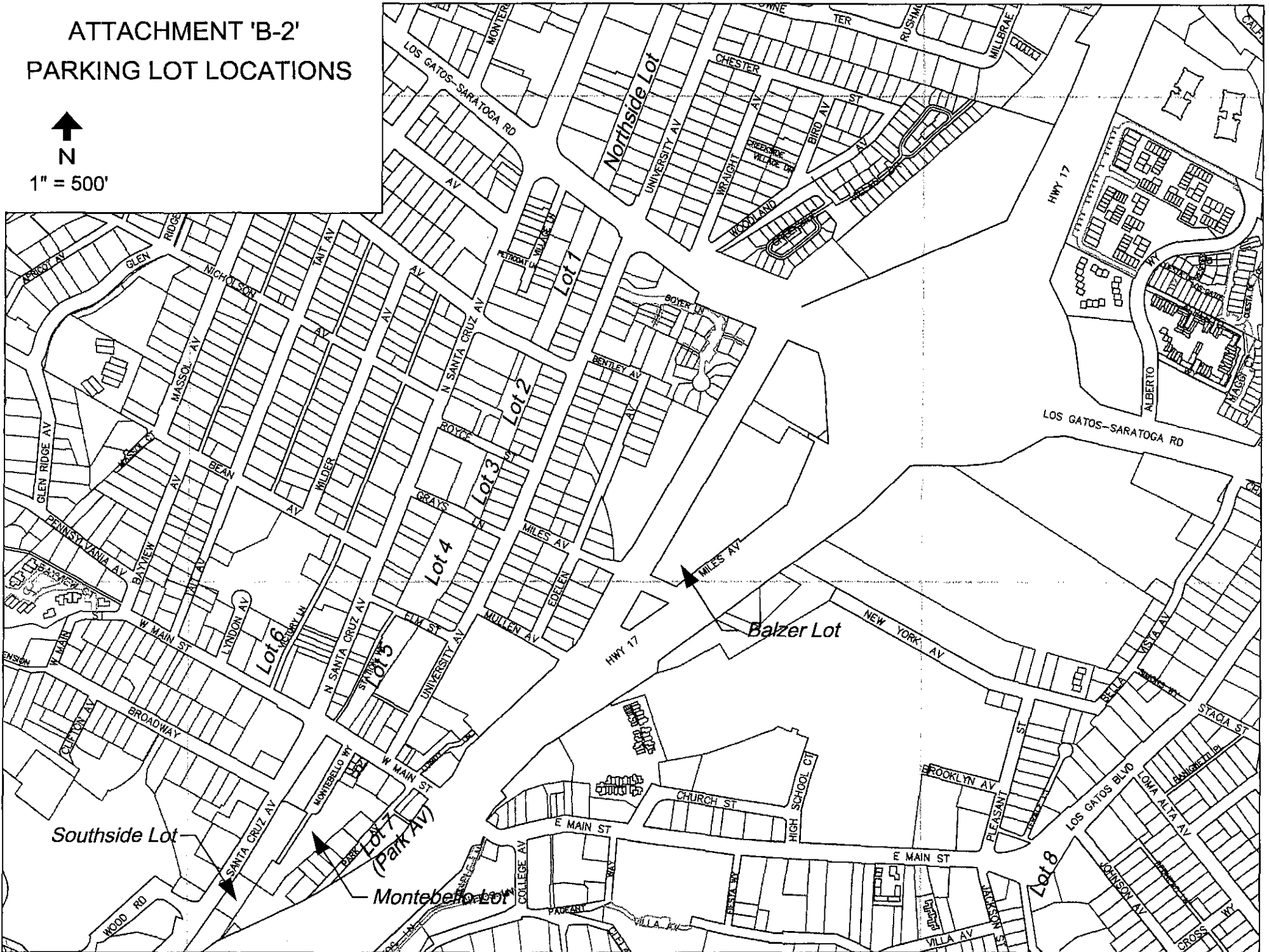
95

Total

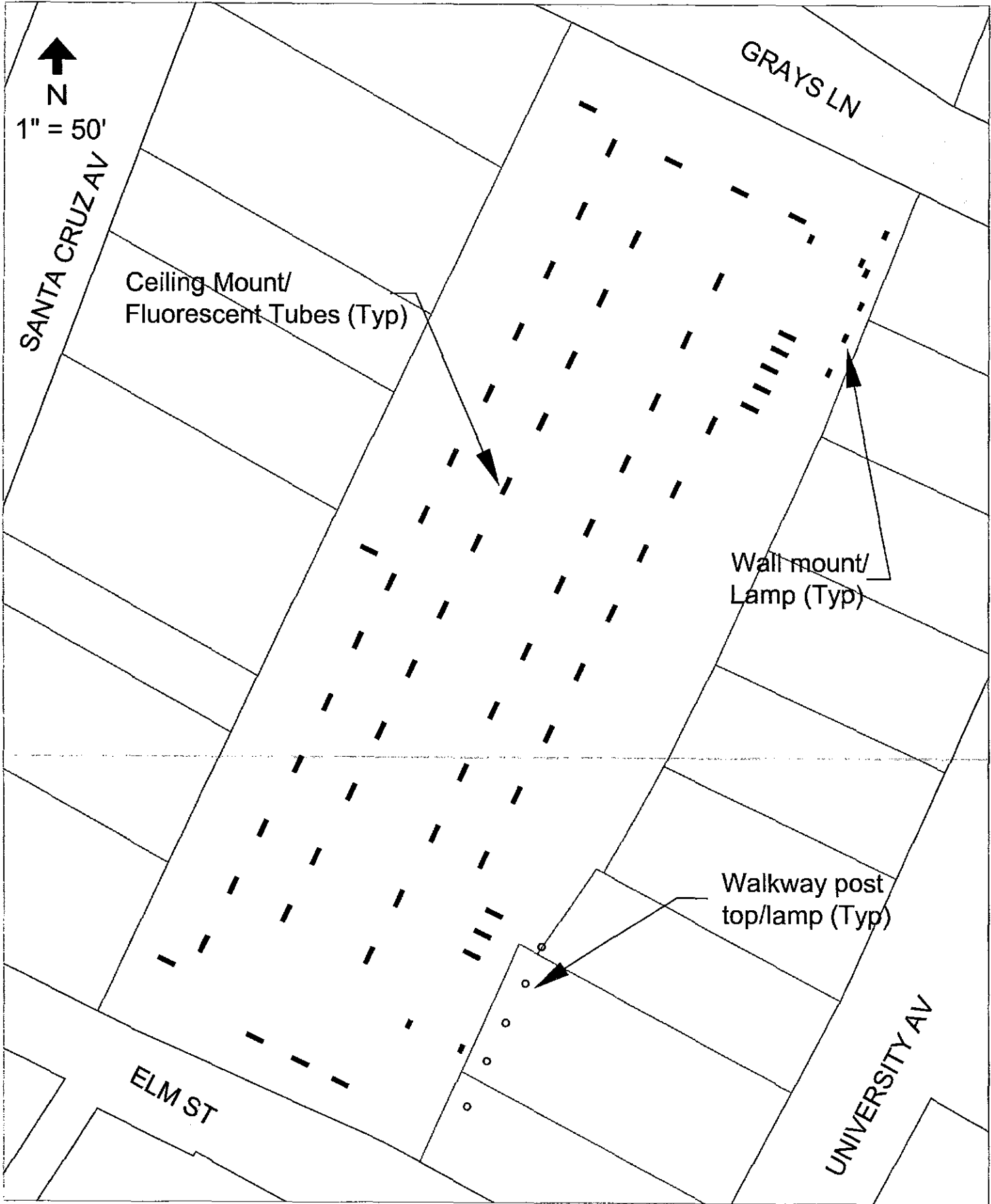
ATTACHMENT 'B-2'
PARKING LOT LOCATIONS



1" = 500'



ATTACHMENT 'C'
LOT 4 LOWER DECK LIGHTING 977 LIGHTS)



Attachment 'E'

Town Traffic Signal List

<i>ID</i>	<i>Intersection</i>
1	Los Gatos Bl. & Los Gatos-Saratoga Rd
2	Los Gatos Bl. & Kennedy-Caldwell
3	Los Gatos Bl & Nino
4	Los Gatos Bl., Roberts Rd. & Shannon Rd.
5	Los Gatos Bl. & Blossom Hill Rd.
6	Los Gatos Bl., Los Gatos-Almaden Rd. & Chirco Dr.
7	Los Gatos Bl. & Los Gatos Village Sq.
8	Los Gatos Bl. & Garden -Gateway
9	Los Gatos Bl. & Lark Ave.
10	Blossom Hill Rd. & Cherry Blossom Ln.
11	Blossom Hill Rd. & Camellia Terrace
12	Blossom Hill Rd. & Roberts Rd. (East)
13	Blossom Hill Rd. & University Ave.
14	Blossom Hill Rd. & Union Ave.
15	N. Santa Cruz/Winchester & Blossom Hill/Mariposa
16	N. Santa Cruz Ave. & Andrews St.
17	W. Main St. & Santa Cruz Ave.
18	W. Main St. & University Ave.
19	Lark Ave. & Oka Rd.
20	Los Gatos-Saratoga Rd. & Alberto Way
21	Winchester Bl. & Lark Ave.
22	Winchester Bl. & Knowles Dr.
23	Winchester Bl. & Wimbledon Dr.
24	Los Gatos-Almaden Rd. & National Ave.
25	Knowles Dr. & Dardanelli Ln.
26	Knowles Dr. & Capri Ave.
27	Blossom Hill Rd. & Roberts West
28	Winchester Bl & Daves

ATTACHMENT F

TOWN OF LOS GATOS SERVICE FORM – STREET LIGHTS AND PARKING LOT LIGHTS

