



**CITY OF MILPITAS
MILPITAS, CALIFORNIA
ENGINEERING DIVISION
PROCUREMENT SPECIFICATIONS
FOR
TRAFFIC SIGNAL CONTROLLER
AND
ADVANCED TRAFFIC MANAGEMENT SYSTEM
UPGRADE
PROJECT NO. 4248**

Recommended by City for Advertisement:

Steve Chan, Traffic Engineer

Date: February 26, 2010

TABLE OF CONTENTS

SECTION A - INFORMATION FOR BIDDERS AND BID FORMS	5
A-01 REQUEST FOR PROPOSAL	6
A-02 PROPOSAL FORMAT	7
A-03 DEMONSTRATIONS AND ORAL INTERVIEW	9
A-04 CONTRACTOR SELECTION	10
CONTRACTOR QUALIFICATION COMPLIANCE FORM	12
"NONCOLLUSION" AFFIDAVIT	13
WORKER'S COMPENSATION INSURANCE	17
CERTIFICATION OF SAFETY REQUIREMENTS	18
INFORMATION REGARDING SUBCONTRACTORS	19
ADDENDA 23	
EQUAL EMPLOYMENT OPPORTUNITY CERTIFICATION	24
PUBLIC CONTRACT CODE	25
NONCOLLUSION AFFIDAVIT	27
DEBARMENT AND SUSPENSION CERTIFICATION	28
CONTRACT	29
FAITHFUL PERFORMANCE BOND	35
PAYMENT BOND	36
CERTIFICATE OF INSURANCE	37
CONTRACTOR'S CERTIFICATE RELATING TO WORKER'S COMPENSATION INSURANCE	39
CERTIFICATE OF WORKER'S COMPENSATION INSURANCE	40
SECTION B - INSTRUCTION TO BIDDERS.....	41
B-01 EXAMINATION OF SPECIFICATIONS AND SITE OF WORK	42
B-02 INTERPRETATION OF DRAWINGS AND DOCUMENTS	42
B-03 ADDENDA	42
B-04 BIDDERS INTERESTED IN MORE THAN ONE BID	42
B-05 PROPOSALS	42
B-06 ANNOUNCE SELECTION	43
B-07 BID PROTEST	43
B-08 AWARD OR REJECTION OF BIDS	43
B-09 THE CONTRACT	43
B-10 CONTRACTOR'S BONDS	44
B-11 NOTICE OF AWARD	44
SECTION C – SCOPE OF WORK.....	46
C-01 BACKGROUND	47
C-01.1 ABBREVIATIONS	48
C-02 SCOPE OF WORK	48
C-02.1 GENERAL	48
C-02.2 MATERIALS AND DELIVERABLES	49
C-02.2.1 ADVANCED TRAFFIC MANAGEMENT SYSTEM	49
C-02.2.1.1 ADDITIONAL FUNCTIONS	50
C-02.2.1.2 TRANSIT SIGNAL PRIORITY MODULE (OPTIONAL)	51
C-02.2.1.3 TRAFFIC SURVEILLANCE VIDEO SERVER/INTEGRATION (OPTIONAL)	51
C-02.2.2 TRAFFIC SIGNAL CONTROLLER	51
C-02.2.3 COMMUNICATIONS MASTER PLAN	52
C-02.2.4 LOCAL ACCESS WORKSTATIONS	52
C-02.2.5 ETHERNET-OVER-COPPER SWITCH	53
C-02.3 IMPLEMENT TRAFFIC SIGNAL RETIMING	55
C-02.4 PROCUREMENT DOCUMENTATION	57
C-02.5 SYSTEM MAINTENANCE AND SUPPORT	57
C-02.6 ADDITIONAL LICENSE FEE	57
C-02.7 INSTALLATION	58

C-02.7.1	ADVANCE TRAFFIC MANAGEMENT SYSTEM.....	60
C-02.7.2	TRAFFIC SIGNAL CONTROLLER.....	60
C-02.7.3	ETHERNET-OVER-COPPER SWITCH.....	60
C-02.8	TESTING	60
C-02.8.1	ADVANCE TRAFFIC MANAGEMENT SYSTEM.....	60
C-02.8.2	OPERATIONAL AND PERFORMANCE TESTING OF TRAFFIC SIGNAL SYSTEM EQUIPMENT	61
C-02.8.3	FINAL ACCEPTANCE TESTING.....	62
C-02.9	WARRANTY	63
C-02.10	SYSTEM TRAINING	63
C-03:	ATMS FUNCTIONAL REQUIREMENTS TABLE	66
C-04:	TRAFFIC SIGNAL CONTROLLER FUNCTIONAL REQUIREMENTS TABLE	68
C-05:	MILPITAS TRAFFIC SIGNAL INTERSECTIONS - DEPLOYMENT PHASE SCHEDULE.....	70
C-06	TRAFFIC SIGNAL LOCATION AND SIGNAL INTERCONNECT CABLE LAYOUT	73

SECTION D – GENERAL CONDITIONS 75

D-01	DEFINITIONS OF WORDS AND TERMS	76
D-02	INTENT OF THE CONTRACT	78
D-03	STANDARD SPECIFICATIONS AND CODES	78
D-04	INVESTIGATION OF CONDITIONS.....	78
D-05	CONTRACTOR'S FINANCIAL OBLIGATIONS	79
D-06	LAWS TO BE OBSERVED	79
D-07	NON-DISCRIMINATION.....	79
D-08	PATENTS, PROPRIETARY OR TRADE NAMES	79
D-09	ASSIGNMENT OF CONTRACT	80
D-10	CERTIFIED PAYROLL	80
D-11	SUBCONTRACTORS	80
D-12	DOCUMENT PRECEDENCE.....	81
D-13	INTERPRETATION OF SPECIFICATIONS	82
D-14	QUANTITY UNITS, MEASUREMENTS, AND PAYMENTS	82
D-15	SUBSTITUTIONS	83
D-16	SPECIFIED OR "APPROVED EQUAL" ITEMS	84
D-17	MANUFACTURER'S RECOMMENDATIONS	85
D-18	SUBMITTALS	85
D-19	PROJECT COORDINATION.....	87
D-20	PROJECT MEETINGS.....	87
D-21	PROJECT SCHEDULE	88
D-22	CONTRACT CHANGE ORDERS	88
D-23	SUPERINTENDENCE	93
D-24	CHARACTER OF WORKERS	93
D-25	WORKING HOURS	93
D-26	LANE CLOSURE RESTRICTIONS	94
D-27	PUBLIC CONVENIENCE AND SAFETY	94
D-28	WAGE RATES	94
D-29	CERTIFIED PAYROLL REPORTS.....	95
D-30	CARE AND CUSTODY OF WORK.....	95
D-31	INSPECTION & TESTING	95
D-32	DEFECTIVE WORK - NOTICE TO CONTRACTOR	96
D-33	FEDERAL HINDERANCE	96
D-34	SUSPENSION OF CONTRACT	97
D-35	CONTRACT TERMINATION.....	98
D-36	PROGRESS PAYMENTS	99
D-37	SCHEDULE OF VALUES	100
D-38	ESCROW AGREEMENT FOR SECURITY DEPOSITS IN LIEU OF RETENTION.....	100
D-39	LOSS OR DAMAGE	101
D-40	WARRANTIES.....	101
D-41	PROJECT CLOSEOUT AND FINAL INSPECTION	103
D-42	PROJECT ACCEPTANCE	103
D-43	CLAIMS	104

SECTION E - SPECIAL CONDITIONS	106
E-01 PROSECUTION OF THE WORK AND TIME OF COMPLETION	107
E-02 NOTICE TO PROCEED	107
E-03 LIQUIDATED DAMAGES	108
E-04 LIST OF PROJECT SUBMITTALS	108
SECTION F – TECHNICAL PROVISIONS	109
F-01 MOBILIZATION	110
F-02 TRAFFIC CONTROL	110
F-03 ORDER OF WORK	111
F-04 COOPERATION	111
APPENDIX A CITY STANDARD FORMS	113
SUBMITTAL COVER SHEET	114
REQUEST FOR INFORMATION	116
NOTICE OF NON-COMPLIANCE	117
FIELD MEMORANDUM	118
PROJECT PUNCHLIST	119
CONTRACT CHANGE ORDER	122
WEEKLY STATEMENT OF DAYS CHARGED TO CONTRACT	123
SAMPLE PROGRESS PAYMENT FORM	124
CONSTRUCTION CHANGE DIRECTIVE	125

SECTION A - INFORMATION FOR BIDDERS AND BID FORMS

A-01 REQUEST FOR PROPOSAL

Notice is hereby given that the City of Milpitas, Milpitas, California, shall receive sealed proposals must be addressed to Traffic Engineer at Information Desk in the Milpitas City Hall, 455 E. Calaveras Boulevard, until 2:00 p.m. on March 26, 2010 for **Traffic Signal Controller and Advanced Traffic Management System Upgrade, Project 4248**, all as more particularly set forth in the specifications on file in the office of the City Engineer.

The work generally involves traffic signal controller, traffic signal communication equipment, and Advance Traffic Management System installation and upgrade, and traffic signal timing implementation in the City of Milpitas.

The scope of work shall be in accordance with Section C of these specifications.

The tentative schedule of key activities, which constitute the selection process for the City of Milpitas, Traffic Signal Controller and Advance Traffic Management System Upgrade is as follows:

<u>Milestone</u>	<u>Date</u>
Issuance of Invitation for Bid	<u>2/26/2010</u>
Final Date for Submittal of Request for Information	<u>3/9/2010</u>
Mandatory Pre-proposal Meeting	<u>3/12/2010</u>
Issuance of Final Addendum (if necessary)	<u>3/19/2010</u>
Proposals Due	<u>3/26/2010 at 2:00PM</u>
Invitation Notice for Contractor Interviews/Demonstration	<u>4/2/2010</u>
Contractor Interviews/ Demonstration	<u>4/8/2010 to 4/9/2010</u>
Announce Selection	<u>4/27/2010</u>
Award of Contract by City Council	<u>6/1/2010</u>
Notice of Award	<u>6/2/2010</u>
Project Completion Date	<u>180 calendar days</u>

Request for information may be only submitted in hard copy writing via postal mail addressed to Steve Chan, Traffic Engineering, City Hall, 455 E. Calaveras Blvd., Milpitas, CA 95035. Faxes and emails shall not be accepted. Request for information must be received no later than three-days prior to the pre-proposal meeting. Correspondence regarding procurement specifications questions must reference the procurement specifications name within the subject heading of the document.

A mandatory pre-proposal meeting is scheduled at 10:00 a.m. on March 12, 2010 at Milpitas City Hall, 455 E. Calaveras Blvd., Milpitas. Interested Contractors will have the opportunity to ask additional questions during the pre-proposal meeting. All questions and responses will be documented and made available to interested parties in the final addendum. Questions received after the pre-proposal meeting shall not be responded to.

All proposals or bids must be accompanied by completed Bid Forms in this Section. They must be addressed to the Traffic Engineer of the City of Milpitas and must be plainly endorsed with the Contractor's name, address, phone number; include the title and project number of the Project, and the name of the City project contact as identified in the Notice.

Proposals or bids are invited on a unit price/lump sum basis for the entire work. The City Council reserves the right to reject any or all bids.

Notice also is hereby given that in accordance with Section 1773.2 of the Labor Code of the State of California, copies of the general prevailing rate of per diem wages in the locality in which the public work is to be performed for each craft, classification as determined by the Director of the Department of Industrial Relations are on file in the Office of the City Engineer. It shall be mandatory upon the Contractor to whom the contract is awarded, and upon all subcontractors under the Contractor, to pay not less than the highest of the applicable rates set forth in either the federal or municipal schedules of prevailing wage rates.

Employer payments other than those itemized therein, as defined in Section 1773.1 of the Labor Code, are to be paid in accordance with the terms of the collective bargaining agreement applicable to the type of classification of the worker employed on the project, including overtime, Sunday and holiday pay.

Pursuant to the provisions of Public Contract Code Section 22300, and at the request and expense of the Contractor, securities equivalent to the amount withheld by City to ensure performance under a contract shall be deposited with City and with a State or Federally chartered bank as escrow agent who shall pay such monies to the Contractor upon satisfactory completion of the contract. Eligible securities shall include those listed in Government Code Section 16430 or bank or savings and loan certificates for deposit. The Contractor shall be the beneficial owner of said security and shall receive any interest thereon.

Proposals must include any and all proposed terms and conditions, including, without limitation, written warranties, maintenance/service agreements, license agreements, lease purchase agreements and exceptions to the City's standard contract language. The omission of these documents renders a proposal non-responsive.

A-02 PROPOSAL FORMAT

The Contractor shall submit a technical proposal, separate sealed cost proposal, and bid forms in response to the requirements cited herein. The proposal will be reviewed by the City and evaluated according to the evaluation method described later in this document. The Contractor is invited and encouraged to recommend modifications or enhancements to the package that go above and beyond the minimum requirements outlined in the specifications so that it reflects both the most current technological advances and the most cost-efficient methods of achieving the purposes for which the equipment is being purchased, or to offer additional functions without additional cost.

TECHNICAL PROPOSAL CONTENT

The technical proposal shall address the requirements of these procurement specifications. It shall be presented in the following format:

A. Introduction

Introduce the proposer, including a statement of the Contractor's understanding and approach of the ATMS implementation. Give the name of the Contractor submitting the proposal, mailing address, telephone number, fax number, e-mail address, and name of the contact person.

B. Work Plan

Outline the work plan of tasks, work products, and meetings that the Contractor proposes to be included in accordance with these procurement specifications. At a minimum, include the following:

- ❑ Name of the Implementation Manager;
- ❑ Organization chart showing the proposed relationships between all key personnel, sub-consultants and support staff assigned to the project by the Contractor;
- ❑ Description of proposed responsibilities of each person on the organization chart; and
- ❑ Description of the approach and methodology to provide services; and
- ❑ Project schedule with work task dependences.

C. Qualifications

The technical proposal must include any and all information that illustrates the Contractor's financial and technical ability to complete the project on time and on budget if awarded the contract. This includes, but is not limited to:

- ❑ Qualifications of the Contractor;
- ❑ Certification by the Manufacturer Authorizing the Contractor to distribute the proposed equipment and confirming the Contractor's minimum three (3)-year good standing as the Contractor for California
- ❑ Qualifications of the key individuals who will work on the Signal System Upgrade implementation (the City requires a qualified local supplier representative and it is desirable to have a local software developer representative); and
- ❑ List of three public agency references that have had similar ATMS and traffic signal controller upgrade projects. Preference shall be given to those systems that have been successfully deployed within Santa Clara County and/or the San Francisco Bay Area within the last 18 months or are currently under deployment.
- ❑ Contact information for any existing or previous customers whom have had systems removed within the last 18 months, or removal started within the last 18 months, shall be included in the proposal for contact by the City.
- ❑ Proposed systems must be mature with existing deployments active and functioning for at least four (4) years in the United States from the date of advertising of these procurement specifications.

Contractor shall complete the Contractor Qualification Compliance Form in this Section.

D. Contractor's Literature

The technical proposal must include detailed literature that provides information about the ATMS hardware and software, traffic signal controller units, and other hardware and software enhancements. The literature may include manuals, technical specifications, fact sheets, or brochures.

E. Technical and Functional Criteria

The technical and functional criteria shall describe the key features of proposed ATMS hardware and software in terms of their functionality. This shall, at a minimum, be accomplished by completing the ATMS Requirements Table provided in Section **C-03** of these specifications. This also serves as the City's desired ATMS functional requirements of the ATMS Specifications.

The intent of the Specifications is to include the required functions identified by the City, as well as additional functions that are desirable or not required. The Contractor shall use the ATMS Requirements Table and Protocol Implementation Conformance Statement (PICS) to indicate compliance with the requirements of the Specifications to the greatest extent possible. If any function or stated approach to providing a function is not supported by the Contractor's system or needs to be qualified, the Contractor shall clearly describe any exceptions to the Specifications in their proposal. Failure to provide a particular function will not eliminate the proposal from consideration; but it will be noted by the City during evaluation and may be a factor in the selection process.

In addition, the Contractor shall attach a completed copy of the PICS to show their system's level of compliance with current NTCIP standards, Document TS3.5-1996 – Object Definition Standard for Actuated Traffic Signal Controllers. Responses to this document shall pertain to the Contractor's currently available software protocol as of December, 2009.

The technical and functional criteria shall also describe the proposed traffic signal controller conformance by completing the Traffic Signal Controller Requirements Table provided in Section **C-04** of these specifications. Failure to provide a particular function will not eliminate the proposal from consideration; but it will be noted by the City during evaluation and may be a factor in the selection process.

K. Warranty

The technical proposal shall describe the warranties for the hardware and software of the ATMS, traffic signal controller, local access workstation and laptop, and Ethernet-Over-Copper equipment. The warranty requirements are described in the Specifications.

L. System Upgrades

The technical proposal shall describe the system upgrades available to the City. This shall include duration, costs, and limitations to obtaining upgrades. The Contractor shall also describe the method that upgrades are made available (i.e., how often) and the procedure to implement the upgrades (i.e., downloadable, City, or Contractor).

M. License Fees

The technical proposal shall describe the number of user licenses to be provided under the base ATMS system. The Contractor shall also detail the cost of each additional license if added in the future.

N. Acceptance Statement

The technical proposal shall include a statement regarding the Contractor's acceptance of the City's requirements for insurance, endorsement and business license that are presented herein. The Contractor shall clearly state any exceptions. A principal or owner of the Contractor with authority to bind the Contractor shall sign the acceptance statement.

A-03 DEMONSTRATIONS AND ORAL INTERVIEW

The City will require Contractor demonstrations of the proposed ATMS, Traffic Signal Controllers, and Ethernet communication equipment as part of the Contractor selection process.

Only Contractors meeting the qualifications in the Contractor Qualification Compliance Form shall be invited to the oral interview and demonstration. Each Contractor shall install their software on their own hardware and equipment to replicate the proposed central signal system for demonstration and include proposed Ethernet-Over-Copper communication equipment to a minimum of two fully-functional traffic signal controllers. The City may request that the Contractor leave the proposed equipment in the position of the City for up to 30 calendar days for additional monitoring and evaluation. It is requested that each Contractor describe any exceptions between the demonstrated system and the proposed system as it relates to the Specifications.

The main purpose of the demonstrations is for the contractors to show that their system will operate with the functions identified in the technical proposal. The Contractor shall furnish all interface cables and accessories that are necessary for interconnecting the Contractor-supplied components, including jumper cables, Ethernet cables, and power cables. The Contractor will retain possession of all equipment following the demonstration or City-requested evaluation periods if required.

A-04 CONTRACTOR SELECTION

The acquisition methods will be consistent with federal, state, and local acquisition rules and regulations. According to 23CFR 655.407, "Traffic surveillance and control system projects are an integral part of the Federal-aid highway construction and all phases of these projects are eligible for funding with appropriate Federal-aid highway funds. The degree of sophistication of any system must be in scale with the needs and with the availability of personnel and budget resources to operate and maintain the system."

Competitive proposals are being sought because:

- ❑ Technology is rapidly changing and equipment specifications age, and the project would like to take advantage of emerging and future technologies; and
- ❑ Procurement methods have matured and permit greater flexibility in achieving desired results. Technical proposals allow for options and negotiation allows a better fit of requirements and costs.

The procurement methods appropriate to the City are described as fully competitive proposals as listed in 49 CFR Part 18.36 – Negotiated Procurement of Public/Private Infrastructure per 48 CFR Part 15. The City may also procure service contracts based on qualifications and other evaluation factors, rather than cost alone.

The selection process will involve evaluating all of the technical proposals received. The final selection will include consideration of quality of services, conformance to these procurement specifications and the Specifications, and product offered, as well as the price provided by the Contractor. Total base bid cost must be within City budget and cost effective for the desired services.

Evaluations of the technical proposals, the ATMS Requirements Table, and the Traffic Signal Controller Functional Requirements Table will be used to determine which sections of the Specifications are met and which are not met. Non-compliance with the requirements will not be a cause for rejection; however, the Requirements Table will be used to compare the proposals of the various Contractors. Additional features will also be considered in the evaluation.

The Contractor demonstrations, interview, and proposed additional features will also be a factor in the selection process.

The relative weight of selection factors will be based on the following evaluation criteria (The lowest number represents the highest weight):

1. Conformance with the terms and requirements of these procurement specifications;
2. Traffic Signal Controller Functionality and Features;
3. Signal System Functionality and ATMS Features;
4. Maturity of the system;
5. History of Deployment and References;
6. Expertise and availability of key personnel;
7. Signal Timing Expertise;
8. Proposed Approach;
9. Firm Qualifications;
10. Proposed Schedule;
11. Graphical User Interface;
12. Service Package;
13. Additional features and functionality;
14. And, Financial stability of the Contractor.

Date: February 26, 2010

CONTRACTOR QUALIFICATION COMPLIANCE FORM

Contractor Qualifications	Compliance Status
ATMS and Traffic Signal Controller by the same Manufacturer	
Minimum 3 years good standing as the qualified ATMS Contractor	
Provide three public agency references with Contractor's ATMS deployment	
Agency reference with Contractor's ATMS removed within the last 18 months, if any.	
Contractor office located within 100 miles of City of Milpitas	
Minimum 4-year active and functional ATMS deployment history	

State of California)
)
County of _____) §§

_____, being first duly sworn, deposes and says that he or she is _____ of _____ the party making the foregoing bid that the bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the bid is genuine and not collusive or sham; that the bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid, and has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that the bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or that of any other bidder, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract; that all statements contained in the bid are true; and, further, that the bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid."

PROPOSAL

IF A SOLE OWNER OR SOLE CONTRACTOR, SIGN HERE:

- 1) Name under which business is conducted_____
- 2) Signature _____
- 3) Place of business_____ (Street and Number)

City and State_____
- 4) Telephone No. _____ Zip _____

IF A PARTNERSHIP, SIGN HERE:

- 1) Name under which business is conducted_____
- 2) Signature of each member of partnership:
(Indicate character of each partner - general or special)

- 3) Place of business_____ (Street and Number)

City and State_____
- 4) Telephone No. _____ Zip _____

PROPOSAL

IF A CORPORATION, SIGN HERE:

- 1) Name under which business is conducted_____
- 2) Signature, with official title of officer authorized to sign for the Corporation

(Impress Corporate Seal Here)
- 3) Incorporated under the laws of the State of_____
City and State_____
- 4) Place of business_____
(Street and Number)
City and State_____
- 4) Telephone No._____ Zip_____

MY/OUR STATE CONTRACTOR'S LICENSE, NO._____,
CLASSIFICATION NO._____, EXPIRES_____, 20_____
THIS PROPOSAL MUST BE NOTARIZED BELOW
SUBSCRIBED AND SWORN TO BEFORE ME, THIS____ DAY OF____, 20_____

(NOTARIAL SEAL)

Notary Public in and for the
County of_____
State of_____

Notice:
This proposal must include the completion of the following:

"INFORMATION REGARDING SUBCONTRACTORS"
"WORKER'S COMPENSATION and APPRENTICE STANDARDS"

PROPOSAL

TO: CITY ENGINEER
CITY OF MILPITAS
455 EAST CALAVERAS BOULEVARD
MILPITAS, CA 95035

Name of Bidder: _____

Business Address: _____

Business Phone: _____

Place of Residence: _____

In accordance with the Request For Proposal, the undersigned as bidder, declares that he/she has carefully examined the locations of the proposed work, the Contract Documents, plans, and specifications therefore and the proposed forms of contract and bonds mentioned or referred to in said Notice and on file in the City of Milpitas; and he/she proposes and agrees that if this proposal is acceptable he/she will contract with the City of Milpitas, in the form of contract on file in the Engineering Division, to at his/her own cost and expense, do all the work and furnish all the equipment, materials, labor, and incidentals necessary to completely perform said contract, in manner and time prescribed by said contract and plans and specifications and according to the requirements of the City Engineer, and to do all other things provided or called for by said contract form, and that he/she will execute and/or provide all bonds and insurance certificates required by law and/or by said contract and/or mentioned in said Request For Proposal, all in accordance to and subject to all applicable laws, and that he/she will take full payment therefore the following prices, to wit:

Contractor's Signature

PROPOSAL

The Bidder hereby certifies as follows:

WORKER'S COMPENSATION INSURANCE

"I am aware of the provisions of Section 3700 of the Labor Code which requires every employer to be insured against liability for Worker's Compensation or to undertake self insurance in accordance with the provisions of that Code and I will comply with such provisions and furnish proof of said insurance before commencing performance of the work of this contract, as evidenced by my signature below."

Signed by _____

Official Title _____

PROPOSAL

**CERTIFICATION OF SAFETY REQUIREMENTS
FOR CONTRACTORS AND CONTRACTORES**

To work as a contractor or Contractor with the City of Milpitas, your organization is required to certify that it has an active on-the-job written Injury and Illness Prevention Program. This Program is essential to make the job as accident-free as possible and to comply with Federal and State Safety Standards.

The undersigned hereby certifies that his/her organization has an active written Injury and Illness Prevention Program, as required by Cal-OSHA under Title 8, General Injury Safety Orders Section 3203 and/or the CSO Section 1509, that ensures compliance with and enforcement of current minimum Cal-OSHA Safety Standards, and that his/her organization has knowledge of these standards that are applicable to the job operations. This includes a program for ensuring employees have been trained to recognize hazards of their job.

The undersigned also hereby certifies that his/her organization has an active written Hazard Communication Program with evidence that all employees have been trained in safe use and handling of Chemicals on the job site, and a file which will be made available to the City of Milpitas of each Material Safety Data Sheet (MSDS) on those chemicals kept on the site.

Signature: _____

Title: _____

Name of Organization: _____

PROPOSAL**INFORMATION REGARDING SUBCONTRACTORS****AS REQUIRED BY THE SPECIFICATIONS**

In compliance with the provisions of Section 4100 & 4109 of the Public Contract Code of the State of California and any amendments thereto, the undersigned Bidder shall list below the name, business address, and portion of the work of each subcontractor who will perform work or labor or render services to the undersigned under this Bid in excess of one-half (1/2) of one percent (1%) of the total amount of this bid, or in the case of bids for the construction of streets or highways, including bridges, in excess of one-half (1/2) of one percent (1%) of the undersigned's total bid or Ten Thousand Dollars (\$10,000), whichever is greater. The undersigned agree that any portions of the work in excess of one-half (1/2) of one percent (1%) of the total amount of this bid; or Ten Thousand Dollars (\$10,000), if applicable; and for which no subcontractor is designated herein, will be performed by the undersigned. After the opening of bids, no changes or substitutions will be allowed except as otherwise provided by law. The listing of more than one subcontractor for each item of work to be performed with the words "and/or" will not be permitted. Failure to comply with this requirement may render the Bid non-responsive and may cause its rejection.

<u>Work Performed, Labor, or Services to be rendered</u>	<u>Percent of Total Bid</u>	<u>License No. and Class</u>	<u>Subcontractor Name / Address</u>
1. _____	_____	_____	_____ _____ _____
2. _____	_____	_____	_____ _____ _____
3. _____	_____	_____	_____ _____ _____
4. _____	_____	_____	_____ _____ _____
5. _____	_____	_____	_____ _____ _____
6. _____	_____	_____	_____ _____ _____
7. _____	_____	_____	_____ _____ _____

PROPOSAL

I/We agree to perform the above entitled work in accordance with Specifications of the City of Milpitas for the prices listed below:

Bid Item	Section Ref.	Description	Quantity	Unit Description	Unit Cost	Extension
Base Bid						
1	C-02.2.2	Furnish and Install Traffic Signal Controller	72	EA		
2	C-02.2.1	Furnish and Install Advance Traffic Management System	1	EA		
3	C-02.2.4	Furnish and Install Local Access Workstation	3	EA		
4	C-02.2.4	Furnish and Install Local Access Workstation Laptop	3	EA		
5	C-02.2.3	Communications Master Plan	1	LS		
6	C-02.2.5	Furnish and Install Ethernet-Over-Copper Point-to-Multi-Point Switch	6	EA		
7	C-02.2.5	Furnish and Install Ethernet-Over-Copper Point-to-Point Switch	67	EA		
8	C-02.3	Implement Traffic Signal Retiming	52	EA		
9	C-02.8	Testing	1	LS		
10	C-02.10	System Training	1	LS		
11	C-02.5	System Maintenance and Support	1	LS		
					Total	

Total Base Bid Amount _____

Amount written out in dollars and cents.

The City is under no obligation to award this contract to the proposal that represents the lowest cost. Selection of a Proposal for Award will be solely based on the Evaluation Criteria as set forth in these special provisions.

FOR ADD ALTERNATE BID ITEMS:

All schedules (bid items) must be bid. Add alternate bid items will not be awarded independent of Base Bid. Add alternate bid items, if accepted, shall be included in the contract and the amount for each one selected shall be adjusted from the Base Bid. The City shall have sole discretion in determining the selection of add alternate bid items. Additive alternate bid item amount(s) will be included in the contract and adjusted from the Base Bid if accepted at the time of award.

