

SPECIFICATIONS AND CONTRACT DOCUMENTS

FOR

ALBERT PARK PLAY AREA

JULY 2018

BID DATE: 10:00 AM, AUGUST 16, 2018

CITY PROJECT NO. 11299

CITY FILE NO. FILE: 22.04.45



**CITY OF SAN RAFAEL
DEPARTMENT OF PUBLIC WORKS**



SAN RAFAEL

THE CITY WITH A MISSION

MAYOR GARY O. PHILLIPS
VICE MAYOR JOHN GAMBLIN
COUNCILMEMBER KATE COLIN
COUNCILMEMBER MARIBETH BUSHEY
COUNCILMEMBER ANDREW CUYUGAN MCCULLOUGH

PUBLIC WORKS DEPARTMENT: (415)485-3355 FAX: (415)485-3334
Bill Guerin, Public Works Director

**ALBERT PARK PLAY AREA
City Project No. 11299**

APPROVED BY CITY OF SAN RAFAEL:

Handwritten signature of Kevin McGowan in blue ink.

Kevin McGowan
Assistant Public Works
Director/City Engineer

2/3/18

Date



Handwritten signature of Bill Guerin in blue ink.

Bill Guerin
Public Works Director

7/3/18

Date



***Department of
Public Works***

MAYOR
Gary O. Phillips

VICE MAYOR
John Gamblin

COUNCIL MEMBERS
Kate Colin

Maribeth Bushey

Andrew Cuyugan McCullough

JULY 9, 2018

INVITATION FOR BIDS

Sealed Bids for the Construction of the Project Entitled:

**Albert Park Play Area
City Project No. 11299**

will be received at the:

**City Clerk's Office, City Hall
1400 Fifth Avenue • San Rafael, California
until 10:00 am, AUGUST 16, 2018**

at which time and place all bids
will be publicly opened and read aloud.

Envelopes containing bids shall be marked as follows:

BID FOR:

Albert Park Play Area
City Project No. 11299

**CITY OF SAN RAFAEL - DEPARTMENT OF PUBLIC WORKS
NOTICE INVITING SEALED PROPOSALS FOR PUBLIC WORKS**

Notice is hereby given that the City of San Rafael Department of Public Works will receive bids for furnishing all labor, materials, equipment and services for

**Albert Park Play Area
City Project No. 11299**

Project Description:

This project consists of all the associated work described in the attached specifications and plans and the provisions of this document for excavation, removal of existing asphalt concrete paving, tree removal, clearing and grubbing; construction of new concrete paving, rubber safety surfacing, installation of play equipment, miscellaneous site furnishings, chain link fencing, planting and irrigation; new prefabricated restroom, light standards and electrical work.

Each bid shall be in accordance with the plans and specifications, and other contract documents, now on file with the City Clerk, City Hall, San Rafael, California. Contract documents may be examined at the Department of Public Works, 111 Morphew Street, San Rafael, CA 94901; Public Works will not sell hard copies of the contract documents.

Bidders shall obtain copies of the contract documents by logging on to www.blueprintexpress.com/sanrafael or by calling BPXpress Reprographics at (510) 559-8299 or e-mailing Richmond@blueprintexpress.com. Cost of contract documents shall be Twenty-five Dollars (\$25.00) per set, non-refundable. Shipping and handling costs are extra and prices range depending on the delivery method. At the bidder's request and expense, the contract documents can be sent by overnight mail. Bidders can supply their shipper account number to expedite processing. Electronic contract documents (PDF format) can also be ordered for a non-refundable fee of \$25 per set. All bidders must purchase a complete set of contract documents (hard copy or PDF format) from BPXpress Reprographics to be included on the planholder's list and to receive addenda notifications. **It is the responsibility of each prospective bidder to confirm his/her firm is on the planholder's list held at BPXpress Reprographics to ensure receipt of any subsequent communications, including addenda.** Partial sets of contract documents are not available from the City.

Bidders are hereby notified that pursuant to Section 1770 of the Labor Code of the State of California, the City of San Rafael has ascertained the general prevailing rate of per diem wages and rates for legal holiday and overtime work in the locality where the work is to be performed for each craft or type of workmen or mechanics needed to execute the contract which will be awarded the successful Bidder. The prevailing rates so determined by the City are on file in the office of the City Clerk, copies of which are available to any interested party on request.

Each bid shall be made out on the forms included in the Contract Documents and shall be accompanied by cash, certified check or bidder's bond for ten percent (10%) of the amount of bid, made payable to the order of the City of San Rafael; shall be sealed and **filed with said City Clerk, 1400 Fifth Avenue, City Hall, Room 209**, San Rafael, California 94901 on or before **AUGUST 16, 2018 at 10:00 am.**

The City reserves the right to reject any or all bids or to waive any informality in a bid. The Contractor shall have a "Class A" contractor's license in good standing registered in the State of California at the time of award of contract.

No contractor or subcontractor shall be qualified to bid on, or be listed on a bid proposal for a public works project unless currently registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5 [with limited exceptions from this requirement for bid purposes only under Labor Code section 1771.1(a)].

No contractor or subcontractor may be awarded a contract for public work on a public works project and no contractor or subcontractor may engage in the performance of a public works contract, unless currently registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5.

This project is subject to compliance monitoring and enforcement by the Department of Industrial Relations.



LINDSAY LARA
City Clerk

Dated: 7/9/2018



Department of Public Works

MAYOR
Gary O. Phillips

VICE MAYOR
John Gamblin

COUNCIL MEMBERS
Kate Colin

Maribeth Bushey

Andrew Cuyugan McCullough

INSURANCE REQUIREMENTS SHEET

SUBJECT: COMMERCIAL GENERAL LIABILITY, AUTOMOBILE AND WORKERS' COMPENSATION INSURANCE (MAJOR PUBLIC WORKS CONTRACTS)

The City of San Rafael requires that all Contractors and Subcontractors performing work under a Public Works contract with the City carry commercial general liability, automobile, and workers' compensation insurance. The Contractor and Subcontractors shall insure the City, its elective and appointive Boards, Commissions, Officers, Agents and Employees, as follows:

Commercial General Liability: Minimum of **\$1,000,000** per occurrence and **\$2,000,000** aggregate coverage.

Automobile Liability: Minimum of **\$1,000,000** coverage.

Workers' Compensation Liability: Statutory coverage.

The required commercial general liability insurance policy shall provide or shall be endorsed to provide that the City, its officers, employees, agents and volunteers are additional named insureds (for both ongoing and completed operations) under the policy, that such policy shall be primary and non-contributory and will not seek contribution from the City's insurance or self-insurance. The "primary and non-contributory" coverage shall be at least as broad as CG 20 01 04 13.

The limits of insurance required in this Agreement may be satisfied by a combination of primary and umbrella or excess insurance. Any umbrella or excess insurance shall contain or be endorsed to contain a provision that such coverage shall also apply on a primary and non-contributory basis for the benefit of the City (if agreed to in a written contractor or agreement) before City's own insurance or self-insurance shall be called upon to protect it as a named insured.

The workers' compensation liability insurance policy shall be specifically endorsed to waive any right of subrogation against the City.

The insurance policies shall be specifically endorsed to provide that the insurance carrier shall not cancel, terminate, or otherwise modify the terms and conditions of said insurance policies except upon ten (10) days written notice to the City.

It shall be a requirement under the contract that any available insurance proceeds broader than or in excess of the specified minimum insurance coverage requirements and/or limits shall be available to City or any other additional insured party. Furthermore, the requirements for coverage and limits shall be: (1) the minimum coverage and limits specified in the contract; or (2) the broader coverage and maximum

limits of coverage of any insurance policy or proceeds available to the named insured; whichever is greater.

Any deductibles or self-insured retentions in the required insurance policies must be declared to and approved by the City, and shall not reduce the limits of liability. Policies containing any self-insured retention (SIR) provision shall provide or be endorsed to provide that the SIR may be satisfied by either the named insured or City or other additional insured party. At City's option, the deductibles or self-insured retentions with respect to City shall be reduced or eliminated to City's satisfaction or Contractor or subcontractor shall procure a bond guaranteeing payment of losses and related investigations, claims administration, attorney's fees, and defense expenses.

Contractor and subcontractors shall provide to the City all of the following: (1) Certificates of Insurance evidencing the required insurance coverage, (2) a copy of the policy declaration page and/or endorsement page listing all policy endorsements for the commercial general liability policy, and (3) excerpts of policy language or specific endorsements evidencing the other insurance requirements set forth in this Agreement. City reserves the right to obtain a full certified copy of any insurance policy and endorsements from Contractor and subcontractors. Failure to exercise this right shall not constitute a waiver of the right to exercise it later. The insurance shall be approved as to form and sufficiency by City.

The insurance policies shall provide for a retroactive date of placement coinciding with the effective date of this contract.

The insurance policies shall include, in their text or by endorsement, coverage for contractual liability and personal injury.

If the insurance is written on a Claims Made Form, then, following termination of the contract, said insurance coverage shall survive for a period of not less than five years.

INSTRUCTIONS TO BIDDERS

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SECTION 1 - SCOPE OF WORK

1.01 Work to be Done - The work to be done consists of furnishing all plant, labor, materials, methods, and processes, implements, tools and machinery, except as otherwise specified, which are necessary and required to construct and complete the work designated in the contract, and to leave the grounds in a neat condition.

The City reserves the right to increase or decrease the quantity of any item or portion of the work as may be deemed necessary or advisable by the Director of Public Works; also to make such alterations or deviations, increases or decreases, additions or omissions, in the plans and specifications, as determined to be necessary and advisable.

In the event materials and/or equipment are to be furnished by the City, as designated in the Special Provisions or as agreed on, this shall not relieve the Contractor of the above requirements to furnish all other plant, labor, materials, and equipment to complete the contract.

1.02 Intent of Plans and Specifications - The intent of the plans and specifications is to describe the details for the construction and completion of the work which the Contractor undertakes to perform in accordance with the terms of the contract. Where the plans or specifications describe portions of the work in general terms, but not in complete detail, it is understood that only the best general practice is to prevail and that only materials and workmanship of the finest quality are to be used.

1.03 Approximate Estimate - The quantities given in the specifications, proposal and contract are approximate only. They are given only as a basis for comparison of bids. The City does not expressly or by implication, agree that the actual amount of the work will correspond therewith, and reserves the right to increase or decrease the amount of any class or portion of work, or omit portions of work, as deemed necessary or advisable by the Director of Public Works.

1.04 Examination of the Plans, the Specifications, and the Site of Work - The bidder shall carefully examine the site of the contemplated work, proposal, plans, specifications, and contract forms. It will be assumed that the bidder has made a complete investigation and is satisfied as to the conditions to be encountered, the character, quality and quantities of work to be performed, the materials to be furnished, and the requirements of the plans, specifications and the contract. It is mutually agreed that submission of

a proposal shall be considered prima facie evidence that the bidder has made such examination.

SECTION 2 - PLANS AND SPECIFICATIONS

2.01 Revisions and Amendments - The right is reserved, by the City as may be required, to revise or amend the specifications, plans, drawings or other contract documents, prior to the date set for opening of bids. Such revisions and amendments, if any, will be announced by an addendum or addenda to the Notice to Bidders. Copies of such addenda as may be issued will be furnished to all prospective bidders. If the revisions and amendments are of a nature which require material changes in quantities or bid prices or both, the date set for opening of bids may be postponed by such number of days as in the opinion of the Engineer will be necessary for bidders to revise their bid. In such case the addenda will include the announcement of the new date for opening bids. Bidders are required to acknowledge receipt of all addenda on the bid proposal submitted. Failure to acknowledge all such addenda may cause rejection of the bid. All Addenda will be faxed to each party holding bid documents. It shall be the bidder's responsibility to ensure that the fax number on file with the City on the plan holder's list is correct. It shall also be the bidder's responsibility to make inquiry as to the contract document, and all bidders shall be bound by such Addenda whether or not received by them.

2.02 Soil or Material Tests and Borings - Any information shown on the plans as to the soil or material borings or tests of existing material is for the purpose of design. The information is not guaranteed, and no claims for extra work or damages will be considered if it is found during construction that the actual soil or material conditions vary from those indicated unless, provided for in the Special Provisions.

2.03 Pre-Bid Opening Questions - Questions regarding documents, discrepancies, omission or doubt as to meaning shall be referred immediately, and in any event not less than five (5) days prior to the opening of bids, to the Director of Public Works who will send written instructions clarifying such questions to each bidder. Neither the Engineer nor the City shall be held responsible for any oral instructions.

2.04 Work in Accordance with Plans and Specifications - The work embraced herein shall be done in accordance with these plans and the

specifications and Standard Drawings of the Cities of Marin and the County of Marin.

SECTION 3 - BIDDERS

3.01 Qualification of Bidders - Each bidder shall be licensed in accordance with the provisions of Chapter 9, Division 3 of the Business and Professions Code, and shall be skilled and regularly engaged in the general class or type of work called for under this contract.

It is the intention of the City to award a contract only to a bidder who furnishes satisfactory evidence that he has the requisite experience, ability, capital, facilities, and plant to enable him to prosecute the work successfully and promptly, and to complete it within the time stated in the contract.

To determine the degree of responsibility to be credited to the bidder, the City will weigh any evidence that the bidder or personnel guaranteed to be employed in responsible charge of the work has performed satisfactorily on other contracts of like nature and magnitude of comparable difficulty at similar rates or progress.

3.02 Bidders Interest in More Than One Bid - No person, firm, or corporation shall be allowed to make, file or be interested in more than one bid for said project, unless alternative bids are called for. This prohibition is not applicable to submission of sub-proposals to a bidder, nor to quoting prices and/or materials to a bidder.

3.03 Subcontracts - Each bidder shall comply with the applicable chapter of the Public Contract Code including Section 4100-4113.

The Contractor shall perform with his own organization, contract work amounting to 50 percent of the original total contract price, except that any designated "specialty item" may be performed by subcontract and the amount of such "specialty item" so performed may be deducted from the original total contract price before computing the amount of work required to be performed by the Contractor with his own organization.

The bidder shall set forth in the bid the name and location of the place of business of each subcontractor who will perform work or labor or render services to the prime Contractor in or about the construction of the work in an amount in excess of one-half of one percent of the prime Contractor's total bid, or in the case of bids for the construction of streets or highways, including bridges, in excess of one-half of one percent of the prime Contractor's

total bid or ten thousand dollars (\$10,000), whichever is greater.

The prime Contractor shall list only one subcontractor for each portion as is defined by the prime Contractor in his bid.

SECTION 4 - LEGAL RELATIONS AND RESPONSIBILITIES

4.01 General - The Contractor shall keep himself fully informed of all existing and future State and Federal laws and County 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 any jurisdiction or authority over the same. He shall at all times observe and comply with, and shall cause all his agents and employees to observe and comply with all such existing and future 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, and all officers and employees thereof connected with the work, including but not limited to the Director of Public Works, against any claim or liability arising from or based on the violation of any such law, ordinance, regulation, order, or decree, whether by himself or his employees. 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 the Contractor shall forthwith report the same to the Director of Public Works in writing.

4.02 Faithful Performance Bond - As a part of the execution of the contract, the Contractor shall furnish, in triplicate, a bond of a surety company admitted in California and acceptable to the City, conditioned upon the faithful performance of all covenants and stipulations under the contract. The amount of the bond shall be 100 percent of the total contract price.

4.03 Material and Labor Bond - As a part of the execution of the contract, the Contractor shall furnish, in triplicate, a bond of a surety company admitted in California and acceptable to the City in a sum not less than 100 percent of the total contract price, for the payment in full of all persons, companies or corporations who perform labor upon or furnish materials to be used in the work under the contract, in accordance with the provisions of Sections 4200 and 4208, inclusive, (Chapter 3,

Division 5) of the Government Code of the State of California, and any acts amendatory thereof.

4.04 Defective Material & Workmanship - As a condition precedent to the completion of the contract, the Contractor shall furnish, in triplicate, a bond of a surety company admitted in California and acceptable to the City in the amount specified in the Proposal and Contract Agreement, to hold good for a period of 1 year after the completion and acceptance of the work, to protect the City against the results of defective materials or workmanship during that time. This bond must be delivered to the City before final payment under the contract will be made.

4.05 Notification of Surety Companies - The surety companies shall familiarize themselves with all of the conditions and provisions of the contract, and shall waive the right of special notification of change or modification of the contract, or of any other act or acts by the City or its authorized agents, under the terms of the contract. Failure to notify the surety companies of changes shall in no way relieve them of their obligations under the contract.