WO ID: _____ Caller Complaints: _____
 Pole ID: _____ Pole Address: _____
 Location Description: _____
 Date: _____ Start Time: _____ End Time: _____

A. VERIFY LIGHT

Verify Pole ID: _____ (Install an ID tag if it's missing.)	<input type="checkbox"/>
Verify Pole Address: _____	<input type="checkbox"/>
Verify Pole Location: _____	<input type="checkbox"/>
Pole Type? Metal or Wood (If it's a wood or utility pole, it's a PG&E maintained light. Notify Town staff.) If neither, please describe: _____	<input type="checkbox"/>
Pole Style? Type 15 or Octaflute or Sternberg or Teardrop Else, please describe: _____	<input type="checkbox"/>
Lamp Type & Size? For existing mercury vapor luminaire – Replace it with HPS fixture. Notify Town staff.	<input type="checkbox"/>
Circuit Voltage? 120V or 240V	<input type="checkbox"/>
Missing hand hole cover? Yes or No Replace broken and missing hand hole cover.	<input type="checkbox"/>
Comments: _____	

B. PROBLEM AND REPAIR

Problem Description: _____	<input type="checkbox"/>
Work Description: _____	<input type="checkbox"/>
Found Service? Yes or No If the service location is found, please describe the location here: _____	<input type="checkbox"/>
Comments: _____	

TECHNICIAN NAME: _____ TECHNICIAN TITLE: _____
 SIGNATURE: _____

ATTACHMENT G
TOWN OF LOS GATOS SERVICE FORM – GARAGE LIGHTS (LOT 4 LOWER DECK)