Bid Item	Section Reference	Description	Quantity	Unit Description	Unit Cost	Extension
Additive Alternate 1						
1	C-02.2.2	Furnish Traffic Signal Controller	10	EA		
2	C-02.2.5	Furnish Ethernet-Over-Copper Point-to-Point Switch	10	EA		
3	C-02.2.5	Furnish Ethernet-Over-Copper Point-to-Multi-Point Switch	10	EA		
4	C-02.6	Additional License Fee	2	EA		
4	C-02.2.1.2	Furnish and Install Transit Signal Priority Module	1	LS		
5	C-02.2.1.3	Furnish and Install Video Surveillance Video Server/Integration	1	LS		
Total						

Total Base Bid and Additive Alternative 1 Bid amounts shall be included in a separate sealed envelope.

In case of any inconsistency or conflict between words and figures submitted by bidder, the words shall govern. Unit prices will prevail regardless of extensions submitted by Bidder.

It is understood that the estimated quantities of work to be done hereinabove set forth are approximate only, being given as a basis for the comparison of bids, and the City of Milpitas does not expressly or by implication agree that the actual amount of work will correspond therewith, but reserves the right to increase the amount of any class or portion of the work or to omit portions of the work as may be deemed necessary or expedient by the Engineer.

All bids will be compared on the basis of the Engineer's Estimate of the quantities of the work to be done, and the City reserves the right to reject any and all bids.

The Contractor may not withdraw its bid for a period of sixty (60) days from the date of opening thereof. The Contractor's bid shall remain valid for a period of sixty (60) days from the date of opening.

The undersigned has carefully checked all of the above figures and understands that the City shall not be responsible for any errors or omissions on the part of the undersigned in making up this bid.

A Notice to Proceed will be issued after the contract is fully executed, the City has received all required bonding and insurance certificates, and the Contractor has completed all other requirements required prior to issuance of the Notice to Proceed as specified in these Contract Documents and specifications.

The Contractor shall commence work under the contract within (5) days following the Notice to Proceed. The Contractor shall diligently prosecute the work to completion as specified in these Contract

Documents and specifications. The contract completion time is inclusive of the time for delivery of materials.

NOTE: FOR ALL LUMP SUM ITEMS, THE CONTRACTOR SHALL SUBMIT A SCHEDULE OF VALUES IN ACCORDANCE WITH SECTION D-39.

PROPOSAL

ADDENDA

FROM: _____
Bidding Contractor

PHONE: _____

TO: The City of Milpitas herein called Owner:

Pursuant to and in compliance with the Notice of Bidders and the Contract Documents relating to:

The undersigned bidder acknowledges receipt of the following addenda to the Contract Documents:

Addendum No.: _____, dated _____

Addendum No.: _____, dated _____

Addendum No.: _____, dated _____

Addendum No.: _____, dated _____

Addendum No.: _____, dated _____

Addendum No.: _____, dated _____

The Bidder acknowledges that it is responsible for verification of the number of Addenda issued prior to submitting the bid. Failure to acknowledge receipt of all addenda shall cause the bid to be considered non-responsive to the Contract Documents. Acknowledged receipt of each addendum must be clearly established and included with the offer.

Signature and Title

Date

PROPOSAL

EQUAL EMPLOYMENT OPPORTUNITY CERTIFICATION

The bidder _____, proposed subcontractor _____, hereby certifies that he has _____, has not _____, participated in a previous contract or subcontract subject to the equal opportunity clauses, as required by Executive Orders 10925, 11114, or 11246, and that, where required, he has filed with the Joint Reporting Committee, the Director of the Office of Federal Contract Compliance, a Federal Government contracting or administering agency, or the former President's Committee on Equal Employment Opportunity, all reports due under the applicable filing requirements.

Note: The above certification is required by the Equal Employment Opportunity Regulations of the Secretary of Labor (41 CFR 60-1.7(b) (1)), and must be submitted by bidders and proposed subcontractors only in connection with contracts and subcontracts which are subject to the equal opportunity clause. Contracts and subcontracts which are exempt from the equal opportunity clause are set forth in 41 CFR 60-1.5. (Generally only contracts or subcontracts of \$10,000 or under are exempt.)

Currently, Standard Form 100 (EEO-1) is the only report required by the Executive Orders or their implementing regulations.

Proposed prime contractors and subcontractors who have participated in a previous contract or subcontract subject to the Executive Orders and have not filed the required reports should note that 41 CFR 60-1.7(b) (1) prevents the award of contracts and subcontracts unless such contractor submits a report covering the delinquent period or such other period specified by the Federal Highway Administration or by the Director, Office of Federal Contract Compliance, U.S. Department of Labor.

PROPOSAL

PUBLIC CONTRACT CODE

Public Contract Code Section 10285.1 Statement

In conformance with Public Contract Code Section 10285.1 (Chapter 376, Stats. 1985), the bidder hereby declares under penalty of perjury under the laws of the State of California that the bidder has ____ , has not ____ been convicted

within the preceding three years of any offenses referred to in that section, including any charge of fraud, bribery, collusion, conspiracy, or any other act in violation of any state or Federal antitrust law in connection with the bidding upon, award of, or performance of, any public works contract, as defined in Public Contract Code Section 1101, with any public entity, as defined in Public Contract Code Section 1100, including the Regents of the University of California or the Trustees of the California State University. The term "bidder" is understood to include any partner, member, officer, director, responsible managing officer, or responsible managing employee thereof, as referred to in Section 10285.1.

Note: The bidder must place a check mark after "has" or "has not" in one of the blank spaces provided. The above Statement is part of the Bid. Signing this Bid on the signature portion thereof shall also constitute signature of this Statement. Bidders are cautioned that making a false certification may subject the certifier to criminal prosecution.

Public Contract Code Section 10162 Questionnaire

In conformance with Public Contract Code Section 10162, the Bidder shall complete, under penalty of perjury, the following questionnaire:

Has the bidder, any officer of the bidder, or any employee of the bidder who has a proprietary interest in the bidder, ever been disqualified, removed, or otherwise prevented from bidding on, or completing a federal, state, or local government project because of a violation of law or a safety regulation?

Yes _____ No _____

If the answer is yes, explain the circumstances in the following space.

PROPOSAL

Public Contract Code 10232 Statement

In conformance with Public Contract Code Section 10232, the Contractor, hereby states under penalty of perjury, that no more than one final unappealable finding of contempt of court by a federal court has been issued against the Contractor within the immediately preceding two year period because of the Contractor's failure to comply with an order of a federal court which orders the Contractor to comply with an order of the National Labor Relations Board.

Note: The above Statement and Questionnaire are part of the Bid. Signing this Bid on the signature portion thereof shall also constitute signature of this Statement and Questionnaire.

Bidders are cautioned that making a false certification may subject the certifier to criminal prosecution.

PROPOSAL

NONCOLLUSION AFFIDAVIT

(Title 23 United States Code Section 112 and
Public Contract Code Section 7106)

To the City of Milpitas
Department of Public Works.

In conformance with Title 23 United States Code Section 112 and Public Contract Code 7106 the bidder declares that the bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the bid is genuine and not collusive or sham; that the bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid, and has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that the bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract; that all statements contained in the bid are true; and, further, that the bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid.

Note: The above Noncollusion Affidavit is part of the Bid. Signing this Bid on the signature portion thereof shall also constitute signature of this Noncollusion Affidavit. Bidders are cautioned that making a false certification may subject the certifier to criminal prosecution.

PROPOSAL

DEBARMENT AND SUSPENSION CERTIFICATION

TITLE 49, CODE OF FEDERAL REGULATIONS, PART 29

The bidder, under penalty of perjury, certifies that, except as noted below, he/she or any other person associated therewith in the capacity of owner, partner, director, officer, manager:

- is not currently under suspension, debarment, voluntary exclusion, or determination of ineligibility by any Federal agency;
- has not been suspended, debarred, voluntarily excluded or determined ineligible by any Federal agency within the past 3 years;
- does not have a proposed debarment pending; and
- has not been indicted, convicted, or had a civil judgement rendered against it by a court of competent jurisdiction in any matter involving fraud or official misconduct within the past 3 years.

If there are any exceptions to this certification, insert the exceptions in the following space.

Exceptions will not necessarily result in denial of award, but will be considered in determining bidder responsibility. For any exception noted above, indicate below to whom it applies, initiating agency, and dates of action.

Notes: Providing false information may result in criminal prosecution or administrative sanctions.

The above certification is part of the Bid. Signing this Bid on the signature portion thereof shall also constitute signature of this Certification.

CONTRACT

THIS AGREEMENT, dated for convenience this _____ day of _____, 20____, between the CITY OF MILPITAS, a municipal corporation in the County of Santa Clara, State of California (hereinafter called "CITY") and _____ (hereinafter called "CONTRACTOR"):

NOW, THEREFORE, the parties agree:

ARTICLE I: WORK TO BE DONE AND DOCUMENTS FORMING THE CONTRACT

That for and in consideration of the payments and agreements hereinafter mentioned, to be made and performed by the said CITY, and under the conditions expressed in two bonds hereunto annexed, the said CONTRACTOR agrees with the said CITY, at his/her own proper cost and expense, to do all the work and furnish all the materials and equipment necessary to construct and complete, in accordance with the plans and specifications hereinafter mentioned, in a good, workmanlike and substantial manner, all the work and improvements described, mentioned and set forth in those plans and specifications on file in the Office of the City Engineer, entitled:

"Contract Documents and Specifications for

Traffic Signal Controller and Advance Traffic Management System Upgrade"

which said specifications and all the documents therein contained are hereby specially referred to and by such reference made part of this contract.

ARTICLE II: CONTRACTOR'S ACCEPTANCE

The CONTRACTOR agrees to receive and accept the prices shown on Exhibit "A", which is attached hereto and incorporated by reference herewith, as full compensation for furnishing all materials and equipment and for doing all the work contemplated and embraced in this Agreement; also for all loss or damage arising out of the nature of the work aforesaid, or from the action of the elements, or from any unforeseen difficulties or obstructions which may arise or be encountered in the prosecution of the work until its acceptance by the City Council of the CITY OF MILPITAS, and for all risks of every description connected with the work; also for all expenses incurred by or in consequence of the suspension or discontinuance of the work and for well and faithfully completing the work, and the whole thereof, in the manner and according to the contract documents, plans and specifications, and the requirements of the City Engineer.

ARTICLE III: ACCEPTANCE BY CITY

The said CITY hereby promises and agrees with said CONTRACTOR to employ, and does hereby employ the said CONTRACTOR to provide the materials and to do the work according to the terms and conditions herein contained and referred to, for the prices aforesaid, and hereby contracts to pay the same at the time, in the manner and upon the conditions above set forth; and the said parties for themselves their heirs, executors, administrators, successors and assigns, do hereby agree to the full performance of the covenants herein contained.

ARTICLE IV: COMPLETION OF AGREEMENT

Reference is made to Section D-01 "Prosecution of the Work and Time of Completion", of the Special Conditions included within the specifications of this contract. Inasmuch as the work called for under this contract concerns a needed public improvement, the time of performance and completion of this work is of the essence of this contract. It is expressly understood and agreed by the parties hereto

that all the work called for under this contract, in all its parts and requirements, shall be completed before _____.

ARTICLE V: HOURS OF LABOR

The CONTRACTOR shall forfeit, as a penalty, to the CITY, Twenty-Five Dollars (\$25) or maximum amount required by law [check amount] for each workman employed in the execution of the contract by him or by any subcontractor for each calendar day during which any workman is required or permitted to labor more than eight (8) hours in violation of the provisions of Sections 1810-1815 inclusive of the Labor Code and all amendments thereto.

ARTICLE VI: TRAVEL AND SUBSISTENCE PAY

Each worker needed to execute the work set forth in this Agreement shall be paid travel and subsistence pay by the CONTRACTOR as required in Section 1773.8 of the Labor Code.

ARTICLE VII: DISCRIMINATION PROHIBITED

The CONTRACTOR shall not refuse to accept otherwise qualified employees for employment for any work set forth in this Agreement solely on the grounds of race, religion, creed, color, national origin, ancestry, physical handicap, marital status, sexual preference, political affiliation, or age of such employee.

ARTICLE VIII: INSURANCE

A. Définition:

For purposes of this contract, the following definition applies: City of Milpitas includes the duly elected or appointed officers, agents, employees and volunteers of the City of Milpitas, individually or collectively.

B. Insurance Required:

No work shall be done under this Contract unless there is in effect insurance required by the Contract and under this section, and such insurance has been approved by the CITY, nor shall the CONTRACTOR allow any subcontractor to commence work on his subcontract until all insurance required of the subcontractor has been so obtained and approved. The CONTRACTOR shall maintain or cause to be maintained adequate workers' compensation insurance as required under the laws of the State of California, for all labor employed by him or by any subcontractor under him who may come within the protection of such worker's compensation laws of the State of California and shall provide or cause to be provided employer's general liability insurance for the benefit of his employees and the employees of any subcontractor under him not protected by such compensation laws.

The CONTRACTOR shall furnish satisfactory proof (City form and Insurance Accord form), by certificate or otherwise as may be required, that it has taken out public liability and property damage insurance with insurance carriers satisfactory to the CITY, and in such form as shall be satisfactory to the CITY to protect said CONTRACTOR and said CITY as an additional insured against loss from liability imposed by law from damages on account of bodily injury, including death resulting therefrom, suffered or alleged to have been suffered by any person or persons other than employees, resulting directly or indirectly from the performance or execution of this contract or any subcontract thereunder, and also to protect said CONTRACTOR and said CITY as an additional insured against loss from liability imposed by law for damage to any property caused directly or indirectly by the performance or execution of this contract or any subcontract thereunder, which insurance shall also cover accidents arising out of the use and operation of automobiles and trucks. Said policy shall include, but not be limited to coverage for the omissions and supervisory acts of the CITY, its officers and employees.

Said policy shall also provide that the coverage afforded thereby to CITY, its officers, engineer and consultants, and employees, is primary coverage to the full limit of liability stated in the Declaration, and if the City, its officers or employees have other insurance against loss covered by said policy, said other insurance shall be excess insurance only, and that CITY, its officers and employees are not precluded from claims thereunder against other insured parties.

C. Comprehensive General and Automobile Liability:

The CONTRACTOR agrees to obtain and maintain in full force and effect during the term of this Agreement comprehensive general and automobile liability insurance protecting Contractor in the amounts of coverage of not less than the limits shown below. Such insurance shall name the City of Milpitas as defined above and as additional insured. Coverage shall be in accordance with the limits specified above and the provisions indicated herein. Claims-made policies are not acceptable. When umbrella or excess coverage is in effect, it must follow the form of the underlying coverage. Such insurance shall not be canceled or materially altered to reduce coverage without giving CITY at least thirty (30) days advance written notice of such cancellation or change, and it shall be the responsibility of CONTRACTOR to notify CITY of such change or cancellation.

General & Automobile Liability -----	\$2,000,000 per person \$2,000,000 for each occurrence
Property Damage -----	\$2,000,000 for each occurrence \$2,000,000 aggregate

Said policies shall have a non-cancellation clause providing that thirty (30) days written notice shall be given the CITY prior to such cancellation. Where the work includes a structure or structures subject to loss or damage by fire, the CONTRACTOR shall maintain or cause to be maintained fire insurance sufficient to protect against such loss or damage in full until the work is accepted by the CITY. Nothing herein contained shall be construed as limiting in any way the extent to which the CONTRACTOR may be held responsible for the payment of damages to persons or property resulting from his or her operations or operations of any subcontractor under him or her.

Proof of all such insurance shall be given by filing certificates of such insurance with the City Engineer prior to execution of the contract by the CITY.

D. Certificates of Insurance with Endorsements:

The CONTRACTOR shall file the required original Certificate of Insurance with endorsements prior to the commencement of the work or event; it shall be subject to CITY's approval and shall clearly state:

1. Policy number; name of insurance company; name, address and telephone number of agent or authorized representative; name, address and telephone number of insured; Project name and number; policy expiration date; and specific coverage amounts;
2. That thirty (30) days cancellation notice, unqualified as to the acceptance of liability for failure to notify City; and
3. The CONTRACTOR's insurance is primary.

The Certificate with endorsements and notices shall be mailed to: City of Milpitas, Attention City Engineer, 455 East Calaveras Boulevard, Milpitas California, 95035.

E. Workers Compensation Insurance:

The CONTRACTOR agrees to obtain and maintain statutory workers compensation and employers liability in an amount not less than One Million Dollars (\$1,000,000) and furnish City with a certificate showing proof of such coverage.

F. Deductibles, Self-Insured Retentions, and Proof of Insurance:

Prior to commencing any work under this Agreement, deductibles and self-insured retentions acceptable to CITY must be stated on Certificates of Insurance, and the Certificate of Insurance must be approved by CITY.

G. Absence of Insurance:

If the CONTRACTOR allows the insurance to laps, be cancelled, or be reduced below the limits specified in this article, the Contractor shall cause all work in the Project to cease and any delays or expenses caused due to stopping of work and change of insurance shall be considered CONTRACTOR's delay and shall not be considered to increase cost to the CITY or increase time in which the Project shall be completed.

H. Insurance Companies:

Insurance provided pursuant to this Contract must be from insurance companies admitted in California and rated at least A in Best's Insurance Guide; or such other insurance companies as are acceptable to CITY in its sole and unfettered decision.

ARTICLE IX: HOLD HARMLESS

The CONTRACTOR hereby agrees to and shall hold CITY, its elective and appointive boards, commissions, officers, agents, registered volunteers, and employees harmless from any liability for damage or claims for damage for personal injury, including death, as well as from claims for property damage and any other claims of any sort whatsoever, including, but not limited to, any liabilities, claims, losses, or expenses in any manner caused by, arising out of, or in connection with, either directly or indirectly, the construction or installation of the work, the guarding of the work, the use of improper materials in construction of the work, or the negligent, willful, or intentional acts or omissions by CONTRACTOR or CONTRACTOR's subcontractors, agents, or employee operations under this Agreement, whether such operations by CONTRACTOR or by any of CONTRACTOR's subcontractors, or by any one or more persons directly or indirectly employed by, or acting as agent for CONTRACTOR or any of CONTRACTOR's subcontractors during the progress of the work or at any time before its completion and final acceptance, excepting suits and actions brought by the CONTRACTOR for default of this Agreement or arising from the sole active negligence or willful misconduct of the CITY. The City Council may retain so much of the money due to the CONTRACTOR as shall be reasonably necessary to protect the City, until disposition has been made of such suits or claims for damages as aforesaid.

The CONTRACTOR agrees to and shall pay CITY's cost of defense (or, at the sole option of the CITY, CONTRACTOR shall defend with counsel approved by the City Attorney) and indemnify CITY and its elective and appointive boards, commissions, officers, agents, and employees from any suits or actions at law or in equity arising out of the execution, adoption or implementation of this Agreement (exclusive of any such action brought by CONTRACTOR), such indemnification to include all costs of defense, judgments, and any awards of attorneys' fees.

Should any accident or incident causing death, personal injury or property damage occur between the date CONTRACTOR is notified that its General Liability and/or Workers Compensation Insurance is canceled and the effective date of such cancellation, CONTRACTOR'S obligation to indemnify, defend and save harmless the CITY, as provided for hereinabove, shall in no manner be

affected by the fact that the CITY had not received the notice of cancellation prior to the date of such accident or incident.

ARTICLE X: BONDING REQUIREMENT

The CONTRACTOR agrees to post a Faithful Performance Bond and payment bond for Labor and Materials, or other guarantees, in the required amounts upon bond forms provided by the CITY, guarantying the performance of the terms of this Agreement.

ARTICLE XI: WARRANTY BOND

The CONTRACTOR further agrees to post a warranty bond in the amount equal to at least 10 percent (10%) of the total value of the entire work prior to CITY's acceptance of the project. The warranty bond shall remain in effect for a period of one (1) year after CITY's final acceptance of the work to guarantee the repair and/or replacement of the defective materials provided and/or workmanship performed under this contract.

ARTICLE XII: MAINTENANCE AND GUARANTY

The CONTRACTOR shall promptly repair, replace, restore, or rebuild, as the CITY may determine, any finished product in which defects of materials or workmanship may appear or to which damage may occur because of such defects, during three (3)-year period subsequent to the date of final acceptance.

This Article does not in any way limit the guaranty on any items for which a longer guaranty is specified or on any items which a manufacturer give a guaranty for a longer period, nor does it limit the other remedies of the CITY in respect to a latent defect, fraud or implied warranties. CONTRACTOR shall furnish the CITY all appropriate guaranties or warranty certificates upon completion of the project.

ARTICLE XIII: INTERPRETATION OF CONTRACT

It is further expressly agreed by and between the parties hereto that should there be any conflict between the terms of this instrument and the bid or proposal of said CONTRACTOR, then this instrument shall control and nothing herein shall be considered as an acceptance of the said terms of said proposal conflicting herewith.

ARTICLE XIV: AMENDMENTS

This Contract may be amended from time to time as necessary by formal and written amendment executed by the City Manager or his designee and principal acting on behalf of the CONTRACTOR.

ARTICLE XV: CHANGES OR EXTRA WORK

The CONTRACTOR acknowledges that in conformance with the Contract Documents, any changes or extra work must be authorized in writing by the City Engineer prior to the CONTRACTOR performing said work. CONTRACTOR further acknowledges that it is solely responsible for obtaining written authorization from the CITY and that it shall not be compensated for any additional work performed without said written authorization. Oral authorization shall not be sufficient to bind the CITY absent specific written authorization.

ARTICLE XVI MEDIATION

All claims for \$375,000 and less shall be arbitrated pursuant to the provisions of Public Contract Code Section 20104 et seq.

ARTICLE XVII CERTIFIED PAYROLL

Refer to General Conditions of the Contract Documents. All wages paid by the CONTRACTOR and its subcontractors shall be the current applicable prevailing wage rates, and as specified in project Contract Documents.

IN WITNESS WHEREOF, the parties to these presents have hereunto set their hands the year and date first written above.

Approved as to Form:

By: _____
City Attorney

By: _____
City Manager

Approved as to Sufficiency:

By: _____
City Engineer

By: _____
Contractor

Bond No. _____

FAITHFUL PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS, that _____ as Principal, and _____, a corporation authorized to do business in the State of California and organized and existing under and by virtue of the laws of the State of _____ as Surety, are held and firmly bound unto the City of Milpitas, a municipal corporation of the County of Santa Clara, the State of California, in the sum of _____ Dollars (\$ _____), for the faithful performance of a certain annexed contract, _____, Project No. _____, to be paid to the City of Milpitas for the payment of which well and truly to be made, the said Principal and the said Surety, hereby bind themselves and all and singularly, their heirs, administrators, executors, successors and assigns, jointly and severally, firmly by these presents.

Signed by us and dated this _____ day of _____, 20____.

WHEREAS, the said Principal has entered into the annexed contract with the City of Milpitas to perform and complete, in strict conformity herewith and in a good and workmanlike manner: _____, in accordance with maps, plans and specifications on file in the office of the City Engineer of the City of Milpitas.

NOW, THEREFORE, the conditions of the above and foregoing obligations are such that:

If the said Principal shall faithfully perform the said contract, then the above obligation with respect to the faithful performance of said contract shall be void; otherwise to remain in full force and effect.

And that said Surety, for value received hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract or to the work to be performed thereunder or the specifications accompanying the same, shall in any way affect its obligations on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract or to the work or to the specifications.

In case suit is brought upon this bond by the City of Milpitas, a reasonable attorney's fee, to be fixed by the Court, shall be paid by Principal and Surety.

IN WITNESS WHEREOF, the said Principal and Surety have executed this instrument the day and year first herein above written.

Approved as to Form:

By: _____
City Attorney

By: _____
Principal (Contractor)

Approved:

By: _____
City Manager

By: _____
Surety

PAYMENT BOND
(Labor & Materials)

KNOW ALL MEN BY THESE PRESENTS, that _____ as Principal, and _____ a corporation authorized to do business in the State of California and organized and existing under and by virtue of the laws of the State of _____ as Surety, are held and firmly bound unto the City of Milpitas, a municipal corporation of the County of Santa Clara, the State of California, in the sum of _____ Dollars (\$_____) for the benefit of laborers and material hereinafter designated, to be paid to the City of Milpitas for the payment of which well and truly to be made, and said Principal and the said Surety, hereby bind themselves and all and singularly, their heirs, administrators, executors, successors and assigns, jointly and severally, firmly by these presents.

Signed by us and dated this _ day of _____, 20____.

WHEREAS, the said Principal has entered into the annexed contract with the City of Milpitas to perform and complete, in strict conformity therewith and in a good and workmanlike manner:

_____, in accordance with maps, plans and specifications on file in the office of the City Engineer of the City of Milpitas.

NOW, THEREFORE, the conditions of the above and foregoing obligations are such that:

If said principal or his or her subcontractors, their heirs, executors, administrators, successors and assigns shall fail to pay for any materials, provisions, provender or other supplies or teams used in, upon, for or about the performance of the work contracted to be done, or for any work or labor thereon of any kind or for amounts due under the Unemployment Insurance Act with respect to such work or labor, then said Surety will pay the same in or to an amount not exceeding the amount herein above specified to be for the benefit of laborers and material and also will pay, in case suit is brought upon this bond, such reasonable attorney's fee as shall be fixed by the Court, awarded and taxed as provided by law.

This bond, to the extent of the obligation herewith with respect to laborers and material, shall inure to the benefit of any and all persons, companies and corporations entitled to file claims under Division 3, Part 4, Title 15 of the Civil Code of the State of California, so as to give a right of action to them or their assigns in any suit brought upon this bond. And that said Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract or to the work to be performed thereunder or the specifications accompanying the same, shall in any way affect its obligations on the bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract or to the work or the specifications. In case suit is brought upon this bond by the City of Milpitas, a reasonable attorney's fee, to be fixed by the Court, shall be paid by principal and surety.

IN WITNESS WHEREOF, the said Principal and Surety have executed this instrument the day and year first herein above written.

Approved as to Form:

By: _____
City Attorney

By: _____
Principal (Contractor)

Approved:

By: _____
City Manager

By: _____
Surety

CITY OF MILPITAS
CERTIFICATE OF INSURANCE
General and Automobile Liability

The undersigned insurance company hereby certifies to the City of Milpitas, California that it has issued a policy of insurance bearing Policy No. _____ to _____ in connection with a certain as work of improvement generally described as _____, being a certain general and automobile liability policy which names the City of Milpitas, its officers and employees as additional insured, and which insures said City, officers and employees against liability of financial loss resulting from injuries occurring to persons or property in or about or in connection with said work of improvement, including, but not limited to, coverage for all work performed by, for or on behalf _____.

Said policy of insurance provides coverage in the following minimum amounts and for the following periods:

	<u>COVERAGE</u>	<u>POLICY NO.</u>	<u>POLICY PERIOD</u>	<u>MINIMUM LIMITS OF LIABILITY</u>
1)	Bodily Injury			\$2,000,000 each person \$2,000,000 each occurrence
2)	Property Damage			\$2,000,000 each person \$2,000,000 each occurrence

This policy provides: (1) primary coverage for additional insured parties; if said additional insured have other insurance against loss covered by this policy, the other insurance shall be excess insurance only; (2) That said additional insured parties are not precluded from claim under this policy against other insured parties; and (3) Each insurance policy required by this clause shall be endorsed to state that coverage shall not be suspended, voided, canceled by either party, reduced in coverage or in limits except after thirty (30) days prior written notice by certified mail, return receipt requested, has been given to the City Clerk.

Insurance Company

Address of Signatory:

Authorized Signature (Sign)

Authorized Signature (Type)

VERIFICATION

I declare under the penalty of perjury that I am authorized to sign this Certificate on behalf of the above-named insurer. Executed at _____, California, on the _____ day of _____, 20____. *

Authorized Signatory (Sign)

(Type Name)

SUBSCRIBED AND SWORN TO BEFORE ME, a
Notary Public, this _____ day of
_____, 20____.

(Sign)

(Type Name)

* If this certificate is executed outside of California, it must be sworn to before a Notary Public.

FORM APPROVED: _____, 20____, by _____

CITY OF MILPITAS

CONTRACTOR'S CERTIFICATE RELATING TO WORKER'S COMPENSATION INSURANCE

I, THE UNDERSIGNED, HEREBY CERTIFY that at all times during the performance of any work under contract or agreement with the City of Milpitas (check one of the following):

_____ I will have in full force and affect Worker's Compensation Insurance pursuant to the attached Certificate of Worker's Compensation Insurance issued by an admitted insurer. Said certificate shall state that there is in existence a valid policy for Worker's Compensation Insurance in a form approved by the California Insurance Commissioner. The certificate shall show the expiration date of the policy, that the full deposit premium on the policy has been paid and that the insurer will give City at least ten (10) days advance notice of the cancellation of the policy (an exact copy or duplicate of the Certificate of Worker's Compensation Insurance certified by the Director of Industrial Relations or the insurer may be attached).