4.06 Contractor's Insurance - The Contractor shall obtain all insurance required hereunder and shall maintain same at all times during the life of the contract. Each insurance policy shall contain a clause which requires the insurance company to notify the City thirty (30) days in advance of cancellation. Should any such policy be cancelled before final completion of the work, and the Contractor fail to procure other insurance as herein required, immediately, the City may procure such insurance and deduct the cost thereof from any amounts due the Contractor. The insurance company(s) providing the coverage required under this agreement shall be admitted in California.

The Contractor shall, at the time of his execution by the City, file with the City for its approval, the original of such policy or policies or certificates thereof. Said insurance shall cover the following:

4.061 Worker's Compensation Insurance and Employer's Liability Insurance - Insurance shall be provided to cover his employees as required by the Labor Code of the State of California.

4.062 Public Liability and Property Damage Insurance - Public liability insurance and property damage insurance shall be provided to insure the City, its elective and appointive Boards, Commissions, Officers, Agents and Employees. The insurance policy shall be an "occurrence" policy.

The amounts of Public Liability and Property Damage Insurance required shall be as specified in the Proposal and Contract Agreement.

The required insurance may be provided by a separate policy insuring the City, its elective and appointive Boards, Commissions, Officers, Agents and Employees or, if the contractor already has insurance, he may provide the City with the required insurance by submitting a certificate of insurance and a standard form of additional insured endorsement. For this latter purpose, the City will accept the following:

"It is hereby understood and agreed that the City of San Rafael, its officers, agents and employees, are additional insureds hereunder but only as respects liability arising out of the land and/or property and/or work described in the Public Works contract for the project entitled, (Insert Project Name and No.) between the City of San Rafael and (Insert Name of Contractor) for the work and the improvements described therein."

Evidence of satisfactory insurance must be furnished to the City at the time of the execution of the Public Works contract together with evidence that the insurance carrier will not cancel or reduce the coverage of the policy without first giving the City at least thirty (30) days prior notice.

4.063 Builders' Risk "All Risk" Completed Value Insurance - All coverage (including earthquake) shall be provided upon the entire project which is the subject of this contract and including completed work and work in progress providing that the insurance premium for this specific requirement is a separate bid item. Such insurance shall include as Additional Named Insureds: The Owner; the Architect, the Engineer; and his consultants; and each of their officers, employees and agents; and any other persons with an insurable interest designated by the Owner as an Additional Named Insured. Such insurance may have a deductible clause but not to exceed \$250. (The deductible on earthquake may be in accordance with the underwriter's requirements).

4.064 Subcontractors - Contractor shall include all subcontractors as insureds under its policies or shall furnish separate certificates and endorsements for each subcontractor. All coverages for subcontractors shall be subject to all of the requirements stated herein.

4.07 Labor Code Requirements - The Contractor's attention is directed to the following requirements of the Labor Code:

4.071 Hours of Labor - Per Section 7-1.02K(5) of the State Specifications.

4.0 Prevailing Wage - Per Section 7-1.02K(2) of the State Specifications. The wage rates as determined by the Director of Industrial Relations are maintained by each City for review and copying by the Contractor.

4.073 Payroll Records - Per Section 7-1.02K(3) of the State Specifications.

4.074 Labor Nondiscrimination - Per Section 7-1.02I(2) of the State Specifications.

4.075 Apprentice - Per Section 7-1.02K(4) of the State Specifications.

4.076 Worker's Compensation - Per Section 7-1.06C of the State Specifications.

4.077 Fair Labor Standards Act - Per Section 7-1.02B of the State Specifications.

4.08 Subletting and Assignment - The Contractor shall give his personal attention to the fulfillment of the contract and shall keep the work under his control.

Subcontractors will not be recognized as such. All persons engaged in the work of construction will be considered as employees of the Contractor, and he will be held responsible for their work.

The contract may be assigned only with consent of the Governing Body.

SECTION 5 - PROSECUTION

5.01 Beginning of Work - The Contractor shall commence work following issuance of the Notice to Proceed within the number of days specified in the Proposal and the Contract Agreement, and shall diligently prosecute the same to completion within the time limit provided.

The Contractor shall not commence construction on any of the work until he has, on the grounds, or can furnish definite assurance that there will be available when required, all materials necessary to complete the portion of work on which work is begun.

5.02 Sound Control Requirements - The Contractor shall comply with all local sound control and noise level rules, regulations and ordinances which apply to any work performed pursuant to the contract.

Each internal combustion engine related to the job shall be equipped with a muffler of a type recommended by the manufacturer. No internal

combustion engine shall be operated on the project without said muffler.

5.03 Progress Schedule - Prior to commencing work the Contractor shall submit, to the Director of Public Works, a practical schedule showing the order in which the Contractor proposes to carry out the work, the dates on which he will start the several salient features of the work (including procurement of materials, plant and equipment), and the contemplated dates for completing the said salient features.

5.04 Time of Completion - The Contractor shall complete all or any designated portion of the work called for under the contract in all parts and requirements within the number of working days specified in the Proposal and the Contract Agreement.

A working day is defined as any day, except Saturdays, Sundays, legal holidays, and the days on which the Contractor is specifically required by the Special Provisions to suspend construction operations. On the days during which the Contractor is prevented by inclement weather or conditions resulting therefore, as determined by the Engineer, from proceeding with at least 75 percent of the normal labor and equipment force engaged on such operation or operations for at least 60 percent of the total daily time currently spent on the controlling operation or operations, the Contractor will not be charged for a working day.

The current controlling operation (or operations) is to be construed to include any feature of the work considered at the time by the Director of Public Works and the Contractor, which, if delayed, will delay the time of completion of the contract.

The Director of Public Works will furnish the Contractor a statement with his progress payment showing the number of working days charged to the contract during the period covered by the payment and the remaining number of working days to complete the contract. The Contractor will be given 10 calendar days from the date of progress payment to file written protest setting forth in what respects the statement of working days consumed is incorrect. Otherwise, the statement shall be deemed to have been accepted by the Contractor as correct.

5.05 Liquidated Damages - It is agreed that, if all the work required by the contract is not finished or completed within the number of working days as set forth in the contract, damage will be sustained by the City, and that it is and will be impracticable and extremely difficult to ascertain and determine the

actual damage which 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, the sum specified in the Proposal and the Contract Agreement for each and every calendar day's delay in finishing the work in excess of the number of working days prescribed; and the Contractor agrees to pay said liquidated damages herein provided for, and further agrees that the City may deduct the amount thereof from any moneys due or that may become due the Contractor under the contract.

It is further agreed that in case the work called for under the contract is not finished and completed in all parts and requirements within the number of working days specified, the Director of Public Works shall have the right to increase the said number of working days, he shall further have the right to charge to the Contractor, his heirs, assigns or sureties and to deduct from the final payment for the work all or any part, as he may deem proper, of the actual cost of engineering, inspection, superintendence, and other overhead expenses which are directly chargeable to the contract, and which accrue during the period of such extension, except that cost of final surveys and preparation of final estimate shall not be included in such charges.

The Contractor will be granted an extension of time and will not be assessed with liquidated expenses or the cost of engineering and inspection for any portion of the delay in completion of the work caused by acts of God or of the public enemy, fire, floods, epidemics, quarantine restrictions, strikes, labor disputes, shortage of materials and freight embargoes, provided, that the Contractor shall notify the Director of Public Works in writing of the causes of delay within 15 days from the beginning of any such delay. The Director of Public Works shall ascertain the facts and the extent of the delay, and his findings shall be final and conclusive.

No extension of time will be granted for a delay caused by a shortage of materials unless the Contractor furnishes to the Director of Public Works documentary proof that he has diligently made every effort to obtain such materials from all known sources within reasonable reach of the work and further proof in the form of supplementary progress schedules, as required in Section 5.03, "Progress Schedule," that the inability to obtain such materials when originally planned, did in fact cause a delay in final completion of the entire work which could not be compensated for by revising the sequence of the Contractor's operations. Only the physical shortage

of material will be considered under these provisions as a cause for extension of time and no consideration will be given to any claim that material could not be obtained at a reasonable, practical, or economical cost or price, unless it is shown to the satisfaction of the Director of Public Works that such material could have been obtained only at exorbitant prices entirely out of line with current rates, taking into account the quantities involved and the usual practices in obtaining such quantities.

If the Contractor is delayed in completion of the work by failure of the City to acquire clear right-of-way, or by any act of the Director of Public Works or of the City, not contemplated by the contract, an extension of time commensurate with the delay in completion of the work thus caused will be granted and the Contractor shall be relieved from any claim for liquidated damages, or engineering and inspection charges or other penalties for the period covered by such extension of time; provided that the Contractor shall notify the Director of Public Works in writing of the causes of delay within 15 days from the beginning of any such delay. The Director of Public Works shall ascertain the facts and the extent of the delay, and his findings shall be final and conclusive.

SECTION 6 - PROPOSAL

6.01 Proposal Form - All proposals must be made upon appropriate forms furnished by the Director of Public Works. All proposals must give the prices bid for the various items of work and must be signed by the bidder.

All proposals shall be submitted as directed in the "Notice to Bidders" in a sealed envelope plainly marked "proposal," and identifying the project to which the proposal relates and the date of the bid opening.

6.02 Disqualification of Bidders - More than one proposal from an individual, firm, or partnership, a corporation or an association under the same or different names, will not be considered. Reasonable ground for believing that any bidder is interested in more than one proposal for the work will cause rejection of all proposals in which such bidder is interested. If there is reason to believe that collusion exists among the bidders, none of the participants in such collusion will be considered. Proposals in which the prices are obviously unbalanced may be rejected.

6.03 List of Subcontractors - In accordance with Chapter 2, Division 5, Title 1 of the Government Code, each proposal shall have listed the name and

address of each subcontractor to whom the bidder proposes to sublet portions of the work. Subcontractors shall be listed on the form provided in the proposal.

6.04 Bids for Entire Project - Bids must be for the entire project, unless otherwise specifically provided. Bid forms shall be properly completed with all items filled out; in case of discrepancy the written numbers shall be considered as correct; numbers shall be stated both in writing and in figures, and all prices and notations must be typed or written legibly in ink. Mistakes may be crossed out and corrections inserted adjacent, if initialed in ink by the person signing the bid. Communications serving to qualify a bid will not be considered for any purpose. The City shall have the right to determine the low bidder by consideration of and to accept or reject any and all alternative or optional bids called for in the bid forms. Their order of listing shall in no way indicate the order in which alternate or optional bids may be accepted or rejected.

6.05 Bidders - Name and Address - Each bid must give the full business address of the bidder, and be signed by him with his usual signature. Bids by partnerships must furnish the full name of all partners, and must be signed by the partnership name by one of the members of the partnership, or by an authorized representative, followed by the signature and designation of the person signing. Bids by corporations must be signed with the legal name of the corporation, and with the signature of the

president and/or other designated person authorized to bind the corporation.

6.06 Receipt and Withdrawal of Proposals - Any bid may be withdrawn at any time prior to the time set for opening of bids. Thereafter no bid may be withdrawn for a period of 30 days. The withdrawal of a bid does not prejudice the right of a bidder to file a new bid. Bids will not be received after the time and date fixed in the Notice to Bidders.

6.07 Opening of Proposals - Proposals will be opened and read publicly at the same time and place indicated in the Notice to Bidders. Bidders or their authorized agents are invited to be present.

6.08 Award of Contract - The City reserves the right to reject any and all proposals and/or to waive any irregularities therein. The award of the contract, if it is awarded, will be to the lowest responsible bidder whose proposal complies with all the requirements prescribed. Such award, if made, will be made within 30 days after the opening of proposals. All bids will be compared on the basis of the Director of Public Works' estimate of the quantities of work to be done.

6.09 Execution of Contract - Upon receiving written notice of the acceptance of the Proposal, the successful bidder shall sign the Contract Agreement and returned it, together with the contract bonds and insurance, in the amount of time prescribed in the Proposal.

PROPOSAL

BID PROPOSAL INDEX

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BID PROPOSAL CHECK LIST

All Bidders shall complete and submit each page in the Proposal section, including any required attachments, by the time and date of the bid opening. Failure to submit in its entirety will be grounds for finding the bid or proposal nonresponsive. The following are the required Proposal sections that must be submitted as part of the bid.

<u>Bid Document</u>	<u>Filed with Bid</u>
<input type="checkbox"/> Project Bid Proposal.....	Must be filled out and signed
<input type="checkbox"/> List of Subcontractors.....	Must be filled out
<input type="checkbox"/> Prices of Items.....	Must be filled out and signed
<input type="checkbox"/> Contractor Field Review Certification Prior to Bid.....	Must be filled out and signed
<input type="checkbox"/> Lump Sum Item Breakdown.....	Submitted within 5 days of the Bid opening
<input type="checkbox"/> Non-Collusion Affidavit.....	Must be filled out and signed and notarized
<input type="checkbox"/> Cash, Certified Check or Bidder's Bond.....	Clearly attached with the Bid

City of San Rafael ♦ California
Department of Public Works

PROJECT BID PROPOSAL

TO: The City Council of the City of San Rafael

AUGUST 16, 2018

In compliance with your invitation for bids dated **August 16, 2018.**] the undersigned hereby proposes to furnish all labor, equipment and materials for the project entitled:

**Albert Park Play Area
City Project No. 11299**

All work will be performed in strict accordance with the Specifications and Contract Documents. In consideration of the following amount(s) attached hereto, the undersigned further agrees that, upon written of the acceptance of this bid, he will:

1. Execute a contract within **five (5)** working days upon formal notification of the acceptance of this Proposal.
2. Provide a "Faithful Performance Bond" for 100% of the contract price.
3. Provide a "Labor and Materials Bond" for 100% of the contract price.
4. Provide Insurance in accordance with the Contract Documents and the following amounts: **Commercial General Liability** - Not less than **\$1,000,000** per person and **\$2,000,000** aggregate coverage. **Automobile Liability** - Not less than **\$1,000,000** for one occurrence.
5. Obtain a City Business License prior to the commencement of work.
6. Commence the work within **five (5) working days** after the date of receipt of a written "Notice to Proceed".
7. Complete the work, including all punchlist work, within **80 (Eighty) Working Days**.
8. Pay the City **the sum derived from the Caltrans Standard Specifications formula for liquidated damages on local projects** for each and every calendar days delay in finishing the work in excess of the number of working days prescribed above.
9. Provide "Defective Material and Workmanship Bond" for 50% of the contract price, before final payment will be made.

The representations made below are made under penalty of perjury.

The undersigned acknowledges receipt of the following addenda:

_____ Write Addendum No's

Enclosed is a "Bid Guarantee," consisting of a _____

Describe Form of Guarantee

In the amount of : _____

Which is not less than 10% of the total bid.

Name of Firm

State of Incorporation

Business Address

City

State

Zip Code

()

Phone

Valid Contractor's License No.

Class of License

Expiration Date

Department of Industrial Relations Registration No.

Expiration Date

Signature of Responsible Official

Title of Official

Names of All Partners

LIST OF SUBCONTRACTORS

In compliance with the provisions of Sections 4100-4113, inclusive, of the Public Contract Code of the State of California, each Bidder shall set forth the name, location of the place of business and contractor's license number of each subcontractor whom the Bidder proposes to have perform work or labor or render service to him/her in or about the construction of the work in an amount in excess of one-half of one percent (0.5%) of the total amount of the Bidder's proposal, or in the case of bids for the construction of streets or highways, including bridges, in excess of one-half of one percent (0.5%) of the total amount of the Bidder's proposal or ten thousand dollars (\$10,000), whichever is greater; and the portion of the work which will be done by each such subcontractor.

Each subcontractor must obtain a City Business License prior to commencement of their portion of work on the project.

List below the name, location of the place of business and contractor's license number of each subcontractor and the portion of the work to be done by each subcontractor:

1.	Name of Subcontractor	Contractor's License No.	DIR Registration No.	\$ Dollar Amount
	Location of Place of Business	Portion of Work		
2.	Name of Subcontractor	Contractor's License No.	DIR Registration No.	\$ Dollar Amount
	Location of Place of Business	Portion of Work		
3.	Name of Subcontractor	Contractor's License No.	DIR Registration No.	\$ Dollar Amount
	Location of Place of Business	Portion of work		
4.	Name of Subcontractor	Contractor's License No.	DIR Registration No.	\$ Dollar Amount
	Location of Place of Business	Portion of Work		
5.	Name of Subcontractor	Contractor's License No.	DIR Registration No.	\$ Dollar Amount
	Location of Place of Business	Portion of Work		

PRICES OF ITEMS

NOTE: In the event of error or conflict in the prices set forth below, the “Unit Price” will govern. In the event that the “Unit Price” is illegible or indistinguishable it shall be established by dividing the “Total Price” by the “Number of Units.”