WO ID: _____ Caller Complaints: _____

Location Description: _____

Date: _____ Start Time: _____ End Time: _____

A. PROBLEM AND REPAIR

Problem Description: _____ ☐

Work Description: _____ ☐

Comments: _____

TECHNICIAN NAME: _____ TECHNICIAN TITLE: _____

SIGNATURE: _____

ATTACHMENT H
TOWN OF LOS GATOS SERVICE FORM – TREE LIGHTS

WO ID: _____ Caller Complaints: _____
Tree ID: _____ Address: _____
Location Description: _____
Date: _____ Start Time: _____ End Time: _____

A. VERIFY LIGHT

Verify Tree ID: _____ (Install an ID tag if it's missing.)	<input type="checkbox"/>
Verify Tree Address: _____	<input type="checkbox"/>
Verify Tree Location: _____	
Comments: _____	

B. PROBLEM AND REPAIR

Problem Description: _____	<input type="checkbox"/>
Work Description: _____	<input type="checkbox"/>
Comments: _____	

TECHNICIAN NAME: _____	TECHNICIAN TITLE: _____
SIGNATURE: _____	

ATTACHMENT I

MONTHLY - TOWN OF LOS GATOS TRAFFIC SIGNAL PREVENTIVE MAINTENANCE CHECKLIST

Intersection: _____ Number: _____

Date: _____ Start Time: _____ End Time: _____

A. CONTROLLER CABINET & SERVICE ENCLOSURE

Cabinets – Vacuum/clean inside/outside cabinets. Spray insecticide as necessary. Remove graffiti, postings and adhesive materials off cabinets. Trim vegetation off cabinets (one foot clearance). ☐

Door and Lock – Check door closure, plumb, gaskets, lock operation, seal and weather tight. Adjust, repair, lube and oil hinges and locks as necessary. Re-seal as necessary. ☐

Fan Operation (June through September) – Verify that fan turns on at 90°F and above. Replace as necessary. ☐

Cabinet Light – Verify that light works with door and light switch. Replace as necessary. ☐

Cabinet field wires – Verify cabinet field wires are neatly organized and properly marked. Re-mark as necessary. ☐

Cabinet Conduits – Re-seal duct seal as necessary. ☐

Cabinet Seal – Re-seal between cabinet and its concrete foundation as necessary. Must be watertight. Check traces of rust. Remove rust and paint over area of rust. ☐

Comments: _____

B. CONTROLLER & OTHER EQUIPMENT

Equipment Display – Check if equipment display properly such as controller and conflict monitor screens. ☐

Equipment LEDs – Check all LED's inside cabinet, such as on conflict monitor, flasher, load switches, video detection cards, preemption cards, etc.
Any LEDs not working? Which equipment? Check if it is functioning properly. ☐

Any visible damages - Visually inspect any damages to any equipment inside cabinet.
Any equipment damaged? ☐

Terminal Blocks – Visually check loose wires, burned terminals, DLC, ground, etc. Adjust/replace as necessary. Do not over tighten. ☐

Vehicle Detection - Verify and label on detector cable and amplifiers. Observe operation of each detector.
Any detectors stuck on or missing calls? ☐

Video Detection System (if applicable) – Turn on monitor. Observe camera view and proper operation.
Any detection problems? ☐

Turn off monitor. ☐

Timing – Verify controller clock, main street on recall. Observe signal cycles properly.
Any problems? ☐

Preempt (if applicable) – Check and test operation of preempt devices. ☐

Comments: _____

C. WALK INTERSECTION

C.1. SIGNAL HEADS

Lens condition – Visually check for damage and indication. ☐

Lamps and LEDs – Check and adjust for operation, proper orientation for arrows, and seating of lamps and LEDs. Replace LED's to fit as necessary. Replace burned out lamps with LED modules.	<input type="checkbox"/>
Signal Heads and Louvers – Verify all in good condition and aimed properly. Re-aim as necessary.	<input type="checkbox"/>
Visors and Back Plates – Verify all in place and in good condition. Adjust/replace as necessary.	<input type="checkbox"/>
3M Program Heads (if applicable) – Check for proper operation. Re-aim and re-program as necessary.	<input type="checkbox"/>
Re-painting – Paint faded signal head housing, visors, and back plates as necessary.	<input type="checkbox"/>
Comments:	
C.2. PEDESTRIAN SIGNALS	
Pedestrian Signal Heads – Check condition of heads and LED's. Adjust/re-aim as necessary.	<input type="checkbox"/>
Pedestrian Push Buttons & Plates - Push pedestrian buttons and check operation. Check condition of push button plates and proper arrow orientation.	<input type="checkbox"/>
Audible Pedestrian Signal (if applicable) – Verify the operation of audible pedestrian signal indication.	<input type="checkbox"/>
Comments:	
C.3. MISCELLANEOUS	
Traffic Signal Poles – Visually check all poles, mast arms, anchor bolts & nuts for rust, damage and tightness.	<input type="checkbox"/>
Mast Arm Signs – Visually check Mast arm signs for tightness, plumb and fade. Adjust signs as necessary.	<input type="checkbox"/>
Graffiti - Remove graffiti, postings and adhesive materials off signal poles and equipment.	<input type="checkbox"/>
Illuminated Signs (if applicable) – Visually check for tightness, plumb and condition. Adjust signs as necessary. Replace lamps as necessary. Describe sign condition:	<input type="checkbox"/>
Video Detection Cameras (if applicable) – Visually inspect cameras. Remove visible obstruction, e.g. nest, webs, etc. Wipe clean with dampened soft cloth (clean water only) as necessary and at least once three months.	<input type="checkbox"/>
Fire Preempt – Visually inspect antenna.	<input type="checkbox"/>
Red Light Detector Devices (a.k.a. Rat Boxes) if applicable – Visually check the condition, burned devices, clean and tightness.	<input type="checkbox"/>
Luminaire – Visually inspect condition of safety lighting. Repair/replace as necessary.	<input type="checkbox"/>
Pole Hand Hole Covers – Check hand hole covers. Replace broken and missing covers.	<input type="checkbox"/>
Traffic Detector Loops – Check for coverage of all loop wire in slots and around stub-out. Reseal as necessary.	<input type="checkbox"/>
Detector Hand Hole Lids – Check cracked and missing lids. Replace broken and missing lids.	<input type="checkbox"/>
Pull Box Lids – Visually inspect pull box lids. Replace broken and missing lids.	<input type="checkbox"/>
Comments:	
TECHNICIAN NAME: _____ TECHNICIAN TITLE: _____ SIGNATURE: _____	