_____ I have in full force and effect and have attached hereto a Certificate of Consent to Self-insure issued by the Director of Industrial Relations (an exact copy or duplicate thereof certified by the Director may be attached).

I declare under penalty of perjury that the foregoing is true and correct and executed on this _____ day of _____, 20__ at Milpitas, California.

By: _____

Official Title

On behalf of: _____
Contractor

NOTE: YOUR CERTIFICATE OF WORKER'S COMPENSATION INSURANCE MUST BE ATTACHED AND MUST MEET THE REQUIREMENTS SET FORTH ABOVE.

PLEASE NOTE THAT IF YOU HAVE ANYONE WORKING FOR OR WITH YOU, YOU MAY BE REQUIRED TO HAVE WORKER'S COMPENSATION INSURANCE. FOR FURTHER INFORMATION, CONTACT THE OFFICE OF THE DIRECTOR OF INDUSTRIAL RELATIONS, 888 NORTH FIRST STREET, SAN JOSE, CALIFORNIA, TELEPHONE (408) 277-1265.

CERTIFICATE OF WORKER'S COMPENSATION INSURANCE

FOR THE CITY OF MILPITAS

The undersigned insurance company hereby certifies to the City of Milpitas, California, that it is an admitted Worker's Compensation Insurer and that it has issued a policy of Worker's Compensation Insurance bearing policy number _____ to _____. Said policy is a valid policy of Worker's Compensation Insurance issued in a form approved by the California Insurance Commissioner and is now in full force and effect. The full deposit on said policy has been paid. The expiration date of said policy is the _____ day of _____, 20____. The undersigned insurer will give said City of Milpitas at least ten (10) days advance notice of the cancellation of said policy.

Dated:_____

INSURANCE COMPANY

Address:_____

AUTHORIZED REPRESENTATIVE (Signature)

AUTHORIZED REPRESENTATIVE (Type Name)

I declare under penalty of perjury that the foregoing is true and correct.

Executed at Milpitas, California, on the ____ day of _____, 20_____.

AUTHORIZED REPRESENTATIVE (Signature)

AUTHORIZED REPRESENTATIVE (Type Name)

SECTION B - INSTRUCTION TO BIDDERS

B-01 EXAMINATION OF SPECIFICATIONS AND SITE OF WORK

The bidder is required to examine carefully the site of the work, the Contract Documents, and specifications. The bidder and its agents shall familiarize themselves and must fully understand the character, quality and quantities of work to be performed, materials to be furnished, and the requirements of this contract, to their professional satisfaction. The submission of the Proposal shall be prima facie evidence that the bidder has made such an examination.

B-02 INTERPRETATION OF DRAWINGS AND DOCUMENTS

If any bidder should find discrepancies in, or omissions from the drawings, specifications or other proposed contract documents, or if the bidder should be in doubt as to the true meaning of any part thereof, he or she shall at once make a written request to the Engineer for correction, clarification, or interpretation of the point or points in question. The person submitting such request shall be responsible for its prompt delivery.

In the event that the Engineer receives such a request, and it should be found that certain essential information is not clearly and fully set forth, or if the Engineer discovers errors, omissions, or points requiring clarification in the documents, a written addendum will be mailed to each person to whom a set of contract documents (on the plan holder list) has been delivered. The City will not be responsible for any instructions, explanations or interpretations of the documents presented to bidders in any manner other than written addendum.

B-03 ADDENDA

The effect of all addenda to the contract documents shall be considered in the bid, and said addenda shall be made a part of the contract documents and shall be returned with them. Before submitting his or her bid, each bidder shall inform himself or herself as to whether or not any addenda have been issued, and failure to cover in his or her bid any such addenda issued, may render his or her bid incomplete and result in its rejection.

B-04 BIDDERS INTERESTED IN MORE THAN ONE BID

No person, firm or corporation shall be allowed to make, file or to be interested in more than one bid for the same work unless alternate bids are called for. A person, firm or corporation who has submitted sub-proposal to a bidder, or who has quoted prices on materials to a bidder, is not hereby disqualified from submitting a sub-proposal or quoting prices to other bidders or from submitting a bid in his or her own behalf.

B-05 PROPOSALS

Bids to receive consideration shall be made in accordance with the following instructions:

- a) Bids shall be made only upon the forms attached to and forming a part of the Contract Documents; all bid items shall be properly filled out; numbers shall be stated in both words and in figures, and the signature of all persons signing shall be in longhand. Where there is conflict in the words and figures, the words shall govern.
- b) All prices and notations must be in ink or typewritten. No erasures will be permitted. Mistakes may be crossed out and correction typed or written in with ink adjacent thereto, and must be initialed in ink by the person or persons signing the bid.

- c) Bids shall not contain any recapitulation of the work to be done. Alternative proposals will not be considered unless called for. No oral, facsimile, or telephonic proposals or modifications will be considered.
- d) The City requires any bidder to furnish a statement of his or her experience, financial responsibility, technical ability, equipment and references, properly and fully filled out.
- e) Each bidder shall list his or her proposed subcontractors on the form accompanying the proposal, in accordance with the provisions of the specifications.
- f) Bids shall be delivered to the City office specified in the "Request for Proposal" on or before the day and hour set for the opening of bids. Bids shall be enclosed in a sealed envelope and shall bear the title of the work and name of the bidder.

B-06 ANNOUNCE SELECTION

A written announcement of contractor selection will be sent to all bidders, unless amended by Addendum.

B-07 BID PROTEST

Should any bidder question or protest the award of the contract, such question or protest must be furnished in writing to the City Engineer no later than five days following the date of the contractor selection. Such submittal must fully explain the basis of the objection supported by all relevant information facts and details. Questions or protests not furnished in writing as prescribed will not be accepted. The City Engineer's response will be provided no later than three days prior to the date scheduled for contract award. No administrative appeal to the City Engineer's response will be accepted.

B-08 AWARD OR REJECTION OF BIDS

The Milpitas City Council may award the contract to the responsible bidder whose proposal complies with these and all other contract documents.

The City reserves the right to review bids for a period of time not to exceed forty-two (42) days after sealed bids have been opened, before formally awarding contract or rejecting bids. The City also reserves the right to reject any or all bids, and to waive any minor informality or immaterial technical deviation in bids received and any requirement of these specifications as to bidding procedure.

The award of the contract, if it be awarded, will be to the highest ranked bidder whose proposal complies with all the requirements prescribed.

B-09 THE CONTRACT

After contract award, a Notice of Award will be provided to the successful bidder. The successful bidder shall execute a written contract with the City of Milpitas and furnish good and approved bonds as specified by the City within 15 days after receipt of Notice of Award, unless the extension of time is granted to the bidder in writing. The contract shall be made in the form adopted by the City and provided in these Contract Documents. If the bidder to whom the award is made fails to enter into the contract as herein provided, award may be annulled, and an award may be made to the next highest ranked bidder and such bidder shall fulfill every stipulation embraced herein as if the bidder were the party to whom the first award was made. A corporation in which an award is made shall furnish evidence of its corporate existence and evidence that the officer signing the contract and bonds for the corporation is duly authorized to do so.

B-10 CONTRACTOR'S BONDS

The Contractor shall furnish a Payment Bond (Labor and Materials) in an amount not less than one hundred (100) per cent of estimated contract price, to be paid to the City of Milpitas conditioned upon the payments by said Contractor for all materials, services, supplies, and transportation furnished in the performance of the work contracted to be done by the terms of said contract, and for any work or labor of any kind done thereon.

The Contractor shall also furnish a Warranty Bond in an amount not less than one hundred (100) per cent of the estimated contract price, to be paid to the City, conditioned upon the faithful performance by the Contractor of all covenants and stipulations in the contract.

In the event that Contractor fails to perform any obligation on its part to be performed hereunder, Contractor agrees to pay all costs and expenses incurred by City in securing performance of such obligation and if suit be brought by City to enforce this agreement, Contractor agrees to pay costs of suit and reasonable attorney's fees to be fixed by the Court.

If, during the continuance of the contract, any of the sureties, in the opinion of the City Engineer, are or become irresponsible, the City Council may require additional sufficient sureties, which the Contractor shall furnish to the satisfaction of said Council, within ten (10) days after notice, and in default thereof, the contract may be suspended by the City Council evidenced by resolution, and the materials may be purchased or the work completed as elsewhere provided in these specifications.

The successful bidder, simultaneously with the execution of the contract, shall furnish a labor and material's bond and faithful performance bond, each in an amount equal to one hundred (100) per cent of the contract price, as hereinafter more particularly specified. Surety companies, to be acceptable to the City, must be authorized to do business in the State of California.

Payment Bond Certificate Requirements

In conformance with the State of California Code of Civil Procedure Code Section 995.311, the insurer shall submit a certificate from the County Clerk that the insurer's certificate of authority has not been revoked or suspended, or if so, that it has been renewed, and copies of the insurer's most recent annual and quarterly statement filed with the Department of Insurance pursuant to Section 900 et seq. of the Insurance Code. These documents shall be submitted to the City within 15 days of executing the Payment Bond (Labor and Materials).

B-11 NOTICE OF AWARD

The Contractor shall submit completed contract, bonds, and insurance documents to the City within 15 days after receiving a Notice of Award of the contract.

The Notice of Award will include the following:

- A. A Cover Letter which includes the date of the Pre-Project Meeting
- B. Two (2) copies of the Contract, Bonds, and insurance forms for execution
- C. A Business License Application
- D. A City of Milpitas Request for Taxpayer Identification Number Form
- E. A Contractor's Information Form

The City and the Contractor recognize that time is of the essence for this Contract and that the City will suffer financial loss if the work is not started within the time specified after Notice of Award. The City reserves the right to annul the awarded contract for just cause, if the Contractor does not complete all of the following within 15 days after receiving a Notice of Award:

1. Submit the executed contract, bond, insurance, and other documents as noted above (two copies each)
2. Submission of the name, address, and telephone number for Company Safety Officer and the Company Safety Policy per CAL-OSHA Construction Safety Order 1509.
3. Submission of a Legal Document listing authorized personnel who can sign Contract Documents, including Contract Change Orders, on behalf of the Contractor.
4. Submit Apprenticeship Standards Notification Form in accordance with these Contract Documents.

END OF INSTRUCTIONS TO BIDDERS

SECTION C – SCOPE OF WORK

C-01 BACKGROUND

The City of Milpitas received a Transportation Fund for Clean Air (TFCA) grant to upgrade the City's traffic signal field controllers, central traffic management system, traffic signal communications auxiliary equipment and to implement a City-wide traffic signal retiming effort to take advantage of new traffic signal timing features and change to traffic conditions. The City plans to contract with a single traffic signal controller/management system developer or Contractor to implement this project. Only proposals from Contractors whom are proposing a traffic signal controller and advanced traffic management system developed by the same manufacturer shall be accepted. The City anticipates the project to be implemented over three phases.

The City of Milpitas has seventy-two (72) traffic signals of which approximately forty-four (44) are on-line on the City's existing traffic signal management system, a Multisonics Vehicle Management System (VMS) and coordinated through the use of time-based coordination plans. The VMS system is located in the Traffic Operation Center (TOC) located at the City's Public Works facility on 1265 N. Milpitas Boulevard. The 72 project intersections are identified in Section **C-05** and **C-06**. The existing traffic signal field controllers consist of Multisonics 820A controllers. A majority of the traffic signal field cabinets include NEMA Type TS-1 platform cabinets, but approximately 9 cabinets have been upgraded to TS2 – Type 2 platform cabinets and 2 cabinets are Type 332 with NEMA adaptors.

The new traffic signal controllers to be procured through this Request for Proposals must be TS2 – Type 2 compliant and enabled for Ethernet communication. Traffic signal cabinet upgrades are not anticipated as part of this project so proposals should include equipment submittals to show that their proposed equipment will be compatible with existing traffic signal cabinet infrastructure. The existing traffic signal communications network operates on 25-Pair, 22-AWG traffic signal interconnect cables with 1200-baud rate modems both in the traffic signal field controllers and in the VMS communications server. All 25-pairs are currently used by the VMS communications server. The City anticipates an upgrade of the field and center traffic signal communications equipment to Ethernet-Over-Copper equipment.

The City anticipates deployment of this project in three phases. The new traffic signal controller and central system must comply with NEMA standards for traffic signal control, including center-to-center and center-to-field protocols and meet all the mandatory and optional objects per NTCIP 1202 (NTCIP Object Definitions for Actuated Signal Control) as currently published. The Ethernet-Over-Copper equipment must be capable of providing redundant communications over a minimum of 4-pairs of twisted copper pair.

Responders to these procurement specifications must have sufficient experience in the deployment of traffic signal controllers, advanced management systems, development of traffic signal communications master plans, deployment of traffic signal communications networks, development of IP network, be experts in the deployment of traffic signal field equipment, be experts in the development of traffic signal timing plans for the proposed equipment, and be able to develop and provide City staff with training on a turn-key system that will allow the City to manage commute, peak, and incident traffic.

C-01.1 ABBREVIATIONS

ATMS	Advanced Traffic Management System
ATC	Advanced Traffic Controller
CCTV	Closed Circuit Television
DEN	Data Exchange Network
EIA	Electronic Industries Association
IEEE	Institute of Electrical and Electronic Engineers
IP	Internet Protocol
ITS	Intelligent Transportation Systems
GHz	Gigahertz
GB	Gigabyte
LAN	Local Area Network
LCD	Liquid Crystal Display
NEMA	National Electrical Manufacturers Association
NTCIP	National Transportation Communications for ITS Protocol
NTSC	National Television System Committee
SNMP	Simple Network Management Protocol
SV-ITS	Silicon Valley Intelligent Transportation System
TOC	Traffic Operations Center
TWP	Twisted Wire Pair

C-02 SCOPE OF WORK

C-02.1 GENERAL

The City of Milpitas (hereinafter City) is soliciting proposals from qualified Contractors for the procurement and installation traffic signal field controllers, same-manufacturer accompanying ATMS and the development and deployment of an Ethernet-Over-Copper traffic signal communications network. The work shall consists, in general, of a turn-key operation of mobilization, traffic control, furnishing, delivering, installing, salvaging, configuring, programming, wiring, testing, warranty, and training for traffic signal system equipment at field intersections and TOC as specified in this Scope of Work. The selected Contractor shall be responsible for implementing a fully operational and functional traffic signal management system meeting the requirements set forth in this document. The Contractor shall be responsible to make all modifications necessary to the existing traffic controller cabinet to restore existing traffic signal operation and timing after installation of new traffic controller. Training of up to four (4) City staff, equipment testing, field data inventory, traffic data collection and system maintenance shall be included. This work shall be performed according to City and State Standards and the requirements of this Scope of Work. Upon the successful implementation of all traffic signal field controllers and the ATMS, the Contractor is also responsible for developing and implementing new signal timing plans for those intersections that are currently coordinated by the City or that could be coordinated to take advantage of new functionality offered by the new traffic controller; a total of fifty-two (52) intersections are anticipated for coordination or coordination evaluation.

The City currently has seventy-two (72) active traffic signals including traffic signal controllers and auxiliary field and central equipment. All traffic signal controllers shall be upgraded as part this project. Approximately forty-four (44) of the existing traffic signals are currently connected to the City TOC VMS system via TWP interconnect through the use of 1,200-baud modems. The existing TWP copper

interconnect shall remain in place, and an Ethernet-Over-Copper high-speed communications network shall be implemented on the TWP copper interconnect as part of this project.

Four (4) traffic signals at McCarthy Boulevard, Adler Drive, I-880 SB ramps, and I-880 NB ramps along Tasman Drive/Great Mall Parkway have light rail priority operation and light rail warning system in place. The light rail priority is currently operated with a separate hardware logic that is interconnected with the existing traffic controller. It is desirable that the new traffic controller replicates existing light rail priority operation without the existing hardware logics or the new traffic controller provides comparable transit priority function.

Section **C-05** and **C-06** identify in general the City's traffic signal locations and signal interconnect cable layout.

The City anticipates deployment of the traffic signal controllers and ATMS over three phases as follow:

- Phase 1: Develop Communication Master Plan, implement N Milpitas Boulevard - Abel Street - Jacklin Road - Main Street Corridors, and implement ATMS Server and local access workstations and laptops
 - Approximately twenty-two (27) Intersections
- Phase 2: Implement Tasman Dr - Great Mall Parkway - McCarthy Boulevard - Ranch Drive - Bellew Drive - Alder Drive - Barber Lane - Dixon Landing Road - S Milpitas Boulevard Corridors
 - Approximately twenty-one (21) Intersections
- Phase 3: Implement remaining isolated traffic signals in the City and Finalize ATMS and local access workstations and laptops
 - Approximately twenty-four (24) Intersections

Ethernet-Over-Copper switch field equipment shall be implemented at each intersection during deployment of each Phase to ensure continuous communications between field traffic controller and the TOC. The Contractor shall be responsible for developing a communications master plan prior to any deployment to demonstrate how the system will be implemented and ensure continuous communications to existing and new field equipment during deployment. The communication plan shall also provide connectivity diagram and addressing scheme for currently isolated traffic signals for future connection and implementation.

C-02.2 MATERIALS AND DELIVERABLES

C-02.2.1 ADVANCED TRAFFIC MANAGEMENT SYSTEM

The Contractor shall furnish and install a mature web-based Advanced Traffic Management System at the TOC that includes most current software, communications equipment, server rack, server equipment, uninterruptible power supply, firewall, and database backup system. Proposed systems must be mature with existing deployments active and functioning for at least four (4) years in the United States from the date of advertising of these procurement specifications. ATMS Beta systems or ATMS applications not meeting the minimum four (4) year mature requirements shall not be accepted. The associated communications server for the ATMS shall be capable of at least 1,000 traffic signals on a single communications server without the use of multiple communication server applications.

The server shall be a rack-mounted Windows Server 2008 based server with a 19-Inch rack-mounted retractable LCD display and keyboard/mouse controls. A data backup system shall be included to automatically backup entire the ATMS database and system settings for a full system restoration. An uninterruptible power supply shall be included with the server to allow 1-hour system operation without

external power and proper shutdown of the ATMS without the lost or corruption of system data. The server shall be configured with the ATMS software and installed by the Contractor. The ATMS system shall include all necessary Ethernet communication equipment and cables to provide connectivity with local field traffic controllers over TWP copper, two local access workstations in the TOC, and one local access workstation at City Hall via existing the City's LAN network. A firewall system shall be furnished and installed as part of the ATMS to isolate the traffic signal system from the City's LAN network. The Contractor shall furnish and install a 19" server rack to house the ATMS server, communication equipment, ATMS data backup equipment, and UPS. System functionality requirements for the ATMS are provided in Section **C-03**.

The proposed ATMS and traffic signal controllers must be capable of implementing a Central Master module to allow the control of traffic signal coordination plans through the ATMS instead of on a time-based schedule remotely at the field intersections. The Contractor shall fully describe the Central Master Module functionality of their traffic signal controller and ATMS including communications requirements and cost.

The mature web-based ATMS functions and interfaces shall include, as a minimum, the following components:

- ❑ Internet Access;
- ❑ Security Level Access;

The Contractor shall fully describe the ATMS capabilities of the current system and additional modifications, required upgrades, or proposed approach to achieving each of the requirements listed above. All minimum required interfaces to the components listed above shall be included in the ATMS system provided under this contract. The Contractor shall, to the extent possible, provide an estimate for integrating each of the requirements listed above, if it is an additional cost to the system.

The Contractor shall provide software upgrades to the City at no cost for a minimum of 3 years. Software upgrades shall not require the system to be offline for longer than the time it may take to reboot the system. The Contractor shall document all terms and conditions (including duration of free upgrades) in the proposal, as well as any upgrade costs beyond the minimum 3 year period.

The Contractor shall indicate to what extent additional customization is available to the City. All additional costs associated with software customization shall be clearly defined in the proposal.

Measurement:

Furnish and Install Advanced Traffic Management System shall be measured by lump sum price.

Payment:

The contract lump sum price paid for Furnish and Install Advanced Traffic Management System shall include full compensation for furnishing all labor, hardware, software, software upgrades, warranty, licenses, equipment, cables, cable terminations, tools, materials, incidentals, upgrades, preparation required and for doing all the work involved in furnishing, installing, programming, testing, and making fully functional ATMS as described herein, as specified in the Standard Specifications, these Technical Provisions and as directed by the Engineer and no additional compensation will be allowed there for.

C-02.2.1.1 ADDITIONAL FUNCTIONS

The Contractor shall identify those functions that are not outlined in the Specifications and that may be an enhanced function or module that is unique to the Contractor's system and be desirable to the City. While these functions are not required by the City, they will be considered during the evaluation of proposals. Any additional costs associated with these additional functions shall be clearly identified in the proposal.

C-02.2.1.2 TRANSIT SIGNAL PRIORITY MODULE (OPTIONAL)

Although not required during the implementation of the ATMS System, the proposed ATMS and traffic signal controllers must be capable of implementation of Traffic Signal Priority Module. The Contractor shall fully describe the Transit Signal Priority functionality of their module including a description of software, communications, detection requirements, and cost. A reference list of three, recent or active deployments for the proposed Transit Signal Priority module deployments shall be included.

C-02.2.1.3 TRAFFIC SURVEILLANCE VIDEO SERVER/INTEGRATION (OPTIONAL)

Although not required during implementation of the ATMS, the proposed ATMS system should be capable of accepting analog or IP video source inputs and be easily programmed to have activation buttons that will launch video screens within the ATMS for viewing traffic surveillance video. The Contractor should describe in their proposal the equipment necessary to integrate the City's Existing Pelco Spectra III surveillance cameras into the ATMS and include pricing for any additional servers and server software that would be required to allow for full integration of video into the ATMS.

Pelco Spectra III surveillance camera specifications are located on the following internet address:
[http://www.global-download.schneider-electric.com/852575770039EC5E/All/1994A53473837449852576380063FDDC/\\$File/c2429.pdf](http://www.global-download.schneider-electric.com/852575770039EC5E/All/1994A53473837449852576380063FDDC/$File/c2429.pdf)

The City's existing analog Panel-Tilt-Zoom camera video is transmitted back to the TOC over fiber optic transceivers. Pricing for any required encoders to convert the video and serial control data to IP format should also be included. There are 10 Pelco Spectra III surveillance camera locations in the City.

Measurement:

Furnish and Install Transit Signal Priority Module shall be measured by lump sum price. Furnish and Install Traffic Surveillance Video Server/Integration shall be measured by lump sum price.

Payment:

The contract lump sum price paid for Furnish and Install Transit Signal Priority Module shall include full compensation for furnishing all labor, equipment, tools, materials, incidentals, preparation required and for doing all the work involved in furnishing, installing, testing, programming, training, warranty, and making fully functional traffic signal priority software module within the ATMS as described herein, as specified in the Standard Specifications, these Technical Provisions and as directed by the Engineer and no additional compensation will be allowed there for.

The contract lump sum price paid for Furnish and Install Traffic Surveillance Server/Integration shall include full compensation for furnishing all labor, equipment, encoders, tools, hardware, materials, incidentals, preparation required and for doing all the work involved in furnishing, developing, installing, testing, programming, training, and making fully functional traffic surveillance video server and integration within the ATMS as described herein, as specified in the Standard Specifications, these Technical Provisions and as directed by the Engineer and no additional compensation will be allowed there for.

C-02.2.2 TRAFFIC SIGNAL CONTROLLER

The Contractor shall furnish and install NEMA TS-2 Type 2 traffic signal field controller with Ethernet communication capability in accordance with the System functionality requirements for the traffic signal controller equipment is provided in Section **C-04**. Existing traffic signal controller cabinets, conflict monitors, and auxiliary traffic signal cabinet equipment shall be reused. Traffic signal controllers shall include D-harness connector, if required. Field locations with existing NEMA TS-2 Type 1 traffic signal

field cabinets may be required to utilize NEMA TS-2 Type 1 traffic signal controllers depending on equipment submittals by the Contractor. The Contractor shall furnish two (2) set of software, cables, and necessary equipment to allow update of traffic controller firmware or software.

Measurement:

Furnish and Install Traffic Signal Controller shall be measured by unit count. Furnish Traffic Signal Controller shall be measured by unit count.

Payment:

The contract unit price paid per each for Furnish and Install Traffic Signal Controller shall include full compensation for furnishing all labor, equipment, firmware/software upgrade equipment, software, license, warranty, D-harness connector, tools, materials, incidentals, preparation required and for doing all the work involved in furnishing, salvaging, installing, testing, programming, labeling, making fully functional as described herein, as specified in the Standard Specifications, these Technical Provisions and as directed by the Engineer and no additional compensation will be allowed there for.

The contract unit price paid per each for Furnish Traffic Signal Controller shall include full compensation for furnishing all labor, equipment, tools, materials, incidentals, preparation required and for doing all the work involved in furnishing, delivery, license, warranty, as described herein, as specified in the Standard Specifications, these Technical Provisions and as directed by the Engineer and no additional compensation will be allowed there for.

C-02.2.3 COMMUNICATIONS MASTER PLAN

Prior to the procurement of any communications equipment, the Contractor shall develop and submit for City approval a Communications Master Plan that demonstrates the integration of Ethernet-Over-Copper field equipment into the City's TOC. The Communication Master Plan shall identify the proposed equipment modules utilized at the TOC, Point-to-Point and Point-to-Multi-Point Ethernet over copper switch locations in the field, traffic signal field locations, and TWP copper assignment. The Communication Master Plan shall support deployment of the system over three phases as discussed in the introduction of these procurement specifications. The Communication Master Plan shall include an IP-scheme for addressing of all field and office equipment including provisions for future IP-based equipment including video surveillance cameras, dynamic message signs, and other ITS devices.

Three hardcopies and one electronic copy of the communications master plan shall be submitted to the City for review and approval.

Measurement:

Communication Master Plan shall be measured by lump sum price.

Payment:

The contract lump sum price paid for Communication Master Plan shall include full compensation for furnishing all labor, equipment, tools, materials, field review, development, revisions, incidentals, preparation required and for doing all the work involved developing and preparing a communication master plan as described herein, as specified in the Standard Specifications, these Technical Provisions and as directed by the Engineer and no additional compensation will be allowed there for.

C-02.2.4 LOCAL ACCESS WORKSTATIONS

The Contractor shall furnish and install three (3) local access workstations and three (3) local access workstation laptops. Two (2) local access workstations shall be furnished and installed in the TOC located

at the same location as the required ATMS server. One (1) local access workstation shall be furnished and installed at the Engineering Division in City Hall.

The local access workstation shall consist of PC-based system operations on a Windows 7 with two-24", LCD, flat-panel, dual monitor displays. Each local access workstation shall include the following minimum equipment specifications: Intel Core 2 Duo Processors, 3.5 GHz or higher, 24 GB of RAM, 1 Terabyte Hard Drive, 512 MB video card, 8 USB 2.0 (2 front, 5 back, 1 internal on motherboard), wireless 104-key keyboard and optical scroll mouse, DVD RW Drive, DVD Drive, Ethernet network card, and ATMS client software installed.

The local access workstation laptop shall consist of a ruggedized PC-based system laptop on Windows 7. Each local access workstation laptop shall include the following minimum equipment specifications: Intel Core 2 Duo Processors, 2.4GHz or higher, 24 GB of RAM, 15" display 500 Gig Hard Drive, 512 MB video card, 2 USB 2.0, DVD RW Drive, Ethernet network port, wireless Ethernet enable and ATMS client software installed.

The local access workstation laptop shall allow remote control of the ATMS while off the City's dedicated computer network. The City Hall local access workstation shall utilize an Ethernet connection over the City's existing LAN to connect to the ATMS server at the TOC.

Each local access workstation shall include all installation software and documentation to permit the City to transfer the ATMS software to an alternate workstation.

Measurement:

Furnish and Install Local Access Workstation shall be measured by unit count. Furnish and Install Local Access Workstation Laptop shall be measured by unit count.

Payment:

The contract unit price paid per each Furnish and Install Local Access Workstation shall include full compensation for furnishing all labor, software, equipment, hardware, cables, tools, materials, incidentals, warranty, license, coordination with City IT staff, preparation required and for doing all the work involved in furnishing, installing, testing, programming, training, making fully functional and including all necessary software as described herein, as specified in the Standard Specifications, these Technical Provisions and as directed by the Engineer and no additional compensation will be allowed there for.

The contract unit price paid per each for Furnish and Install Local Access Laptop shall include full compensation for furnishing all labor, equipment, hardware, cables, tools, materials, incidentals, warranty, license, coordination with City IT staff, preparation required and for doing all the work involved in furnishing, installing, testing, programming, training, making fully functional and including all necessary software as described herein, as specified in the Standard Specifications, these Technical Provisions and as directed by the Engineer and no additional compensation will be allowed there for.