BASE BID ITEMS

ITEM	DESCRIPTION	ESTIMATED QUANTITY	UNIT	UNIT PRICE	TOTAL PRICE
1.	Mobilization (3% Maximum of Base Bid)	1	LS	@ _____ = _____	
2.	Signs and Traffic Control	1	LS	@ _____ = _____	
3.	Demolition				
	a. AC Paving Removal	700	SF	@ _____ = _____	
	b. Clear and Grubb	7,000	SF	@ _____ = _____	
	c. Tree Removal	4	EA	@ _____ = _____	
	d. Remove and Dispose Play Equip.	1	LS	@ _____ = _____	
	e. Grading	170	CY	@ _____ = _____	
4.	Storm Drainage				
	a. Storm drainage play area pipe	200	LF	@ _____ = _____	
	b. Storm drainage play area drain inlets	10	EA	@ _____ = _____	
5.	Paving				
	a. Decomposed Granite	255	SF	@ _____ = _____	
	b. Concrete Paths and Walkways	1,440	SF	@ _____ = _____	
	c. Concrete Sidewalk at B Street	360	SF	@ _____ = _____	
6.	Planting and Irrigation				
	a. Soil Preparation (horticultural)	2,400	SF	@ _____ = _____	
	b. Irrigation	2,400	SF	@ _____ = _____	
	c. 5 gallon shrubs	23	EA	@ _____ = _____	
	d. 1 gallon shrubs	44	EA	@ _____ = _____	
	e. Bark mulch	31	CY	@ _____ = _____	
7.	Site Furnishings				
	a. 4' high tube steel fence	280	LF	@ _____ = _____	

ITEM	DESCRIPTION	ESTIMATED QUANTITY	UNIT	UNIT PRICE	TOTAL PRICE
	b. Concrete curb	60	LF	@ _____ = _____	
	c. Concrete mow band at fence	230	LF	@ _____ = _____	
8.	Play Equipment and Surfacing (installed)			_____	_____
	a. Resilient Surfacing @ existing play area	1,650	SF	@ _____ = _____	
	b. Foreverlawn Safety Surfacing	500	SF	@ _____ = _____	
	c. Class II base under safety surfacing	2,520	SF	@ _____ = _____	
	d. Kompan Wizards Hideaway NRO409	1	LS	@ _____ = _____	
	e. Kompan Ship (NRO524-1001	1	LS	@ _____ = _____	
	f. Kompan Playhouse (NRO407-0621)	1	LS	@ _____ = _____	
	g. Kompan Bucket Swings (NRO910-1101)	1	LS	@ _____ = _____	
	h. Picnic Table with 3 seats	1	EA	@ _____ = _____	
9.	Electrical				
	a. Service and Connection	1	LS	@ _____ = _____	
	b. Light Standard	1	EA	@ _____ = _____	

BASE BID \$ _____

B1. Restroom Building (Bid Alternate #1)

a.	Building fabrication, delivery and install	1	EA	@ _____ = _____	
b.	Restroom water and sewer utilities	1	EA	@ _____ = _____	

B2. Play Equipment and Surfacing (Bid Alternate #2)

a.	Resilient Surfacing @ existing play area	1,650	SF	@ _____ = _____	
a.	Kompan Parcour 004 NRO854	1	LS	@ _____ = _____	

(BASE BID WRITTEN IN WORDS)

NOTES:

The contract will be awarded to the lowest responsible and responsive bidder based upon the Base Bid. The City reserves the right to delete any item of work shown.

The Contractor shall conduct a detailed field review of the project area prior to bid to review the existing conditions. Submittal of bid signifies a full understanding of project issues, existing utilities and conditions in the project area.

The low bidder shall submit within five days of contract award by the City Council the lump sum item breakdown included in this Bid Proposal section. The schedule shall include a description of the component, quantity, unit price, and total price. This breakdown shall be applicable to lump sum items stated in the above items.

The Contractor shall have a "Class A" contractor's license in good standing registered in the state of California.

The Contractor shall comply with section 1771.1 (a) of the Labor Code which states the following: "A contractor or subcontractor shall not be qualified to bid on, be listed in a bid proposal, subject to the requirements of Section 4104 of the Public Contract Code, or engage in the performance of any contract for public work, as defined in this chapter, unless currently registered and qualified to perform public work pursuant to Section 1725.5. It is not a violation of this section for an unregistered contractor to submit a bid that is authorized by Section 7029.1 of the Business and Professions Code or by Section 10164 or 20103.5 of the Public Contract Code, provided the contractor is registered to perform public work pursuant to Section 1725.5 at the time the contract is awarded.

NON-COLLUSION AFFIDAVIT

State of California }
County of _____ } ss.

_____, being first duly sworn, deposes and says that he or she is _____ (owner, a partner, president, secretary, etc.)

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; 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 or 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 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.

Signature of Representative of Bidder

Subscribed and sworn to before me,
a Notary Public in and for the
State of California, County of __,

this _____ day of _____, 2018.

Signature of Notary Public

(Seal)

My commission expires _____, 20__.



Department of Public Works

MAYOR
Gary O. Phillips

VICE MAYOR
John Gamblin
COUNCIL MEMBERS
Kate Colin

Maribeth Bushey
Andrew Cuyugan McCullough

CONTRACTOR FIELD REVIEW CERTIFICATION PRIOR TO BID

We _____ (Contractor's name), have inspected the locations of all proposed work included in the "Albert Park Play Area" and have determined all the field conditions and obstructions and are bidding accordingly.

NAME: _____

SIGNATURE: _____

TITLE: _____

DATE: _____

STATEMENT OF QUALIFICATION

Contractor License Number: _____ Expiration Date: _____

List all entities for which you have performed work on similar projects for the last five years.

No.	Entity	Contract Dates (From/To)	Contact Name & Job Title	Contact Phone Number
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				

Use supplemental sheets if necessary

BASE BID LUMP SUM ITEM BREAKDOWN

ITEM	DESCRIPTION	ESTIMATED QUANTITY	UNIT	UNIT PRICE	TOTAL PRICE
1.	Mobilization	1	LS	@ _____ = _____	
	Labor			@ _____ = _____	
	Material			@ _____ = _____	

The contractor is encouraged to add additional information to further detail his/her Lump Sum breakdown.

City of San Rafael ♦ California

Form of Contract Agreement for Albert Park Play Area

This Agreement is made and entered into this ___ day of _____ 2018 by and between the City of San Rafael (hereinafter called City) and **Contractor Name** (hereinafter called Contractor). Witnesseth, that the City and the Contractor, for the considerations hereinafter named, agree as follows:

I - Scope of the Work

The Contractor hereby agrees to furnish all of the materials and all of the equipment and labor necessary, and to perform all of the work described in the specifications for the project entitled: **Albert Park Play Area** all in accordance with the requirements and provisions of the Contract Documents as defined in the General Conditions which are hereby made a part of this Agreement. The required additional insured coverage for City under contractor's liability insurance policy shall be primary with respect to any insurance or coverage maintained by city and shall not call upon city's insurance or self-insurance for any contribution.

II- Time of Completion

- (a) The work to be performed under this Contract shall be commenced within **Five (5) Working Days** after the date of written notice by the City to the Contractor to proceed.
- (b) All work shall be completed, including all punchlist work, within **Eighty (80) Working Days** and with such extensions of time as are provided for in the General Provisions.

III - Liquidated Damages

It is agreed that, if all the work required by the contract is not finished or completed within the number of working days as set forth in the contract, damage will be sustained by the City, and that it is and will be impracticable and extremely difficult to ascertain and determine the actual damage which 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, **the sum derived from the Caltrans Standard Specifications formula for liquidated damages on local projects** for each and every calendar day's delay in finishing the work in excess of the number of working days prescribed above; and the Contractor agrees to pay said liquidated damages herein provided for, and further agrees that the City may deduct the amount thereof from any moneys due or that may become due the Contractor under the contract.

IV - The Contract Sum

The City shall pay to the Contractor for the performance of the Contract the amounts determined for the total number of each of the units of work in the following schedule completed at the unit price stated. The number of units contained in this schedule is approximate only, and the final payment shall be made for the actual number of units that are incorporated in or made necessary by the work covered by the Contract.

V - Progress Payments

- (a) On not later than the 6th day of every month the Public Works Department shall prepare and submit an estimate covering the total quantities under each item of work that have been completed from the start of the job up to and including the 25th day of the preceding month, and the value of the work so completed determined in accordance with the schedule of unit prices for such items together with such supporting evidence as may be required by the City and/or Contractor .
- (b) As soon as possible after the preparation of the estimate, the City shall, after deducting previous payments made, pay to the Contractor 95% of the amount of the estimate as approved by the Public Works Department.
- (c) Final payment of all moneys due shall be made within 15 days after the expiration of 35 days following the filing of the notice of completion and acceptance of the work by the Public Works Department.
- (d) The Contractor may elect to receive 100% of payments due under the contract from time to time, without retention of any portion of the payment by the public agency, by depositing securities of equivalent value with the public agency in accordance with the provisions of Section 4590 of the Government Code. Such securities, if deposited by the Contractor, shall be valued by the City's Finance Director, whose decision on valuation of the securities shall be final.

VI - Acceptance and Final Payment

- (a) Upon receipt of written notice that the work is ready for final inspection and acceptance, the Engineer shall within 5 days make such inspection, and when he finds the work acceptable under the Contract and the Contract fully performed, he will promptly issue a Notice of Completion, over his own signature, stating that the work required by this Contract has been completed and is accepted by him under the terms and conditions thereof, and the entire balance found to be due the Contractor, including the retained percentage, shall be paid to the Contractor by the City within 15 days after the expiration of 35 days following the date of recordation of said Notice of Completion.
- (b) Before final payment is due the Contractor shall submit evidence satisfactory to the Engineer that all payrolls, material bills, and other indebtedness connected with work have been paid, except that in case of disputed indebtedness or liens the Contractor may submit in lieu of evidence of payment a surety bond satisfactory to the City guaranteeing payment of all such disputed amounts when adjudicated in cases where such payment has not already been guaranteed by surety bond.
- (c) Contractor shall provide a "Defective Material and Workmanship Bond" for 50% of the Contract Price, before the final payment will be made.
- (d) The making and acceptance of the final payment shall constitute a waiver of all claims by the City, other than those arising from any of the following: (1) unsettled liens; (2) faulty work appearing within 12 months after final payment; (3) requirements of the specifications; or (4) manufacturers' guarantees. It shall also constitute a waiver of all claims by the Contractor, except those previously made and still unsettled.
- (e) If after the work has been substantially completed, full completion thereof is materially delayed through no fault of the Contractor, and the Engineer so certifies, the City shall, upon certificate of the Engineer, and without terminating the Contract, make payment of the balance due for that portion of the work fully completed and accepted.

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

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

ATTEST:

CITY OF SAN RAFAEL:

Esther C. Beirne
City Clerk

Jim Schutz
City Manager

APPROVED AS TO FORM:

CONTRACTOR:

Rob Epstein
City Attorney

for _____

File No. 16.06.89

CONTRACT PROVISIONS

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SECTION 7 - GENERAL

7.01 Notice to Proceed - Contractor shall commence work within the number of days designated in the Bid Proposal after written notice to do so by Engineer. Time for completion of work will be computed from date of said notice to commence work. The allowable time for completion of the work is set forth in the special conditions.

7.02 Contract Documents - Contract documents which shall constitute the entire contract for said work include the following:

- a. Notice to Bidders
- b. Instructions to Bidders
- c. All Addenda Issued
- d. Accepted Proposal
- e. Subcontractors Statement
- f. Non-Collusion Affidavit
- g. Contract
- h. Faithful Performance Bond
- i. Labor and Material Bond
- j. Plans and Drawings
- k. Special Provisions
- l. Uniform Construction Standards Cities and County of Marin
- m. State of California Department of Transportatoin Standard Plans and Specifications

7.03 Furnishing of Plans and Specifications - The City will furnish without cost to Contractor sufficient copies of the plans and specifications.

7.04 Coordination of Plans and Specifications - The specifications, the plans, and all supplementary documents are essential parts of the contract. All requirement occurring in one is as binding as though occurring in all. They are intended to be cooperative, to describe, and to provide for a complete work. In case of conflict, Special Provisions shall govern over the Plans.

7.05 Extra Work - New and unforeseen work will be classed as extra work when such work cannot be covered by any of the various items or combination of items for which there are bid prices.

The Contractor shall not do extra work except upon written order from the Director of Public Works. For such extra work, the Contractor shall receive payment as previously agreed upon in writing, or he shall be paid on force account as provided in Section 9.06.

7.06 Removal of Obstructions - Where the completion of the work requires their removal, the Contractor shall remove and dispose of all structures, debris, or other obstructions encountered in making the improvement. Unless otherwise provided in the Special Provisions, full compensation for performing

this work shall be considered as included in the contract payments for other items of work and no additional compensation will be allowed therefor.

7.07 Disposal of Materials - The Contractor shall make his own arrangement for disposing of materials outside the public right-of-way, construction area, or limits of work, and he shall pay all costs involved. Full compensation for all costs involved in disposing of materials shall be considered as included in the price paid for the contract item of work involving such materials.

7.08 Sanitation - The Contractor shall provide all necessary privy accommodations for the use of his employees on the work and shall maintain same in a clean and sanitary condition.

7.09 Trench Shoring - If the amount bid for the excavation of any trench or trenches five (5) feet or more in depth is in excess of Twenty-five Thousand Dollars (\$25,000.00) then the following requirements shall apply pursuant to Section 6422 of the Labor Code. Prior to excavation of any trench or trenches five (5) feet or more in depth the Contractor shall submit to and have approved by City a detailed plan showing the design of shoring, bracing, sloping, or other provisions to be made for worker protection from the hazard of caving ground during the excavation of such trench or trenches. If such plan varies from the shoring system standards established by the Construction Safety Orders of the Division of Industrial Safety, the plan shall be prepared by a Registered Civil or Structural Engineer. Nothing in this section shall be deemed to allow the use of a shoring, sloping, or protective system less effective than that required by the Construction Safety Orders of the Division of Industrial Safety.

7.10 Final Cleaning Up - Before acceptance and final payment, the Contractor shall clean all streets, roads, borrow pits, and all ground occupied by him in connection with the work, of all rubbish, excess materials, temporary structures, and equipment. All parts of the work shall be left in a neat and presentable condition. Natural ground cover disturbed by haul roads shall be restored to its condition prior to inspection of the work.

7.11 Errors and Omissions - If the Contractor, in the course of the work, finds any error or omission in plans or in the layout as given by the plans and the physical conditions of the locality, he shall promptly notify the Engineer. Any work done after such discovery, unless authorized in writing, shall be done at the Contractor's expense.

7.12 No Personal Liability - Neither the Governing Body, Director of Public Works, nor any other officer

or authorized agent or assistant of the City shall be personally responsible for any liability arising under the contract.

7.13 Responsibility of City - The City shall not be held responsible for the care or protection of any material or parts of the work prior to final acceptance, except as expressly provided in these specifications or the Special Provisions.

7.14 Right-of-Way - The right-of-way for the work to be constructed shall be provided by the City. The Contractor shall make his own arrangements, and pay all expenses for additional area required by him outside of the limits of right-of-way, unless otherwise provided in the Special Provisions.

SECTION 8 - PROGRESS OF WORK

8.01 Suspension of Contract - If at any time, in the opinion of the Director of Public Works, the Contractor has failed to supply adequate and suitable equipment, work force, or material, or has failed in any other respect to prosecute the work with the diligence specified and intended in and by the terms of the contract, written notice thereof will be served upon him. If he neglects or refuses to comply with the contract, as directed by the Director of Public Works, within the time specified in such notice, the City may suspend operation of the contract. Upon receiving notice of suspension, the Contractor shall discontinue said work, or such parts of it as the Director of Public Works may designate. Upon suspension, the Contractor's control shall terminate, and the City may do all or any combination of the following:

- a. Engineer or his duly authorized representative may take possession of all or any part of the Contractor's materials upon the premises; use same to complete the contract; hire such forces, buy or rent machinery, tools, appliances and equipment; and buy such additional materials and supplies as may be necessary for the proper conduct of the work and completion thereof.
- b. Employ other parties to carry the contract to completion, employ the necessary workmen, substitute other machinery or materials, and purchase the materials contracted for, in such manner as the City may deem proper.
- c. The Director of Public Works may annul and cancel the contract and relet the work or any part thereof.