ATTACHMENT J
ANNUAL - TOWN OF LOS GATOS TRAFFIC SIGNAL PREVENTIVE MAINTENANCE CHECKLIST
 (TASKS IN ADDITION TO MONTHLY PERVENTIVE MAINTENANCE)

Intersection: _____ Number: _____

Date: _____ Start Time: _____ End Time: _____

A. CONTROLLER CABINET & SERVICE ENCLOSURE

Entrance Voltage Level – Check and record voltage level at cabinet entrance.
 What's the measured voltage? ☐

Current Draw – Measure the current draw of the cabinet.
 What's the measured current draw? ☐

Cabinet Filter – Replace cabinet filter. ☐

Cabinet Documentation – Check if wiring schematics, prints and records are in cabinet and in good condition.
 What's missing and/or need to be replaced? ☐

Remarks:

B. CONTROLLER & OTHER EQUIPMENT

Timing Sheets – Replace timing sheets in cabinet with current. Keep and store old timing sheets. ☐

Conflict Monitor – Test conflict monitor. Keep one copy in cabinet. ☐

Cabinet Suppressor – Replace cabinet suppressors. ☐

Railroad Preempt (Winchester/Knowles) – Observe/verify railroad preemption operation at the time of train crossing.
 Yes, check train schedule. ☐
 Operation properly and as programmed? ☐

UPS System (Daves/Winchester) – Open UPS cabinet door. Complete UPS check list. Turn off power to controller cabinet and test UPS for 5 minutes. Describe the UPS condition: ☐

Turn the power back on. ☐

Remarks:

C. WALK INTERSECTION

Signal Lens – Wipe clean all lenses and check condition of all at vehicle and pedestrian signal heads. ☐

Re-lamping Internally Illuminated Signs (if applicable) – Change out lamps and photocells (if any). Check sign condition. ☐

Video Detection Camera (if applicable) – Wipe clean lenses with dampened soft cloth (clean water only). Check and secure camera mounting. ☐

Pull Box Lids along Signal Interconnect – Visually inspect pull box lids. Replace broken and missing lids. ☐

Remarks:

TECHNICIAN NAME:

TECHNICIAN TITLE:

SIGNATURE:

ATTACHMENT K

UPS CHECK LIST

Intersection: Daves/Winchester Signal Amps: _____

Date: _____ Start Time: _____ End Time: _____

UPS Model: Myers 1250

- ☐ Visually inspect UPS panel indicators. Clean battery terminals.
- ☐ Test and measure battery performance.

[illegible]

Attachment 'L'

Traffic Signal Inventory

Signal ID: 1 Los Gatos Bl. & Los Gatos-Saratoga Rd

Controller Cabinet	Type	Standard	Position	Exterior	Load Switch	L.S. Used	Detector Channel	D.C. Used	Install Date	Note
S1C1	P	TS1	SE	Traffic Green	14	6	4	3		

Controller	Maker	Model	Serial	Install Date	Note
S1CT1	Econolite	ASC/2M-1000	13426	4/4/2007	with new 2007 daylight savings
S1CT2	Econolite	ASC/2S-2100	644		

Conflict Monitor	Maker	Model	Serial	Date Last Tested	Note
S1M1	EDI	NSM12	60400512		Republic removed 809238 and

Cab Eqp ID	Equipment	Descrip.	Location	Maker	Model	Serial	Associated Equipment	Note
S1CA1	Preemption	Fire Preemption Device	Controller Cabinet	Emtrak		001165		Future Tomar
S1CA2	Video System		Controller Cabinet	Iteris		83G3019		
S1CA3	WWV Clock		Controller Cabinet	True Time	Time Link	102689		
S1CA4	Modem		Controller Cabinet	US Robotic	33.6 KB			

Service Cabinet	Location	Type	Maker	Model	Exterior/ Color	Meter PEU	Number	Breaker Description	Note
S1SC1	NE	Type 2	isting Hou				110561	1-30A Main; 1-15A cir	

Pole ID	Standard	Location.	Offset	Mast Arm Facing	Arm Length	Lum. Watts	Lum. PEU	Pole PEU	Note
S1P1	1B	SE	2'					<input type="checkbox"/> <input type="checkbox"/>	Painted yellow 10'

Veh. Head	Arm/ Pole	Position	Facing	Type	Lens Size	Lamp PV	Type	Back Louver	plate	Visor	Note
S1P1VH1	P	South	South	2	V3-CCC-8	8	<input type="checkbox"/>	LED	No	<input checked="" type="checkbox"/>	Full
S1P1VH2	P	North	West	4	V3-CCL-12	12	<input type="checkbox"/>	LED	No	<input checked="" type="checkbox"/>	Full

Ped Head	Position	Facing	Type	Description	Bracket Type	Lamp Type	Note
S1P1PH1	North	North	6	Standard	combo	SP-2-T	LED