C-02.2.5 ETHERNET-OVER-COPPER SWITCH

At each traffic signal field location, the Contractor shall furnish and install a Point-to-Point or Point-to-Multipoint Ethernet-Over-Copper switch that is hardened to operate with a traffic signal NEMA enclosure environment. The Ethernet-Over-Copper switch shall be capable of providing a minimum of 2 Mbit/sec Ethernet data transfer rate on a single TWP copper covering a span of 9,000 feet. Each TWP copper channel shall accommodate a minimum of 4 copper pairs. The Ethernet-Over-Copper switch shall include full remote management capability via a web interface.

A Point-to-Point Ethernet-Over-Copper switch shall allow daisy chain of Ethernet-over-Copper switches via a TWP copper.

A Point-to-Multi-Point Ethernet-Over-Copper switch shall provide aggregated Ethernet communication for a minimum of 4 different TWP copper channels.

The switch unit shall be a single shelf-mounted installation in the traffic signal cabinet. The switch shall provide a minimum of four 10/100 Base-T Ethernet ports and provision for an optional 1000 Base-FX fiber optic small form-factor pluggable (SFP) port. All necessary cables shall be provided with each Ethernet switch to connect with the traffic signal controller and TWP copper. All cabling shall be terminated and labeled by the contractor.

The unit shall include an LED functional display module for each inbound and outbound TWP and power switch to demonstrate operation and failure mode.

Each switch shall comply with the following minimum standards: IEEE 802.1, IEEE 802.3ah, MEF 9, IEC 60950, FCC Part 15 Class A, ICES-003 Part A, UL 1459, and GR-63-CORE.

The switch shall operate at ambient temperatures between -40° to 149° F, storage temperature between -40° to 185° F with a relative humidity of 5-95% non-condensing. No cooling airflow shall be required. A heat sink shall be provided with the unit, unless the casing operates as a heat sink. In general, the switch shall comply with NEMA TS2 environmental requirements.

The switches supplied shall be U.L. (Underwriters Laboratories) listed.

The switch shall have with a minimum three-year service and repair warranty.

Measurement:

Furnish and Install Point-to-Point Ethernet-Over-Copper switch shall be measured by unit count. Furnish and Install Point-to-Multi-Point Ethernet-Over-Copper switch shall be measured by unit count. Furnish Point-to-Point Ethernet-Over-Copper switch shall be measured by unit count. Furnish Point-to-Multi-Point Ethernet-Over-Copper switch shall be measured by unit count.

Payment:

The contract unit price paid per each Furnish and Install Point-to-Point Ethernet-Over-Copper switch for shall include full compensation for furnishing all labor, equipment, cables, tools, materials, incidentals, licenses, preparation required and for doing all the work involved in furnishing, installing, programming, testing, labeling, training, and making fully functional as described herein, as specified in the Standard Specifications, these Technical Provisions and as directed by the Engineer and no additional compensation will be allowed there for.

The contract unit price paid per each Furnish and Install Point-to-Multi-Point Ethernet-Over-Copper switch for shall include full compensation for furnishing all labor, equipment, cables, tools, materials, incidentals, licenses, preparation required and for doing all the work involved in furnishing, installing, programming, testing, labeling, training, and making fully functional as described herein, as specified in the Standard Specifications, these Technical Provisions and as directed by the Engineer and no additional compensation will be allowed there for.

The contract unit price paid per each Furnish Point-to-Point Ethernet-Over-Copper switch for shall include full compensation for furnishing all labor, equipment, tools, materials, incidentals, licenses, preparation required and for doing all the work involved in furnishing and delivery of a Point-to-Point Ethernet-Over-Copper switch as described herein, as specified in the Standard Specifications, these Technical Provisions and as directed by the Engineer and no additional compensation will be allowed there for.

The contract unit price paid per each Furnish Point-to-Multi-Point Ethernet-Over-Copper switch for shall include full compensation for furnishing all labor, equipment, tools, materials, incidentals, licenses, preparation required and for doing all the work involved in furnishing and delivery of a Point-to-Multi-Point

Ethernet-Over-Copper switch as described herein, as specified in the Standard Specifications, these Technical Provisions and as directed by the Engineer and no additional compensation will be allowed there for.

C-02.3 IMPLEMENT TRAFFIC SIGNAL RETIMING

The Contractor shall collect data, evaluate, develop, and implement traffic signal retiming plans for 52 intersections. Where possible, the traffic signal retiming plans shall take advantage of traffic signal timing features of the new controllers that are not capable in the existing Multisonics 820A traffic signal controllers.

The Contractor shall be responsible for the development and implementation of new traffic signal coordination plans at field intersections where coordination is currently implemented and at locations that may benefit from coordination because of new functionalities offered by the new traffic signal controller and change in traffic conditions. The City anticipates data collection and retiming efforts being required for 52 intersections. The 52 locations traffic data collection requirements are noted in Section **C-05**. For each intersection, the Contractor should determine whether AM, MIDDAY, and PM peak period coordination plans are appropriate based on the collected traffic data and field observations, and implement them.

The Contractor may collect traffic data, perform Before Study, perform field observations, and develop traffic models concurrently with other work tasks. However, the Contractor shall not implement new coordination signal parameters until upon the successful implementation of all traffic signal field controllers and the ATMS system.

The following tasks shall be included in the Implement Traffic Signal Timing bid item for this project.

Task 1: Traffic Data Collection

The Contractor shall collect all traffic volume data necessary to re-time the traffic signals identified in Section **C-05**. The Contractor shall manually collect AM, MIDDAY, and PM peak hour turning movement counts from 7:00AM to 9:00AM, 11:00AM to 1:00PM, and 4:00 PM to 6:00 PM respectively, in 15-minute units.

24-hour bi-directional tube counts shall be collected at key segments in each corridor.

Weekday traffic counts shall be performed on a Tuesday, Wednesday or Thursday only. No weekend traffic counts are allowed as part of this project. In addition, no traffic data collection shall occur during holidays or holiday weekends, days following or preceding holidays, school breaks, construction activities or unfavorable weather conditions such as drizzle, rain, hail, or snow.

Task 2: Field Observation

Field observations during each peak period for each intersection must be performed to verify lane geometry, identify saturation flow rate, pedestrian activities, percentage of heavy vehicles, oversaturated vehicle movements, to evaluate any breakdown of an existing signal system and to setup the appropriate limits of Time-of-Day plans. Upon collection of the field observation data and Before Study data the Contractor shall notify the City immediately of traffic patterns that may require special attention during the development of the traffic signal timing plans. The Contractor should also note locations where special features of the traffic signal controller should be considered for implementation to improve the operations of the subject intersection or corridor.

Task 3: Before Study

Before study shall commence before new coordination timings are implemented. Before Studies shall consist of "Floating Car" travel time runs for each corridor where traffic signal retiming plans are being

developed. The limits of each Floating Car run shall be coordinated with the City prior to collection to ensure proper evaluation of the current effects of existing traffic signal timing plans. A minimum of six (6) directional runs for AM, Midday, and PM peak hour periods shall be collected. During each run, the number of stops, total delay time, and distance travel should be recorded. LOS of the project intersections shall be documented in the Before Study.

Task 4: Development Signal Timing

Using micro-simulation software such as Synchro, the Contractor shall develop traffic signal timing plans based off of traffic data collection and field observations. During the development of the retiming plans, the Contractor shall optimize and fine-tune the time-space diagrams of the computer model and submit to the City for review and approval. A model for each peak period (AM, Mid-day, and PM) shall be required. The City shall make available its existing Synchro models where available to the Contractor upon award of the project. The Contractor shall be responsible for modifying the model to match current field conditions. Final signal timing shall be approved by the City prior to field implementation. Deliverable shall include micro-simulation model files and timing plans for each intersection.

Task 5: Implement Signal Timing

For each traffic signal, the Contractor shall enter City approved traffic signal timing parameters into the ATMS and download the new timings into the traffic signal field controllers or directly into the traffic signal field controllers with City staff present. At the same day of implementation, the Contractor shall observe and fine-tune the traffic signal retiming plans as appropriate to most adequately respond to traffic conditions.

Changes made to the signal timing parameters shall be uploaded and saved into the Permanent database files of the ATMS, and reflected on the final timing plans.

Task 6: After Study

After fine-tuning at each intersection is completed, the Contractor shall conduct a "Floating Car" After Study of each corridor with a minimum of 6 runs in each direction for comparison against travel time runs from the Before Study. The same Before Study data collection methodology shall be used. The delta between the two studies shall determine the effects of the traffic signal retiming effort along with emission changes.

Task 7: Project Documentation

The Contractor shall submit a final report documenting the effects of the traffic signal retiming efforts including travel speed, travel time, changes in stop delays, and emissions comparisons of Before-Study and After-Study.

Three hardcopies and one electronic copy of the final report shall be submitted for review and approval by the City.

Measurement:

Implement Traffic Signal Retiming shall be measured by each intersection.

Payment:

The contract unit price paid per each intersection of Implement Traffic Signal Retiming for shall include full compensation for furnishing all labor, equipment, tools, materials, incidentals, preparation required and for doing all the work involved in data collection, field review, before study, timing development, timing implementation, field fine tuning, after study, and documentation as described herein, as specified in the Standard Specifications, these Technical Provisions and as directed by the Engineer and no additional compensation will be allowed there for.

C-02.4 PROCUREMENT DOCUMENTATION

As part of this project the Contractor shall be required to submit receipts demonstrating that all equipment furnished for the project was purchased brand-new directly from the manufacturers including, but not limited to, traffic signal controllers, ATMS, Ethernet-Over-Copper equipment, ATMS server and local access work stations. Discount pricing provided to the Contractor from the manufacturers can be removed from receipts submitted to the City but the serial numbers on the equipment shall be noted on the receipts by the manufacturer.

Measurement:

Procurement Documentation shall not be measured for payment.

Payment:

Full compensation for conforming to Procurement documentation shall be considered as included in the prices paid for the various contract items of work involved, and no additional compensation shall be allowed.

C-02.5 SYSTEM MAINTENANCE AND SUPPORT

The Contractor shall provide a three-year maintenance program as part of a maintenance agreement consisting of access to a troubleshooting system 24 hours a day, seven days a week. A qualified representative from the software and hardware manufacturer shall respond to traffic signal and signal system emergencies within four hours of notification under this maintenance agreement. If emergency can not be remotely resolved, a qualified representative shall respond in person within 24-hour to address the emergency. The three-year maintenance agreement shall commence after successful Final Acceptance Testing. The maintenance agreement shall be effective until the end of the three-year maintenance program. Signal system emergencies are defined as a condition related to the malfunctioning of the signal hardware or software that impedes normal operation of the signal timing plans, such as going into flash. The maintenance program should also address a policy on the cost of replacement parts. The proposals shall include full explicit pricing for this maintenance agreement. The cost to the City of the maintenance program shall be itemized on a year-by-year basis.

Following the Final Acceptance Testing and throughout the duration of the three-year maintenance period, the Contractor shall be permitted to remotely log in to the City's ATMS to provide troubleshooting assistance during system failures or malfunctions and maintenance monitoring.

Measurement:

System maintenance and support shall be measured by a lump sum price.

Payment:

The contract lump sum price paid for system maintenance and support for shall include full compensation for furnishing all labor, equipment, tools, materials, incidentals, preparation required and for doing all the work involved in technical maintenance, technical support, and emergency response to the ATMS software and traffic signal controller software and hardware as described herein, as specified in the Standard Specifications, these Technical Provisions and as directed by the Engineer and no additional compensation will be allowed there for.

C-02.6 ADDITIONAL LICENSE FEE

The Contractor shall indicate in the technical proposal how many licenses will be provided as part of the base ATMS system and whether the license agreement is site-based or seat-based. A minimum of licenses for six (6) local access workstations shall be provided under this contract. The Contractor shall

document in the technical proposal the cost of each subsequent license that is not provided as part of the initial system.

Measurement:

Additional License Fee shall be measured by unit price

Payment:

The contract unit price paid for Additional License Fee for shall include full compensation for furnishing all labor, equipment, tools, materials, incidentals, preparation required and for doing all the work involved in furnishing additional license to operate the ATMS local access workstation as described herein, as specified in the Standard Specifications, these Technical Provisions and as directed by the Engineer and no additional compensation will be allowed there for.

C-02.7 INSTALLATION

The Contractor shall be responsible for installation and configuration of the ATMS hardware and software, communication server, and local access workstation hardware and software, traffic signal controller and timing, and field communications hardware complete in place. The Contractor shall also be responsible for developing and implementing the IP network layout for all proposed devices and future devices. The use of sub-consultants or sub-contractors for the implementation of tasks identified in Table 1 shall not be allowed unless specified. The Sub-consultant or Sub-contractor for the translation, development, and implementation of traffic signal retiming plans shall be allowed. A summary of the work to be performed for each phase is outlined in the following table:

TABLE 1: IMPLEMENTATION TASK/RESPONSIBILITY MATRIX PER PHASE

TASK	PHASE		
	Phase 1	Phase 2	Phase 3
FIELD INTERSECTION EQUIPMENT			
- Program, configure, and test traffic signal controller (including conversion of existing traffic signal timing parameters)	Contractor	Contractor	Contractor
- Remove and salvage existing controller and equipment	Contractor	Contractor	Contractor
- Furnish and install new controller/firmware	Contractor	Contractor	Contractor
- Modify existing cabinet wiring (if necessary) and restore traffic signal operation	Contractor	Contractor	Contractor
- Furnish and install new field hardened Ethernet-Over-Copper switch and associated cables	Contractor	Contractor	n/a
<i>No Subconsultant or Subcontractor Work Allowed for the Deployment of Field Intersection Equipment.</i>			
TRAFFIC OPERATIONS CENTER			
- Develop Communication Master Plan for ATMS implementation	Contractor	n/a	n/a
- Set-up and configure IP network for ATMS (TOC to field and TOC to City Hall)	Contractor	Contractor	Contractor
- Install new signal system server in server rack – <i>(Subconsultant or Subcontractor Not Allowed)</i>	Contractor	Contractor	Contractor
- Set up Local Access Workstation at TOC	Contractor	n/a	n/a
- Provide remote ATMS access to City Hall local access workstation via City LAN.	n/a	n/a	Contractor
- Create signal controller and signal system database	Contractor	Contractor	Contractor
- Set up 72 intersection database and system graphics in ATMS	Contractor	Contractor	Contractor
- Provide TWP copper between TOC and traffic signal cabinets	City	City	n/a
- Furnish and install new communication system between ATMS and field controllers	Contractor	Contractor	n/a
- Disconnect existing Phase 1 intersections from VMS; integrate Phase 1 intersections to ATMS Server.	Contractor	n/a	n/a
- Ensure that existing VMS continues to be operational for remaining intersections.	Contractor	n/a	n/a
- Test communications link between field controllers and TOC	Contractor	Contractor	n/a
- Test system functionality between TOC and field controller	Contractor	Contractor	n/a
- Train City staff on new signal system and related equipment	Contractor	n/a	n/a
- Provide City with system documentation	Contractor	n/a	n/a
- Disconnect existing Phase 2 intersections from VMS; integrate Phase 2 intersections to ATMS Server	n/a	Contractor	n/a
SIGNAL TIMING			
- Translate and implement existing traffic signal parameters in new controllers (Sub-consultant OK)	Contractor	Contractor	Contractor
- Develop and implement traffic signal retiming plans that utilize features of the new traffic signal controllers and ATMS (Sub-consultant OK)	Contractor	Contractor	Contractor

Tasks not identified shall not preclude the Contractor from performing these tasks to complete a turn-key system. No separate payment will be made therefore for completion of these tasks.

C-02.7.1 ADVANCE TRAFFIC MANAGEMENT SYSTEM

The Contractor shall install ATMS hardware, software, and communications equipment complete in place in TOC and demonstrate (via successful testing of all operation features) that all components in central and the field are installed, connected and working properly. The installation shall include providing jumper cables between the ATMS server, communications equipment, network communications equipment (including fiber optic based equipment if appropriate) to connect the ATMS system to a 10/100 Base-T Ethernet switch, which shall be connected to the local access stations, all furnished and installed by the Contractor. All cables and termination panels shall be clearly labeled in a workmanlike manner.

The Contractor shall install ATMS software on the server and transfer the relevant portion of the existing traffic signal system database to the ATMS database. The Contractor shall also set-up and configure all intersection graphics, system-wide graphics for the ATMS via the existing City aerials, populate signal timing database with existing timing parameters, and all other data necessary to provide a fully functional and operational traffic signal system. The Contractor shall meet with the City upon award of the project to identify system graphic requirements, receive Aerials data file from the City that will be integrated into the ATMS for enhanced monitoring and expansion functionality.

C-02.7.2 TRAFFIC SIGNAL CONTROLLER

The Contractor shall install traffic controller, controller firmware, associated cables and equipment complete in place in field traffic controller cabinet to restore existing intersection operation. The installation shall include controller configuration, controller timing parameter entries, re-pin of controller cabinet D-Connector, and all necessary activities to restore operations and features of the existing traffic signal. A "D" panel or an adaptor cable shall be installed in the controller cabinet ready to land all existing emergency vehicle preemption inputs and other special controller functions. All cables and termination panels shall be clearly labeled in a workmanlike manner. All existing traffic signal controller and equipment removed shall be delivered to the City's Public Works facility.

C-02.7.3 ETHERNET-OVER-COPPER SWITCH

The Contractor shall install Ethernet-Over-Copper Point-to-Point or Point-to-Multi-Point switch, associated cables, and necessary termination panels at each traffic signal controller cabinet. The Contractor shall configure, test, and confirm the Ethernet switch communication to the ATMS. All cables and termination panels shall be clearly labeled in a workmanlike manner.

C-02.8 TESTING

C-02.8.1 ADVANCE TRAFFIC MANAGEMENT SYSTEM

The Contractor shall perform factory acceptance testing, troubleshooting, operational testing, and final acceptance testing for the ATMS hardware and software. The Contractor shall test and verify the communication connectivity between the central signal system and all of the connected signal controllers in the field as they are installed. If a communications link does not meet the requirements, the Contractor shall identify and resolve the problem to meet the requirements before final acceptance. Testing shall be performed on all hardware and software furnished and installed by the Contractor.

Upon final implementation, all physically connected traffic signal field controllers shall communicate to the new ATMS via Ethernet.

The traffic signal system equipment shall be tested prior to shipping to demonstrate conformance with all applicable requirements. The Contractor or Manufacturer shall not perform factory acceptance testing until all product submittals are approved by the City. Testing shall include visual inspection, NEMA TS1 environmental testing, electrical testing, and testing of all required controller assembly functions. Each traffic signal controller assembly shall be tested continuously by the Contractor utilizing the translated traffic signal timing records furnished by the Contractor for a minimum of 7 days. The City shall reserve the option to inspect, on-site, the testing of each unit at the Contractor's office.

If a unit fails its factory acceptance test, the conditions shall be corrected or the unit replaced and the test shall be repeated until the 7 days of continuous, satisfactory operation is obtained. When the testing has been completed, the Contractor is responsible for pick-up and delivery of the equipment to the job site and installation. The Contractor shall pay for all delivery, pick-up and testing. The Contractor shall furnish a letter stating compliance with applicable requirements upon completion of the acceptance testing.

In addition, each unit of communications equipment including Ethernet switches shall be successfully pre-tested (bench tested) and configured by the Contractor in accordance with a formal factory functional test procedures of each unit prior to field installation. The manufacturer's quality assurance organization shall have validated testing and shall supply a Certificate of Compliance with each unit shipped. No unit of communications equipment shall be installed without its respective Certificate of Compliance.

The City reserves the right to conduct at its own expense any testing or inspections deemed necessary to ensure that the equipment conforms to applicable requirements.

The Contractor shall provide documentation detailing the central signal system's level of NTCIP compliance as described in the Specifications in the form of a Protocol Implementation Conformance Statement (PICS).

C-02.8.2 OPERATIONAL AND PERFORMANCE TESTING OF TRAFFIC SIGNAL SYSTEM EQUIPMENT

The Contractor shall coordinate with the City of Milpitas Director of Public Works, or his/her designee, to conduct the operational and performance testing of the ATMS software and equipment prior to full field traffic controller deployment.

Operational and performance testing will take place after four controllers have been installed on the N Milpitas Boulevard Corridor. The operational test shall include both stand-alone tests for each system component and system-level tests. The operational test shall be deemed complete when each component has passed a stand-alone test and the entire signal system (software and hardware) has demonstrated that it meets all requirements defined in the Specifications when all components are working together as an integrated system. It will be the responsibility of the Contractor to prepare detailed test procedures and to procure all of the equipment necessary to perform the test. Test equipment if required shall be provided at no additional cost to the City.

Operational and performance testing of the ATMS shall include, but is not limited to, the following items:

- ☐ Time to upload the entire controller database;
- ☐ Time to download the entire controller database;
- ☐ Time to backup the entire ATMS database;
- ☐ Average time between recommended workstation application restarts (how often does the application need to be shutdown and restarted);
- ☐ Average time between workstation reboots;
- ☐ Average time between server application restarts;
- ☐ Average time between server reboots;
- ☐ Average time for workstation application to fully initialize; and

- ❑ Average time for all server applications to fully initialize.

Operational and performance testing of the traffic signal controller shall include, but not be limited to:

- ❑ Verify timing matches the timing sheet located in the cabinet;
- ❑ Verify operation of all sequence of operations including vehicle, pedestrian, preemption, rail movement;
- ❑ Flash each field indication to ensure proper hookup;
- ❑ Initiate a failsafe action utilizing all possible conflicting green combinations;
- ❑ Monitor each phase for a minimum of two cycles of normal operation;
- ❑ Test of all pedestrian buttons; and
- ❑ Auxiliary panel vehicle and pedestrian switch test.
 - Switch all detector power supplies to off
 - Initiate a call to all vehicle and pedestrian phases using switches
 - Verify correct indications
 - Return switches to normal position

The Contractor shall provide a test procedure and test data forms to the City for approval at least 7 calendar days before the operational test is to begin. The Contractor must also provide a requirement matrix that clearly maps each requirement to a specific test case(s). Performance testing must be included in the test cases and must be consistent with the values submitted in the proposal. The City will review the test procedures and matrix and return them with comments or approval to the Contractor within 10 calendar days after receipt. The test procedure proposed by the Contractor shall be comprehensive, and in sufficient detail to allow the City to determine whether or not the system fully complies with the requirements included in this Scope of Work. If the City deems the test procedure to be unacceptable, the Contractor shall revise the procedure according to the City's comments without additional cost to the City.

As a minimum, the test procedures shall include the following:

- ❑ A matrix of the test sequence to be followed, showing a test of every system and subsystem requirement;
- ❑ A description of the expected operation, output and test results;
- ❑ An estimation of the test duration proposed test schedule;
- ❑ A data form to be used to record all data and quantitative results obtained during the tests; and
- ❑ A description of any special equipment, setup, manpower, or conditions required for the test.

The City shall be present at the operational test and performance. The City will review the test results for conformance with the requirements specified in this Scope of Work. The City will score each of the requirements on a pass/fail basis. The Contractor shall provide all necessary assistance to ensure completion of this test. The Contractor shall fix any problems encountered and add any omissions discovered during this test period without additional cost to the City. If any of the equipment is rejected for failure to comply with the requirements of these specifications, the Contractor shall be responsible for all of the costs involved in retesting the equipment after it has been rejected. Deductions to cover the costs of such retesting will be made from any monies due or which may become due to the Contractor.

C-02.8.3 FINAL ACCEPTANCE TESTING

The final acceptance test will verify that the entire system, with the changes and additions made during the operational testing in place, functions properly and in accordance with these requirements. The final acceptance test shall not be completed until all items conform to the requirements and training has been completed as approved by the City. The Contractor shall perform and document all necessary testing.

The Contractor shall coordinate with the City to schedule final acceptance testing. The formal start of the final acceptance test or "burn-in" period shall be documented by the Contractor and shall not commence

until approved by the City. The final acceptance test will include the completion of a 60-day period, by the end of which the entire integrated system operates without failure.

In the event of a failure during the 30-day acceptance-testing period, the Contractor shall repair the equipment as necessary within five (5) working days of the time of notification by the City and the final acceptance test must be restarted at zero hours. If the failure is a signal system emergency, a qualified representative from the software and hardware manufacturer shall respond and implement a resolution within four hours of notification. Signal system emergencies are defined as a condition related to the malfunctioning of the signal hardware or software that impedes normal operation of the traffic signal, such as going into flash. The Contractor shall be responsible for all costs involved in the repair of the equipment, including retesting if necessary.

One hardcopy and one electronic copy of testing report documenting all testing results shall be submitted to the City.

Measurement:

Testing shall be measured by a lump sum price.

Payment:

The contract lump sum price paid for Testing for shall include full compensation for furnishing all labor, equipment, tools, materials, incidentals, preparation required and for doing all the work involved in Operational and performance testing of traffic signal controllers and ATMS, final acceptance testing, and testing report as described herein, as specified in the Standard Specifications, these Technical Provisions and as directed by the Engineer and no additional compensation will be allowed there for.

C-02.9 WARRANTY

The Contractor shall provide a minimum three-year extended warranty for all hardware and software (including hardware and software upgrades and Service Packs) supplied for the ATMS , traffic signal controller, local access workstation, and Ethernet-Over-Copper equipment implementation in order to maintain or restore the intended functionality of the signal system as outlined in these procurement specifications. The warranty period shall not commence until the hardware and software have been installed at the project sites, placed in operation by the Contractor, tested according to these procurement specifications, and successful complete final acceptance testing. The warranty shall be provided and priced as part of the Contractor's ATMS, traffic signal controller, local access workstation, and Ethernet-Over-Copper switch bid item.

Measurement:

Warranty shall not be measured for payment.

Payment:

Full compensation for warranty shall be considered as included in the prices paid for the various contract items of work involved, and no additional compensation shall be allowed.

C-02.10 SYSTEM TRAINING

The Contractor shall provide on-site training for up to four (4) City staff on the operation, troubleshoot, maintenance, configuration, and installation of the traffic signal field hardware, Ethernet communications equipment, and ATMS software. Training shall be conducted between the hours of 8:00 a.m. and 4:00 p.m., Monday through Friday. No training shall be conducted during the City's observed holidays.

This training shall consist of both formal classroom presentations and hands-on workshops to be conducted at the City facilities following successful completion of the Operational Test. The training shall include at least three separate four-hour sessions. A training schedule shall be developed jointly by the

City and Contractor upon award of the project to ensure training prior to the deployment of any field equipment and additional training during installation as new equipment or software is furnished and installed.

The Contractor shall submit a minimum of five (5) hard copy sets and one (1) electronic copy of training manuals at each training session. Final training manuals and materials (i.e., PowerPoint presentations) shall remain with the City following the training.

At a minimum the training equipment shall replicate the following field equipment, as defined by these procurement specifications, and all the cables and accessories necessary to interconnect the equipment in a manner that simulates the intended field connection configurations:

- ☐ Traffic Signal Field Controllers
- ☐ ATMS Software
- ☐ Ethernet Communications equipment (Field and Office)

At a minimum these training sessions shall include the following topics:

Traffic Signal Controller Training

- ☐ Use of controller interface;
- ☐ Controller configuration;
- ☐ Controller database use and manipulation;
- ☐ Controller parameter and database entry;
- ☐ Special operations including preemption, and priority operations;
- ☐ Error messages and troubleshooting techniques;
- ☐ Alarms and paging;
- ☐ Log report generation;
- ☐ Overview of cabinet structure and interfacing;
- ☐ Communications equipment interfacing; and
- ☐ Coordination Diagnostic Tools and Typical Errors.

Central System Software Training

- ☐ Use of operator interface;
- ☐ Use of graphical map generation and animation;
- ☐ Database use and manipulation;
- ☐ Printing database;
- ☐ System parameter and database entry;
- ☐ Error messages and troubleshooting techniques;
- ☐ Database custom report generation;
- ☐ Overview of system structure and interfacing;
- ☐ Priority Scheme setup;
- ☐ Configuration setup;
- ☐ File Maintenance;
- ☐ Security and subscriptions;
- ☐ System startup and shutdown; and
- ☐ System backup and recovery procedures.

Communication System Training

- ☐ Communication network overview;
- ☐ Communication components;
- ☐ Communication hardware setup;
- ☐ Communication software setup;
- ☐ Communication software maintenance; and
- ☐ Communication hardware maintenance.

Training shall also be included with any upgrades or Service Packs installation during the warranty period.

Measurement:

System Training shall be measured by a lump sum price.

Payment:

The contract lump sum price paid for System Training for shall include full compensation for furnishing all labor, equipment, tools, materials, incidentals, preparation required and for doing all the work involved in preparing and conducting on-site training for City staff as described herein, as specified in the Standard Specifications, these Technical Provisions and as directed by the Engineer and no additional compensation will be allowed there for.