Any excess of cost arising therefrom over and above the contract price will be charged against the Contractor and his sureties, who will be liable therefor. In the event of suspension, all money due the Contractor, or retained under the terms of this contract, shall be forfeited toward any excess of cost over the contract price, arising from the suspension and completion of

work by the City as above provided. The Contractor will be credited with any surplus remaining after all just claims for such completion have been paid.

On the completion of the contract, the original Contractor shall be entitled to the return of all his unused materials, and his equipment, tools and appliances, except that he shall have no claim on account of usual and ordinary depreciation, loss, and wear and tear.

The Director of Public Works's determination whether there has been non-compliance with the contract which warrants the suspension or annulment thereof, shall be binding and conclusive.

8.02 Temporary Suspension of Work - The Director of Public Works shall have the authority to suspend the work wholly or in part, for such period as he may deem necessary, due to unsuitable weather, or to such other conditions as are considered unfavorable for the suitable prosecution of the work, or for such time as he may deem necessary for the Contractor to correct portions of the work which are faulty due to the failure on his part to carry out orders given, or to perform any provision of the contract. The Contractor shall immediately comply with the written order of the Director of Public Works to suspend the work wholly or in part. The suspended work shall be resumed when conditions are favorable and methods corrected, as ordered or approved in writing by the Director of Public Works.

In the event that a suspension of work is ordered, as provided above, by reason of the failure of the Contractor to carry out orders or to perform any provision of the contract; or by reason of unsuitable weather conditions when in the sole opinion of the Director of Public Works any item or items of work could have been performed prior to the occurrence of such unsuitable weather conditions had the Contractor diligently prosecuted the work; the Contractor, at his expense, shall do all the work necessary to provide a safe, smooth, and unobstructed passageway through construction for use by public traffic during period of such suspension, as provided in Section 12 of these specifications and as specified in the Special Provisions for the work. In the event that the Contractor fails to perform the work above specified, the City will perform such work and the cost thereof will be deducted from moneys due or to become due the Contractor.

In the event that a suspension of work is ordered by the Director of Public Works due to unsuitable weather conditions, and in the sole opinion of the Director of Public Works, the Contractor has prosecuted the work with energy and diligence prior to the time that operations were suspended, the cost of providing a smooth and unobstructed passageway

through the work will be paid for as extra work as provided in Section 7.05 of these specifications, or at the option of the Engineer, such work will be performed by the City at no cost to the Contractor.

If the Director of Public Works orders a suspension of all of the work or a portion of the work which is the current controlling operation or operations, due to unsuitable weather or to such other conditions as are considered unfavorable to the suitable prosecution of the work, the days on which the suspension is in effect shall not be considered working days. If a portion of work at the time of such suspension is not a current controlling operation or operations, but subsequently does become the current controlling operation or operations, the determination of working days will be made on the basis of the then current controlling operation or operations.

If a suspension of work is ordered by the Director of Public Works, due to the failure on the part of the Contractor to carry out orders given or to perform any provision of the contract, the days on which the suspension order is in effect shall be considered working days if such days are working days within the meaning of the definition set forth in Section 5.04 "Time of Completion."

In the event of a suspension of work under any of the conditions set forth in this Section, such suspension of work shall not relieve the Contractor of his responsibilities as set forth in Section 12, "Responsibility to the Public."

8.03 Utility and Non-Highway Facility Delays - It is anticipated that some or all of the utility and other non-highway facilities, both above ground and below ground, that are required to be rearranged (as used herein, rearrangement includes installation, relocation, alteration or removal) as part of the highway improvements will be rearranged in advance of construction operations. Where it is not anticipated that such rearrangement will be performed prior to construction, or where the rearrangement must be coordinated with the Contractor's construction operations, the existing facilities that are to be rearranged will be indicated on the plans or in the Special Provisions. Where a rearrangement is indicated on the plans or in the Special Provisions, the Contractor will have no liability for the costs of performing the work involved in such rearrangement.

The right is reserved to the City and the owners of facilities, or their authorized agents, to enter upon the highway right-of-way for the purpose of making such changes as are necessary for the rearrangement of their facilities or for making necessary connections or repairs to their properties. The Contractor shall cooperate with forces engaged in such work and shall conduct his operations in such a manner as to avoid any unnecessary delay or hindrance to the work being performed by such other forces. Wherever necessary,

the work of the Contractor shall be coordinated with the rearrangement of utility or other non-highway facilities, and the Contractor shall make arrangements with the owner of such facilities for the coordination of the work.

Any utility or other non-highway facility necessary to be rearranged but not included as a contract item of work shall be rearranged by the Contractor when ordered by the Director of Public Works in writing. Any such work will be paid for as extra work.

Should the Contractor desire to have any rearrangement made in any utility facility, or other improvement, for his convenience in order to facilitate his construction operations, which rearrangement is in addition to, or different from the rearrangements indicated on the plans or in the Special Provisions, he shall make whatever arrangements are necessary with the owners of such utility or other non-highway facility for such rearrangement and bear all expenses in connection therewith.

Attention is directed to the possible existence of underground facilities not known to the City or in a location different from that which is shown on the plans or in the Special Provisions. The Contractor shall take steps to ascertain the exact location of all underground facilities prior to doing work that may damage such facilities or interfere with their service.

Where it is determined by the Director of Public Works that the rearrangement of an underground facility, which is not shown on the plans or in the Special Provisions, is essential in order to accommodate the highway improvement, the Director of Public Works will provide for the rearrangement of such facility by other forces or such rearrangement shall be performed by the Contractor and will be paid for as extra work.

Any delays to the Contractor's operations solely because utility or other non-highway facilities are not rearranged, as provided in this Section, due to a strike or labor dispute, will entitle the Contractor to an extension of time as provided in Section 5.05 "Liquidated Damages." The Contractor shall be entitled to no compensation for such delay.

8.04 Contractor's Responsibility for the Work and Materials - Until acceptance, the Contractor shall have the charge and care of the work and of the materials to be used therein (including materials for which he has received partial payment or materials which have been furnished by the City) and shall bear the risk of injury, loss, or damage to any part thereof by the action of the elements or from any other cause whatsoever, except as provided in Section 8.05, "Relief from Maintenance and Responsibility." The Contractor shall rebuild, repair, restore, and make good all injuries, losses, or damages to any portion of the work or the materials occasioned by any cause

before its completion and acceptance and shall bear the expense thereof, except for such injuries, losses or damages to any portion of the work or the materials occasioned by any cause before its completion and acceptance and shall bear the expense thereof, except for such injuries, losses, or damages as are directly and proximately caused by acts of the Federal Government or the public enemy. Where necessary to protect the work or materials from damage, the Contractor shall, at his expense, provide suitable drainage of the roadway and erect such temporary structures as are necessary to protect the work or materials from damage. The suspension of the work from any cause whatever shall not relieve the Contractor of his responsibility for the work and materials as herein specified. If ordered by the Director of Public Works, the Contractor shall, at his expense, properly store materials which have been partially paid for by the City or which have been furnished by the City. Such storage by the Contractor shall be on behalf of the City and the City shall at all times be entitled to the possession of such materials. The Contractor shall promptly return the same to the site of the work when requested. The Contractor shall not dispose of any of the stored materials unless authorized in writing by the Director of Public Works.

8.05 Relief from Maintenance and Responsibility -

If the Contractor requests, the Director of Public Works may relieve him of the duty of maintaining and protecting certain portions of the work as described below, which have been completed in all respects in accordance with the Director of Public Works. Thereafter, except with his consent, the Contractor will not be required to do further work thereon. Such action by the Director of Public Works will relieve the Contractor of responsibility for injury or damage to the completed portions of the work resulting from use by public traffic, the action of the elements, or any other cause, other than injury or damage resulting from the Contractor's own operations or his negligence.

Portions of the work for which the Contractor may be relieved of the duty of maintenance and protection, as provided in the above paragraph, include, but are not limited to, the following:

- a. The completion of one-quarter mile of roadway, one-quarter mile of one roadway of a divided highway, a frontage road including the traveled way.
- b. Shoulders, drainage control facilities, planned roadway protection work, lighting and required traffic control and access facilities appurtenant to the work described in sub-paragraph (1).
- c. A bridge or other structure of major importance.

- d. A complete unit of a traffic control signal system or of a highway lighting system.
- e. A complete unit of highway protection work.
- f. Required traffic control and access facilities if the roadway or structure is to be used by public traffic before completion of the contract.
- g. Non-highway facilities constructed for other agencies.

Nothing in this Section providing for relief from maintenance and responsibility will be construed as relieving the Contractor of full responsibility for correcting defective work or materials discovered at any time before the formal written acceptance of the entire contract.

8.06 Property Rights in Materials - Nothing in the contract shall be construed as vesting in the Contractor any right of property in the materials used after they have been attached or affixed to the work or the soil, or after payment has been made for 90 percent of the value of materials delivered to the site of the work, or stored subject to or under the control of the City. All such materials shall become the property of the City upon being so attached or affixed or upon payment of 90 percent of the value of materials delivered to the site of the work, or stored subject to or under the control of the City.

8.07 Re-examination of Work - Re-examination of any work may be ordered by the Director of Public Works, and, if so ordered, the work must be uncovered by the Contractor. If such work is found to be in accordance with the contract documents, the City shall pay the cost of the re-examination and replacement. If such work does not comply with the contract documents, the Contractor shall pay the costs.

8.08 Removal of Defective and Unauthorized Work - All work which has been rejected as defective in its construction, or deficient in any of the requirements of these specifications, shall be remedied or removed and replaced by the Contractor in an acceptable manner. No compensation will be allowed for such correction.

Any work done beyond the lines and grades shown on the plans or established by the Director of Public Works, and any extra work done without order by the Director of Public Works, will be considered as unauthorized and will not be paid for. Work so done may be ordered removed at the Contractor's expense.

If the Contractor fails to comply forthwith with any order of the Director of Public Works made under the provisions of these specifications, the Director of Public Works shall have authority to cause defective work to be remedied or removed and replaced, and unauthorized work to be removed, and to deduct the

costs thereof from any monies due or to become due the Contractor.

SECTION 9 - MEASUREMENT AND PAYMENT

9.01 Measurement of Quantities - Measurements of the completed work shall be in accordance with United States Standard Measures and the units of measurement for payment, and the limits thereof, shall be as shown in the contract.

In determining quantities, all measurements shall be made as constructed unless otherwise specified.

Material paid for by the ton shall be weighed on platform scales furnished by the Contractor, or on public scales at the expense of the Contractor. A ton shall consist of 2,000 pounds avoirdupois. Weigh tags shall be turned in to the City Inspector on the job at the time weighted materials are delivered. Scale sheets may be required by the Director of Public Works at any time subsequent to delivery of weighted material.

When material is to be measured and paid for on a volume basis and it would be impractical to determine the volume, or if when requested by the Contractor and approved by the Director of Public Works, the material will be weighed and converted to volume measurement for payment purposes. Factors for conversion from weight measurement to volume measurement will be determined by the Director of Public Works and shall be agreed to by the Contractor before such method of measurement will be adopted.

All expense incurred in conforming to the above requirements for measuring the weighing materials shall be as included in the contract unit prices paid for the materials being measured or weighed. No additional allowance will be made therefor.

Quantities of material wasted or disposed of in a manner not called for under the contract, rejected loads of material, including material rejected after it has been placed by reason of the failure of the Contractor to conform to the provisions of the contract, material not unloaded from the transporting vehicles, material placed outside the lines indicated on the plans or given by the Director of Public Works, or material remaining on hand after completion of the contract will not be paid for, and such quantities will be deducted from the final total quantities. No compensation will be allowed for hauling rejected material.

9.02 Scope of Payment - The Contractor shall accept the compensation, as herein provided, as full payment for furnishing all plant, labor, materials, tools, equipment, and incidentals necessary to the completed work and for performing all work contemplated and embraced under the contract; also for loss or damage arising from the nature of the work, action of the elements, unforeseen difficulties which may be

encountered during the prosecution of the work, expenses incurred in consequence of the suspension or discontinuance of the work as herein specified, and for completing the work according to plans and specifications. Neither the payment of any estimate nor retained percentage shall relieve the Contractor of his obligation to correct defective work or material.

9.03 Progress Payments - The Director of Public Works will, once a month, on or about the 25th of each month, make an inspection of the work in progress and prepare an estimate of the amount of work completed since the last such inspection or start of work. Monthly progress payments in the amount of 95 percent of the value of the work will be made to the Contractor based on this estimate and the schedule of prices contained in the accepted bid. The remaining 5 percent will be retained by the City as partial security for the fulfillment of the contract except that at any time after fifty (50) percent of the work has been completed, if the Engineer finds that satisfactory progress is being made and the projects critical path of work are on schedule, the City may discontinue any further retention. Such discontinuance will only be made upon the written request of the Contractor. The City may, at any time the Engineer finds that satisfactory progress is not being made, again institute retention of five (5) percent as specified above. Payment will be made as soon as possible after the preparation of the estimate.

No estimate or payment shall be made if, in the judgment of the Director of Public Works, the work is not proceeding in accordance with the provisions of the contract, or when, in his judgment, the total value of the work done since the last estimate amounts to less than \$1,000. No progress payments will be made if the time allotted for the job is 30 working days or less.

Additionally, as a precondition to City's progress payments hereunder, Contractor shall provide to City, prior to payment, unconditional waivers and releases of stop notices pursuant to Civil Code §3262(d)(2) from each Subcontractor and materials supplier. The form of said waivers and releases shall be as set forth in Civil Code §3262(d)(2).

9.04 Payment of Withheld Funds - At the request and expense of the Contractor, securities may be substituted for funds withheld by the City. Any such securities shall be deposited in escrow with the City's Finance Director or with a state or federally chartered bank. The following conditions shall apply to any such deposit of securities.

- a. The eligible securities shall be those listed in Section 16430 of the California Code, bank, or savings and loan certificates of deposit.

- b. The Contractor shall bear the expense of the City and the escrow agent, either the City Finance Director or the bank, in connection with the escrow deposit made.
- c. Securities or certificates of deposit to be placed in escrow shall be subject to approval of the City Finance Director and unless otherwise permitted by the escrow agreement, shall be of a value of at least 110 percent of the amounts of retention to be paid to the Contractor pursuant to this section.
- d. The Contractor shall enter into an escrow agreement satisfactory to the City Finance Director which agreement shall contain as a minimum the following provisions:
 - 1. The amount of securities to be deposited.
 - 2. The terms and conditions of conversion to cash in case of default by the Contractor.
 - 3. The termination of the escrow upon completion of the contract.

9.05 Final Payment After Completion of Work -
The Director of Public Works shall make a final

estimate of the amount of work done and the value of such work. The City shall pay this entire sum after deducting all previous payments and all amounts to be retained under the provisions of the contract. All prior partial estimates and payments shall be subject to correction in the final estimate and payment. The final payment shall not be due and payable until 35 days after the recording of the Notice of Completion.

Additionally, as a precondition to City's final payment hereunder, Contractor shall provide to City, prior to payment, unconditional waivers and releases of stop notices pursuant to Civil Code §3262(d)(4) from each Subcontractor and materials supplier. The form of said waivers and releases shall be as set forth in Civil Code §3262(d)(4).

9.06 Force Account Payment - Extra work as hereinbefore defined, when ordered and accepted, shall be paid for under a written work order in accordance with the terms therein provided. Payment for extra work will be made at the unit price or lump sum previously agreed upon by the Contractor and the Director of Public Works, or by force account.

When payment is made on a force account basis the amount shall be determined in accordance with Sections 9-1.03 through 9-1.03D of the State Specifications.

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SECTION 10 - CONTROL OF THE WORK

10.01 Authority of the Director of Public Works and Engineer - The Director of Public Works shall decide all questions concerning quality or acceptability of materials furnished and work performed, manner of performance, rate of progress, interpretation of plans and specifications, compensation for work performed and all questions as to the acceptable fulfillment of the contract by the Contractor. The Director of Public Works's decision shall be final, and he shall have authority to enforce and effectuate such decisions and orders as the Contractor fails to carry out promptly.

On all work where a private Engineer has furnished the design or been designated Engineer of Work by the owner, his approval of proposed changes, materials, quality of work, manner of performance, rate of progress, and interpretation of plans and specifications shall be sought and obtained in addition to the approvals granted by the Director of Public Works.

10.02 Plans - All authorized alterations which affect the requirements and information given on the approved plans shall be in writing. No changes shall be made to any plan or drawing after it has been approved by the Director of Public Works, except by his written consent. Working drawings or plans for any structure not included in the plans furnished by the Engineer must be approved by the Director of Public Works before any work involving these plans is performed.