PPB	Position	Facing	Type	Plate Type	Arrow Pointing	ADA	Note
S1P1PPB1	North	North	4	B	Eng	Right	<input type="checkbox"/>

Attachment 'L'

Traffic Signal Inventory

Signal ID: 1 Los Gatos Bl. & Los Gatos-Saratoga Rd

Pole ID	Standard	Location.	Offset	Mast Arm Facing	Mast Arm Length	L Arm Length	Lum. Watts	Lum. PEU	Pole PEU	Note
S1P2	??	SW Island	10"	25'	North	15'	200W	<input type="checkbox"/>	<input type="checkbox"/>	

Veh. Head	Arm/ Pole	Position	Facing	Ø	Type	Lens Size	Lamp PV	Lamp Type	Louver	Back plate	Visor	Note
S1P2VH1	P	West	West	4	V3-CCC-8	8	<input type="checkbox"/>	LED	None	<input checked="" type="checkbox"/>	Full	
S1P2VH2	P	East	North	6	V3-CCC-8	8	<input type="checkbox"/>	LED	None	<input checked="" type="checkbox"/>	Full	
S1P2VH3	A		North	6	V3-CCC-12	12	<input type="checkbox"/>	LED	None	<input checked="" type="checkbox"/>	Full	

Ped Head	Position	Facing	Ø	Type	Description	Bracket Type	Lamp Type	Note
S1P2PH2	South	East	4	Standard		SP-2-T	LED	
S1P2PH1	North	North	6	Standard		SP-2-T	LED	

PPB	Position	Facing	Ø	Type	Plate Type	Arrow Pointing	ADA	Note
S1P2PPB2	West	West	6	B		Left	<input type="checkbox"/>	
S1P2PPB1	North	North	4	B		Left	<input type="checkbox"/>	

Equip ID	Arm/ Pole	Equipment	Description	Position	Facing	Ø	Maker	Model	Serial	Note
S1P2PA1	P	Emtrac Antenn		NE			Emtrac			

Pole ID	Standard	Location.	Offset	Mast Arm Facing	Mast Arm Length	L Arm Length	Lum. Watts	Lum. PEU	Pole PEU	Note
S1P3	1B	NW Island						<input type="checkbox"/>	<input type="checkbox"/>	

Veh. Head	Arm/ Pole	Position	Facing	Ø	Type	Lens Size	Lamp PV	Lamp Type	Louver	Back plate	Visor	Note
S1P3VH1	P	South	South	5	V3-CCL-8-8-12		<input type="checkbox"/>	LED	Vertical	<input checked="" type="checkbox"/>	Full	
S1P3VH2	P	North	North	6	V3-CCC-8	8	<input type="checkbox"/>	LED	None	<input type="checkbox"/>	Full	

Ped Head	Position	Facing	Ø	Type	Description	Bracket Type	Lamp Type	Note
S1P3PH1	West	South	6	Standard		SP-1-T	LED	

PPB	Position	Facing	Ø	Type	Plate Type	Arrow Pointing	ADA	Note
S1P3PPB1	West	West	6	B		Right	<input type="checkbox"/>	

Signal ID: 1 Los Gatos Bl. & Los Gatos-Saratoga Rd

Pole				Mast Arm	L Arm	Lum.	Lum Pole		
ID	Standard	Location.	Offset	Facing	Length	Length	Watts	PEU	PEU
S1P4	??	NE	2'	25'	South	15'	150W	<input checked="" type="checkbox"/>	<input type="checkbox"/>
									Cut off light fixture

Veh. Arm/				Lens	Lamp	Back		
Head	Pole	Position	Facing	Type	Size	PV	Type	Louver
S1P4VH4	Pole	South	South	2	V3-CCC-8	<input type="checkbox"/>	LED	None
S1P4VH1	Arm		South	5	V3-LLL-12	12	<input checked="" type="checkbox"/>	LED
S1P4VH2	Arm		South	2	V3-CCC-12	12	<input type="checkbox"/>	LED
S1P4VH3	Pole		West	4	V3-LLL-12	12	<input type="checkbox"/>	LED

Equip Arm/									
ID	Pole	Equipment	Description	Position	Facing	Ø	Maker	Model	Serial
S1P4PA1	Pole	Video Detectio	Camera	South	West	4			
S1P4PA2	Pole	Antenna	Abandoned WWV Cl						

Attachment 'M'
TOWN STANDARD SPECIFICATIONS

2.37 Signals, Lighting, Electrical System

General

Signals, lighting and electrical work shall conform to the provisions of Section 86, "Signals, Lighting and Electrical Systems," of the State of California Department of Transportation SSS (henceforth referred to as "SSS"), the State of California Department of Transportation SSP (henceforth referred to "SSP" and these Town Specifications.

Town Standard Equipment

Unless specified otherwise, the following standard equipment shall be used for the Town:

1. NEMA TS-2, Type 1, "P" controller cabinet.
2. ECONOLITE ASC2 and ASC3 signal controllers.
3. ITERIS Edge 2 Video Detection system.
4. EMTRAC emergency vehicle preemption system.

Conduit

Conduits shall be installed using directional boring or open trench as determined by Contractor and approved by Engineer.

All conduits shall be Schedule 80 polyvinyl chloride conduit unless otherwise specified. End bells shall be installed on all PVC conduits ends. Ground bushings shall be installed for all metallic conduits.

Contractor shall not use 90-degree elbows. Only large radius 45-degree elbows shall be allowed.

Interconnect cable conduit terminations into pull boxes shall be gradually swept to the elevation where conduit enters through the side of a pull box. These conduit sweeps shall have a minimum 3-foot radius and 45-degree radius.