C-03: ATMS FUNCTIONAL REQUIREMENTS TABLE

Requirements	Meet Req (Y/N)	Explanation
1. Traffic Management Center Software		
1.1 Traffic Management Functions		
1.1.1 Real-time Controller Input/Output Status Monitoring		
1.1.2 Control Sections		
1.1.3 Modes of Operation		
1.1.3.1 Time of Day/Day of Week		
1.1.3.2 Special Events		
1.1.3.3 Manual Commands		
1.1.3.4 Traffic Responsive		
1.1.3.5 Stand-by		
1.1.3.6 Flash and Free/Flash		
1.1.3.7 Synchro-Green Adaptive Control		
1.1.4 Traffic Database		
1.1.4.1 Database Recovery		
1.1.4.2 Database Reports		
1.1.4.3 Automatic Database Backup		
1.1.5 Central Signal System Operation		
1.1.5.1 Distributed Operations		
1.1.5.2 Upload/Download		
1.1.5.3 Failure Monitoring		
1.1.5.4 Timing Plans		
1.1.5.5 Phase sequence flexibility		
1.1.5.6 Preemption of Operation		
1.1.5.7 Vehicle Preemption		
1.1.5.8 Transit Priority (Optional Module)		
1.1.5.9 Railroad Preemption		
1.1.6 Traffic Alarms		
1.1.7 Detector Data Processing		
1.1.7.1 Detector Data Types		
1.1.7.2 Collection and Retrieval		
1.1.7.3 Detector Monitoring		
1.1.7.4 Detector Data Archives		
1.1.8 Interface with Synchro		
1.1.9 Interface with Traffix or HCM Software		
1.1.10 Interface with Crossroads		
1.1.11 Interface with Traffic Count System Database		
1.1.12 Interface with Other Software		
1.1.13 Interface with SV-ITS DEN		

Requirements	Meet Req (Y/N)	Explanation
1.1.14 Interface with Other Systems		
1.2 System Integration		
1.2.1 Time Synchronization		
1.2.2 Central System Architecture		
1.2.2.1 Scalability		
1.2.2.2 Operating System		
1.2.3 Communications Protocol		
1.2.4 Security		
1.3 User Interface		
1.3.1 General Ease of Use		
1.3.2 Multi-user Capability/Remote Access		
1.3.3 Dynamic Displays		
1.3.3.1 System Map		
1.3.3.2 Intersection Status		
1.3.3.3 Communication Statistics		
1.3.3.4 Time Space Diagrams		
1.3.3.5 Measure of Effectiveness		
1.3.3.6 Failure Summary		
1.3.3.7 Signal System Corridor Shortcuts		
1.3.3.8 Traffic Signal Intersection Gadget Screens		
1.3.4 History Reports		
1.3.5 Audible Alarms		
1.3.6 Global Parameter Changes		
1.3.7 – Automated Coordination Diagnostics		
1.3.7 Help Menus		
1.4 Maintenance and Support		
1.4.1 Expandability		
1.4.2 Industry Standards		
1.4.3 Documentation		
1.4.4 Software Training		
1.4.5 Recovery		
1.4.6 Technical Support		

C-04: TRAFFIC SIGNAL CONTROLLER FUNCTIONAL REQUIREMENTS TABLE

Requirements	Meet Req (Y/N)	Explanation
2. Advanced Traffic Controller Assembly		
2.1 Introduction		
2.2 General Requirements		
2.3 Controller Enclosure		
2.4 Electronics		
2.5 Front Panel		
2.6 Operating Displays		
2.7 Serviceability		
2.8 Programming		
2.8.1 Programming Displays		
2.8.2 Programming Methods		
2.8.3 Programming Security		
2.8.4 Programming Utility Functions		
2.8.5 Actuated Control Functions		
2.8.6 Phase Sequence		
2.8.7 Timing Intervals		
2.8.8 Overlaps		
2.8.9 Conditional Service		
2.8.10 Volume Activated Max Green Intervals		
2.8.11 Programmable Logic Gates		
2.8.12 Assignable Inputs		
2.8.13 Assignable Outputs		
2.9 Coordination		
2.9.1 Coordination Modes		
2.9.2 Cycle Length		
2.9.3 Synchronization		
2.9.4 Offset		
2.9.5 Split		
2.9.6 Transition Cycles		
2.9.7 Local Split Demand		
2.9.8 Free Mode		
2.9.9 Manual Control		
2.9.10 Interconnect Modes		
2.9.11 Master Coordinator		
2.10 Preemption and Priority		
2.10.1 Emergency Vehicle Preemption		
2.10.2 Transit Priority		
2.10.3 Railroad Preemption		
2.10.4 Light Rail Priority Phase		
2.11 Time-Based Control & Non-Interconnected Coordination		
2.11.1 Clock/Calendar Functions		
2.11.2 Time-Based Control		

Requirements	Meet Req (Y/N)	Explanation
2.12 Detectors		
2.12.1 Detector delay		
2.12.2 Detector extension		
2.13 System Communications		
2.13.1 IP Communication over Ethernet		
2.13.2 System Commands		
2.13.3 Status Data		
2.13.4 Upload/Download Capability		
2.14 Logging		
2.14.1 Communications Fault Logs		
2.14.2 Event Logs		
2.14.3 Event Call In		
2.14.4 Measures of Effectiveness (MOE)		
2.14.5 Green Utilization		
2.14.6 Average Headway		
2.14.7 Occupancy		
2.14.8 Speed Traps		
2.14.9 Volume Logs		
2.14.10 Detector Failure Logs		
2.14.11 Keyboard Log		
2.14.12 Pattern Change Log		

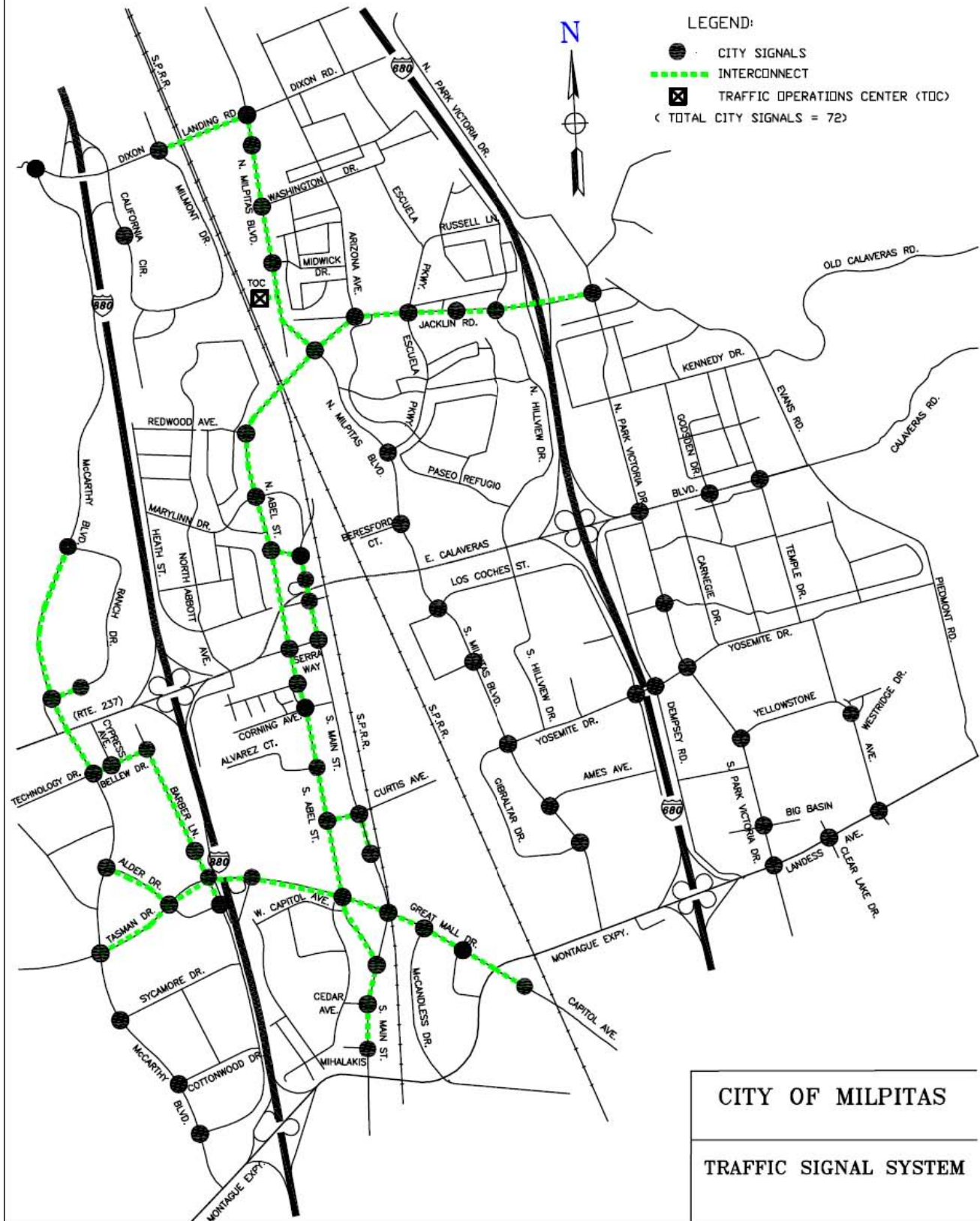
C-05: MILPITAS TRAFFIC SIGNAL INTERSECTIONS - DEPLOYMENT PHASE SCHEDULE

No	Intersection Name	Currently Online	Cabinet Type	Traffic Data Collection	Implementation Phase
1	N Milpitas Bl & Dixon Landing Rd	Yes	TS-1	Yes	1
2	N Milpitas Bl & Sunnyhills Dr	Yes	TS-1	Yes	1
3	N Milpitas Blvd & Washington Dr	Yes	TS-1	Yes	1
4	N Milpitas Blvd & Midwick Dr	Yes	TS-1	Yes	1
5	Jacklin Rd & N Hillview Dr	Yes	TS-1	Yes	1
6	Jacklin Rd & Ped Crossing	Yes	TS-1	Yes	1
7	Jacklin Rd & Escuela Pk	Yes	TS-1	Yes	1
8	Jacklin Rd & Arizona Av	Yes	TS-1	Yes	1
9	Jacklin Rd-N Abel St & Milpitas Bl	Yes	TS-1	Yes	1
10	N Abel St & Redwood Av	Yes	TS-1	Yes	1
11	N Abel St & Marilyn Dr	Yes	TS-1	Yes	1
12	N Abel St & Weller Ln	Yes	TS-1	Yes	1
13	S Abel St & Serra Wy	Yes	TS-1	Yes	1
14	S Abel St & Junipero Dr	Yes	TS-1	Yes	1
15	S Abel St & Corning Av	Yes	TS-1	Yes	1
16	S Abel St & Alvarez Ct-Post Office	Yes	TS-1	Yes	1
17	S Abel St & Curtis Av	Yes	TS-1	Yes	1
18	S Abel St & W Capitol Av	Yes	TS-1	Yes	1
19	N Main St & Weller Ln	Yes	TS2-2	Yes	1
20	N Main St & SR237 Ramp-Library	Yes	TS2-2	Yes	1
21	<i>N Main St & Carlo St</i>	Yes	TS2-2	Yes	1
22	S Main St & Serra Wy	Yes	TS-1	Yes	1
23	S Main St & Curtis Av	Yes	TS-1	Yes	1
24	S Main St & Great Mall (Home Depot)	Yes	TS-1	Yes	1
25	S Main St & S Abel St	Yes	TS-1	Yes	1
26	S Main St & Cedar Av	Yes	TS-1	Yes	1
27	<i>S Main St & Mihalakis</i>	Yes	TS2-2	Yes	1
28	N McCarthy Bl & Dixon Landing	No	TS-1	No	2

No	Intersection Name	Currently Online	Cabinet Type	Traffic Data Collection	Implementation Phase
29	N McCarthy Bl & Ranch Dr (N)	Yes	TS-1	Yes	2
30	N McCarthy Bl & Ranch Dr (S)	Yes	TS-1	Yes	2
31	Ranch Dr & Applebee's Dwy	Yes	TS-1	Yes	2
32	McCarthy Bl & Bellew Dr	Yes	TS2-2	Yes	2
33	McCarthy Bl & Alder Dr	Yes	TS-1	Yes	2
34	McCarthy Bl & Sycamore Dr	No	TS-1	No	2
35	McCarthy Bl & Cottonwood Dr	No	TS-1	No	2
36	McCarthy Bl & Barber Ln	No	TS-1	No	2
37	Bellew Dr & Cypress Av	Yes	TS2-2	Yes	2
38	Bellew Dr & Barber Ln	Yes	TS-1	Yes	2
39	Barber Ln & Fire Station 4	Yes	TS-1	Yes	2
40	Barber Ln & Alder Dr	Yes	TS-1	Yes	2
41	Tasman Dr & McCarthy Bl	Yes	TS-1	Yes	2
42	Tasman Dr & Alder Dr	Yes	TS-1	Yes	2
43	Tasman Dr & I880 SB Ramps	Yes	Type 332 w/TS-1	Yes	2
44	Tasman Dr & I880 NB Ramps	Yes	Type 332 w/TS-1	Yes	2
45	Great Mall Pk & S Abel St	Yes	TS-1	Yes	2
46	Great Mall Pk & S Main St	Yes	TS2-2	Yes	2
47	Great Mall Pk & McCandless Dr	Yes	TS-1	Yes	2
48	Great Mall Pk & Centre Pointe Dr	Yes	TS-1	Yes	2
49	Dixon Landing Rd & Milmont Dr	Yes	TS-1	Yes	3
50	California Cr & Ped Crossing	No	TS-1	No	3
51	Jacklin Rd & N Park Victoria Dr	No	TS-1	No	3
52	Calaveras Bl & Park Victoria Dr	No	TS-1	No	3
53	Calaveras Bl & Gadsden Dr	No	TS-1	No	3
54	Calaveras Bl & Temple Dr	No	TS-1	No	3
55	N Milpitas Bl & Escuela Pk	No	TS-1	No	3
56	N Milpitas Bl & Beresford Dr	No	TS-1	No	3
57	S Milpitas Bl & Los Coches St	No	TS-1	No	3
58	S Milpitas Bl & Turquoise St	No	TS-1	No	3

No	Intersection Name	Currently Online	Cabinet Type	Traffic Data Collection	Implementation Phase
59	S Milpitas Bl & Yosemite Dr	No	TS2-2	No	3
60	S Milpitas Bl & Ames Av	No	TS-1	No	3
61	S Milpitas Bl & Gibraltar Dr	No	TS-1	No	3
62	Yosemite Dr & Sinclair Frontage Rd	No	TS-1	Yes	3
63	Yosemite Dr & Dempsey Rd	No	TS-1	Yes	3
64	S Park Victoria Dr & Edsel Dr	No	TS-1	No	3
65	S Park Victoria Dr & Yosemite Dr	No	TS2-2	Yes	3
66	S Park Victoria Dr & Yellowstone Av	No	TS-1	No	3
67	S Park Victoria Dr & Big Basin	No	TS-1	No	3
68	S Park Victoria Dr & Landess Av	No	TS-1	Yes	3
69	Landess Av & Clear Lake Dr	No	TS-1	Yes	3
70	Landess Av & Yellowstone Av	No	TS-1	Yes	3
71	Yellowstone Av & Westridge Dr	No	TS-1	No	3
72	Capitol Av & Montague Station	No	TS-1	Yes	3

C-06 TRAFFIC SIGNAL LOCATION AND SIGNAL INTERCONNECT CABLE LAYOUT



END OF SCOPE OF WORK

SECTION D – GENERAL CONDITIONS

D-01 DEFINITIONS OF WORDS AND TERMS

Where used in the Contract Documents, the following words and terms shall have the meanings indicated.

- **Abandon:** Render unserviceable, in place, by doing.
- **Acceptance:** Formal action by the City Council accepting the completed work specified in the Contract Documents including recordation of the Notice of Completion by the County Recorder.
- **Adjust:** Raise or lower a facility to match a new grade line. Generally associated with raising frames and grates or frames and covers of facilities on resurfacing projects. May require some removal and installation of concrete collar. Includes raising or lowering of frames and covers or frames and grates of concrete or brick manholes or circular precast concrete pipe structures by adding or subtracting raising devices only. Any changes to taper of manhole or steps is "remodel".
- **As-Built Documents:** Contract drawings including the Contractors shop drawings as revised by the Contractor to reflect actual installation.
- **City:** City of Milpitas, a municipal corporation of the State of California, and or Milpitas Redevelopment Agency.
- **Completion:** When all the contract obligations have been fully met by the Contractor.
- **Consulting Engineer/Architect:** Consultant hired by the City having a contractual relationship with the City, and may act as the City's designated project representative.
- **Contract Documents and Specifications:** Contract Documents include the project specification, and drawings, including all written instruments, drawings of every kind and nature attached to or made a part hereof, by reference or by operation of law; such as, but not limited to Notice Inviting Bids, Instructions to Bidders, Addenda, Proposal, Bonds, Specifications, General Conditions, Special Conditions, Technical Specifications (or Special Provisions), Drawings, Submittals and the Contract which is prepared for execution by the City and the Contractor, and which is itself a part of the Contract Documents as above defined, and which by this reference and by reference made in such form of agreement includes all other "Contract Documents" the same as though they were set out in full therein, also, any and all supplemental written agreements, orders, or addenda amending or extending the work contemplated and which may be required to complete the work in a substantial and acceptable manner.
- **Project Schedule:** A detailed schedule of all events, milestones, and work required for Completion of the Work specified in the Contract Documents.
- **Contractor:** Person, Firm, Vendor or Corporation with which whom the contract is binding with the City.
- **Contract Time:** Time specified in the Contract Documents for the Contractor's completion of the Work.
- **Council:** The City Council of the City of Milpitas.
- **Disposal:** Sorting, loading, and hauling to permitted landfills or locations that accept materials for burial, recycling or other legal procedure.
- **Engineer:** The City Engineer or Project Manager/Engineer which is the authorized

representative acting on behalf of the City.

- **Inspector:** Reports to the Engineer, and is the Contractors initial contact when in the field.
- **Liquidated Damages:** The amount specified in the Contract Documents to be paid to the City or to be deducted from any payments due or to become due the Contractor for each day of delay in completing the Work in the amount of time specified in the Contract Documents.
- **Milestone:** An event specified in the Contract Documents relating to an intermediate completion date or time prior to Completion of all the Work and prior to City's Acceptance.
- **Modify:** A change which does not affect the basic framework or structure with only an addition or subtraction to an appurtenant part. May require some removal. Includes raising or lowering of frame and covers or frame and grate of drainage inlets by removing concrete or adding concrete.
- **Notice of Award:** Written notice given by the Engineer to the Contractor following City Council action to award project to Contractor.
- **Notice to Proceed:** Written notice given by the Engineer to the Contractor fixing the date on which the contract time will start.
- **Post-Consumer Recycled Content:** Materials processed and remanufactured after original consumer use.
- **Project Manager:** City's Engineer responsible for the Project.
- **Punch list:** A list generated by the Engineer for any work to be completed or corrected by the Contractor before the Work specified in the Contract Documents will be recommended for Acceptance by the City Council.
- **Reconstruct:** Remove and disassemble and construct again at an existing or new location. New parts or alteration may or may not be required.
- **Recycle:** Sorting, keeping separate, storing, and hauling to permitted facilities that accept, process and market materials to be reprocessed or reused.
- **Relay:** Remove and lay in an existing or new location. Generally used for pipes or culverts and appurtenances.
- **Relocate:** Remove and install or place in a new location. No alteration required.
- **Remodel:** Rebuild facility in same location. May require some removal.
- **Remove:** Remove and dispose of.
- **Reset:** Remove and install or place at same station location. May be moved laterally only. No alteration required.
- **Salvage:** Remove, clean, and haul to recycle center or other location as directed by the Engineer.
- **State:** State of California Department of Transportation (Caltrans)
- **Submittal:** Information or material to be submitted to the Engineer as specified in the Contract

Documents.

- **Special Provisions:** Modifications or additions to the Supplemental General Provisions.
- **Work:** Required to be completed or performed pursuant to the Contract Documents.
- **State Standard Specifications:** California DOT Standard Specifications dated July 2006.

D-02 INTENT OF THE CONTRACT

It is the intent of this contract to obtain a finished, complete in place, fully functional, and suitable for its intended purpose workmanlike job of high quality, with all equipment properly installed and operating.

In the specifications, plans, schedules and details, information is conveyed by means of brief mention or notation which, regardless of brevity, shall be binding exactly as if presented in complete sentences employing mandatory language. Work not listed in the specifications or drawings, but clearly implied as necessary to complete the job, shall be included as though fully specified and drawn.

Titles and headings to sections and paragraphs in these specifications are introduced merely for convenience and shall not be taken as a correct or complete segregation of the several units of materials and labor. No responsibility, either direct or implied, will be assumed by the City, for omissions or duplications by the Contractor or its subcontractors due to real or alleged error in arrangement of matter in the Contract Documents.

D-03 STANDARD SPECIFICATIONS AND CODES

The Contract Documents contain references to the City of Milpitas Standard Specifications, Standard Drawings, various standard specifications, codes, practices, and requirements for materials, work quality, installation, inspection, and tests. Such references are published and issued by the respective organizations, societies, and associations and are hereby incorporated by reference and are made a part of the Contract Documents to the extent required.

When such references are specified, and the effective data are not given, it shall be understood that the current edition or latest revision thereof and any amendments or supplements thereto in effect on the date of issue of these Contract Documents, as indicated on the cover, shall govern the work.

Reference standards may not be furnished with the Contract Documents since the Contractor, subcontractors, manufacturers, and the trades involved are assumed to be familiar with their requirements. The Designer will furnish, upon request, information as to how copies of the specified standards may be obtained.

The work shall as a minimum, also be performed in accordance with the various regulatory codes applicable to the work being performed, or as specified, if more stringent requirements are called for in the Technical Specifications.

D-04 INVESTIGATION OF CONDITIONS

It is required that the Contractor visit the project site, examine all documents, and become familiar with the nature and character of the project site, the work, and its general and particular location; the physical and contractual conditions and requirements; and the limitations and various other aspects relative to this project prior to bidding.

The Engineer will not consider any claims whatsoever on account of Contractor's failure to fully investigate

or determine requirements in advance of bidding the project or of commencing the work.

D-05 CONTRACTOR'S FINANCIAL OBLIGATIONS

The Contractor shall make prompt payments for all labor, materials, and services furnished to or for him in accordance with the Contract requirements. Prior to submitting a request for final payment, the Contractor shall provide the City with lien releases or conditional lien releases for all subcontractors and suppliers used on this project.

D-06 LAWS TO BE OBSERVED

The Contractor shall fully observe and comply with all State and Federal laws including those of CAL-OSHA and municipal ordinances and regulations which in any manner affect those engaged or employed in the work, or the materials used in the work, or which in any way affect the conduct of the work, and of all such orders and decrees of bodies or tribunals having jurisdiction or authority over the same. The Contractor shall also cause all agents and employees engaged on the project to observe and comply with all such laws, ordinances, regulations, orders and decrees of bodies or tribunals having any jurisdiction or authority over the work; and shall protect and indemnify the City of Milpitas and all officers, employees, and agents thereof connected with the work against any claim or liability arising from or based on the violation of any such law, ordinance, regulation, order, or decree, whether by the Contractor or its employees, or subcontractors. If any discrepancy or inconsistency is discovered in the plans, drawings, specifications or contract for the work in relation to any such law, ordinance, regulation, order or decree, whether by the Contractor or its employees, or subcontractors, the Contractor shall forthwith report the same to the Engineer in writing.

D-07 NON-DISCRIMINATION

The Contractor shall abide by all federal and state laws preventing discrimination in the employment of persons upon public works and shall ensure by appropriate contract provisions that all subcontractors are similarly obligated to comply with all such laws. These laws include, but not are limited to the following. California Labor Code Section 1735 which provides that *"No discrimination shall be made in the employment of persons upon public works because of the race, religious creed, color, national origin, ancestry, physical disability, mental disability, medical condition, marital status, or sex of such persons, except as provided in Section 12940 of the Government Code, and every contractor for public works violating this section is subject to all the penalties imposed for a violation of this chapter."* Likewise, Contractor and all of its subcontractors shall abide by the provisions of California Labor Code Section 1777.6 prohibiting discrimination in the acceptance of otherwise qualified apprentices; and California Labor Code Section 3095 which declares unlawful the discrimination in any recruitment or apprenticeship program on stated grounds. City shall be entitled to retain and withhold all penalties as authorized pursuant to California Labor Code, Division 2, Part 7, Chapter 1, commencing with Section 1720 and following, in accordance with the provisions of that Chapter, and the regulations established by the Director of Industrial Relations pursuant to the statutory authority of such chapter.

D-08 PATENTS, PROPRIETARY OR TRADE NAMES

The Contractor shall hold and save the City, its officers, agents, servants and employees harmless from liability of any nature or kind or any claim therefore, including costs and expenses for or on account of any patented invention, article, or appliance included in the material or supplies furnished under this contract, and should the Contractor, his agents, servants, employees, or any of them be enjoined from furnishing or using any invention, article, material or appliance supplied or required to be supplied or used under this contract, the Contractor shall promptly substitute other articles, materials, or appliances in lieu thereof, of

equal efficiency, quality, finish, suitability and market value and satisfactory in all respects to the Engineer. Or in the event that the Engineer elects, in lieu of such substitution, to have supplied and to retain and use any such invention, article, material or appliances as may by this contract be required to be supplied, in that event the Contractor shall pay such royalties and secure such valid licenses as may be requisite and necessary to enable the City, its officers, agents, servants, and employees, or any of them, to use such invention, article, material or appliance without being disturbed in any way interfered with by any preceding in law or equity on thereof. Should the Contractor neglect or refuse promptly to make the substitution hereinbefore required or to pay such royalties and secure such licenses as may be necessary and requisite for the purpose aforesaid, then in that event the Engineer shall have the right to make such substitution, or the City may pay such royalties and secure such licenses and charge the cost thereof against any money due the Contractor from the City, or recover the amount hereof from him and his sureties, notwithstanding final payment under this contract may have been made. The provisions of this paragraph don't apply to articles which the Contractor is required to manufacture or furnish in accordance with detail drawings furnished by the City included in this Contract. They shall apply, however, where such drawings and the specifications cover only the type of device without restriction as to details.

Attention is directed to the provisions of Public Contracts Code section 3400, the General Conditions, and elsewhere within the Contract Documents regarding requests for substitutions. Where only one brand of trade name is known to the City, the City has, as permitted by Section 4380, listed only one brand or trade name in these specifications, but is willing to accept a fully equal product. If the Contractor wishes to substitute an item identified in the plans or specifications under a brand, trade name, manufacturer's catalog number, data requesting such substitution shall be submitted to the Engineer not later than 10 days after award of the contract, refer to these Contract Documents regarding proposed Substitutions. Such data shall include full information for review by the Engineer supporting the request for substitution of each item on a fully equal basis.

D-09 ASSIGNMENT OF CONTRACT

No assignment by the Contractor of the contract shall be made for any purpose without the consent of the City and the sureties; provided, however, that the Contractor may make an assignment of any sums of money due or to become due under this contract as collateral for financial purposes in connection with the contract. Any such assignment shall contain a clause in the instrument of assignment to the effect that it is agreed that the funds to be paid the assignee under the assignment are subject to all liens or claims of any kind whatsoever authorized by law, whether prior or subsequent, for services rendered or materials supplied for the performance of the work called for in the contract in favor of all persons, firms, or corporations rendering such services or supplying such materials.

D-10 CERTIFIED PAYROLL

The wages paid by the Contractor and its subcontractors shall be the current applicable prevailing wage rates and in accordance with the requirements specified in these Contract Documents. Contractor shall submit copies of certified payrolls with each invoice or request for progress payment. Up to 25% from each progress payment will be withheld by the City until the Contractor has satisfied all the requirements of this Section.

D-11 SUBCONTRACTORS

No subcontractor will be recognized as such by the City, and all persons engaged by the Contractor in work of furnishing labor, materials, and equipment or any one or more of them, will be considered as employees of the Contractor, except regarding insurance as provided elsewhere herein.

The Contractor shall list in the sheet provided herein, the name and place of business of each subcontractor who will perform work or labor, or render service to the Contractor in or about the construction of the work or improvement, in an amount in excess of one-half of one (1/2 of 1) percent of

the Contractor's total bid, and shall also list the portion of the work which will be done by each subcontractor. Only one subcontractor shall be listed for each portion of work to be let.

If the Contractor fails to list a subcontractor for any portion of the work to be performed under the contract, in excess of one-half of one (1/2 of 1) percent of the Contractor's bid, then the Contractor shall perform that portion of the work itself.

The Contractor shall not substitute any person or subcontractor in place of the subcontractor designated in the original bid; nor shall he permit any such subcontract to be assigned or transferred or allow it to be performed by anyone other than the original subcontractor listed in the bid; nor shall he sublet or subcontract any portion of the work in excess of one-half of one (1/2 of 1) percent of the Contractor's total bid which was not listed in the original bid, except as provided hereafter.