The approval of any drawing or method of work proposed by the Contractor shall not relieve him of his responsibility for errors therein and shall not be regarded as assumption of risk or liability by the City or officer or employee thereof. The Contractor shall have no claim under the contract due to failure, partial failure, or inefficiency of any plan or method so approved. Such approval shall be construed only to mean that the Director of Public Works has no objection to the Contractor's using, upon his own full responsibility, the plan or method proposed.

A complete and up-to-date set of approved plans and specifications shall be kept at the job site at all times work is in progress.

10.03 Suggestions to Contractor - Any plan or method for work suggested by the Director of Public Works to the Contractor, but not specified or required, if adopted or followed by the Contractor in whole or in part, shall be used at the risk and responsibility of the Contractor. Neither the Director of

Public Works nor the City shall assume any responsibility therefore.

10.04 Conformity with Plans and Allowable Deviation - Finished surfaces in all cases shall conform with the lines, grades, cross sections, and dimensions shown on the approved plans. Deviations from the approved plans, as may be required by the exigencies of construction, will be determined, in all cases, by the Director of Public Works.

10.05 Interpretation of Plans and Specifications - If it appears that the work to be done, or any matter relative thereto, is not sufficiently detailed or explained in the specifications and plans, the Contractor shall apply to the Director of Public Works for further explanations as necessary, and shall conform to such explanation or interpretations as part of the contract. In the event of a discrepancy between scaled dimensions and written figures, the figures shall be taken as correct.

10.06 Superintendence - Before initial work is begun, the Contractor and his foreman shall file with the Director of Public Works addresses and telephone numbers where they can be reached during working and non-working hours.

The Contractor shall be on the work constantly during its progress or shall be represented by a superintendent or foreman who is competent to receive and carry out any instructions that may be given him by the proper authorities. The Contractor will be held liable for faithful observance of any instructions which may be delivered to him or his representative, on the work or at the addresses or telephone numbers filed as required by the preceding paragraph.

10.07 Character of Workmen - If any subcontractor or person employed by the Contractor fails or refuses to carry out the directions of the Director of Public Works or appears to the Director of Public Works to be incompetent or acts in a disorderly or improper manner, he shall be discharged immediately on demand by the Director of Public Works, and such person shall not again be employed on the work.

10.08 Lines and Grades - Lines and grades for the work will be given by the Engineer or Director of Public Works. All distances and measurements are given and will be made in a horizontal plane, unless otherwise provided. Grades are given from top of stakes or nails, or other points set by the Engineer or Director of Public Works.

Three consecutive points shown on the same rate of slope must be used together, in order to detect any

variation from a straight grade. In case any such variation is found, it must be reported to the Engineer or Director of Public Works. If such a variation is not reported the Contractor shall be responsible for any error in the finished work.

The Contractor shall give at least 2 working days' notice when he will require the services of the Director of Public Works for laying out any portion of the work.

10.09 Preservation of Stakes - The Contractor shall take every reasonable precaution to preserve survey stakes, used for alignment of grade, to facilitate checking by the Director of Public Works. Stakes unnecessarily disturbed shall be re-set by the Engineer or Director of Public Works at the Contractor's expense or by the owner's Engineer. In case of disputed grades, it shall be assumed that any lost or disturbed stake was set at the proper grade and alignment was properly marked.

10.10 Inspection - The Director of Public Works shall have access to the work at all times during construction, and shall be furnished with every reasonable facility to determine the progress, workmanship, and character of materials used and employed in the work.

The Contractor shall give the Director of Public Works notice of the time when he or his subcontractor will start the various units or operations of the work, or resume said units or operations when properly suspended. Notice shall be given at least 1 working day in advance of the starting or resumption time. Any work performed by the Contractor or his subcontractors outside the scope of the notice shall be removed if so ordered by the Director of Public Works, or his representative on the work.

10.11 Right of Access to Street - The right is reserved to the City, street, railroads, water, sewer, gas, electric, telephone, T.V. and telegraph companies to enter upon the street for the purpose of making repairs, changes and new installations necessitated by the improvement thereof, or for necessary maintenance.

Making of repairs, changes and new installations necessitated by the improvement causing delays to the Contractor shall be approved by the Director of Public Works. The Director of Public Works and Contractor shall agree upon any time delay or monetary damage in writing as a supplemental agreement.

10.12 Placing Portions of Work in Service - If requested by the City, portions of the work, as

completed, shall be placed in service. The Contractor shall give proper access to the work for this purpose. Such use and operation shall not constitute an acceptance of the work, and the Contractor shall be liable for defects due to faulty construction until the entire work under the contract is finally accepted.

10.13 Extent of Trench Opened Up - In existing roadways, no more than 152 m of trench shall be open at any given time. An open trench is a trench which has not been completely backfilled, satisfactorily compacted, and in paved areas, capped with at least 25 mm (1-inch) of temporary paving. This requirement may be modified only upon written permission from the Director of Public Works, unless otherwise specified in the Special Provisions.

10.14 Restoration of Injured Property - The Contractor shall restore all injured property, including curbs, gutters, pavements, sidewalks, pipes, conduits, sewers, and other public and/or private property to a condition as good as, or better than, it was when he entered upon the work.

10.15 Monuments - The Contractor shall not disturb any survey monument until the monument rivet, disc, or reference mark therein has been "tied out" by a field survey party of the City. The Contractor shall salvage and deliver to the City, all monument castings removed during the progress of the work. The City will, at its expense, do the necessary surveying and reconstruct all City Survey monuments necessarily disturbed by the Contractor's operations. In the event that the Contractor disturbs any City survey monument before same has been "tied out" by the City or unnecessarily disturbs any City survey monument during construction operations, the City will reset such monuments at the expense of the Contractor.

10.16 Stop Work Order - Whenever work is proceeding contrary to plans or specifications, or in violation of applicable ordinances or laws, or in such way as to endanger life or property, the Director of Public Works may order the work stopped by notice in writing served on any persons engaged in doing or causing such work to be done, and such persons shall forthwith stop such work until authorized to proceed by the Director of Public Works.

10.17 Final Inspection - Whenever the work provided and contemplated by the contract shall have been completed and the final cleaning up performed, the Director of Public Works will make the final or completion inspection.

SECTION 11 - CONTROL OF MATERIAL

11.01 Source of Materials - Prior to commencement of any work, the Contractor shall submit to the Director of Public Works, a list of the suppliers or sources of all materials to be incorporated in the work. This list shall be approved by the Director of Public Works before any of the materials are brought to the job site.

Notwithstanding any prior inspection or approval, only materials conforming to the requirements of these specifications and the Special Provisions shall be incorporated in the work. The materials furnished and used shall be new, except as may specifically be provided on the plans or in the Special Provisions. The materials shall be manufactured, handled, and used in a workmanlike manner to insure completed work in accordance with the plans and specifications.

11.02 Samples and Tests - Submittal of representative preliminary samples of materials to be used in the work may be required by the Director of Public Works if specified in the special provisions.

All tests of materials furnished or work done by the Contractor shall be made, in accordance with the methods in use by the laboratory of Caltrans or by commonly recognized standards of national organizations, and such special methods and tests as are prescribed in these specifications. Whenever a reference is made in the specifications to a test method, it shall mean the test method in effect on the day the City adopted or approved the plans and specifications for the work unless specifically referred to by edition, volume or date. Materials may be tested at any time during the progress of the work, and defective materials will be rejected.

11.03 City Furnished Materials - Materials furnished by the City will be made available at locations designated in the Special Provisions. The cost of handling and placing City furnished materials shall be considered as included in the price paid for the contract item involving such materials. The Contractor will be held responsible for all materials furnished to him, and he shall pay all demurrage and storage charges. City furnished materials lost or damaged by the Contractor shall be replaced by the Contractor. The Contractor will be liable to the City for the cost of replacing City-furnished material and such costs may be back-charged to the Contractor or deducted from any monies due or to become due.

11.04 Storage of Materials - Materials shall be stored in a manner which will insure the preservation of their quality and fitness for the work. When

considered necessary by the Director of Public Works, materials shall be placed on platforms or other hard, clean surfaces and covered when directed. Materials shall be stored so as to facilitate inspection.

No materials, or other obstructions, shall be placed within 4.6 m (15 feet) of, nor obstruct access to, fire hydrants, nor within 1.5 m (5 feet) of United States mailboxes.

11.05 Defective Materials - All materials which do not conform to the requirements of these specifications shall be considered as defective, and such materials, whether in place or not, shall be rejected and immediately be removed from the site of the work, unless otherwise permitted by the Director of Public Works. No rejected material, the defects of which have been subsequently corrected, shall be used until approved by the Director of Public Works.

If the Contractor fails to comply with any order made under the provisions of this article, the Director of Public Works shall have authority to remove and replace the defective material, to charge the Contractor, or to deduct the cost of removal and replacement from any monies due or to become due.

11.06 Trade Names, Alternatives and Substitutions - For convenience in designation on the plans or in the specifications, certain articles or materials to be incorporated in the work may be designated under a trade name or the name of a manufacturer and his catalog information. Such designation shall, in accordance with Govt. Code Section 4380, be deemed followed by the words "or equal." The use of an alternative article or material which is of equal quality and of the required characteristics for the purpose intended will be permitted, subject to the following requirements:

- A. The burden of proof as to the quality and suitability of alternatives shall be upon the Contractor. He shall furnish all necessary information as required by the Engineer or Director of Public Works.
- B. The Director of Public Works shall be the sole judge as to the quality and suitability of alternative articles or materials and his decision shall be final.
- C. Requests for substitution of equivalent materials or articles shall be submitted to the Director of Public Works in writing along with the required supplementary data within 7 days following award of the contract or as specified in the Special Provisions.

11.07 Substitutions - The Contractor shall furnish such information, test data, samples or references requested by the Director of Public Works so that an accurate appraisal of any proposed substitution can be made. Approval of substitutes will be in writing.

11.08 Certificates of Compliance - A Certificate of Compliance shall be furnished prior to the use of any materials for which these specifications or the Special Provisions require that such a certificate be furnished. In addition, when so authorized in these specifications or in the Special Provisions, the Engineer may permit the use of certain materials or assemblies prior to sampling and testing if accompanied by a Certificate of Compliance. The certificate shall be signed by the manufacturer of the material or the manufacturer of assembled materials and shall state that the materials involved comply in all respects with the requirements of the specifications. A Certificate of Compliance shall be furnished with each lot of material delivered to the work and the lot so certified shall be clearly identified in the certificate.

All materials used on the basis of a Certificate of Compliance may be sampled and tested at any time. The fact that material is used on the basis of a Certificate of Compliance shall not relieve the Contractor of responsibility for incorporating material in the work which conforms to the requirements of the plans and specifications and any such material not conforming to such requirements will be subject to rejection whether in place or not.

The City reserves the right to refuse to permit the use of material on the basis of a Certificate of Compliance.

The form of the Certificate of Compliance and its disposition shall be as directed by the Engineer.

SECTION 12 - RESPONSIBILITIES TO THE PUBLIC

12.01 Laws to be Observed - The Contractor shall keep himself fully informed of all State and Federal laws and County and Municipal ordinances and regulations which, in any manner, affect those engaged or employed in the work, the materials used in the work, the conduct of the work, and of all such orders and decrees of bodies or tribunals having any jurisdiction or authority over the same. He shall at all times observe and comply with, and shall cause all his agents and employees to observe and comply with all such existing and future 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, and all officers and employees thereof connected with the work, including but not limited to the Director of Public Works against any claim or liability arising from or based on the violation of any such law, ordinance, regulation, order, or decree, whether by himself or his employees. 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 the Contractor shall forthwith report the same to the Director of Public Works.

A) General Prevailing Wage Rates

Reference is made to the list of General Prevailing Wage Rates set forth by the Director of Industrial Relations, State of California, pursuant to the California Labor Code. Copies of said Wage Rates are on file in the Public Works Department of the City of San Rafael, City Hall, Room 300, San Rafael, California, and are available to any interested party upon request. Contractor shall post a copy of the General Prevailing Wage Rates, which are a part of this Contract, on each job site as required by the California Labor Code.

Certified copies of Contractor's payroll shall be provided owner upon request.

B) Fair Employment Practices Provisions

In connection with the performance of work under this contract, the Contractor agrees as follows:

- (1) The Contractor will not willfully discriminate against any employee or applicant for employment because of race, color, religion, ancestry, or national origin. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, ancestry, or national origin. Such action shall include, but not be limited to, the following: employment, upgrading, demotion or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the awarding authority setting

forth the provisions of this Fair Employment Practices section.

- (2) The Contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice, to be provided by the awarding authority, advising the said labor union or workers' representative of the Contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
- (3) The Contractor will permit access to his records of employment, employment advertisements, application forms, and other pertinent data and records by the Fair Employment Practices Commission, the awarding authority or any other appropriate agency of the State of California designated by the awarding authority, for the purposes of investigation to ascertain compliance with the Fair Employment Practices section of this contract.
- (4) Finding of willful violation of the Fair Employment Practices section of this contract or of the Fair Employment Practices Act shall be regarded by the awarding authority as a basis for determining the Contractor to be not a "responsible bidder" as to future contracts for which such Contractor may submit bids, for revoking the Contractor's prequalification rating, if any, and for refusing to establish, re-establish or renew a prequalification rating for the Contractor. The awarding authority shall deem a finding of willful violation of the Fair Employment Practices Act to have occurred upon receipt of written notice from the Fair Employment Practices Commission that it has investigated and determined that the Contractor has violated the Fair Employment Practices' Act and has issued an order under Labor Code Section 1426 or obtained an injunction under Labor Code Section 1429.

Upon receipt of such written notice from the Fair Employment Practices Commission, the awarding authority shall notify the Contractor that unless he demonstrates to the satisfaction of the awarding authority within a stated period that the violation has been corrected, his

prequalification rating will be revoked at the expiration of such period.

- (5) The Contractor agrees that should the awarding authority determine that the Contractor has not complied with the Fair Employment Practices section of this contract, then pursuant to Labor Code Sections 1735 and 1775, the Contractor shall, as a penalty to the awarding authority, forfeit, for each calendar day, or portion thereof, \$__ for each person who was denied employment as a result of such non-compliance, the penalties provided in the Labor Code for violation of prevailing wage rates. Such monies may be recovered from the Contractor. The awarding authority may deduct any such damages from any monies due the Contractor.
- (6) Nothing contained in this Fair Employment Practices section shall be construed in any manner or fashion so as to prevent the awarding authority from pursuing any other remedies that may be available at law.

Nothing contained in this Fair Employment Practices section shall be construed in any manner or fashion so as to require or permit the hiring of aliens on public works, as prohibited by the provisions of Section 1850 of the California Labor Code, or an employee not permitted by the National Labor Relations Act.

- (7) Prior to the award of the contract, the Contractor shall certify to the awarding authority that he has or will meet the following standards for affirmative compliance, which shall be evaluated in each case by the awarding authority:
 - (a) The Contractor shall provide evidence, as required by the awarding authority, that he has notified all supervisors, foremen and other personnel officers in writing of the content of the anti-discrimination clause and their responsibilities under it.
 - (b) The Contractor shall provide evidence, as required by the awarding authority, that he has notified all sources of employee referrals (including unions, employment agencies, advertisements, Department of Employment) of the content of the anti-discrimination clause.
 - (c) The Contractor shall file a basic compliance report, as required by the awarding authority. Willfully false

statements made in such reports shall be punishable as provided by law. The compliance report shall also spell out the sources of the work force and who has the responsibility for determining whom to hire, or whether or not to hire.

(d) Personally, or through his representatives, the Contractor shall, through negotiations with the unions with whom he has agreements, attempt to develop an agreement which will:

- Spell out responsibilities for non-discrimination in hiring, referral, upgrading and training.
- Otherwise implement an affirmative anti-discrimination program in terms of the unions' specific areas of skill and geography, to the end that qualified minority workers will be available and given an equal opportunity for employment.
- The Contractor shall notify the contracting agency of opposition to the anti-discrimination clause by individuals, firms or organizations during the period of its prequalification.

(8) The Contractor will include the provisions of the foregoing paragraphs 1 through 7 in every first tier subcontract so that such provisions will be binding upon each such subcontractor.

(9) The form of certificate required herein is illustrated on the page immediately following the signature page of the proposal. This certification must be executed prior to award of the contract or, for convenience, may be executed on the form provided at the time of submitting the proposal.