All conduits shall have a pull tape and a bare #8 AWG (minimum) copper wire for grounding and tracing of conduits.

All conduits placed in utility joint trenches shall be inspected and approved by the respective utility (PG&E, SBC, Verizon, Comcast) prior to backfill. The Contractor shall coordinate all such inspections with each Utility Company.

All conduits shall be sealed with Duct-Seal after wires are installed to prevent moisture and rodents from entering the conduits.

Conduits shall be installed either parallel to or perpendicular to the curb, unless otherwise approved by the Engineer prior to placement. Conduit at an oblique angle to the curb will not be permitted.

Communication conduit (for fiber optic cable) – The sum of horizontal and vertical conduit bends in new conduit between pull boxes and/or splice vaults shall not exceed 180 degrees. Conduit terminations into pull boxes and splice vaults shall be gradually swept to the elevation where conduit enters through the side of a pull box or splice vault. These conduit sweeps shall have a minimum 3-foot radius and 45-degree radius.

Pull Boxes

The identification "LOS GATOS" shall be engraved, welded or cast on the top face of all covers and followed by one of the following applicable markings:

1. "STREET LIGHTING" (for pull boxes containing lighting).
2. "TRAFFIC SIGNAL" (for pull boxes containing traffic signal circuits with or without street lighting circuits).
3. "COMMUNICATION" (for traffic signal communication).
4. "SERVICE" (for pull boxes in service runs and where utilities company conduits terminate).
5. "TREE LIGHTING" (for tree lighting systems only).
6. "SPRINKLER CONTROL" (for sprinkler control systems only).
7. "ELECTRICAL" (for electrical systems not mentioned above).

Pull boxes shall be No. 5 or larger unless otherwise indicated on the plans. Pull boxes for signal interconnect shall be No. 6 or larger unless otherwise indicated on the plans. Pull boxes for fiber-optic cabling system shall have the following minimum inside dimensions, unless specified otherwise in the contract documents: 48-inch long by 30-inch wide by 14-inch high. In addition, it shall be provided with one pull box extension. Pull box extension shall be in 12-inch high increment. A locking lid shall be provided.

Excess conduit for all conduit ends shall be cut back to provide stub ends of 1-inch minimum to 2-inch maximum.

Bottom of pull boxes shall be grouted over clean crushed rock sump (12 inches minimum). All pull boxes shall have a 2-inch drain hole in center bottom and grouted with smooth surface sloped toward drain hole.

Conductors

Identification stripe color shall be permanently impregnated the conductor insulating jacket.

No. 10 or smaller traffic signal conductors shall be solid copper with either:

- Type USE insulation with a minimum thickness of 1 mm (40 mils), or
- Type THW insulation with a minimum thickness of 1 mm (40 mils).

Signal Interconnect Cable

Signal interconnect cable shall contain 12-pair 12 AWG stranded copper unless otherwise noted on the plans.

Identification Labeling

Identification shall be by T&B Ty-Rap Cable Ties No. TY553M, fastened to the conductors/cables in such a manner that they will not move along the conductors/cables. The flags on the Ty-Rap shall be marked with a Ty-Rap marking pen No. WT 163 M-1 (Black), or approved equal. All phase conductors shall be labeled by phase designation in the pull boxes nearest their termination, and in the controller cabinet. Detector cables shall be labeled by channel designation in the pull boxes nearest their termination, and in the controller cabinet. Detector cables shall be also labeled by phase designation in the controller cabinet nearest their termination at the detector amplifiers.

Bonding and Grounding

Bonding and grounding shall conform to the provisions of Section 86-2.10, "Bonding and Grounding," of the SSS and the following.

All metallic electrical equipment including, but not limited to, poles, metal conduit, service pedestals, controller cabinets, anchor bolts, foundation reinforcement, and metallic cable sheaths shall be tied to ground electrical potential and shall be interconnected by means of copper conductors and clamps to form a single, grounded and electrically bonded system. Grounding of the electrical system shall be accomplished by means of approved 5/8-inch x 10-foot copper-clad steel or 3/4-inch x 10-foot galvanized steel ground rods installed in all cabinet foundations and in all pull boxes that contain conduits with equipment ground conductors as shown on the project plans. Ground rods shall extend above the finished cabinet foundation or grouted pull box bottom sufficiently to attach a ground clamp and #8 AWG bare copper equipment ground conductor.

Galvanizing

New traffic signal and street light poles shall have a galvanized finish in conformance to the provisions of Section 86-2.15, "Galvanizing," of the SSS.

Controller Assembly

The controller assembly shall conform to the provisions of Section 86-3.02, "Type 90 Controller Assemblies," of the SSS and the following.

The controller assembly shall be NEMA TS-2 Type "P" traffic signal controller cabinet unless otherwise indicated on plans.

Traffic Signal Faces and Fittings

Traffic signal faces and fittings shall conform to the provisions of Section 86-4, "Traffic Signal Faces and Fittings," of the SSS, the SSP and the following.

Traffic signal faces shall have metal signal sections and visors conforming to Section 86-4.01 "Vehicle Signal Faces", of the SSS. Plastic signal faces and visors shall not be allowed.

Vehicle signal face reflectors shall be made of specular aluminum conforming to Section 86-4.01A "Optical Units" of the SSS.

Backplates shall be furnished and installed on all signal faces. Backplates shall be made of aluminum and installable from the front of the signal head and conform to Section 86-4.03 "Backplates" of the SSS and the SSP ES-4C. Louvers shall not be used unless otherwise specified. Plastic backplates shall not be allowed.

Signal mounting assemblies shall conform to Section 86-4.06 "Signal Mounting Assemblies" except that terminal compartments, post top adapters, and plain side pole mounts shall be cast bronze. "Clam Shell" mounts shall not be used.