The City may consent to the substitution of another subcontractor when the subcontractor named in the bid, after having a reasonable opportunity to do so, fails or refuses to execute a written contract, based upon these contract documents and the terms of the named subcontractor's bid is presented to him by the Contractor or fails to perform the work, goes out of business – or loses contracting license.

The City may permit subletting or subcontracting of any portion of the work excess of one-half of one (1/2 of 1) percent to the Contractor's total bid when no subcontractor was designated in the original bid, in cases of public emergency or necessity, after a finding reduced to writing by the Engineer, setting forth facts constituting the emergency or necessity and evidenced by resolution of the Council.

In general, it is the intention that not more than fifty (50) percent of work shall be subcontracted. The listing of more than fifty (50) percent may cause a rejection of the bid, if in the opinion of the City, such extensive contracting is undesirable. The subcontract shall contain a reference to the agreement between the City and the principal Contractor and the terms of that agreement and all parts thereof shall be made a part of such subcontract insofar as applicable to the work covered thereby. All work or material furnished by a subcontractor shall be guaranteed by the Contractor and the City will hold the Contractor responsible there for.

D-12 DOCUMENT PRECEDENCE

The plans together with the specifications attached hereto, will govern the work to be done. Anything mentioned in these specifications and not shown on the plans and detail drawings and anything shown on the plans and detailed drawings and not mentioned in these specifications shall be of like effect as though shown or mentioned in both. In case of any conflict, the following shall be the order of precedence.

1. Contract Change Orders
2. Contract
3. Addenda, if any
4. Technical Specifications
5. Special Conditions
6. General Conditions
7. City Standard Specifications
8. City Standard Drawings
9. Specified sections and details of the Caltrans State Standard Specifications and Standard Plans, dated May 2006, and any addendums thereof, However, Sections 1-9 of the Caltrans State Standard Specifications are excluded from are not part of or included in these Contract Documents.

Copies of the most current City Standard Drawings and Specifications may be obtained upon request at the office of the City Engineer.

The Engineer may furnish from time to time such detail drawings, plans, profiles and information as he may consider necessary for the Contractor's guidance, unless otherwise provided in the proposal,

agreement or detail specifications. In cases where the contract work or any portion thereof is to be performed in accordance with drawings, specifications, lists of data submitted by the Contractor and approved by the Engineer, such approved drawings, etc., shall become portions of the Plans and Specifications as regards the specific matters to which such approval applies. The Contractor shall be solely responsible for the correctness of the measurements and other essential information submitted by him and for the correlation of the various portions and features of the work which are or may be affected by such measurements and information.

Any change required by the Engineer in the drawings, etc., submitted for approval by the Contractor, shall be considered as necessary in order to comply with the requirements of the plans and specifications, and shall not be the basis of any claim for extra compensation over and above the bid price for the work, except where changes involving the extra work are expressly authorized and ordered in accordance with the section of these specifications relating to changes and extra work.

A copy of the specifications shall be kept upon the work at all times during its progress, and access thereto shall at all times be accorded the Engineer.

The Contractor shall, for the price bid, furnish all supervision, labor, materials, transportation and equipment necessary to execute the work in every respect in a thorough, workmanlike manner in accordance with the plans, profiles and specifications, and to the satisfaction of the Engineer. All work shall, during its progress and until its completion, conform to the lines, elevations and grades shown on said plans and profiles.

D-13 INTERPRETATION OF SPECIFICATIONS

Should the Contractor have questions or doubt as to the true meaning of any part of the plans and specifications during the fulfillment of the contract, the Contractor shall make a written request for information (RFI) to the Engineer for clarification or interpretation of the point or points in question. The Engineer, after receipt of such request, shall give to the Contractor a written clarification of the point or points in questions, which shall be final and binding and become a part of the contract. The Contractor will be required to certify that RFI's submitted are not frivolous, and if answers to such RFI's are easily found within the Contract Documents, the RFI may be considered by the Engineer as a frivolous RFI, and no response from the Engineer will be required.

D-14 QUANTITY UNITS, MEASUREMENTS, AND PAYMENTS

Before ordering any materials or doing any work, the Contractor shall verify all measurements, dimensions, elevations and quantities. No extra charge or compensation over and above payment for the actual quantities of the various items of work at the respective bid prices therefore will be allowed on account of difference between actual measurements, dimensions, elevations and quantities, and those indicated on the drawings, and in the specifications, and any difference therein shall be submitted to the Engineer for consideration before proceeding with the work.

The quantity units, such as tons, square feet, cubic yards each, and other units listed in the proposal, shall be the basis for payment. All work to be paid for at the contract price per unit of measurement will be measured by the United States standard measures. All distances and elevations shown on the plans, profiles or other drawings are in feet or meters and decimal fractions thereof unless otherwise specified on the drawings.

The Contractor shall be paid for the actual material or equipment quantities for all work performed and installed, complete and in place and suitable for its intended purpose, free of defects or poor workmanship as measured in the field by the Engineer, and as acceptable to the Engineer, as specified in the bid schedule, and or the schedule of values and these Specifications.

The Contractor shall submit all weight tickets to the Engineer for materials used on the job site including asphalt, concrete, and all other materials measured by ton, tonne, meter, cubic yard, cubic feet etc. in good order.

The Engineer shall review the weight tickets, and shall compare against the measured actual quantities installed in the field. In comparing the weight tickets with actual measured quantities, the Contractor shall be paid for these items based on the lesser value of this comparison.

Work required under these specifications and where no method of measurement and payment is explicitly specified, the Contractor shall include all related costs thereof, in the various items of work paid for and no further compensation shall be allowed there for.

D-15 SUBSTITUTIONS

- a. Refer to the General Conditions and elsewhere within these Contract Documents regarding any requirements for substitution.
- b. General — Requests for changes in products, materials, equipment, and methods of construction required by Contract Documents proposed by the Contractor after award of the Contract are considered “requests for substitutions.” The following are not considered substitutions:

Revisions to Contract Documents requested by the Engineer.

Specified options of products and construction methods included in Contract Documents.

Compliance with governing regulations and orders issued by governing authorities.

- c. Substitution — Requests for substitution may be considered if received within 10 days from the date of contract award. Requests received after this period may be accepted or rejected at the discretion of the Engineer. Each request for substitution shall be prepared and presented to the Engineer in accordance with the procedures in specified in these Contract Documents, except that the following additional information shall be provided.
 - 1. An explanation of the advantages to the City for accepting the substitution.
 - 2. A comparison of significant qualities of the proposed substitution with those specified.
 - 3. A list of changes or modifications needed or changes in the Contractors planned sequencing or operations to other parts of the work, or the construction performed by the separate Contractors, that will be necessary to accommodate the proposed substitution.
 - 4. A statement indicating the substitution’s effect on the Construction Schedule Critical Path, and the overall contract time compared to the Construction Schedule without acceptance of the substitution. Indicate the effect of the proposed substitution on overall contract time.
 - 5. Cost information, including a proposal of the net change, if any, in the Contract Sum.
 - 6. Certification that the substitution is equal to or better in every respect to that required by Contract Documents, and that it will perform adequately in application indicated. Include Contractor’s waiver of rights to additional payment or time extensions that may be necessary because of the substitution’s failure to perform adequately.

- d. Substitution Conditions — The Contractor's substitution request may be considered by the Engineer when the following conditions are satisfied, as determined by the Engineer, otherwise, requests will be returned without action except to record non-compliance with these requirements.
1. Time extension revisions to Contract Documents are not required.
 2. Proposed changes are in keeping with the general intent of Contract Documents.
 3. The request is timely, fully documented and properly submitted.
 4. The specified product or method of construction cannot be provided within the Contract Time. The request may not be considered if the product or method cannot be provided as a result of failure of the Contractor to pursue the work promptly or coordinate activities promptly, unless the product proposed is at least equal or better.
 5. A substantial advantage is offered the Engineer, in terms of cost, time, energy conservation or other considerations of merit, after deducting offsetting responsibilities the Engineer may be required to bear. Additional responsibilities for the Engineer may include additional compensation to the Consulting Engineer/ Architect for redesign and evaluation services, increased cost of other construction by the Engineer or separate contractors, and similar considerations.
 6. The specified product or method of construction can receive necessary approval by a regulatory agency, and the requested substitution can be approved.
 7. The specified product or method of construction can be provided in a manner that is compatible with other materials, and the Contractor certifies that the substitution will be compatible.
 8. The specified product or method of construction can be coordinated with other materials, and where the Contractor certifies that the proposed substitution can be coordinated.
 9. The specified product or method of construction does provide a warranty required by the Contract Documents and where the Contractor certifies that the proposed substitution will provide the required warranty.
- e. Unacceptable Substitution Conditions — The Contractor's submittal and or the Engineer's acceptance or rejection of Shop Drawings, Product Data or Samples that do not comply with the Contract Documents does not constitute a valid request for substitution.
- f. Engineer's Action — The Engineer will notify the Contractor of acceptance or rejection of the proposed substitution.
- g. Time Extension — No extension of time will be allowed through failure of the Contractor to either transmit requests for substitution sufficiently in advance of the work, or on account of processing time outside the time limits noted above.

D-16 SPECIFIED OR "APPROVED EQUAL" ITEMS

Whenever catalog numbers and specific brands of trade names followed by the designation or "approved equal" are used in conjunction with a designated material, product, item, or service mentioned in these specifications, they are used to establish the standards of quality and utility required. Or "approved equal" proposals will be subject to acceptance by the Engineer.

D-17 MANUFACTURER'S RECOMMENDATIONS

If the manufacturer of any material or equipment, which is to be incorporated into the work, recommends installation, methods and procedures, the Contractor shall submit this information along with the technical data, and observe strictly all such recommendations, which are not in conflict with the other requirements of these specifications. If a conflict is found with these specifications the Contractor shall immediately notify the Engineer in writing.

D-18 SUBMITTALS

- a. The Contractor shall provide five (5) copies of each submittal in accordance with the General Conditions and Technical Provisions for review by the Engineer. The Engineer will return two (2) copies of the reviewed submittals to the Contractor.
- b. Refer to the Special Conditions, Section E-04 Submittals regarding required Submittals for this Work. Within 10 days after receiving the Notice to Proceed, the Contractor shall provide a detailed list of all individual submittals required under the contract. The list shall reference the Specification section/article/paragraph numbers that require the submittal. The list shall also state the date the Contractor plans to transmit the submittal to the Engineer for review. Failure to include items required to be submitted on the list shall not relieve the Contractor from the obligation to provide such submittal.
- c. Submittals shall be prepared in such form that data can be identified with the applicable Specification section/article/paragraph. The data shall clearly demonstrate compliance with the Contract Plans and Specifications and shall relate to the specific material, equipment to be furnished, or process to be followed. Where manufacturer's standard drawings are employed, they shall be clearly marked to show what portions of the data are applicable to this project.
- d. Submittal coordination is the responsibility of the Contractor. The responsibility shall not be delegated in whole or in part to subcontractors or suppliers.
- e. All submittals (shop drawings and supporting data, catalogs, schedules, etc.), shall be submitted as the instruments of the Contractor, who shall be responsible for their accuracy and completeness. These submittals may be prepared by the Contractor, subcontractors, or suppliers, but the Contractor shall ascertain that submittals meet all of the requirements of the Contract Documents, while conforming to structural, space, and access conditions at the point of installation. The Contractor shall check all submittals before submitting them to the Engineer.
- f. Each submittal shall relate only to one item or groups of items logically related, and shall be accompanied by the City's Standard Submittal Cover Sheet with the following information identified:
 - 1 Project Name and City Project Number
 - 2 Submittal number
 - 3 Submittal date
 - 4 Specification reference that requires the submittal
 - 5 Name and address of Contractor
 - 6 Name of subcontractor/supplier/manufacturer (as applicable)
 - 7 For Shop Drawings, a 4" x 5" space shall be provided beside the title block on each drawing sheet for the Engineer's use.
 - 8 Proposed substitutions are clearly identified
 - 9 Contractor certification that the submittals are in compliance with the Contract Documents and are not in conflict with other project submittals.

- g. Allow fifteen (15) days, unless otherwise specified for the Engineer's review of submittals and resubmittals. Note that there are some different requirements for Project Schedule submittals. No extension of time will be allowed through failure of the Contractor to either transmit submittals sufficiently in advance of the work or on account of resubmittals.
- h. Incomplete submittals will not be accepted and will be returned to the Contractor.
- i. If the Engineer's review of a submittal requires cross reference to, or coordination with, another submittal not yet transmitted to the Engineer for review, it will be returned to the Contractor for resubmittal at a more appropriate time.
- j. If the Engineer's review of a submittal reveals that supplemental information is necessary to complete the review, it will be returned to the Contractor for augmentation and resubmittal.
- k. After review by the Engineer of each of the Contractor's submittals, the material will be returned to the Contractor marked with actions defined as follows: (Actual wording may be different, but will convey similar meaning.)
 - 1 NO EXCEPTIONS NOTED – The City does not find any exceptions to the submittal, relying solely upon information provided in the submittal including the contractor's certification, and subject to its compatibility with future submittals and additional partial submittals for portions of the work not covered in this submittal. Notation does not constitute acceptance or deletion of specified or required items not shown in a partial submittal.
 - 2 MAKE CORRECTIONS NOTED – The same as No Exceptions Noted, except that minor corrections as noted by the Engineer shall be made by the Contractor. No resubmittal is required.
 - 3 REVISE AND RESUBMIT – Rejected due to noncompliance with the requirements of the project plans and Specifications because of major inconsistencies or errors which shall be resolved or corrected by the Contractor prior to subsequent review by the Engineer.
 - 4 SUBMIT SPECIFIED ITEM – Submittal is rejected because the submitted material does not conform to the requirements of the project plans and specifications in major respects. This material is not to be resubmitted, and it is expected that the material specified in the project plans and specifications be submitted.
- l. Submittals shall be reviewed as a complete package and will not be returned marked with more than one of the actions noted above. Any submittal that requires further review shall be resubmitted in its entirety, using the same submittal number and a revision number, until the full submittal has been favorably reviewed or noted for record..
- m. Favorable review by the Engineer will not constitute acceptance by the Engineer of any responsibility for the accuracy, coordination and completeness of submittals, shop drawings or the items of equipment represented on the drawings. Accuracy, coordination, and completeness of submittals shall be the sole responsibility of the Contractor, including responsibility to back-check comments, corrections, and modifications from the Engineer's review before construction or fabrication commences. Similarly, the Engineer accepts no responsibility for the correctness, compatibility or coordination of construction methods, schedules or materials.
- n. The Contractor shall not proceed with the procurement, fabrication, delivery, or installation of items requiring a submittal without favorable review of the submittal by the Engineer. Items k(1) and k(2) above (no resubmittal required) are considered "favorable review." Items k(3) and k(4) above

(correction and resubmittal required) are considered "unfavorable review." Favorable review shall not relieve the Contractor of its obligation to meet safety requirements and all other requirements of Law, nor constitute a Contract Change Order.

- o. It is expected that the Contractor shall provide complete and acceptable submittals to the Engineer the first time. The Engineer may recover the cost of processing and reviewing resubmittals in case the number of first resubmittals exceeds 10% of the total number of submittals required. The Engineer may recover all the costs of processing and reviewing second resubmittals.
- p. After submittals are reviewed, the Engineer will return two copies to the Contractor. For shop drawings, only the reproducible will be returned. It shall be the Contractor's responsibility to copy and/or conform reviewed Shop Drawings in sufficient numbers for its files, subcontractors and Contractors.

D-19 PROJECT COORDINATION

The Contractor shall coordinate activities to assure efficient and orderly procurement, fabrication, installation and testing/start-up of all parts of the work. This includes coordinating operations covered under different Specification Sections that are dependent on each other for proper installation and operation.

Where installation of one component depends on installation of other components before or after its own installation, activities shall be scheduled in the most appropriate sequence to obtain the most satisfactory installation.

All costs of coordinating work with utility companies, other contractors and City crews shall be considered to be included in the various bid prices and no additional compensation will be allowed.

The Contractor shall coordinate scheduling and timing of administrative procedures with other activities to avoid conflicts and to ensure orderly progress. Such activities include, but shall not be limited to:

- Preparation of project schedules.
- Preparation and processing of submittals.
- Attending progress meetings.
- Coordinating project closeout activities.
- Permit requirements or restoration

D-20 PROJECT MEETINGS

- a. Pre-project Conference – A meeting will be scheduled by the Engineer with the Contractor at the beginning of the work to review the project requirements and the Contractor's proposed project schedule. The meeting shall be attended by responsible representatives of the Contractor, including the designated Contractor's Project Manager and Superintendent. The Contractor shall bring a copy of the Base Line Schedule and the Progress Schedule to the Pre-project Meeting.
- b. Progress Meetings – Regular meetings to review the Work may be held as directed by the Engineer. The meetings shall be attended by the Contractor and the Contractor's Superintendent.

Full compensation for attendance of all Project meetings shall be considered as included in the various items of work paid for, and no further compensation shall be allowed there for.

D-21 PROJECT SCHEDULE

The Contractor shall submit a base line Project Schedule to the Engineer, and shall receive a favorable review of the schedule, prior to receiving the Notice to Proceed from the City. The base line project schedule shall be detailed and use the critical path method (CPM) or other suitable project schedule system, and shall indicate the anticipated or proposed commencement and completion dates for each major item of work, including submittal requirements, obtaining permits, project closeout and other items as noted below:

- Submit an electronic copy of the base line schedule to the Engineer
- This schedule shall include the dates of each individual trade or type of work.
- The schedule shall be prepared with a computer program such as Microsoft Project, Primavera, or other approved software.
- The schedule shall show all stages of work to be performed by the Contractor and others and the time necessary to complete each stage.
- The schedule shall show all items to be performed, including submittals, working/shop drawings, and including review periods and allowances for resubmittal.
- Where the Contractor is to furnish major items or equipment or materials, the schedule shall include the proposed dates of manufacture and shipment of these items, and the names and locations of factories or other sources from which said items are to be obtained.
- The submittal process shall be scheduled accordingly to ensure proper review prior to project work and to prevent the schedule review from becoming a critical path item.
- The schedule shall show a time period for Contractor to perform punchlist work and final walk-through. These items of work shall be completed prior to the end of the contract time as specified within these Contract Documents.
- The schedule shall show the use of all available contract time. If the Contractor proposes to complete the work prior to the expiration of contract time, the schedule shall show the difference between work completion and the expiration of contract time as schedule float time. Float time shall be available for both the City and the Contractor to use as needed.

A rejected schedule shall be revised as noted by the Engineer and resubmitted. The Contractor shall adhere diligently to the base line schedule in the prosecution of the work. The base line schedule as submitted to the Engineer shall not change. Any changes in schedule shall be shown on a Progress Schedule.

The Contractor shall provide a detailed Progress Schedule with a 3-week "look ahead" or "rolling schedule" or as otherwise specified in the Technical Provisions when requested by the Engineer. A copy of the first progress schedule shall be brought to the Pre-project Meeting.

When the Contractor's activities have fallen behind the base line schedule by two weeks or more, the Contractor shall submit a plan for schedule recovery indicating in detail how the Contractor proposes to get the Work back on schedule.

All costs involved in the scheduling of work as herein specified shall be compensated for by the various bid items of this contract and no additional compensation will be made there fore.

D-22 CONTRACT CHANGE ORDERS

- a. The Contractor acknowledges that any changes in the Work, additions or deletions in the Work, increases or decreases in quantities, or extra work including, work by Force Account must first be authorized in writing by the Engineer prior to the Contractor performing said work. Contractor further acknowledges that it is solely responsible for obtaining written authorization from the City

and that it shall not be compensated for any additional work performed without said written authorization. Oral authorization shall not be sufficient to bind the City absent specific written authorization.

Written authorization for any changes or extra work shall only be made on the City's Contract Change Order form. The Contract Change Order shall only be considered authorized when signed by both the Contractor and the City Engineer. The Contractor signifies the Contractor's acceptance of the Contract Change Order, either by signature on the Contract Change Order form or by commencement of the change or extra work described in the Contract Change Order. The City retains the right to audit all information regarding or relating to documentation of Contract Change Order work.

Request for Quotation (RFQ) process may be used as a prerequisite for all Contract Change Orders. Upon receipt of an RFQ from the City, the Contractor shall submit a response as quickly as possible as time is of the essence, with appropriate backup documentation and a labor, material and equipment breakdown.

Responses to RFQ's, or any other quote from the contractor shall be interpreted to include all additional costs of every nature and type associated with the quoted work, including but not necessarily limited to: overhead, home office, loss of efficiency, coordination, profit, insurance, liability, risk, bonds, administration, and time.

The City reserves the right to make such alterations, deviations, additions to or deletions from the plans and specifications, including the right to increase or decrease the quantity of any item or portion of the work or to delete any item or portion of the work, as may be deemed by the Engineer to be necessary or advisable and to require such extra work as may be determined by the Engineer to be required for the proper completion of the whole work contemplated.

When the compensation for an item of work is subject to adjustment under the provisions of this Section, the Contractor shall, upon request, furnish the Engineer with adequate detailed cost data for that item of work. If the Contractor requests an adjustment in compensation for an item of work due to an Increase or Decrease in quantities as described below, the cost data shall be submitted with the request.

Increases or decreases in the quantity of a contract item of work will be determined by comparing the total pay quantity of that item of work with the Engineer's Estimate there for.

If the total pay quantity of any item of work required under the contract varies from the Engineer's Estimate therefore by 25 percent or less, payment will be made for the quantity of work of the item performed at the contract unit price therefore, unless eligible for adjustment pursuant to a "change" or "extra work" as described in this Section.

1. Increases of More Than 25 Percent

Should the total pay quantity of any item of work required under the contract exceed the Engineer's Estimate therefore by more than 25 percent, the work in excess of 125 percent of the estimate and not covered by an executed contract change order specifying the compensation to be paid therefore will be paid for by adjusting the contract unit price, as hereinafter provided, or at the option of the Engineer, payment for the work involved in the excess will be made on the basis of force account as provided in this Section.

The adjustment of the contract unit price will be the difference between the contract unit price and the actual unit cost, which will be determined as hereinafter provided, of the total pay quantity of the item. If the costs applicable to the item of work include fixed costs, the fixed costs will be deemed to have been recovered by the Contractor by the payments made for 125 percent of the Engineer's Estimate of the quantity for the item, and in

computing the actual unit cost, the fixed costs will be excluded. Subject to the above provisions, the actual unit cost will be determined by the Engineer in the same manner as if the work were to be paid for on a force account basis as provided in this Section; or the adjustment will be as agreed to by the Contractor and the Engineer.

When the compensation payable for the number of units of an item of work performed in excess of 125 percent of the Engineer's Estimate is less than \$5,000 at the applicable contract unit price, the Engineer reserves the right to make no adjustment in the contract unit price if the Engineer so elects, except that an adjustment will be made if requested in writing by the Contractor.

2. Decreases of More Than 25 Percent

Should the total pay quantity of any item of work required under the contract be less than 75 percent of the Engineer's Estimate therefore, an adjustment in compensation pursuant to this Section will not be made unless the Contractor so requests in writing. If the Contractor so requests, the quantity of the item performed, unless covered by an executed contract change order specifying the compensation payable therefore, will be paid for by adjusting the contract unit price as hereinafter provided, or at the option of the Engineer, payment for the quantity of the work of the item performed will be made on the basis of force account as provided in this Section, provided however, that in no case shall the payment for that work be less than that which would be made at the contract unit price.

The adjustment of the contract unit price will be the difference between the contract unit price and the actual unit cost, which will be determined as hereinafter provided, of the total pay quantity of the item, including fixed costs. The actual unit cost will be determined by the Engineer in the same manner as if the work were to be paid for on a force account basis as provided in this Section; or the adjustment will be as agreed to by the Contractor and the Engineer.

The payment for the total pay quantity of the item of work will in no case exceed the payment which would be made for the performance of 75 percent of the Engineer's Estimate of the quantity for the item at the original contract unit price.

3. Eliminated Items

Contract items of the work being eliminated will require the execution of a contract change order covering the elimination. Payment will be made to the Contractor for actual costs incurred in connection with the eliminated contract item if incurred prior to the date of notification in writing by the Engineer of the elimination.

If acceptable material is ordered by the Contractor for the eliminated item prior to the date of notification of the elimination by the Engineer, and if orders for that material cannot be canceled, the material will be paid for at the actual cost to the Contractor. In this case, the material paid for shall become the property of the City, and the actual cost of any further handling will be paid for. If the material is returnable to the Contractor and if the Engineer so directs, the material shall be returned and the Contractor will be paid for the actual cost of charges made by the Contractor for returning the material. The actual cost of handling returned material will be paid for.

4. Force Account Work

The City may authorize a Contract Change Order for Force Account work when the cost cannot be reasonably determined in advance, subject to the provisions of this Section. Force Account work may only include work that is clearly above and beyond the work that is indicated in the plans and specifications, and that is prosecuted diligently to completion, and that is fully documented in writing. All work done prior to written authorization shall be deemed either part of the original scope of work, and within the contract bid amount or as donation from the Contractor to the City.

The Contractor shall provide to the City full documentation of all work done on Force Account, including but not necessarily limited to, the following certified copies or originals: certified payroll, equipment rental invoices, material invoices; subcontractor invoices, including similar supporting documentation from equipment rental, material, or labor supplier; and all other information necessary to support the request for payment of Force Account work.

The total aggregate amount of Force Account work may not exceed \$5,000.00, without prior approval by the City Council. Therefore, no payment shall be made to the Contractor for Force Account work that exceeds \$5,000 unless specifically authorized by City Council with a greater not-to-exceed amount. All Force Account work done beyond \$5,000 in value, not otherwise specifically authorized in writing shall be deemed to be included within the Contractor's obligations under the original contract amount.

The Contractor shall not request payment for items or work included by Change Orders unless the Contractor has received an executed copy of the Change Order from the Engineer, and unless the Change Order work is installed complete, in place and acceptable to the Engineer.

b. What constitutes a "change" or "extra work force account change orders":

1. A variation between estimated and actual quantities of work or material required to construct a project in accordance with the plans and specifications as they exist at the time the bids are opened, does not constitute a change or extra work, does not require additional authorization, and the said quantities shall be paid for at the unit or lump sum prices established in the bid.
2. A variation between definite quantities of work or material specified in the plans and specifications as they exist at the time bids are opened, and upon which quantities and unit prices are bid, and the quantities required under revised or modified plans and specifications, is a change.
3. The furnishing of material or performance of work for which unit prices have been bid on the basis of estimated quantities, but which materials or work is required to be done under revised or modified plans and specifications, is a change.
4. Revisions or modifications of the specifications such as, but not limited to, those affecting designs, materials, installation or locations are changes.
5. Supplying work or material for which no unit prices have been bid and which are not included in the plans and specifications as they exist at the time bids are opened but which are required under revised or modified plans and specifications is extra work.

c. Work Performed by Contractor – The Contractor will be paid the direct costs for labor, materials and equipment used in performing the work as determined in this subsection, except where agreement has been reached to pay in accordance with subsection b., "Work Performed by Special Forces or Other Special Services."

To the total of the direct costs computed as provided in subsections a.1, a.2, a.3 and a.4 of this Section, there will be added a markup of 33 percent to the cost of labor, 15 percent to the cost of materials, 15 percent to the equipment rental. To the total of rental costs computed as provided in subsection a.5, there will be added a markup of 15%.

These markups constitute full compensation for all overhead costs including general and field

supervision, bonds, and costs not otherwise designated as direct costs. The total payment made as provided above shall constitute full compensation for performance of the work paid for on a Force Account basis, and no further compensation will be allowed.

When extra work to be paid for on a force account basis is performed by a subcontractor, an additional markup of 5% will be added to the total cost of the extra work, including all markups specified. No more than one 5% subcontractor markup will be allowed. This markup shall compensate the Contractor for additional general and field supervision, bond and administrative costs, and no other additional payment will be made by reason of performance of the extra work by a subcontractor.

1. Labor – The Contractor will be paid the cost of labor for the workers (including working foremen when authorized by the Engineer), used in the actual and direct performance of the work. The cost of labor, whether the employer is the Contractor, subcontractor, or other forces, will be the sum of the following:
 - a) Actual Wages – The actual wages paid shall include any employer payments to or on behalf of the workmen for health and welfare, pension, vacation and similar purposes.
 - b) Labor Surcharge – To the actual wages, as defined in subsection a.1.a), will be added a labor surcharge set forth in the State of California Department of Transportation publication Labor Surcharge and Equipment Rental Rates, which is in effect on the date upon which the work is accomplished. This surcharge shall be deemed full compensation for all payments imposed by State and Federal laws and for all other payments made to, or on behalf of, the workers, other than actual wages as defined in subsection a.1.a) and subsistence and travel allowance as specified in subsection a.1.c).
 - c) Subsistence and Travel Allowance – The actual subsistence and travel allowance paid to such workers.
2. Materials – The City may furnish such materials as it deemed advisable, and the Contractor shall have no claims for costs and markup on such materials.