12.02 Vehicle Code - Pursuant to the authority contained in Vehicle Code Section 591, the City has determined that within such areas as are within the limits of the project and are open to public traffic, the following requirements of the Vehicle Code will apply. The lighting requirements in Section 25803; the brake requirements in Chapter 3, Division 12; the splash apron requirements in Section 27600; and, when operated on completed or existing treated base, surfacing, pavement or structures except as otherwise provided in Section 12.05 Weight Limitations, the

weight limitation requirements contained in Division 15.

Attention is directed to the statement in said Section 591 that this section shall not relieve him or any person from the duty of exercising due care. The Contractor shall take all necessary precautions for safe operation of his equipment and the protection of the public from injury and damage from such equipment.

Any other requirements set forth in Division 11, 12, 13, 14 and 15 of the Vehicle Code which the City, pursuant to the Authority contained in Vehicle Code Section 591, will require compliance with, will be set forth in Special Provisions.

12.03 Air Pollution - The Contractor's attention is directed to Regulations of the Bay Area Air Pollution Control District regarding disposal of debris or other materials, not used in the work including any air pollution control rules, regulations, ordinances and status, specified in Section 11017 of the Government Code.

12.04 Storm Water Pollution Prevention – The intent of these provisions is to enforce federal, state, and other local agencies regulations designed to eliminate storm water pollution. Storm drains discharge directly to creeks and the Bay without treatment. Storm water pollution due to construction operations shall be controlled by keeping pollution out of storm drain systems, reducing the exposure and discharge of materials and wastes to storm water, and by reducing erosion and sedimentation.

In this section, the term “storm drain system” shall refer to any storm water conduits, storm drain inlets and other storm drain structures, street gutters, channels, watercourses, creeks, lakes and the San Francisco Bay.

A) Material Storage. In addition to the provisions specified in section 11.04, the Contractor shall comply with the following practices for materials storage:

The Contractor shall propose designated areas of the project site, for approval by the Engineer, suitable for material delivery, storage, and waste collection that, to the maximum extent practicable, are near construction entrances and at least 10' away from catch basins, gutters, drainage courses, and creeks.

During wet weather or when rain is forecast within 72 hours, the Contractor shall store materials that can contaminate rainwater or be transported by storm water or other runoff to the

storm drain system inside a building or cover them with a tarp or other waterproof material secured in a manner that would prevent any of the materials from contacting the rainwater.

The storage and disposal of all hazardous materials such as paints, thinners, solvents, and fuels; and all hazardous wastes such as waste oil, must meet all federal, state, and local standards and requirements.

B) Street Sweeping. At the end of each working day or as directed by the Engineer, the Contractor shall clean and sweep roadways and on-site paved areas of all materials attributed to or involved in the work. The Contractor shall not use water to flush down streets in place of street sweeping.

C) Hazardous/Waste Management. The storage and disposal of all hazardous materials, such as pesticides, paints, thinners, solvents, and fuels; and all hazardous wastes, such as waste oil and antifreeze; shall comply with all federal, state, and local standards and requirements. When rain is forecast within 72 hours or during wet weather, the Engineer may prevent the Contractor from applying chemicals in the outside areas.

D) Spill Prevention and Control. The Contractor shall take any and all precautions to prevent accidental spills during the work under this contract. The Contractor shall keep a stockpile of spill cleanup materials such as rags or absorbents, readily accessible on-site. In the event of a spill, the Contractor shall immediately contain and prevent leaks and spills from entering the storm drain system, and properly clean up and dispose of the waste and clean up materials. If the waste is hazardous, the Contractor shall comply with all federal, state and local hazardous waste requirements.

The Contractor shall not wash any spilled material into the streets, gutters, storm drains, or creeks.

E) De-watering Operations. All groundwater removed from the trench must be de-silted prior to discharging it into the storm drain system through filtering materials methods meeting the Association of Bay Area Governments (BAG) Standards For Erosion & Sediment Control Measures and/or through methods and procedures described in the California Storm Water Best Management Practice Handbook - Construction Activity (latest edition).

The Contractor shall reuse the water for other needs, such as dust control and irrigation, to the maximum extent practicable. The rinse water shall be permitted to infiltrate in dirt area or shall be discharged to the sanitary sewer.

F) Pavement Saw-cutting Operations. The Contractor shall prevent any saw-cutting debris from entering the storm drain system. The Contractor, preferably, shall use dry cutting techniques and sweep up residue. If wet methods are used, the Contractor shall vacuum slurry as cutting proceeds or collect all waste water by constructing a sandbag sediment barrier. The beamed area shall be of adequate size to collect all waste water and solids. The Contractor shall allow collected water to evaporate if the waste water volume is minimal and if maintaining the ponding area does not interfere with public use of the street area or create a safety hazard. If approved by the Engineer, the Contractor may direct or pump saw-cutting waste water to a dirt area and allow to infiltrate. The dirt area shall be adequate to contain all the waste water. After waste water has infiltrated, all remaining sawcutting residue must be removed and disposed of properly. With the approval of the Engineer, de-silted water may be pumped to the sanitary sewer to assist in the evaporation or infiltration process. Remaining silt and debris from the ponding or bermed area shall be removed or vacuumed and disposed of properly. If a suitable dirt area is not available or discharge to the sanitary sewer is not feasible, with the approval of the Engineer, the Contractor shall filter the saw-cutting waste water through filtering materials and methods meeting ABAG Standards for Erosion and Sedimentation Control Measures (latest edition) before discharging to the storm drain.

G) Pavement Operations. The Contractor shall prevent the discharge of pollutants from paving operations by using measures to prevent run-on and runoff pollution, properly disposing of wastes, and by implementing the following practices:

No paving during wet weather.

Proper Material Storage (refer to previous section).

Cover inlets and manholes when applying asphalt, seal coat, tack coat, slurry seal, or fog seal.

Place drip pans or absorbent materials under paving equipment when not in use. During wet weather, store contaminated paving equipment

indoors or covers with tarp or other waterproof covering.

If paving involves Portland cement concrete, refer to (next section)

H) Concrete Operations. The Contractor shall prevent the discharge of pollutants from concrete operations by properly disposing of wastes, and by implementing the following practices:

Store all materials in waterproof containers or under cover away from drain inlets or drainage areas.

Avoid mixing excess amounts of portland cement material.

Do not wash out concrete trucks into storm drains, open ditches, streets, streams etc. Whenever possible, perform washout of concrete trucks off site where discharge is controlled and not permitted to discharge into the storm drain system. For onsite washout, locate washout area at least 15 m from storm drains, open ditches or other water bodies, preferably in a dirt area. Control runoff from this area by constructing a temporary pit or bermed area large enough for the liquid and solid waste.

Wash out concrete wastes into the temporary pit where the concrete can set, be broken up and then disposed of properly. If the volume of water is greater than what will allow concrete to set, allow the wash water to infiltrate and/or evaporate, if possible. Otherwise, allow water to settle, filter it and then pump to the sanitary sewer with approval of the Engineer. Remove or vacuum the remaining silt and debris from the pond or bermed area and dispose of it properly.

Dispose of waste water from washing of exposed aggregate to dirt area. The dirt area shall be adequate to contain all the waste water and once the waste water has infiltrated, any remaining residue must be removed. If a suitable dirt area is not available, then the Contractor shall filter the wash water through straw bales or other filtering materials meeting ABAG Standards For Erosion and Sediment Control Measures before discharging to the sanitary sewer with approval from the Engineer.

Collect and return sweepings from exposed aggregate concrete to a stockpile or dispose of the waste in trash container.

I) Grading and Excavation Operations. The Contractor shall implement sedimentation and erosion control measures to prevent sediments or

excavated material from entering the storm drain system.

The erosion and sedimentation control materials and methods shall be in accordance with ABAG Standards for Erosion and Sediment Control Measures and/or the procedures and methods described in the California Storm Water Best Management Practice Handbook - Construction Activity (latest edition).

J) Vehicle/Equipment Cleaning. The Contractor shall not perform vehicle or equipment cleaning on site or in the street using soaps, solvents, degreasers, steam cleaning equipment, or equivalent methods. The Contractor shall perform vehicle or equipment cleaning, with water only, in a designated, bermed area that will not allow rinse water to run off-site or into the storm drain system.

The Contractor shall dispose of wash water from the cleaning of water base paint equipment and tools to the sanitary sewer.

If using oil based paint, to the maximum extent practicable, the Contractor shall filter the paint thinner and solvents for reuse and dispose of the waste thinner and solvent, and sludge from cleaning of equipment and tools as hazardous waste.

K) Vehicle/Equipment Maintenance and Fueling. The Contractor shall perform maintenance and fueling of vehicles or equipment in a designated, bermed area or over a drip pan that will not allow run-on of storm water or runoff of spills. The Contractor shall use secondary containment, such as a drip pan, to catch leaks or spills any time that vehicle or equipment fluids are dispensed, changed, or poured. The Contractor shall clean up leaks and spills of vehicle or equipment fluids immediately and dispose of the waste and cleanup materials as hazardous waste.

The Contractor shall inspect vehicles and equipment arriving on-site for leaking fluids and shall promptly repair leaking vehicles and equipment. Drip pans shall be used to catch leaks until repairs are made. The Contractor shall recycle waste oil and antifreeze, to the maximum extent practicable. The Contractor shall comply with Federal, State and other local agencies for aboveground storage tanks.

L) Contractor Training and Awareness. The Contractor shall train all employees/subcontractors on the water pollution prevention requirements contained in these

provisions. The Contractor shall inform all subcontractors of the water pollution prevention contract requirements and include appropriate subcontract provisions to ensure that these requirements are met.

The Contractor shall paint new catch basins, constructed as part of the project, with “No Dumping Drains To The Bay”.

The Contractor shall conform to the requirements of Chapter 9.30 of the Municipal Code which regulates urban run-off pollution.

Full compensation for conforming to the provisions herein specified shall be considered as included in the prices paid for the contract items of work involved in compliance with said provisions and no additional compensation will be allowed therefor unless specified as part of a contract item for implementation of a Storm Water Pollution Prevention Plan (SWPPP).

12.05 Weight Limitations - Unless expressly permitted in the Special Provisions, construction equipment or vehicles of any kind which, laden or unladen, exceed the maximum weight limitations set forth in Division 15 of the Vehicle Code, shall not be operated over completed or existing treated base, surfacing, pavement or structures in any areas within the limits of the project, whether or not such area is subject to weight limitations under Section 12.02, “Vehicle Code,” except as hereinafter provided in this section 12.05.

Within the limits of the project, subject to the control of the Director of Public Works, provided that the Contractor, at his expense, provides such protective measures as are deemed necessary by the Director of Public Works and repairs any damage caused by such operations, the Contractor will be permitted to:

- A. Make transverse crossings of portions of an existing public road or street which are within the highway right-of-way, with construction equipment which exceeds the size or weight limitations set forth in Division 15 of the Vehicle Code.
- B. Make transverse crossings of treated bases, surfacing or pavement, which are under construction or have been completed, with construction equipment which exceeds the size or weight limitations set forth in Division 15 of the Vehicle Code.
- C. Cross bridge structures that are not open to public traffic, designed for H20 and

alternative live loading (culverts and pipes excluded), with construction equipment which exceeds the size or weight limitations set forth in Division 15 of the Vehicle Code.

12.06 Permits and Licenses - The Contractor shall procure all permits and licenses, pay all charges and fees, and give all notices necessary and incident to the due and lawful prosecution of the work.

A City Business License must be obtained.

12.07 Safety Provisions - The Contractor shall conform to the safety rules and regulations established by the California Division of Industrial Safety and OSHA.

12.08 Use of Explosives - When the use of explosives is necessary for the prosecution of the work, the Contractor shall not endanger life or property. Only competent reliable men, working under experienced supervision shall be permitted to use explosives. In advance of any blasting work, the Contractor shall obtain all necessary permits and clearances and shall comply with all Federal, State and local laws regulating the use of explosives. Any requirements imposed by ordinance or permit to the contrary notwithstanding, the Contractor shall blast only between the hours of 8:00 a.m. and 5:00 p.m. Blasting at any other time, or on Sundays and holidays is specifically prohibited.

12.09 Preservation of Property - Due care shall be exercised to avoid injury to existing highway improvements or facilities, utility facilities, adjacent property, and roadside trees, shrubs, and other plants that are not to be removed.

Roadside trees, shrubs, and other plants that are not to be removed, and pole lines, fences, signs, markers and monuments, buildings and structures, under or above ground, all highway facilities, and any other improvements or facilities within or adjacent to the highway shall be protected from injury or damage. If ordered by the Director of Public Works, the Contractor shall provide and install suitable safeguards, approved by the Director of Public Works, to protect such objects from injury or damage. If such objects are injured or damaged by the Contractor’s operations, they shall be replaced or restored at the Contractor’s expense. The facilities shall be replaced or restored to a condition as good as when the Contractor entered upon the work, or as good as required by specifications accompanying the contract, if any such objects are a part of the work being performed under the contract. The Director of

Public Works may make or cause to be made temporary repairs required to restore any damaged highway facility to service. The cost of such repairs shall be borne by the Contractor and may be deducted from any monies due or to become due to the Contractor under the contract.

See Section 13 for underground utilities, sewer, water and storm conduits.

Full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in protecting or repairing property as specified in this Section 12.09, shall be considered as included in the prices paid for the various contract items of work and no additional compensation will be allowed therefor.

12.10 Responsibility for Damage - The City and all officers and employees thereof connected with the work shall not be answerable or accountable in any manner: for any loss or damage that may happen to the work or any part thereof; for any loss or damage to any of the materials or other things used or employed in performing the work; for injury to or death of any person either workmen or the public; or for damage to property from any cause which might have been prevented by the Contractor, or his workmen, or anyone employed by him.

The Contractor shall be responsible for any liability imposed by law and for injuries to or death of any person or damage to property resulting from defects or obstructions or from any cause whatsoever during the progress of the work or at any time before its completion and final acceptance.

The Contractor shall indemnify and save harmless the City and all officers and employees thereof connected with the work: from all claims, suits or actions of every name, kind, and description brought for or on account of, injuries to or death of any person or damage to property resulting from the construction of the work or by or in consequence of any negligency in guarding the work; use of improper materials in construction of the work; or by or on account of any act or omission by the Contractor or his agents during the progress of the work or at any time before its completion and final acceptance.

In addition to any remedy authorized by law, so much of the money due the Contractor under and by virtue of the contract as shall be considered necessary by the Director of Public Works may be retained by the City until disposition has been made of such suits or claims for damages as aforesaid.

The Contractor shall be responsible for any liability imposed by law and for injuries to or death of any person or damage to property and shall indemnify and save harmless any county, city or district, its officers and employees connected with the work, within the limits of which county, city or district the work is being performed hereunder, all in the same manner and to the same extent as provided above for the protection of the City and all officers and employees thereof connected with the work, except that no retention of money due the Contractor under and by virtue of the contract will be made by the City pending disposition of suits or claims for damages brought against a county, city, or district other than the City.

12.11 Disposal of Material Outside the Right-of-Way - The Contractor shall make his own arrangements of disposing of material outside the right-of-way and he shall pay all costs involved.

When any material is to be disposed of outside the right-of-way, the Contractor shall first obtain a written permit from the property owner on whose property the disposal is to be made and file a copy with the Director of Public Works together with a written release from the property owner absolving the City from any and all responsibility in connection with the disposal of material on said property. Before any material is disposed of on said property, the Contractor shall also obtain permission from the Director of Public Works to dispose of the material at the location designated.

When the disposal location is visible from any street, highway, or other public area, the Contractor shall dispose of the material in a neat and uniform manner to the satisfaction of the Engineer or Director of Public Works. Disposal of hazardous waste material shall be made per State requirements.

Methods of removal, equipment and location of disposal must be approved by the Director of Public Works. Any additional cost not included in the bid must be approved by the Director of Public Works in writing before the work is started.

12.12 Public Safety - Whenever the Contractor's operations affect normal conditions for traffic, or for the public, he shall furnish, erect, and maintain, at his expense, all fences, barricades, lights, signs and other devices necessary to prevent accidents or damage or injury to the public. Construction area signs shall be furnished, installed, maintained and removed when no longer required in accordance with the provisions in Section 12-3.01 through 12-3.11 of the State

Specifications and any requirements of the Special Provisions. The Contractor shall also furnish, at his own expense, flaggers and guards necessary to give adequate warning to traffic or to the public of the construction conditions. Flaggers and guards, assigned to warn the public that the highway is under construction and of any dangerous conditions to be encountered as a result thereof, shall perform their duties, and shall be provided with necessary equipment, in accordance with the current Caltrans publication "Instructions to Flaggers." The equipment shall be furnished and kept clean and in good repair by the Contractor at his expense. Signs, lights, flags and other warning and safety devices shall conform to the requirements set forth in the current Caltrans "Manual of Traffic Controls for Construction and Maintenance Work Zones," and any signs furnished and erected by the Contractor at his expense, as above provided, shall be in addition to such signs as are furnished by the City as provided in the Special Provisions. Signs shall not obscure the visibility of, nor conflict in intent and meaning with, City-furnished signs and the size and wording shall be approved by the Director of Public Works.