Color of the traffic signal housing doors, visors, and backplates shall be black. Color of signal housing shall be olive green.

All new vehicle signal heads shall have 12" red, amber and green (circular and arrow) light emitting diode (LED) modules. The LED modules shall be Gelcore brand or approved equal.

Pedestrian Signals

Pedestrian signal faces shall be Type A with 3/16 inch tempered glass message plate and z-crate type screen conforming to Section 86-4.05 "Pedestrian Signal Faces" of the SSS and the SSP ES-4B.

Pedestrian signal heads shall have a combination Portland orange "upraised hand"/lunar white "walking person" LED module. The LED modules shall be Gelcore brand or approved equal.

The Countdown Pedestrian Signal shall be user configurable through dipswitches allowing the user to deactivate the countdown operation or activate countdown of Walk+Don't Walk time, countdown of Walk time and then Don't Walk time and countdown of Don't Walk time only. Outline pedestrian symbol is not permitted.

Pedestrian Push Buttons

Pedestrian push button assemblies shall conform to the provisions of Section 86-5.02, "Pedestrian Push Button Assemblies", of the SSS, the SSP ES-5C and the following.

All pedestrian push button assemblies shall be Type B (5" x 7.5") per State Standard Plan ES-5C. Pedestrian push buttons shall be 2" push buttons and ADA compliant.

Multiple push buttons on the same standard shall be mounted at the same height with a maximum vertical offset of plus or minus 2 inches between push buttons.

Pedestrian push buttons should be parallel to the crosswalk, within 5 feet of the crosswalk extended, and within 10 feet of the edge of curb, shoulder, or pavement. When wheelchair ramps are present, pedestrian push buttons should be within 5 feet of the edge of ramps.

Detector Loops

Vehicle detectors shall conform to the provisions of Section 86-5, "Detectors", of the SSS, the SSP and the following.

1. Detector loops shall have circular configuration.
2. Loop conductor shall be Type 2 loop wires. No splice is permitted.
3. Detector lead-in cable shall be Type B.
4. Detector lead-in cables between pull boxes (immediately adjacent to the detector handhole) and controller cabinet shall run continuously and shall be unspliced throughout the length of the conductors.
5. The sealant for filling slots shall be asphaltic emulsion sealant for asphaltic concrete pavement application and hot-melt rubberized asphalt sealant for Portland cement concrete pavement, both as specified in the State SSS.

Contractor shall contact the Town Inspector 72 hours in advance of work which will cut or damage any existing detector loop or lead-in wire. The Town will install appropriate timing in the traffic signal controller prior to the Contractor cutting the existing loops. Contractor shall make arrangements to replace damaged loop detectors within five days at the Contractor's expense.

Luminaires

Luminaires shall conform to the provisions of Section 86-6, "Lighting" of the SSS and the SSP.

Unless otherwise specified, luminaires shall be high pressure sodium (HPS), Type III cutoff lamp, 70 watt HPS on local and collector streets, 100 watt on arterial streets, 150 watt HPS at intersections, and 200 watt HPS for traffic signal safety lighting.

Ballasts for luminaries shall be of regulated multitap (120/208/240/277 volt) integral ballasts and held securely in place with devices that allow easy and safe removal and replacement in the field without the necessity of removing the luminaire from the bracket arm.

Luminaire circuit splicing shall conform to Section 86-2.095 "Fused Splice Connectors" or the SSS.

Photoelectric Controls

Photoelectric controls for luminaires shall conform to the provisions of Section 86-6.07, "Photoelectric Controls," of the SSS and the following.

Photoelectric controls shall be as follows:

Type II photoelectric control shall consist of a remote photoelectric unit in a weatherproof housing, a separate contactor and a test switch located in the service enclosure unless shown otherwise. The photoelectric control unit shall be pole-top mounted unless otherwise specified.

Type IV photoelectric control shall consist of a photoelectric unit in a weatherproof housing which plugs into an EEL-NEMA twist lock receptacle integral with the luminaire.

A switch to permit manual operations of the lighting circuit shall be provided for each Type II photoelectric control. The "auto-test" switch shall not have an "off" position.

Removing, Reinstalling or Salvaging Electrical Equipment

Removing and/or salvaging of equipment shall conform to the provisions of Section 86-7.01, "Removing Electrical Equipment," of the SSS and the following.

All salvaged equipment shall be delivered to the Town of Los Gatos Service Center at 41 Miles Avenue. The Contractor shall contact the Town of Los Gatos Department of Parks and Public Works at (408) 395-2859, forty-eight (48) hours in advance to arrange for acceptance of salvaged equipment.

Republic's Routine Maintenance Rates

Flat Rates		Cost		Quantity	
Street Light	Monthly	\$1.35	per street light	1564	each
Parking Lot Light	Monthly	\$1.35	per parking lot light	95	each
Lower Lot 4	Monthly	\$200.00	lump sum	1	lump sum
Tree Light	Monthly	\$5.50	per tree	156	each
Traffic Signal	Monthly	\$110.00	per intersection	28	each
	Annual	\$800.00	per intersection	28	each

Total Annually		Cost
Street Light	Annual	\$25,336.80
Parking Lot Light	Annual	\$1,539.00
Lower Lot 4	Annual	\$2,400.00
Tree Light	Annual	\$10,296.00
Traffic Signal	Annual	\$56,280.00
Total	Annual	\$95,851.80