Only materials furnished by the Contractor and necessarily used in the performance of the work will be paid for. The cost of such materials will be the cost to the purchaser, whether Contractor, subcontractor or other forces, from the supplier, except as follows:

- a) If a cash or trade discount by the actual supplier is offered or available to the purchaser, it shall be credited to the City even if the discount has not been taken.
- b) If the materials are produced by the purchaser by any method which is not a direct purchase from and a direct billing by the actual supplier to the purchaser, the cost of the materials shall be deemed to be the price paid to the actual supplier as determined by the Engineer plus the actual costs, if any, incurred in the handling of the materials.
- c) If the materials are obtained from a supply or source owned wholly or in part by the purchaser, the cost of the materials shall not exceed the price paid by the purchaser for similar materials furnished from that source on contract items or the current wholesale price for the materials delivered to the job site, whichever is lower.
- d) If the cost of the materials is, in the opinion of the Engineer, excessive, then the cost of the material shall be deemed to be the lowest current wholesale price at which the materials were available in the quantities concerned delivered to the job site, less any discounts as provided in subsection a.2.a).

- e) If the Contractor does not furnish satisfactory evidence of the cost of materials from the actual supplier, the City may establish the cost of materials at the lowest current wholesale prices at which materials were available in the quantities concerned delivered to the location of the work, less any discounts as provided in subsection a.2.a).

D-23 SUPERINTENDENCE

The Contractor shall have on the job at all times a competent full-time superintendent, experienced in the type of work being constructed, employed by the Contractor, who can speak, read, and write in English, and who shall represent the Contractor. All information given by the Engineer to the superintendent shall be as binding as if given directly to the Contractor.

The Contractor shall provide the name, mobile phone, office phone and fax number of the primary Superintendent, and one substitute Superintendent at the pre-project conference. The primary Superintendent shall not change unless the Engineer has been given notice in writing in advance. The substitute Superintendent may be used on occasion when the primary Superintendent is not available, provided that the Contractor has notified the Engineer in advance of the substitution by phone or e-mail.

Work shall be performed in the presence of the Contractor's Superintendent. The Contractor acknowledges that the Engineer reserves the right to not pay for any portion of the work that is done in the absence of the Contractor's Superintendent.

D-24 CHARACTER OF WORKERS

Only competent skilled superintendents, forepersons, supervisors, and workers shall be employed on the work. Where the Work requires special qualifications or training, only forepersons and workers with the required training or qualifications shall perform the Work.

If required by the Engineer, the Contractor shall discharge any person who commits trespass, horseplay, or is, in the opinion of the Engineer, unsafe, disorderly, dangerous, insubordinate, incompetent, or otherwise objectionable. Such discharge shall not be the basis of any claim for compensation or damages against the City of Milpitas or any of its officers, employees or agents.

The Contractor's workers shall not make any obscene, discriminatory, or hateful gestures, acts, or statements, including the use of foul language or screaming/yelling at City employees or others. Any violations of the requirements of this Section are grounds for immediate termination of the Contract by the City.

The contractor may allow food and drink in specific designated areas only. No smoking is allowed on the job site. No drugs or alcohol (other than prescribed medication that does not impair the worker's ability) are allowed. All workers are to conduct themselves and their operations in a safe and professional manner.

D-25 WORKING HOURS

The regular working hours shall be between the hours of 7:00 a.m. to 4:00 p.m., Monday through Friday, except: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day, and other legal holidays.

Contractors may be allowed to work from 7:00 a.m. to 7:00 p.m. Mondays through Fridays including weekends, but excluding New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, and Christmas Day and other legal holidays if approved by the Engineer in writing.

The Contractor shall give a minimum of three (3) days notice to the Engineer for any work scheduled outside of the regular working hours. The Contractor is responsible to schedule and coordinate its work accordingly to allow for inspections by the Engineer or its designee as required by these Specifications.

The Contractor may be required to reimburse the City for any wages or expenses incurred, including City's mark-up and cost of vehicles for inspections by Engineer during non-regular hours worked.

Further restrictions to working hours maybe specified elsewhere in these Contract Documents. The Contractor is directed to Sections regarding Sound Control, Lane Closure Restrictions, and Public Convenience and elsewhere. The Contractor's hours and days of work may further be altered by the Engineer to accommodate the efficient movement of traffic and public safety with no additional compensation due to the Contractor.

D-26 LANE CLOSURE RESTRICTIONS

No lane closure shall be permitted in the project.

D-27 PUBLIC CONVENIENCE AND SAFETY

The Contractor shall, at all times, provide for Public Convenience and Safety, and Worker Safety as described in the Caltrans State Standard Specifications, OSHA, and State of California Safety regulations.

The Contractor shall schedule and conduct the work so as to minimize the inconvenience to the public, as well as to City employees at any City facilities and adjoining areas impacted by the work.

The Contractor shall maintain sufficient safeguards against occurrences of accidents, injuries, or damage to any person or property and shall be responsible for same if such occurs. The Contractor shall also maintain adequate protection of its work and materials from destruction and loss, and shall protect the City's property from damage arising in connection with this contract, and shall compensate the City for any such damage, destruction, or loss.

D-28 WAGE RATES

In accordance with Section 1773 et seq. of the Labor Code of the State of California, the Director of the Department of Industrial Relations of the State of California has established the prevailing or current rate of per diem wages to be paid to laborers, workers and mechanics for all work done under or by virtue of this contract. Copies of said prevailing wage rates are on file in the office of the City Engineer and will be made available to the Contractor. A copy of said wage rate shall be posted on the job site by the Contractor.

The rate for work performed on Sundays and such legal holidays as are designated by the Council by ordinance, and for work performed in excess of eight (8) hours in one working day, in such cases in which such overtime is permitted by law, is not less than one and one-half (1-1/2) times the above described prevailing rate of per diem wages.

The Contractor and his subcontractors shall not pay less than said rates and the Contractor shall forfeit as a penalty to the City, the sum of Twenty-five dollars (\$25.00) for each worker(s) and for each working day

such worker(s) is paid less than the above stipulated rates for any work done under or by virtue of this contract by him or her or by any subcontractor under him or her.

D-29 CERTIFIED PAYROLL REPORTS

The Contractor shall keep or cause to be kept an accurate record showing the names and occupation of all laborers, workers, or mechanics employed by him or her or by any subcontractor under him or her in connection with the work and also showing the actual hours worked and actual wages paid to each of such workers, which record shall be open at all reasonable hours to the inspection of the Engineer and to the Chief of the Division of Labor Law Enforcement of the Department of Industrial Relations, his or her deputies and agents as required of Section 1776 of the Labor Code of the State of California and shall be submitted upon request.

D-30 CARE AND CUSTODY OF WORK

The Contractor shall have full care and custody of the work until completion and recordation of the Notice of Completion by the County Recorder. The Contractor shall be responsible for all damage to existing improvements during the time the work is in his or her care and custody. The Contractor is responsible for and shall protect all such work both before and after being set in place to prevent damage, breakage, misuse, vandalism, or disfigurement of any of the work, materials, or equipment.

The Contractor shall remove from the vicinity of the completed Work all plant, buildings, rubbish, unused materials, concrete forms, etc., used in or resulting from the contractor's operations, and shall leave the job site in a clean and neat condition daily.

The Contractor shall provide a final clean-up of the entire project site prior to requesting a final walk-through inspection for acceptance of the work.

Full compensation for Cleaning Up shall be considered as included in the various contract items paid and no additional compensation will be allowed there for.

D-31 INSPECTION & TESTING

All materials furnished, and all Work done under this contract will be subject to inspection, however, the Engineer has no obligation to test or inspect the Contractors Work. The Contractor is required to perform all Work in accordance with the Plans, Specifications, and Contract.

The Contractor shall notify the Engineer forty-eight (48) hours in advance of any work to be done, in order that inspection may be provided. Compliance with specifications may be checked or tested by the Engineer, and the decision of the Engineer as to the suitability of the work or material shall be final. Work done in the absence of the Engineer, without said written permission, may be subject to rejection.

All materials provided shall be of specified quality and fully equal to samples, where samples are required. Whenever requested and free of charge, the Contractor shall furnish to the Engineer for test; samples of all materials proposed to be used in the work. Rejected materials must be immediately removed from the site of the work by the Contractor and shall not be brought again upon the work.

In the event additional testing is requested by the Contractor, or is required because of failed tests, or when in the opinion of the Engineer, additional testing or inspections are required because of the manner in which the Contractor executes the work, such tests and inspections shall be paid for by the Contractor.

In the event additional testing is requested by the Contractor, or is required because of failed tests, or when in the opinion of the Engineer, additional testing or inspections are required because of the manner

in which the Contractor executes the work, such tests and inspections shall be paid for by the Contractor.

The Contractor shall have no cause for claim against the City for delays involved in the testing of materials or the evaluation of such tests and no compensation will be made there for.

D-32 DEFECTIVE WORK - NOTICE TO CONTRACTOR

If, in the opinion of the Engineer, work is not being done in accordance with the Specifications, written notice shall be given to the Contractor. Written notice to any supervisors or agent in charge of any portion of the work in the absence of the Contractor, shall be considered as notice to the Contractor.

The Engineer is not liable for failure to identify defects or deficiencies in the work and has no obligation to test or inspect the Contractors work. The Contractor shall comply with all requirements of the Specifications, and Contract, and shall be responsible at all times for the quality of the work and to ensure its compliance with the Contract Documents. Work that is defective in its construction, or deficient in any of the requirements of these specifications, shall not be accepted by the Engineer. The Contractor shall correct any imperfect work whenever discovered or identified by the Engineer. If the Contractor refuses or neglects to replace defective work, it may be replaced by the City, after notice to the Contractor and its sureties, and at the expense of the Contractor and its sureties.

D-33 FEDERAL HINDERANCE

In entering into this contract, it is clearly understood by both parties hereto that conditions subsequently may arise resulting from, connected with, or growing out of any war, in which the United States may be engaged, or any national emergency or conditions created directly or indirectly by or for national defense, and which are entirely beyond the control of either party, in accordance with its terms and conditions.

It is, therefore, mutually understood and agreed, anything herein contained to the contrary notwithstanding, that in the event the Contractor shall be prevented from performing the contract or any part thereof by reason of the conditions above stated, the following procedure shall govern.

The Contractor shall in writing, notify the City of his inability to perform, stating in full the reasons therefore and the probable duration of such inability, if required, he shall also submit proof or evidence in support of his claim of inability to perform.

If it shall appear to the satisfaction of the City Council that the cause of inability to perform arose after the contract was entered into and is beyond the control of the Contractor, the City, pursuant to resolution of the City Council, may:

- (a) If lawfully within its power, remove the cause which prevents performance; or
- (b) Suspend this contract until the cause of inability to perform is removed; or
- (c) With the consent of the Contractor, renegotiate or amend this contract by extending the time of performance or by making changes in the character of the work, or in the materials or equipment required in order to enable performance of the contract; or
- (d) Waive performance of that part of the contract which is impossible, or supply substitute materials for those unavailable. Where this remedy is resorted to, the payment due the Contractor shall be diminished to the extent of the work not required to be performed or materials not required to be supplied, based so far as practicable upon unit prices bid.

If none of the foregoing procedures are adopted by resolution of the City Council within thirty (30) days after the City is satisfied and so finds that the Contractor is unable to perform the reasons above stated, then either party hereto may, without incurring any liability, elect to declare this contract terminated upon the grounds of impossibility of performance. Upon such termination, the Contractor shall be entitled to proportionate compensation at the contract rate for such portion of the contract as may have been performed.

D-34 SUSPENSION OF CONTRACT

The Engineer may order the Contractor to suspend any work that may be subject to damage by climatic conditions or natural phenomena. When delay is caused by an order to suspend work given on account of such conditions which, in the opinion of the Engineer could have been reasonably foreseen, the Contractor will not be entitled to any extra compensation on account of such order.

If the Contractor fails to begin the delivery of the material, or to commence work as provided in the contract, or fails to make delivery of material promptly as ordered, or to maintain the rate of delivery of material or progress of the work in such manner as in the opinion of the Engineer will insure a full compliance with the contract within the time limit, or if in the opinion of the Engineer, the Contractor is not carrying out the provisions of the contract in their true intent and meaning, a written notice will be served on him to provide within a specified time for a satisfactory compliance with the contract, and if he neglects or refuses to comply with such notice, the Engineer may with the written consent of the City Manager suspend the operation of all or any part of the contract, or the Engineer may in his/her discretion after such notice, at the expense and for the account of the Contractor, perform any part of the work, or purchase any or all the material included in the contract or required for the completion thereof, without suspending the contract.

Upon suspension of the contract by the Engineer, he may, at his discretion take possession of all or any part of the machinery, tools, appliances, materials and supplies used in the work covered by the contract or that have been delivered by or on account of the Contractor for the use in connection therewith, and the same may be used either directly by the City or by other parties for it, in the completion of the work suspended; or the City may employ other parties to perform the work or may substitute other machinery or material or purchase the materials contracted for in such manner as it may deem proper or hire such force and buy such machinery, tools, appliances, materials and supplies at the Contractor's expenses as may be necessary for the proper conduct and completion of the work. Any cost to the City in excess of the contract price arising from the suspension of the contract, or from work performed or purchases made by the City either before or after suspension, and required on account of the failure of the Contractor to comply with his contract or other orders of the Engineer issued in pursuance thereof will be charged to the Contractor and his sureties, who shall be liable there for.

A special lien to secure the claims of the City in the event of suspension of the contract is hereby created against any property of the Contractor taken into the possession of the City under the terms hereof, and such lien may be enforced by a sale of such property under the direction of the Council, and the proceeds of the sale, after deducting all expenses thereof, and connected therewith, shall be credited to the Contractor. If the net credits shall be in excess of the claims of the City against the Contractor, the balance will be paid to the Contractor or his legal representatives.

If, in the opinion of the Engineer, an emergency exists for the furnishing of certain material or the performance of certain work in order to insure compliance with the terms of the contract and if the Contractor fails to furnish such material or to perform such work within a reasonable time fixed by written notice from the Engineer to the Contractor, then the Engineer shall have the power to furnish such material or to perform such work at the expense of the Contractor and his sureties who shall be liable there for.

In the determination of the question whether there has been such non-compliance with the contract as to warrant its suspension or the furnishing of material or the performance of work by the City as herein provided, the decision of the Engineer, when approved by the City Manager and by the Council evidenced by resolution, shall be final and binding upon both parties. Suspension of the contract or any part thereof, shall operate only to terminate the right of the Contractor to proceed with the work covered by the contract or the suspended portions thereof. The provisions of the contract permitting the City to make changes and to make proper adjustment of accounts to cover any increase or decrease of cost on account of such changes, and other stipulations of the contract except those giving the Contractor the right to proceed with work on the items covered by the suspension shall be and remain in full force and effect after such suspension and until the contract shall have been completed and final payment or final adjustment of account made.

The Contractor shall not make any disposition of the plant, machinery, tools, appliances, supplies or materials used on or in connection with the work, either by sale, conveyance or encumbrance, inconsistent with the special lien of the City expressly created by this contract.

D-35 CONTRACT TERMINATION

1. **Termination for Convenience or in the Public Interest:** The City may terminate this Contract in whole or in part at any time by written notice to the Contractor if the City determines that termination is in the best interests of the City or necessary to protect the public health safety, and welfare. If this Contract is so terminated, the Contractor shall be entitled to payment for all work performed and acceptable, and for all acceptable goods or services ordered by and delivered to the City prior to the date of termination, and to all reasonable costs of closing out the Contract, providing that the Contractor provides a final itemized invoice for the above amounts within thirty (30) days after receiving termination notice. The Contractor shall be deemed to waive any rights to additional compensation for the costs of closing out the contract in the event it fails to provide an invoice within thirty (30) working day period.
2. **Option to Terminate - Time of the Essence:** Time is of the Essence for this contract. If the Contractor should fail to supply sufficient workers, materials, supplies, and equipment to achieve scheduled milestone(s) completion and project completion, the City shall give written notice to the Contractor, which notice shall require that the Contractor supply sufficient workers, materials, supplies, and equipment to diligently prosecute the project to completion as scheduled. If the Contractor fails to resume diligent prosecution of the work within 72 hours, after such notice is delivered, the City may issue the Contractor a Notice of Termination for default. The City may then eject the Contractor from the job, take over all supplies, equipment and material of the Contractor on the job site, and either obtain another contractor to finish the project or finish the project with its own forces. In such event, the Contractor shall be liable to the City for damages, including but not limited to, the full cost of completing the project.
3. **Contractor's Duties Upon Termination:** Immediately after receipt of a Notice of Termination, either for default or convenience, the Contractor shall:
 - Stop work under the Contract in whole or in part, to the extent specified in the Notice of Termination;
 - Place no further orders or subcontract for materials, services, or facilities, except as may be necessary for completion of such portion of the work under the Contract as is not terminated;
 - Terminate all orders and subcontracts to the extent that they relate to the performance of work terminated by the Notice of Termination.

D-36 PROGRESS PAYMENTS

The Contractor or its representative shall meet with the Engineer or its representative once per month on a day of the month, selected by the Contractor, to measure and verify quantities of work completed. Upon agreement, the Contractor shall submit an invoice to the City per the agreed upon quantities of work completed along with copies of the Contractor's Certified Payroll, a progress schedule, and certification that the As-Built Drawings are current.

The form of the invoice shall be substantially the same as that included in Appendix A, and an authorized representative shall sign it, and it shall include the following language in the invoice or cover letter:

"I, _____(print name), being the _____ of _____ (Contractor), the undersigned Contractor, certifies that the Work covered by this request for payment (invoice) has been completed in accordance with the Contract Documents, and that the current progress payment (invoice) shown herein is accurate and now due. Contractor further certifies that all amounts have been paid by the Contractor for Work for which previous invoices for progress payments issued to and paid by the City.

The Contractor declares under penalty of perjury under the laws of the State of California, and do personally certify and attest that: I have thoroughly reviewed the attached request for payment (invoice) and know its contents, and said request for payment is made in good faith; that it is supported by truthful and accurate data; that the amount requested accurately reflects the allowable expenses incurred to perform the Work.

signature & date

The Engineer will mail the progress payment to the Contractor within thirty (30) days from the date of receipt of the invoice in acceptable form, including copies of the Certified Payroll, progress schedule, and as-built certification. The Contractor's attention is directed to the Certified Payroll requirements specified within these Contract Documents and elsewhere.

The estimated value of work performed on lump sum contracts or lump sum bid items will be determined from the Schedule of Values. The estimated value of work performed on a unit cost contract will be determined from the bid schedule of unit costs.

Quantities used in computing partial payments shall be considered as estimates only and shall be subject to revision in the following estimates. Work completed as estimates shall be an estimate only and no inaccuracy or error in said estimate shall operate to release the Contractor of any surety from damages arising from such work or the enforcement of each and every provision of this contract and the Engineer shall have the right subsequently to correct any error made in any estimate for payment.

The City shall retain ten percent (10%) of such estimated value of the work completed.

Materials delivered but not incorporated or installed in the work will not be included in progress payments unless specified in the Special Provisions. The first progress payment will not be made until the following submittals have been provided and accepted:

1. List and Schedule of Submittals
2. Baseline Project Schedule
3. Schedule of Values (if applicable)

Refer to the other Sections of the Contract Documents regarding Project Closeout, Final Inspection, and Acceptance. Upon completion of the work, the Engineer will send the Contractor a final estimate of the

total amount payable to the Contractor, including therein an itemization of said amount, segregated as to contract item quantities, extra work and any other basis for payment and shall also show therein all deductions made or to be made for prior payments and amounts to be kept or retained under the provisions of the contract. All prior estimates and payments shall be subject to correction in the proposed final estimate.

The Contractor shall submit a request for final payment of the contract price upon completion of all Work including Punch list Items, and may submit a request to release the "retention" held by the City. The City will pay retention to the contractor within thirty-five-(35) days from the date the City Council accepts the project Work, and a Notice of Completion is filed with the County, unless the City has occupied the project or has beneficial use or enjoyment. In this case, the City will pay the retention within thirty-five-(35) days of occupation or beneficial use or enjoyment. The City may withhold one hundred and fifty (150) percent of any disputed amount from the payment of retention.

D-37 SCHEDULE OF VALUES

When required by the Engineer or as required by these Contract Documents, elements of work shall be separated into groupings appropriate for the project. The Technical Specifications may be used as a guide for establishing these groupings – See the Technical Provisions for descriptions of Pay Items. Within each grouping, work shall be itemized by readily measurable quantities of work complete in place. Move-on costs, bond and insurance costs, overhead and profit shall not be allowed as line items but shall be prorated over other items of work. A line item to cover final inspection, punch list work, submittal of record drawings and other closeout activities shall be included. The Schedule of Values shall be broken down on the basis of each lump sum bid item. In the event that the Schedule of Values is not accepted by the Engineer, the Contractor shall revise the Schedule of Values in a manner that is acceptable to the Engineer.

D-38 ESCROW AGREEMENT FOR SECURITY DEPOSITS IN LIEU OF RETENTION

Pursuant to Public Contract Code Section 22300, for monies earned by the Contractor and withheld by the City of Milpitas to ensure the performance of the contract, the Contractor may, at its option, choose to substitute securities meeting the requirements of Section 22300. In the event that the Contractor wishes to choose this option, the Contractor shall enter into an escrow agreement with City, and the escrow agent, to be approved by the Engineer, in the form of the agreement included in these specifications. The costs of such escrow shall be paid by the Contractor. The securities to be deposited in the escrow account shall be equivalent, in fair market value, to the amount to be withheld as performance retention. The securities shall be held in accordance with the provisions of Public Contract Code Section 22300, and the escrow agreement.

The Contractor shall have the obligation of ensuring that such securities deposited are sufficient so as to maintain, in total fair market value, an amount equal to the cash amount of the sums to be withheld under the Contract. If, upon written notice from the City of Milpitas' Director of Finance, or from the appropriate escrow agent, indicating that the fair market value of the securities has dropped below the dollar amount of monies to be withheld by the City to ensure performance, Contractor shall, within five days of the date of such notice, post additional securities as necessary to ensure that the total fair market value of all such securities held by the City, or in escrow, is equivalent to the amount of money to be withheld by the City under the Contract.

Any Contractor wishing to exercise this option shall give notice in writing to Engineer, and shall thereafter execute an escrow agreement in the form enclosed with these specifications. The escrow agreement used hereunder shall be null, void, and unenforceable unless it is substantially similar to the City's Standard Form.

D-39 LOSS OR DAMAGE

The Contractor is responsible for, and is required to make good at its own expense, all damage to persons or property caused by Contractor's, or its subcontractor's, agents, or their employees during the progress of the work and until its acceptance. Any property, including but not limited to existing structures, equipment, piping, pipe covering, grounds, sidewalks, curbs, gutters, driveways, fences, landscape, etc., damaged by the Contractor during the course of his or her work, shall be replaced or repaired by the Contractor in a manner satisfactory to the Engineer and at the Contractor's expense.

All loss or damage including vandalism arising from any unforeseen difficulties which may be encountered in the prosecution of the work or from any action of the elements prior to the acceptance of the work or from any act or omission not authorized by these specifications on the part of the Contractor or any agent or person employed by him or her, shall be sustained by the Contractor. In the event that such repair is not undertaken within a reasonable period of time, the Engineer may have repairs made and deduct the cost from monies due to the Contractor.

The Contractor shall hold the City, its officers and employees, harmless from any loss arising out of injury to persons or damage to property resulting directly or indirectly from the performance of the work under this contract, including the defense of any action arising there from.

D-40 WARRANTIES

The Contractor shall be held responsible for and shall make good any defects through faulty or improper workmanship or through defective materials, arising or discovered any part of this work for a period of three (3) year from the date of acceptance by the City Council, or time specified in the Special Provisions. The Contractor shall also be held responsible for any and all latent defects in the work for a period of 10-years from the date of acceptance of the work by the City.

The Warranty Bond, furnished by the Contractor, shall cover such defects and protect the City against them during the period of warranty.

- a. Warranty Form. Contractor warranties shall be on the Contractor's own letterhead, addressed to the Engineer, and shall in all cases be furnished to the Engineer in duplicate. In addition, furnish Engineer with original copies of all manufacturers' warranties.
- b. Standard Product Warranties are pre-printed written warranties published by individual manufacturers for particular products and are specially endorsed by the manufacturer to the Engineer. Contractor shall provide to the Engineer the Manufacturer's Standard written warranties of all the equipment installed for the project.
- c. Special Warranties are written warranties required by or incorporated in Contract Documents, to extend time limits provided by standard warranties or to provide greater rights for the Engineer. Special warranties for products and installations that are specified to be warranted shall be provided. When a special warranty is to be executed by the Contractor, or the Contractor and a Subcontractor, or the Contractor and a Supplier or Manufacturer, the Contractor shall prepare a written document that contains appropriate terms and identification, ready for execution by the required parties. Submit a draft to the Engineer, for approval, prior to final execution.
- d. Disclaimers and Limitations. Manufacturer's disclaimers and limitations on product warranties do not relieve the Contractor from providing the specified warranty on the work that incorporates the products. Nor does it relieve suppliers, manufacturers, and subcontractors required to countersign special warranties with the Contractor, from meeting specified warranty obligations.

- e. Rejection of Warranties. The Engineer reserves the right to reject warranties and to limit selections to products with warranties not in conflict with requirements of the Contract Documents.

The Engineer reserves the right to refuse to accept work where a special warranty or similar commitment is required, until evidence is presented that entities required to countersign commitments are willing to do so.

- f. Related Damages and Losses. When correcting warranted work that has failed, the Contractor shall remove and replace other work that has been damaged as a result of such failure, or that which must be removed and replaced to provide access for correction of the warranted work.
- g. Reinstatement of Warranty. When work covered by a warranty has failed and been corrected, the warranty shall be reinstated by written endorsement. The reinstated warranty shall be equal to the original warranty with an equitable adjustment for time.
- h. Replacement Cost. On determination that work covered by a warranty has failed, the Contractor shall replace or rebuild the work to an acceptable condition complying with requirements of the Contract Documents. The Contractor is responsible for the cost of replacing or rebuilding defective work regardless of whether the City has benefited from use of the work through part of its useful service life.
- i. Engineer's Recourse. Written warranties made to the Engineer are in addition to implied warranties, and shall not limit duties, obligations, rights and remedies otherwise available under the law, nor shall warranty periods be interpreted as limitations on time in which the Engineer can enforce such other duties, obligations, rights or remedies.
- j. Notice to Perform Warranty Work. The Contractor is required to repair or replace warranted work within 10 days of receiving written notice from the Engineer of a failure of warranted work. If the required repair or replacement work has not been performed by the Contractor within the time allowed, the Engineer may, at its sole discretion, undertake appropriate warranty work without further notice to the Contractor.

In the event that the nature of the failed warranted work is such that further damage will occur, or there is a danger to life or property, the Engineer may undertake immediate repair or replacement without notice to the Contractor.

The cost of repair work undertaken by the Engineer under these provisions shall be recoverable from the Contractor.

- k. Submittal of Written Warranties. Bind warranties and bonds in heavy-duty, commercial quality, durable 3-ring vinyl covered loose-leaf binders with thickness as necessary to accommodate contents, and sized to receive 8-1/2" x 11" paper.

Provide heavy paper dividers with celluloid covered tabs for each warranty. Mark the tab to identify the product or installation. Provide a typed description of the product or installation, including the name of the product and the name, address and telephone number of the installer.

Identify each binder on the front and the spine with the typed or printed title "WARRANTIES," the project title or name, and the name of the Contractor. Warranties are to be submitted to the Engineer for review.

D-41 PROJECT CLOSEOUT AND FINAL INSPECTION

- a. The Contractor shall make a written request to the Engineer to conduct a Final Inspection when the Contractor has completed all contract work including repair or replacement of Work identified by the Engineer as defective after the successful completion of the final acceptance test. The Contractor shall submit the request a minimum of 5-days prior to the date of the requested Final Inspection. The Contractor shall also allow the Engineer a minimum of 5-days to respond to the schedule the Final Inspection and respond to the request.
- b. A Final Inspection will be conducted if the Engineer determines that all Work has been satisfactorily completed. If the Engineer does not accept that all Work is complete, the Engineer will decline the request for Final Inspection, and will advise the Contractor of the reason(s) for not accepting the Work as being complete and ready for Final Inspection.
- c. As a result of a Final Inspection, a Punchlist will be created by the Engineer and issued to the Contractor. The Engineer will advise the Contractor of any Work that must be corrected before Project Acceptance. The Punchlist will be issued to the Contractor 5-days after the date of Final Inspection not including weekend and holidays.

The Engineer will conduct a re-inspection of completed Punchlist Work upon written request from the Contractor.

No extensions of contract time will be granted to the Contractor if:

1. The Engineer declines Contractor's request for Final Inspection because the Engineer deems the Work is not complete.
2. Time taken by the Contractor to complete remaining Work if Engineer declines request for Final Inspection.
3. Time taken by the Contractor to perform corrective work identified on the Punchlist created after the Final Inspection.