The Contractor shall place "Men Working" (W-21-1) signs at the limits of work when working on city streets for any and all phases of this contract.

The Contractor shall place "Road Construction Ahead" (C-18) signs and "End Construction" (C-13) signs at the limits of work for any and all phases of the contract.

During periods of work in the roadway, the Contractor shall post and maintain signs necessary for police radar enforcement of 25 mph construction zone pursuant to Section 22362 of the California Vehicle Code.

Should the Contractor appear to be negligent in furnishing warning and protective measures, the Director of Public Works may direct his attention to such conditions. The necessary warning and protective measures shall thereupon be furnished and installed by the Contractor at his expense. No such action by the Director of Public Works shall relieve the Contractor from the primary responsibility for public safety or abrogate his obligation to furnish and pay for these devices.

The installation of general roadway illumination shall not relieve the Contractor of his responsibility for furnishing and maintaining any of the protective facilities hereinbefore specified.

No material or equipment shall be stored where it will interfere with the free and safe passage of public traffic, and at the end of each day's work and at other times when construction operations are suspended for any reason, the Contractor shall remove all equipment and other obstructions from that portion of the roadway open for use by public traffic.

Except as otherwise provided in the Special Provisions, full compensation for conforming to all of the provisions in this Section 12.12 and in the Special Provisions shall be considered as included in the prices paid for the various contract items of work and no additional compensation will be allowed therefor.

Where any items or facilities required under the provisions of this Section are not provided or are out of service, and an emergency exists that necessitates protective measures, the Director of Public Works, or his representative, may provide such facilities during the emergency, and the cost thereof shall be paid by the Contractor, or deducted from monies due him on his contract. The Director of Public Works or his representative, before taking emergency action, shall endeavor to notify the Contractor or his foreman of the conditions, and to allow the Contractor to correct them with his own crew, provided he acts promptly and expeditiously.

12.13 Public Convenience - The Contractor shall conduct his operations in a manner which will result in the least possible obstruction and inconvenience to the public. He shall undertake no greater length or amount of work than he can prosecute properly with due regard to the rights of the public.

Unless otherwise provided in the Special Provisions, all public traffic shall be permitted to pass through the work with as little inconvenience and delay as possible. Spillage resulting from hauling operations along or across any public traveled way shall be removed immediately by the Contractor at his expense.

Existing traffic signal and highway lighting systems shall be kept in operation for the benefit of the traveling public during progress of the work and other forces will continue routine maintenance of existing systems.

Construction operations shall be conducted in a manner which will cause as little inconvenience as possible to abutting property owners.

Convenient access to driveways, house, and buildings along the line of the work shall be maintained. Temporary approaches to crossings or intersecting

streets shall be provided and kept in good condition. When the abutting property owner's access across the right-of-way line is to be eliminated, or to be replaced under the contract by other access facilities, the existing access shall not be closed until the replacement access facilities are usable.

Roadway excavation and the construction of embankments shall be conducted in a manner which will provide a reasonably smooth and even surface satisfactory for use by public traffic, at all times. Sufficient fill at culverts and bridges to permit traffic to cross shall be placed in advance of other grading operations. If ordered by the Engineer or Director of Public Works, roadway cuts shall be excavated in lifts and embankments shall be constructed part width at a time, construction being alternated from one side to the other and traffic routed over the side opposite the one under construction. Culvert installation or culvert construction shall be conducted on one-half the width of the traveled way at a time. That portion of the traveled way being used by public traffic shall be kept open and unobstructed until the opposite side of the traveled way is ready for use by traffic.

Upon completion of rough grading at the grading plane, or placing any subsequent layer thereon, the surface of the roadbed shall be brought to a smooth, even condition, free of humps and depressions, satisfactory for the use of public traffic.

After subgrade preparation for a specified layer of material has been completed, the Contractor shall, at his expense, repair any damage to the roadbed or completed subgrade, including damage caused by his operations or by use by public traffic.

While subgrade and paving operations are under way, public traffic shall be permitted to use the shoulders and, if half-width paving methods are used, shall also be permitted to use the side of the roadbed opposite the one under construction. When sufficient width is available, a passageway wide enough to accommodate at least 2 lanes of traffic shall be kept open at all times at locations where subgrade and paving operations are in active progress.

Water or dust palliative shall be applied, if ordered by the Director of Public Works, for the alleviation or prevention of dust nuisance as provided in Section 14, "Dust Control."

In order to expedite the passage of public traffic through or around the work, and where ordered by the Director of Public Works, the Contractor shall install signs, lights, flares, barricades, and other facilities for the convenience and direction of public

traffic. Also, where directed by the Director of Public Works, the Contractor shall furnish competent flaggers whose sole duties shall consist of directing the movement of public traffic through or around the work. The cost of furnishing and installing such signs and flaggers shall be considered as included in the prices paid for the various contract items of work and no additional compensation shall be allowed therefor unless specified otherwise in the Special Provisions.

12.14 Maintenance of Traffic - Three days prior to start of work, the Contractor shall furnish the Engineer with a schedule of operations. During the contract period, the Contractor shall coordinate his activities daily with the Engineer and make every effort to minimize the disruption of normal traffic and parking. Normal movement of traffic shall be maintained at all times during project construction.

The Contractor shall be responsible for placing "No Parking" barricades and signs 72 hours prior to roadway excavation, placement of asphalt concrete, concrete work or any work requiring such traffic control. At least one-way traffic shall be maintained on all streets within the limits of work during normal working hours. During periods other than normal working hours, all street lanes shall be free of obstructions and hazards, and shall be made available for use by traffic.

In those areas designated in the plans, specifications, or permits as "Limit Operations Area," all normal street lanes shall be free of obstructions and hazards and shall be made available for use by traffic at all times, except between the hours specifically allowed by the Director of Public Works, or as stated in the Special Provisions.

Should the Contractor fail to provide for public safety as specified, or if in the opinion of the Engineer, the signs and warning devices furnished by the Contractor are not adequate, the City may place any signs, warning lights or barricades to protect or warn the public of any condition connected with the Contractor's operations and the Contractor shall become liable to the City at the rate of 1.75 times the City's actual costs.

The City will be entitled to assess such charges against the Contract and deduct the cost thereof from any money due or that may become due to the Contractor under this contract. The action of the City in placing any warning devices shall not be construed as relieving the Contractor from any of the Contractor's obligations to provide adequate warning of construction conditions.

Pedestrian Traffic - The Contractor shall provide for the safe and convenient passage of pedestrian traffic throughout the limits of the job site.

12.15 Street Closures and Detours - No street shall be completely closed to through traffic at any time unless permitted in writing by the Director of Public Works. The Director of Public Works may require that detours be set up when streets are closed or partially closed. All detour routes and their signing shall be approved by the Director of Public Works before they are set up.

The Contractor shall notify police and fire departments, the School District, and ambulance services of the hours and dates of the street closures and detour routes at least 24 hours in advance of their occurrence, and immediately upon their discontinuance.

12.16 Haul Routes - The Director of Public Works may require the Contractor to use only roads designated by him as haul routes for passage of heavy vehicles carrying materials or supplies to or from the job. Special haul routes will be as set forth in the Special Provisions.

SECTION 13 - UNDERGROUND OBSTRUCTIONS

13.01 Existing Utilities Shown on Plans - Utility locations and depth shown on the plans were supplied by the respective utility companies and are approximate. Every effort has been made to assure their accuracy and completeness but no guarantee is implied. The Contractor shall excavate all possibly conflicting underground facilities before commencement of work which may affect their safety. The Contractor shall make his own arrangements for the utility companies to have their facilities marked in the field. Use of USA is recommended.

13.02 Notification of Utilities - The Contractor shall notify each utility company 2 working days in advance of commencing each phase of the work which may endanger any utility, in order that the utility companies may do such work as is required to maintain uninterrupted service.

13.03 Damage to Utilities and Sewers - The work shall be prosecuted in a manner which will protect and avoid doing damage to all utility mains, services, and appurtenances, and sewers. If damage occurs, the Contractor shall notify the owner immediately. Storm drains and sanitary sewers will be repaired by the owner, or the Contractor will be directed to make

the necessary repairs. All other utility repairs will be made by the utility owner or his Contractor. All repairs will be made to the satisfaction of the owner.

On City projects, if damage was absolutely unavoidable, the repairs will be made by the owner at no expense to the Contractor, or by the Contractor and compensated for as extra work. Avoidable damage will be repaired at the expense of the Contractor.

13.04 Utility Relocation - On City projects where utility mains and services conflict with the proposed improvements the City will have such conflicting utilities relocated at no expense to the Contractor, or pay the Contractor to make such relocations in accordance with any contract prices.

Attention is directed to the possible existence of underground facilities not known to the City or in a location different from that which is indicated on the plans or in the Special Provisions. The Contractor shall take reasonable steps to ascertain the exact location of all underground facilities prior to doing work that may damage such facilities or interfere with their service. If the Contractor discovers underground facilities not indicated on the plans or in the Special Provisions, he shall immediately give the Director of Public Works written notification of the existence of such facilities. Such facilities shall be protected from damage as directed by the Director of Public Works, and the Contractor will be paid for such work as extra work, as provided in Section 9-1.03 through 9-1.03D of the State Specifications.

If the Contractor desires to have any utility or other improvement moved for his convenience in order to facilitate his construction operation, and should such a move not be necessitated by a conflict in line or grade, he shall make whatever arrangements are necessary with the owners of such utility or improvement and bear all necessary expenses. No extension of time will be permitted for this type of relocation.

Adjustments to grade of monument covers, storm or sanitary sewer manholes, castings, cleanouts or other access opening castings made necessary by changing street or grade of ground in the course of work done on City projects shall be performed by the Contractor at no expense to the City or Sanitary District. The cost of such work shall be included in other items of work and no extra compensation will be allowed therefor unless specified in the Special Provisions. All such work shall be done in a manner satisfactory to the owner of the affected facility.

13.05 Tree Roots - No tree root shall be unnecessarily cut in trenching operations. Excavation around roots shall be performed by hand. Where a root conflicts with the grade of the conduit being installed, the root shall be trimmed neat at the edge of the excavation or trench, and shall be painted with an approved tree seal, as directed by the Engineer or Director of Public Works.

SECTION 14 - DUST CONTROL

The Contractor shall conduct his operations in a manner which will protect adjacent property from annoyance or damage from dust caused by his operations. When necessary, he shall take steps to control dust by the application of water, dust palliative, salt or other suitable means. The Contractor shall be responsible for dust control during both working and non-working hours. On City projects, no separate payment shall be made for dust control, and its cost shall be included in the prices paid for contract items.

When extreme conditions exist which make it impossible to control the dust, the Contractor shall cease grading operations until conditions improve.

If Contractor fails to comply with the above requirements, the Director of Public Works may order the work to be stopped under the provisions of Section 10, and may take whatever action is necessary to reduce the dust problem; the cost thereof shall be paid by the Contractor.

SECTION 15 – WATER

The Contractor shall be responsible for developing water supply and furnishing all water required for the work, including water used in the performance of work paid for as extra work, and applying all water.

SECTION 16 - REFERENCE TO STATE SPECIFICATIONS

All work shall be performed in conformance with the Special Provisions, these specifications and the stated sections of the latest edition of the Standard Specifications of the State of California, Department of Transportation (Caltrans), at the time of approval of plans by City. Said stated sections will be designated in these specifications and/or the Special Provisions of the State Specifications.

SPECIAL PROVISIONS

SPECIAL PROVISIONS

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17-1 GENERAL

All construction shall be in accordance with the 2015 California State Standard Plans and Specifications, including Revised Standard Plans, and most recent editions of the Marin County Uniform Construction Standards, and the City of San Rafael codes and ordinances.

17-1.01 HOURS OF WORK

For the purposes of this contract, day work shall be defined as working hours between 7:00 A.M. and 5:00 P.M.; night work shall be defined as working hours between 9:00 P.M. and 6:00 A.M.

Lane closures during day work hours shall only be permitted between 9:00 A.M. and 3:00 P.M. No lanes shall be closed outside of these daytime hours without prior written approval from the Engineer. Lane closures for night work shall be between 9:00 P.M. and 6:00 A.M., however, the Contractor shall follow all lane closure requirements as set forth in the Caltrans encroachment permit regardless of time of day.

The Contractor shall not perform any work, including warming up and servicing equipment, receiving deliveries, and other related work prior to the beginning of working hours as noted above. No work shall occur on City holidays unless previously agreed to in writing by the City.

Work on weekends may be approved by the Engineer at no additional cost to the contract.

The Contractor shall stage and construct the improvements in such a way as to keep all travel lanes adjacent to the project open to the public at the end of every shift.

17-1.02 ORDER OF WORK

Order of work shall conform to these Special Provisions.

- The first order of work shall be for the Contractor to obtain all necessary encroachment permits. The Contractor shall pay all fees associated with obtaining the Permits, which fees shall be included in the bid item entitled "Mobilization." The Contractor shall also have a pre-construction meeting with the City Engineer.
- The second order of work shall be to prepare and submit a work plan, and progress schedule for all items of work in a form provided by or acceptable to the Engineer. The work plan and schedule shall be updated weekly to reflect all items of work performed at the site and shall clearly indicate the proposed completion date. **No work may begin under contract until City Engineer has approved a Progress Schedule and Traffic Control Plan.** Time required for review and approval of these items shall not constitute a basis for time extension.
- The third order of work shall be to prepare and submit a Water Pollution Control Plan prepared and signed by a qualified Stormwater Pollution Prevention Plan Developer (QSD) per Section 17-1.05 of these Special Provisions.

The above item(s) shall clearly disclose the Contractor's proposed procedures and methods of operation, including identifying any special equipment intended for use on the project and his method of handling traffic. It will be the responsibility of the Contractor to arrange for the towing and removal of any vehicles which have not been removed by the owner and which interfere with any operations.

17-1.03 OBSTRUCTIONS

Attention is directed to Section 5-1.36D, "Non-Highway Facilities," and Section 15, "Existing Facilities," of the State Standard Specifications and these Special Provisions.

The Contractor's attention is directed to the existence of certain underground facilities that may require special precautions be taken by the Contractor to protect the health, safety and welfare of workmen and of the public.

The Contractor shall notify the Engineer and the appropriate regional notification center for operators of subsurface installations at least two working days, but not more than 14 calendar days, prior to performing any excavation or other work close to any underground pipeline, conduit, duct, wire or other structure. Regional notification centers include but are not limited to the following:

Notification Center
Underground Service Alert - Northern California (USA)
1(800)227-2600

It is not the intent of the plans to show the exact location of existing or relocated utilities, and the Engineer assumes no responsibility therefore. Whenever any such utilities are indicated thereon, the Contractor shall be responsible for verifying their actual location and depth in the field. The Contractor shall notify USA prior to any excavation. **All costs for potholing shall be considered as included in the contract prices paid for the various items of work and no additional compensation will be allowed therefore. The Contractor shall provide the City with the results of potholing activity.**

The Contractor shall backfill and replace the street section in place following potholing activity in a manner acceptable to the City and the utility. The precise location of the potholing shall be marked in the field by the Engineer with the utility's concurrence.

It is the Contractor's responsibility to coordinate any potholing work with the necessary utilities.

The Contractor will not be entitled to damages or additional payment for delays, mobilization or demobilization caused by a utility conflict with any of the proposed improvements or the utility company's failure to appear on site at the designated date and time whether for potholing or any other private utility work.

17-1.04 EXISTING HIGHWAY FACILITIES

The work performed in connection with various existing highway facilities shall conform to the provisions in Section 15, "Existing Facilities," of the State Standard Specifications and these Special Provisions.

Except as otherwise provided for damaged materials in Section 15-1.03C, "Salvaging Facilities," of the State Standard Specifications, the materials to be salvaged shall remain the property of the City, and shall be cleaned, packaged, bundled, tagged, and hauled to the City Storage, or as directed by the Engineer. A minimum of 48 hours prior to hauling salvaged material to the storage area. All salvaged material shall be hauled to the City Corporation Yard located at 111 Morphew Street by the Contractor unless another location is specified.