Lighting and Traffic Signal Maintenance Contract Rate Schedule

A	STREET LIGHT MAINTENANCE AND REPAIR - FLAT RATE	Monthly	\$1.35 per street light
B	PARKING LOT LIGHT MAINTENANCE AND REPAIR - FLAT RATES	Monthly	\$1.35 per parking lot light
C	LOT 4 LOWER DECK (PARKING GARAGE) LIGHT MAINTENANCE AND REPAIR - FLAT RATES	Monthly	\$200.00 lump sum
D	TREE LIGHT MAINTENANCE AND REPAIR - FLAT RATES	Monthly	\$5.50 per tree
E	TRAFFIC SIGNAL MAINTENANCE AND REPAIR - FLAT RATES		
	Monthly Routine Tasks (once a month)	Monthly	\$110.00 per intersection
	Annual Routine Tasks (once a year, including monthly tasks)	Annually	\$800.00 per intersection
F	LABOR RATES FOR EXTRA WORK	Regular	Overtime
	Traffic Signal Maintenance Electrician - Foreman	100.85	\$184.00 per hour
	Traffic Signal Maintenance Electrician	90.12	\$162.00 per hour
	Laborer	57.93	\$85.83 per hour
G	EQUIPMENT RATES FOR EXTRA WORK	Hourly	
	Bucket Truck	25.79	
	Crane	56.74	
	Dump Truck	15.47	
	Compressor with tools	15.47	
H	STREET LIGHT EXTRA WORK ITEMS, AS REQUIRED		
1	Replace Mercury Vapor Fixture with High Pressure Sodium Fixture	Each	\$ 283.69
2	Install light pole with arm/fixture and new foundation – Octaflute pole	Each	\$ 4,424.71
3	Install light pole with arm/fixture and new foundation – Type 15 pole	Each	\$ 3,864.52
4	Install light pole with arm/fixture on existing foundation – Octaflute pole	Each	\$ 2,751.73
5	Install light pole with arm/fixture on existing foundation – Type 15 pole	Each	\$ 2,191.54
6	Install luminaire arm with fixture – on existing Octaflute pole	Each	\$ 438.24
7	Install luminaire arm with fixture - on existing Type 15 pole	Each	\$ 438.24
8	Install Town standard light fixture (non-decorative) on existing pole/arm	Each	\$ 247.13
9	Install Town furnished light fixture on existing pole/arm	Each	\$ 247.13
10	Replace pull box in same place in sidewalk (#3 ½ and smaller)	Each	\$ 606.96
11	Replace pull box in same place in dirt (#3 ½ and smaller)	Each	\$ 267.35
I	TRAFFIC SIGNAL EXTRA WORK ITEMS, AS REQUIRED		
1	Installation of Pole		
a)	1B Pole on new foundation in sidewalk	Each	\$ 2,354.00
b)	1B Pole on new foundation in dirt	Each	\$ 1,490.53
c)	1B Pole on existing foundation	Each	\$ 739.54
d)	PPB post with ADA push button assembly on new foundation	Each	\$ 882.75
e)	PPB post with ADA push button assembly on existing foundation	Each	\$ 516.26
2	Installation of Inductive Loops:		
a)	6'x6' Type A, B, D, E, and Q		
1)	Quantity 1 to 4	Each	\$ 618.96
2)	Quantity 5 or more	Each	\$ 550.00
b)	2'x6' Type C Bicycle Loop - Quantity 1 to 4		
1)	Quantity 1 to 4	Each	\$ 1,000.00
2)	Quantity 5 or more	Each	\$ 750.00
3	Installation of LED modules:		
a)	For Non-PV Heads		
1)	Red	Each	\$ 115.54
2)	Yellow	Each	\$ 125.86
3)	Green	Each	\$ 171.25

	b) For PV Head Retrofit		
	1) Red	Each	\$ 118.63
	2) Yellow	Each	\$ 118.63
	3) Green	Each	\$ 185.69
	c) Pedestrian Countdown (Combo)	Each	\$ 204.26
	Installation of 12" Signal Heads with LED modules (on existing framework)		
4	including visors, back plates, and louvers as needed:		
	a) Non-PV Heads		
	1) 3-Section	Each	\$ 629.28
	2) 4-Section	Each	\$ 982.08
	3) 5-Section	Each	\$ 1,232.76
	b) PV Heads		
	1) 3-Section	Each	\$ 2,506.79
	2) 4-Section	Each	\$ 3,321.75
	3) 5-Section	Each	\$ 3,878.82
5	Installation of Mounting Bracket:		
	a) MAS	Each	\$ 550.00
	b) MAT	Each	\$ 550.00
	c) TV-1-T	Each	\$ 280.00
	d) TV-2-T	Each	\$ 335.00
	e) TV-3-T	Each	\$ 360.00
	f) SV-1-T	Each	\$ 280.00
	g) SV-2-T	Each	\$ 335.00
	h) SV-3-T	Each	\$ 360.00
	i) SP-1-T	Each	\$ 200.00
	j) SP-2-T	Each	\$ 325.00
6	Installation of Pedestrian Signal Head (with LED Countdown)	Each	\$ 464.22
7	Installation of Audible Pedestrian Signal	Each	\$ 314.35
8	Installation of ADA Compliant Pedestrian Push Button Assembly	Each	\$ 264.00
9	Installation of signal controller cabinet assembly (Town Furnished)	Each	\$ 1,793.61
10	Replace pull box in same place in sidewalk	Ea.#4	\$ 790.00
		Ea.#5	\$ 845.00
		Ea.#6	\$ 885.00
11	Replace pull box in same place in street (traffic grade)	Ea.#4	\$ 1,030.00
		Ea.#5	\$ 1,080.00
		Ea.#6	\$ 1,095.00
12	Replace pull box in same place in dirt	Ea.#4	\$ 260.00
		Ea.#5	\$ 270.00
		Ea.#6	\$ 280.00
13	Percent Markup on Materials		20%