D-42 PROJECT ACCEPTANCE

The Contractor shall complete all Punchlist work to the satisfaction of the Engineer, and submit a set of accurate As-Built Drawings prior to requesting project acceptance.

The Contractor shall submit a written request to the Engineer requesting the City Council accept the project work and commence the 3-year warranty period upon completion of all items noted on the Punchlist. The Contractor shall also submit a written request for final payment of the contract price, and copies of all lien releases from all subcontractors and suppliers. No contract time extensions shall be granted to the Contractor for completing these requirements.

Acceptance of the work on behalf of the City Council will be made upon the recommendation of the Engineer and the approval of the City Manager. Such acceptance shall not constitute a waiver of warranty by the City. When the Work has been accepted by the City Council, and the Notice of Completion is filed with the County, there shall be paid to the Contractor a sum equal to the contract price less (10) percent retention. The final ten (10) percent retention will be paid to the Contractor 35-days after project acceptance by the City Council and filing of the Notice of Completion with the County. The Notice of Completion shall be filed by the City following acceptance by the City Council. The Contractor shall provide Final Unconditional Lien Releases from all subcontractors and suppliers when the retention payment is made.

D-43 CLAIMS

“Claim” means any separate request or demand by Contractor for (A) a time extension, (B) payment of money or damages arising from work done by, or on behalf of, Contractor pursuant to the Contract and payment of which is not otherwise expressly provided for or that Contractor is not otherwise entitled to, or (C) an amount the payment of which is disputed by the City.

As a prerequisite to the making of a claim, the Contractor shall submit a written Notice of Potential Claim to the Engineer within 15 days after Contractor learns of, or has the necessary information to have knowledge of the event giving rise to a claim, including a determination by the City that a Change Request is unacceptable, in whole or in part.

The written Notice of Potential Claim shall be certified with the reference to the California False Claims Act, Government Code Sections 12650-12655, and shall include the following signed certification by the Contractor:

_____, being the _____
(Print full name) (Must be an officer)
of _____, declare under penalty of perjury under the laws of the state of
(Company)

California, and do personally certify and attest that I have thoroughly reviewed the attached claim for additional compensation and/or extension of time, and know its contents, and said claim is made in good faith; the supporting data is truthful and accurate; that the amount requested accurately reflects the contract adjustment for which the Contractor believes the owner is liable; and further, that I am familiar with California Penal Code Section 72 and California Government Code 12650, et seq, pertaining to false claims, and further know and understand that submission or certification of a false claim may lead to fines, imprisonment, and/or other severe legal consequences.

By: _____
(Name)

(Contractor Signature)

The notice shall set forth the reasons for which the Contractor believes additional compensation or time will or may be due and the nature of all costs involved. The claim shall include accurate detailed documentation of the costs involved and the amount of the potential claim. If accurate cost figures are not available, the Contractor shall provide an estimate and information as to when accurate figures will be available.

The City may respond to the Notice of Potential Claim in writing within 45 days after the City's receipt of the notice or may request in writing, within 30 days of receipt of the notice, any additional documentation supporting the notice of potential claim or relating to defenses to the claim the City may have against the Contractor.

If Contractor disputes the City's written response, or if the City fails to respond within the time prescribed, Contractor may so notify the City, in writing, either within 15 days of receipt of the City's response or within 15 days of the City's failure to respond within the time prescribed, respectively, and demand an informal conference to meet and confer for settlement of the issues in dispute. Upon a demand, the City shall schedule a meet and confer conference within 30 days for settlement of the dispute.

Following the meet and confer conference, if the claim or any portion remains in dispute, Contractor may file a claim as provided in Chapter 1 (commencing with Section 900) and Chapter 2 (commencing with Section 910) of Part 3 of Division 3.6 of Title 1 of the Government Code.

The above claims procedures are either set forth in, or are consistent with, the provisions of Public Contract Code §§ 20104 and 20104.2, do not apply to tort claims, and are not intended nor shall be construed to change the time period for filing tort claims or actions.

The Contractor hereby agrees that it shall have no right to additional compensation, and/or additional contract time for any claim that may be based on any act, failure to act, event, thing or occurrence for which no written notice of potential claim as herein required was filed and received by the City within the 15 day time limit specified.

END OF GENERAL CONDITIONS

SECTION E - SPECIAL CONDITIONS

E-01 PROSECUTION OF THE WORK AND TIME OF COMPLETION

The Contractor shall diligently prosecute all or any designated portion of the work to completion called for under the contract in all parts and requirements, including the corrective Punch List items **before the expiration of 180 calendar days**.

The Contractor shall submit a schedule of work to the Engineer that includes dates for the completion of each major item of Work in accordance with the requirements of these Contract Documents. The schedule may include work beyond an eight-hour day, and work on weekends or holidays except for New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day including the day after (November 25), and Christmas Day. The Contractor acknowledges that it is not allowed to work on these specified holidays, but they will be considered as calendar days and the Contractor will be charged as such.

Contractor is responsible for implementing measures as needed to allow for work to proceed during wet weather, should wet weather occur.

Prior to commencement of construction work, a Pre-Construction Conference will be conducted at a location designated in the Notice of Award letter, for the purpose of discussing with the Contractor, but not limited to, the scope of work, Contract Drawings, Specifications, existing conditions, materials to be ordered, equipment to be used, and all essential matters pertaining to the prosecution and satisfactory completion of the project as required. The Contractor's representatives at this conference shall include all personnel involved in the project, specifically the Project Manager, Project Superintendent, all major subcontractors.

The Contractor shall at all times during the continuance of the contract, prosecute the work with such forces and equipment as in the opinion of the Engineer, are sufficient to complete the different portions of the work in the order required and within the specified time and to secure a satisfactory quality of work.

In the event any delay is caused the Contractor by strikes or other causes beyond his or her control, or by specific orders of the Engineer to stop work, or by performance of changes or extra work ordered by the Engineer, or by failure of the City to provide material when and if provided for in the specifications, or necessary rights of way or site for installation, such delay may be cause for the granting of an extension of time for a period equivalent to the delay. The current controlling operation or operations is to be construed to include any feature of work considered at the time by the Engineer and the Contractor, which, if delayed, will delay the time of completion of the contract.

Weekly Statement of Days Charged to Contract:

The Engineer may issue the Contractor a statement indicating the days charged to the contract on a weekly basis. The Contractor shall sign the statement indicating acceptance and return to the Engineer, otherwise, the Contractor shall have fifteen (15) days to submit a protest in writing to the Engineer should the Contractor determine the statement to be in error. The statement shall be deemed as accepted by the Contractor should a written protest not be submitted to the Engineer within the stated time period.

E-02 NOTICE TO PROCEED

The Contractor shall accomplish the following items prior to being issued a Notice to Proceed:

1. Attend City Pre-Project Meeting with the Engineer. Attendees shall include the Contractor, Contractor's Superintendent, and all Subcontractors.
2. Obtain favorable review by the Engineer of Contractor's Project Schedule in accordance with these Contract Documents.

3. Obtain favorable review by the Engineer of Contractor's Traffic Control Plan in accordance with these Contract Documents.
5. Obtain favorable review by the Engineer of Contractor's Submittals as may be required prior to issuance of a Notice to Proceed as specified elsewhere within these Contract Documents.

Upon completion of these requirements and any other requirements as may be specified elsewhere in these Contract Documents, the Engineer will issue a Notice to Proceed to the Contractor which will establish the first chargeable day of the Contract. However, the City shall start charging contract days 31 calendar days following the date of the Contractor's receipt of the Notice of Award letter, regardless of the Contractor's progress in completing all the items specified here and elsewhere within the Contract Documents.

The Contractor shall notify the Engineer of its intent to begin work at least 24-hours prior to beginning work by calling (408) 586-2884. Once work begins, notification must be made only if work is delayed or suspended.

E-03 LIQUIDATED DAMAGES

It is agreed by the parties to the contract that failure to complete the work or any part thereof including work identified as Punchlist items in the time agreed upon in the contract, or within such extra time as may have been allowed for delays or extensions granted as provided in the contract, will cause damage to the City of Milpitas, in part, that is and will be impracticable and extremely difficult to ascertain and determine the actual costs that the City will sustain in the event of and by reason of such delay, and it is therefore agreed that the Contractor will pay to the City of Milpitas the sum of \$500 for every day including; Saturdays, Sundays and holidays that the contract remains uncompleted after the date required for completion, including all punchlist items, and it is agreed that said amounts will be deducted from any money due the Contractor under his or her contract and the Contractor and his or her sureties shall be liable for any excess. Liquidated damages are in addition to any actual damages the City may incur. The City's decision to collect liquidated damages does not preclude the City from assessing any documented actual damages against the Contractor.

E-04 LIST OF PROJECT SUBMITTALS

Refer to Section D-18, the Technical Provisions, and elsewhere within the Contract Documents regarding the Submittal requirements and required Submittals for this Work. The list of submittals shall include, but is not limited to the following:

Number	Description	Section Reference	City Review Time (Days)
1.	Project Schedule and Progress schedules	D-25	15
2.	Traffic Control Plans	F-02	15
3.	Traffic Controller Cutsheets	C-02.2.2	15
4.	Ethernet-Copper-Switch Cutsheets	C-02.2.5	15
5.	ATMS Hardware Cutsheets	C-02.2.1	15
6.	Procurement Submittals	C-02.2.7	15
7.	Communication Master Plan	C-02.2.3	15
8.	Timing Report	C-02.3	15
9.	Testing Report	C-02.8	15
10.	Any and all other submittals required by the Contract Documents	-	15

END OF SPECIAL CONDITIONS

SECTION F – TECHNICAL PROVISIONS

F-01 MOBILIZATION

General:

Mobilization shall conform to the applicable provisions in Section 11, "Mobilization" of the State Standard Specifications.

Measurement and Payment:

Full compensation for conforming to Mobilization shall be considered as included in the prices paid for the various contract items of work involved, and no additional compensation shall be allowed.

F-02 TRAFFIC CONTROL

General:

Traffic Control shall include all work, equipment, and materials necessary to provide temporary stop signs, construction signage, flaggers and all other necessary items as directed by the Engineer.

Public Convenience and Safety

Traffic control shall be coordinated for the minimum inconvenience and maximum safety of the public during the project period. The Contractor shall bear full responsibility for maintaining traffic control during the project period involving traffic signal shut downs. The Contractor shall maintain traffic circulation at all times during the project.

Construction Area Traffic Control Devices

The Contractor shall comply with flagging and traffic handling equipment and device requirements of Section 12, "Construction Area Traffic Control Devices", of the State Standard Specifications with the exception of Section 12-2.02, "Flagging Costs". Full compensation for flagging costs shall be considered as included in the prices paid for the various contract items of work involved and no additional compensation will be allowed therefore. Flaggers and all personnel working near traffic shall wear hardhats; orange/red or State approved fluorescent green vests or shirts. Flaggers shall guide traffic with an appropriate stop/slow sign.

A traffic control plan shall be submitted by the Contractor to the Engineer a minimum of five (5) days prior to any work commencing on the project. The traffic control plan shall be reviewed and accepted by the Engineer prior to any work commencing on the project. All traffic plans shall be prepared in accordance with the latest version of the State of California Department of Transportation "Manual of Traffic Controls for Maintenance and Construction Work Zones." The traffic control plan shall consist of scaled drawings of each street where work is proposed. The plan shall detail all traffic control measures proposed for each street. Copies or modified copies of the Manual of Traffic Controls for Maintenance and Construction Work Zones or the Work Area Traffic Control Handbook or any other type of copied standardized traffic control plans shall not be acceptable.

All signs and other warning devices shall be provided by the Contractor and shall become the Contractor's property after completion of the contract. The Contractor shall refer to the current "Manual of Warning Signs, Lights and Devices for use in the Performance of Work Upon Highways" and the "Uniform Sign Chart" issued by the Department of Transportation, Division of Operations.

The Contractor shall not block any driveway or access to adjacent property owners at any time unless instructed otherwise by the Engineer.

Whenever the Contractor's operations create a condition potentially hazardous to the public or traffic, he shall furnish at his own expense such flaggers, guards, and other devices necessary to provide adequate warning to the public of any dangerous conditions to be encountered. Contractor shall furnish, erect and maintain such fences, barricades, lights, signs, and other devices necessary to prevent accidents and avoid damage or injury to the public.

If the Contractor fails to provide, is neglectful of or negligent in furnishing and maintaining warning and protective facilities and personnel as herein provided within eight (8) hours of being notified by the Engineer of the need for such, the City may furnish and maintain such facilities and personnel. In this event, the City may charge the Contractor therefore by deducting the cost of such facilities and personnel from progress payments due to the Contractor as such costs are incurred by the City.

Those parts of public streets, rights-of-way, and sidewalks occupied by the Contractor shall be immediately vacated and returned to public use when the use thereof is no longer necessary for the Contractor's work.

Measurement and Payment:

Full compensation for conforming to Traffic Control shall be considered as included in the prices paid for the various contract items of work involved, and no additional compensation shall be allowed.

F-03 ORDER OF WORK

Order of Work

Order of work shall conform to the requirements specified in the contract plans and these specifications.

1. Phase 1: Develop Communication Master Plan, Traffic signal controller upgrades on N Milpitas Boulevard - Abel Street - Jacklin Road - Main Street Corridors, and implementation of ATMS
2. Phase 2: Traffic signal controller upgrades on Tasman Dr - Great Mall Parkway - McCarthy Boulevard - Ranch Drive - Bellew Drive - Alder Drive - Barber Lane - Dixon Landing Road - S Milpitas Boulevard Corridors
3. Phase 3: Traffic signal controller upgrades remaining isolated traffic signals in the City and Finalize ATMS System

The Contractor shall coordinate with and accommodate any other contractors and utility companies who may be working in the area of this project when preparing operations and work schedules.

Measurement and Payment - Full compensation for conforming to Order of Work shall be considered as included in the prices paid for the various contract items of work involved, and no additional compensation shall be allowed.

F-04 COOPERATION

The Contractor shall coordinate with and accommodate any other contractors who may be working in the area of this project when preparing operations and work schedules. Progress schedule for other work, if available, may be inspected by the Contractor upon approval by the jurisdictional agency. The schedules, if available, are tentative and cannot be guaranteed accurate.

The Contractor shall coordinate with utility companies for relocation of any existing utilities. The Contractor shall give the required advance notice of work to the utility company. The Contractor's work shall be so conducted to permit the utility company to maintain their services and relocate their facilities with the minimum of interruption. Proper coordination with utility company staff is critical to ensure that their facility is relocated prior to installation of new improvements by the Contractor.

Measurement and Payment – Full compensation for Cooperation including coordination by the Contractor shall be considered as included in the contract prices paid for the various items of work involved, and no additional compensation shall be allowed.

END OF TECHNICAL PROVISIONS

APPENDIX A CITY STANDARD FORMS



SUBMITTAL COVER SHEET

SUBMITTAL NO. : _____

DATE SUBMITTED: _____

PROJECT: _____

PROJECT #: _____

FROM: CONTRACTOR

Phone #: _____

TO: CITY OF MILPITAS
ENGINEERING DIVISION
455 E. CALAVERAS BLVD.
MILPITAS, CA 95035
Attn.: _____

<u>Item Required</u>	<u>Specification Section/Plan Sheet</u>	<u>Submittal Description</u>	<u>Check If Substitution or Exception</u>	<u>Comment / Date</u>
<u>1</u>	_____	_____	☐	_____
<u>2</u>	_____	_____	☐	_____
<u>3</u>	_____	_____	☐	_____
<u>4</u>	_____	_____	☐	_____
<u>5</u>	_____	_____	☐	_____

I certify that this submittal is in conformance with the requirements of the Contract Documents and is not in conflict with other submittals. Any proposed submittal substitution or exception is fully indicated within the submittal, and the proposed substitution or exception is in compliance with the Contract Documents.

Contractors Signature

CITY RESPONSE:

Date Received: _____

- ☐ NO EXCEPTIONS NOTED – The City does not find any exceptions to the submittal, relying solely upon information provided in the submittal including the contractor's certification, and subject to its compatibility with future submittals and additional partial submittals for portions of the work not covered in this submittal. Does not constitute acceptance or deletion of specified or required items not shown in a partial submittal.
- ☐ MAKE CORRECTIONS NOTED – The same as above, except that minor corrections as noted by the Engineer shall be made by the Contractor. No resubmittal is required.
- ☐ REVISE AND RESUBMIT – Rejected due to noncompliance with the requirements of the project plans and Specifications because of major inconsistencies or errors which shall be resolved or corrected by the Contractor prior to subsequent review by the Engineer.
- ☐ SUBMIT SPECIFIED ITEM – Submittal is rejected because the submitted material does not conform to the requirements of the project plans and specifications in major respects. This material is not to be resubmitted, and it is expected that the material specified in the project plans and specifications be submitted.

City Reviewer: _____

Date: _____



REQUEST FOR INFORMATION

RFI #: _____

DATE CREATED: _____

PROJECT: _____

PROJECT #: _____

FROM: CONTRACTOR

TO: CITY OF MILPITAS
ENGINEERING DIVISION
455 E. CALAVERAS BLVD.
MILPITAS, CA 95035

Phone #: _____

ATTN.: _____

Subject: _____

INFORMATION REQUESTED:

Date Required: _____

Specification/Plan Sheet Reference: _____

I certify that this is not a frivolous Request For Information and that I have completely reviewed all project Contract Documents and to the best of my professional judgment have determined that the information requested is not obvious or found.

Contractor Signature

CITY RESPONSE:

Date RFI Received: _____

Response by _____

Date Answered: _____



NOTICE OF NON-COMPLIANCE

Date & Time Issued: _____

To: _____

Project: _____ Project Number: _____

In accordance with Section D of the Project Specifications, you are hereby notified that the following work is defective and does not comply with the requirements of the Project Contract Documents: _____

Work found to be defective or not in compliance with the Contract Documents shall not be paid for by the City, and it shall be the Contractor's responsibility to remove and replace the defective Work at no additional cost to the City. The Contractor shall determine what corrective action is necessary to bring the Work into compliance, and shall notify the Engineer prior to starting corrective action.

City Project Manager: _____

City Inspector: _____

Notice of Non-Compliance was received by: _____ / /



FIELD MEMORANDUM

Date: _____

Page 1 of ____

To: _____

From: _____

Project: _____

Subject: _____

Disclaimer:

All work shall be done in accordance with the Contract Documents. The written direction above provides clarification only. The Contractor acknowledges that any additional cost shall be authorized in advance in a fully executed Contract Change Order.

Signature

CC: _____



PROJECT PUNCHLIST

Date: _____

Page 1 of _____

Project: _____ Project No. _____

Project Manager: _____

Project Inspector: _____

Contractor: _____

Item	Description	Completed Yes/No	Date Completed	Inspectors Initial	Engineers Initial
1	Final certified payroll with lien release received				
2	Verify Contractor's As-Built Drawings are accurate and reflect any changes based upon Change Order or directions from Engineer.				
3	Contractors As-Built Drawings received.				
4	Product Warranties and O&M Manuals received.				
5	Spare Software, Parts & Equipment as required by the Contract Documents received.				
6	Equipment Training as required by the Contract Documents was performed.				

Project Engineer/Managers: _____
Signature

Project Inspector: _____
Signature

**ESCROW AGREEMENT FOR
SECURITY DEPOSITS IN LIEU OF RETENTION**

This Escrow Agreement is made and entered into effective _____ (date) _____ by and between City of Milpitas whose address is 455 E Calaveras Blvd. Milpitas, CA 95035-5479 hereinafter called "Owner," whose address is hereinafter called "Contractor" and whose address is hereinafter called "Escrow Agent." For the consideration hereinafter set forth, the Owner, Contractor, and Escrow Agent agree as follows:

(1) Pursuant to Section 22300 of the Public Contract Code of the State of California, Contractor has the option to deposit securities with Escrow Agent as a substitute for retention earnings required to be withheld by Owner pursuant to the Construction Contract entered into between the Owner and Contractor for _____ in the amount of _____ dated _____ (hereinafter referred to as the "Contract"). Alternatively, on written request of the Contractor, the Owner shall make payments of the retention earnings directly to the Escrow Agent. When the Contractor deposits the securities as a substitute for Contract earnings, the Escrow Agent shall notify the Owner within 10 days of the deposit. The market value of the securities at the time of the substitution shall be at least equal to the cash amount then required to be withheld as retention under the terms of the Contract between the Owner and Contractor. Securities shall be held in the name of Owner and shall designate the Contractor as the beneficial owner.

(2) The Owner shall make progress payments to the Contractor for those funds which otherwise would be withheld from progress payments pursuant to the Contract provisions, provided that the Escrow Agent holds securities in the form and amount specified above.

(3) When the Owner makes payment of retentions earned directly to the Escrow Agent, the Escrow Agent shall hold them for the benefit of the Contractor until the time that the escrow created under this contract is terminated. The Contractor may direct the investment of the payments into securities. All terms and conditions of this agreement and the rights and responsibilities of the parties shall be equally applicable and binding when the Owner pays the Escrow Agent directly.

(4) Contractor shall be responsible for paying all fees for the expenses incurred by Escrow Agent in administering the Escrow Account and all expenses of the Owner. These expenses and payment terms shall be determined by the Owner, Contractor, and Escrow Agent.

(5) The interest earned on the securities or the money market accounts held in escrow and all interest earned on that interest shall be for the sole account of Contractor and shall be subject to withdrawal by Contractor at any time and from time to time without notice to the Owner.

(6) Contractor shall have the right to withdraw all or any part of the principal in the Escrow Account only by written notice to Escrow Agent accompanied by written authorization from the Owner to the Escrow Agent that Owner consents to the withdrawal of the amount sought to be withdrawn by Contractor.

(7) The Owner shall have a right to draw upon the securities in the event of default by the Contractor. Upon seven days written notice to the Escrow Agent from the owner of the default, the Escrow Agent shall immediately convert the securities to cash and shall distribute the cash as instructed by the Owner.

(8) Upon receipt of written notification from the Owner certifying that the Contract is final and complete, and that the Contractor has complied with all requirements and procedures applicable to the Contract, Escrow Agent shall release to Contractor all securities and interest on deposit less escrow fees and charges of the Escrow Account. The escrow shall be closed immediately upon disbursement of all moneys and securities on deposit and payments of fees and charges.

(9) Escrow Agent shall rely on the written notifications from the Owner and the Contractor pursuant in Sections (5) to (8), inclusive, of this Agreement and the Owner and Contractor shall hold Escrow Agent harmless from Escrow Agent's release and disbursement of the securities and interest as set forth above.

(10) The names of the persons who are authorized to give written notice or to receive written notice on behalf of the Owner and on behalf of the Contractor in connection with the foregoing, and exemplars of their respective signatures are as follows:

On behalf of Owner:

On behalf of Contractor:

City Manager
Title

Title

Name

Name

Signature

Signature

Address

Address

On behalf of Escrow Agent:

Title

Name

Signature

Address

At the time the Escrow Account is opened, the Owner and Contractor shall deliver to the Escrow Agent a fully executed counterpart of this Agreement.

IN WITNESS WHEREOF, the parties have executed this Agreement by their proper officers on the date first set forth above.

Owner

Contractor

Title

Title

Name

Name

Signature

Signature

48226_V



CONTRACT CHANGE ORDER

Date: _____

To: _____

Contractor Name & Address

Attn.: _____

Project: _____

Contract Change Order No. _____ PO#: _____ RFQ #: _____

PCO #: _____ Description: _____

Ref: _____

City Council Approval: _____

You are hereby authorized to proceed with the following work in connection with the subject project:

Furnish all labor and materials to _____

TOTAL: \$ _____

INCREASE IN CONTRACT TIME: _____

No claims for additional compensation or damages for delay under any theory whatsoever, submitted by the contractor or any subcontractor, will be allowed by the City for any delay arising from, or associated with this change order. The extension of the time for completion and the compensation specified in this change order shall be the contractor's sole remedy.

This change order constitutes full and complete compensation for all labor, equipment, materials, overhead, extended overhead and profit required to perform the changes described above in accordance with the applicable provisions of the contract documents. This change order is not effective until approved by owner.

Accepted By: _____ Date: _____
Contractor

Project Manager: _____ Project Inspector: _____
Initial initial

City Approval: _____ Date: _____
City Engineer



WEEKLY STATEMENT OF DAYS CHARGED TO CONTRACT

**City of Milpitas
Engineering Division**

Date: _____

Project: _____ **Project No.** _____

Weekly Statement No. : _____

Notice of Project Award Issued: _____, **Notice To Proceed Issued:** _____

The following statement shows the number of _____ days charged to the contract
(Calendar or Working)
for the week ending: _____.

1. First chargeable day of the Contract: _____

2. Number of Days in the Contract: _____

3. Contractual completion date: _____
(= #1 + #2)

4. Days added by Contract Change Order: _____

5. Days not charged to Contract (note reason below): _____

6. Revised completion date based on #4 and/or #5: _____
(= #3 + #4 + #5)

Total number of Days charged to the Contract as of this Statement: _____

Total number of Days remaining as of this Statement: _____

Notes:

City Project Manager

City Inspector

Refer to Section D-01 of the Contract Documents. The Contractor has fifteen (15) days to submit written protest of this Statement to the Engineer; otherwise, this Statement shall be deemed to have been accepted by the Contractor.

Accepted By: _____
Contractors Signature

SAMPLE PROGRESS PAYMENT FORM

CITY OF MILPITAS

PROJECT NAME, NUMBER

PROGRESS PAYMENT Page 1 of 1

Date:

#	Description	Bid Quantity	Unit Units	Unit Price	Bid Amount	Previous Quantity	Previous Amount	Remaining Quantity	Remaining Amount	Current Quantity	Current Amount	Diff.	Payable Amount	Note
Bid Items														
1		0	\$	-	\$ -		\$ -	0%	\$ -	0%	\$ -	0%	\$ -	
2		0	\$	-	\$ -		\$ -	-	\$ -	-	\$ -	-	\$ -	
3		0	\$	-	\$ -		\$ -	-	\$ -	-	\$ -	-	\$ -	
4		0	\$	-	\$ -		\$ -	-	\$ -	-	\$ -	-	\$ -	
5								-	\$ -		\$ -			
6								-	\$ -		\$ -			
7								-	\$ -		\$ -			
8								-	\$ -		\$ -			
9								-	\$ -		\$ -			
10								-	\$ -		\$ -			
Subtotals					\$ -		\$ -		\$ -		\$ -		\$ -	
Contract Change Order Items														
CCO #1		0	\$	-			\$ -	0%	\$ -	0%	\$ -	0%	\$ -	
CCO #2		0	\$	-			\$ -	-	\$ -	-	\$ -	-	\$ -	
CCO #3		0	\$	-			\$ -	-	\$ -	0	\$ -	-	\$ -	
CCO #4														
Subtotals							\$ -				\$ -		\$ -	
TOTALS							\$ -				\$ -		\$ -	
Retention					10%		\$ -				\$ -		\$ -	
TOTALS							\$ -				\$ -		\$ -	
													Check	\$ -
													PAYMENT TOTAL	

Recommended by _____ Inspector

Approved by _____ Project Manager

Approved for Payment _____ CIP Manager or City Engineer

Contract Time as Bid Working or Calendar Days

CCO Time #2 Working or Calendar Days

Total Contract Time 0 Working or Calendar Days

Contract End Date Date Estimated or Actual

CONSTRUCTION CHANGE DIRECTIVE

Project Name _____ Project No: _____

CONSTRUCTION CHANGE DIRECTIVE NO. _____

TO: _____ FROM: _____ DATE: _____

SUBJECT/ITEM: _____

PAGE 1 of 1

DESCRIPTION:

References: None

Attachments: None

CONSTRUCTION CHANGE DIRECTIVE INSTRUCTIONS:

- ☐ The Contractor is directed to proceed with the above-described work without change in contract price.
- ☐ The Contractor is directed to proceed with the above-described work and submit within the next 14 calendar days an itemized lump sum price and requested time extension, if any, to facilitate the review and settlement of this CCD in accordance with the Contract Documents. The cost of the work covered by this directive shall not exceed \$. In the event that the cost of this work is anticipated to exceed the amount above, the Contractor will notify the City/Agency in writing and obtain additional authorization before proceeding.
- ☐ The Contractor is directed to proceed with the above-described work on a time and material basis with a Not-To-Exceed Amount of \$0. Itemized time and material documentation shall be provided on a daily basis in accordance with the Contract Documents.
- ☐ The Contractor shall be paid at bid item prices for the work performed.
- ☐ The Contractor is directed to provide pricing for the above-described work within the next 7 calendar days. The Contractor shall not proceed with the work until authorized by written Contract Change Order.

AUTHORIZED BY:

City of Milpitas
OWNER
Steve Erickson, Capital Improvement Program Manager
BY

SIGNED DATED

ACKNOWLEDGEMENT OF RECEIPT:

CONTRACTOR
BY

SIGNED DATED