Unless otherwise specified, all materials as shown on the plans to be removed, or as field marked and as directed by the Engineer to be removed shall be disposed of outside the project limits. The contract work area shall be left with a neat and finished appearance. At the end of each work day the project site shall be swept clean or washed to the satisfaction of the Engineering at no

additional cost to the City.

Do not store or permit debris to accumulate on site. If Contractor fails to remove excess debris promptly by the end of the work day, City reserves right to cause same to be removed at Contractor's expense.

17-1.05 WATER POLLUTION CONTROL AND DEWATERING

The Contractor shall submit to the engineer a Water Pollution Control Plan (WPCP) in order to filter water from the construction site. The Contractor shall be responsible for implementing and managing these systems during the life of the project. The WPCP shall conform to all applicable requirements in Section 13, "Water Pollution Control," of the State Standard Specifications and Appendix A of these Special Provisions. **The WPCP shall be prepared by a Qualified SWPPP Developer (QSD).** The Contractor shall use the WPCP template available on Caltrans web site at <http://www.dot.ca.gov/hq/construc/stormwater>. Submittal of BMPs by themselves will not be accepted. **A WPCP shall be submitted to and approved by the Engineer prior to construction activity.** The Contractor shall comply with the requirements of the "Storm Water Special Provisions (Form TR-0400)" included in Appendix B.

All water encountered in constructing roadway improvements or storm drain pipes, manholes and catch basins shall be disposed of by the Contractor in such manner as will not damage the public or private property or create a nuisance or health menace. The Contractor shall furnish, install, and operate pumps, pipes, appliances, and equipment of sufficient capacity to keep all excavations and accesses free from water until the excavation is backfilled, unless otherwise authorized by the Engineer. The Contractor shall provide all means or facilities necessary to conduct water to the pumps. Filtered water, if odorless and stable, may be discharged into and existing storm drain, channel, or street gutter in a manner approved by the Engineer. When required by the Engineer, a means shall be provided for desilting the water before discharge.

17-1.06 SUBMITTALS

The Contractor shall submit a progress schedule for all work. The schedule shall include mobilization, the sequence of operation, a critical path, and a project completion date. No work shall commence until a progress schedule and methods have been approved. **Once the work begins, Contractor shall submit an updated weekly schedule every Thursday by noon.** The contractor shall submit a schedule in a format acceptable to the Engineer. The schedule shall show the controlling item of work. If, in the opinion of the Engineer, the work being performed does not match the schedule or there is a discrepancy in the schedule, the Contractor shall revise the schedule to represent the work being performed including the controlling item of work and the proposed completion date.

The Contractor shall submit one electronic copy of each submittal for review by the City. See individual sections for submittal requirements included in, but not limited to the following sections:

1. Progress Schedule
2. Traffic Control Plan
3. Pedestrian Access Plan
4. Water Pollution Control Plan (WPCP)
5. Aggregate Base Design
6. Concrete Mix Design
7. Play Equipment
8. Steel Reinforcement Tags
9. Rubber Safety Surfacing
10. Engineered Wood Fall Zone Material

11. Site Furnishings
12. Electrical Equipment
13. Log or Map of Utility Facilities Adjusted to Grade
14. Pedestrian Barricades
15. As-Built Plans
16. Potholing Results
17. Any other items required by the City

Prior to the start of construction, the Contractor shall submit to the Engineer a well-defined, written traffic control and pedestrian access (including sketches), detour and signing plan to the Engineer for approval five (5) working days prior to commencement of work. The plan shall illustrate the locations of traffic control and pedestrian access devices and the contents and locations of traffic control, pedestrian access and detour signs. The traffic control plan shall include existing signs to remain, existing signs to be covered or removed, new temporary signs, Changeable Message Signs locations and messages, arrow boards, and other items as required. The traffic control and pedestrian access signage shall include complete directions and detour signs in advance of the construction zone and throughout the entire detour route. Additional submittals will be required as necessary and as the construction conditions change. The working drawing shall be stamped by an Engineer who is registered as a Civil Engineer in the State of California. One (1) set of working drawings shall be submitted to the Engineer. Except as otherwise provided in the Special Provisions, the Contractor shall allow five (5) working days after completed drawings are submitted for the review of such drawings. The Contractor shall not close sidewalks, traffic lanes, or the roadway until the traffic control plan has been approved by the City of San Rafael.

17-1.07 AS-BUILT PLANS

Upon completion of the work, the Contractor shall furnish to the City a complete set of as-built plans showing all changes or deviations from the plans taking care to note the location of objects not installed at the location shown on the plans. Improvements will not be accepted by the City for permanent maintenance until the Contractor has submitted all as-built plans to the Engineer. The as-built plans shall conform to the following:

1. The plans must be stamped or otherwise noted "AS-BUILT," be 22"x34" in size, and be neat, clear, and readable.
2. As-built plans must contain the encroachment permit number, County, Route, and Post Mile on each sheet. Additionally, as-built plans must contain the contractor's name, permanent address, date prepared, and signature.
3. Disclaimer statements of any kind that differ from the obligations and protections provided by Sections 6735 through 6735.6 of the California Business and Professions Code must not be included on the as-built plans. Such statements constitute non-compliance with the encroachment permit requirements.

17-1.08 WORK INCLUDED UNDER PAY ITEMS

Where an item is listed as a pay item in the Prices of Items, the lump sum or unit price quoted shall be considered as full compensation for furnishing all labor, materials, tools, equipment, incidentals and doing all the work necessary, including final cleanup, to construct the pay item complete in place as shown on the plans and specified in these specifications.

It is the intention herein that all items of work required by these plans and specifications are included in the Prices of Items. Items of work not so included will be deemed fully compensated for in the price quoted for each respective item set forth that is most closely associated with the work

required and no additional compensation will be allowed therefore.

17-1.09 PERMITS

The Contractor is responsible for obtaining all required permits for work associated with this project. This may include, but is not limited to, the following:

- City Encroachment Permit
- Sewer Connection Permit (San Rafael Sanitation District)
- Water Connection Permit (Marin Municipal Water District)
- PG&E permit(s)

17-1.10 MEASUREMENT AND PAYMENT

Full compensation for all requirements of this section including but not limited to schedule preparation and updates, utility coordination, potholing all utilities, backfilling potholed areas, working around existing obstructions, water pollution control/dewatering, submittals, and providing as-built plans, and all other items considered in this section shall be considered as included in the prices paid for the various items of work involved and no additional payment will be allowed therefore.

The Contractor shall not be entitled to any right of way delay for delays caused by the utility relocating utilities. Proper time extension to the contract will be allowed for any delays associated with utility relocations.

17-2 MOBILIZATION

17-2.01 GENERAL

The work to be performed under this item includes, but is not limited to, furnishing all labor, equipment, and materials necessary to bring a construction force to full operation on the job site. Work includes, but is not limited to, preparation of access routes to the job site, protection of existing facilities, movement of personnel, equipment, supplies, incidentals, and coordination with the City. This section also includes all necessary permits required by the Contractor as well as demobilization following completion of the project.

17-2.02 MEASUREMENT AND PAYMENT

Mobilization shall be measured and paid for on a lump sum (LS) basis, and shall be limited to a maximum of three percent (3%) of the Base Bid noted in the Prices of Items of the bid proposal.

The lump sum price paid for mobilization shall include full compensation for furnishing all labor, materials, tools, equipment and incidental, and for doing all work involving in mobilization as specified in these Special Provisions, the State Standard Plans and Specifications and as directed by the Engineer, and no additional payment will be allowed therefore.

17-3 SIGNS AND TRAFFIC CONTROL

17-3.01 GENERAL

Signs and Traffic Control shall consist of closing traffic lanes, sidewalks and paths in accordance with the provisions of Section 12, "Temporary Traffic Control," of the State Standard Specifications, the provisions under "Maintaining Traffic" of the Standard Plans, these Special Provisions, and the latest edition of the California Manual on Uniform Traffic Control Devices (CAMUTCD).

It is the Contractor's responsibility to provide safety with the least possible inconvenience to vehicular and pedestrian traffic during construction. **The Contractor shall provide a continuous path of travel for pedestrians at all times.**

Contractor shall be responsible for all warning and detour signs. An adequate number of flag persons shall be employed to direct traffic around construction zones and to respond to unexpected traffic problems. If in the opinion of the Engineer additional flag persons or traffic control devices are needed at the site, the Contractor shall provide the necessary measures at no additional cost to the City. It shall be understood by the Contractor that field modifications are needed to fit field conditions which sometimes change during the project.

The provisions in this section will not relieve the Contractor from his responsibility to provide such additional devices or take such measures as may be necessary to comply with the provisions in Section 7-1.04, "Public Safety," of the State Standard Specifications.

The Contractor shall be solely responsible for pedestrian and vehicular movement through the project area and shall assume full liability for any and all claims arising out of the construction of the project, including but not limited to claims for personal injury, damage to existing structures, loss of business, etc. The Contractor shall agree to hold the City and all its employees, representatives and consultants harmless from any and all such claims. No additional compensation shall be paid for any work that has to be performed outside normal working hours as a result of these Special Provisions.

17-3.02 PUBLIC ACCESSIBILITY

The Contractor shall provide access to the public through the project site at all times. The Contractor shall provide access to adjacent properties at all times. The Contractor shall maintain access to properties and pedestrian access even after hours for the life of the construction. Temporary access ramps shall be installed to maintain access and shall be shown on the Contractor's staging plan.

The Contractor shall be responsible for designing working drawings, constructing and providing a safe and adequate continuous, accessible and safe path of travel around or through localized construction work zones and to each building, business and property utilized by the public. The Contractor shall use temporary asphalt, aggregate base, wood/metal ramps, signs, cones, barricades, flashers, and flaggers to direct and channel the public during and after construction. All proposed closures of a pedestrian access path shall be submitted in writing to the Engineer for review and approval. Advance warning shall be provided to the public should an access path be closed. All safe paths of travel shall be in compliance with applicable Americans with Disabilities Act Accessibility Guidelines (ADAAG), Americans with Disabilities Act (ADA) regulations and the California Manual on Uniform Traffic Control Devices (CAMUTCD).

Materials

Materials used for public accessibility during construction include, but is not limited to:

- Temporary Hot-mix Asphalt Concrete (cut back asphalt concrete not permitted)

- Temporary Wood Ramp
- Aluminum Modular Ramps. EZ-Access, or approved equal.
Contact info: www.ezaccess.com, Phone 800-451-1903.
- Four (4) foot wide minimum walking surface with running slope not to exceed eight (8) percent.
- Barricade materials: Delineators, A-Frames, Barrier Caution Tape, Fencing Material
- Non-skid tape
- Four (4) inch timber, or equivalent, at the bottom of any railing to provide for the sight impaired

Installation

Temporary ramps shall be constructed so installation and removal will not damage existing pavement, curb and/or gutter.

Ramps shall have a minimum four (4) foot wide walking surface and a running slope not to exceed eight (8) percent.

Ramps shall meet existing surfaces without gaps. When required for drainage, a Schedule 40 PVC pipe, with minimum 2-inch diameter, shall be installed under or through ramp in gutter or flow line.

Transitions between ramps and the street or sidewalk surfaces shall be smooth.

Sides of the ramp shall be protected where drop-offs exceed six (6) inches.

Maintenance of a Clear and Accessible Public Corridor

The Contractor shall maintain a four (4) foot accessible corridor that provides at least one safe path of travel for the public at all times for the duration of the project except as approved by the City Engineer. Conversely, if a safe path of travel is not available, the Contractor shall post the sidewalk as being closed. All proposed closures of a pedestrian access path shall be submitted in writing to the Engineer for review and approval.

Installation of Barricades

Barricades, which will provide protection for the public from traffic or construction operations, shall be installed in the following locations:

- Between the access route and any adjacent construction site.
- Between the alternate circulation path and any adjacent construction site.
- Between the alternate circulation path and the vehicular way, if the alternate circulation path is diverted into the street.
- Between the alternate circulation path and any protruding objects, drop-offs, or other hazards to the public.
- At the down curb ramp of an intersection, if opposite up curb ramp is temporarily or completely blocked, and no adjacent alternative circulation path is provided.

Surfacing of Public Corridors

During construction, tripping hazards and barriers must be removed to maintain an accessible safe path of travel. The surface of the path of travel shall be skid resistant and free of irregularities.

Identification of Safe Path of Travel

If alternate circulation routes are provided for the public to bypass the construction site, the route shall be clearly defined and advance warning shall be provided to clearly delineate the alternate circulation route. Any change of level in a path of travel that is over ¼ inch (1/2" maximum) height must be beveled at 45 degrees to provide a smooth, non-tripping transition. The Engineer shall review and approve any public access limitations and notification requirements for pedestrians with mobility or vision impairments.

When using A-frames for defining a path of travel, A-frames shall be placed end to end (no spacing between barricades) to provide a continuous guide for individuals using canes. A-frames shall be connected with 2x4's that are continuous and are attached to the base of the barricade system at two (2) to four (4) inches from the ground.

Caution tapes shall not be used as barricades or to define a path of travel but may be used to highlight danger or in conjunction with barricades. Excavated areas shall be secured by means of barricades or temporary fences.

The bottom three (3) inches of any fencing material used shall be made solid to act as a guide for canes used by the visually impaired. Wood, sheet metal, railings, or other approved material may be used at the bottom portion of the fence.

No trucks or equipment shall be parked or obstructing the public path of travel at any time.

Warning Signs

The Contractor shall provide warning signs for temporary ramps and barricades. Warning signs shall be located at both the near side and the far side of the intersection preceding a temporarily completely blocked public way.

Restoration of Public Routes

After construction, the site shall be restored to its former condition, or new condition as required.

17-3.03 CONSTRUCTION AREA SIGNS

Construction area signs shall be furnished, installed, maintained, and removed when no longer required in accordance with the provisions in Section 12, "Temporary Traffic Control," of the State Standard Specifications, the latest edition of the California Manual on Uniform Traffic Control Devices, and these Special Provisions.

The Contractor shall notify the appropriate regional notification center for operators of subsurface installations at least two working days, but not more than 14 calendar days, prior to commencing any excavation for construction area sign posts. The regional notification centers include but are not limited to the following:

Notification Center
Underground Service Alert - Northern California (USA)
1(800)227-2600

All excavations required to install construction area signs shall be performed by hand methods without the use of power equipment, except that power equipment may be used if it is determined there are no utility facilities in the area of the proposed post holes.

Sign substrates for stationary mounted construction area signs may be fabricated from fiberglass reinforced plastic as specified under "Prequalified and Tested Signing and Delineation Materials" elsewhere in these Special Provisions.

Type IV reflective sheeting for sign panels for portable construction area signs shall conform to the requirements specified under "Prequalified and Tested Signing and Delineation Materials" elsewhere in these Special Provisions.

17-3.05 PUBLIC CONVENIENCE AND SAFETY

The Contractor shall be fully responsible for accidents to the public and or damage to public and private property on the site of the work.

The Contractor shall schedule and pursue his operations in such a manner that undesirable construction conditions will be minimized.

The Contractor shall provide watchpersons and flagpersons as well as provide and maintain fences, barriers, guardrails, and other safety devices adjacent to and on the site at or near all barriers as may be necessary to control traffic and prevent accidents to the public. The Contractor shall furnish, place, and maintain such devices as set forth in the current "Manual of Traffic Control for Construction and Maintenance Work Zones," issued by the California Department of Transportation. Flagpersons, while on duty, shall perform their duties and shall be provided with the necessary equipment in accordance with the current "Flagging Instruction Handbook" issued by the California Department of Transportation.

All temporary walking areas shall meet the American with Disability (ADA) requirements for clearances and obstructions. Any temporary paving, covers, etc shall be constructed and installed in such a manner to meet the ADA requirements. In the event the Contractor fails to meet the ADA requirements, the City of San Rafael may make modifications to the walking areas at the Contractor's expense.

All trenches shall be backfilled at the end of the day or temporary covers shall be maintained during non-working hours to avoid any safety issues for vehicles or pedestrians walking in the project areas.

Upon favorable completion of the work, the Contractor shall remove all signs and traffic control devices from within the project limits to the satisfaction of the Engineer. At the end of the job, all signs, lights, barriers, etc. shall be removed from the construction sites. All sites shall be left clean and orderly.

17-3.06 CONTRACTOR'S RESPONSIBILITY FOR WORK

Until the formal acceptance of the work by the City of San Rafael, the Contractor shall have charge and care thereof and shall bear the risk of injury or damage to any part thereof and shall bear the risk of injury or damage to any part thereof by the action of the elements or for any other cause, whether arising from the execution or from non-execution of the work.

Existing streets, including haul routes, either public or private, within the work area shall be maintained in safe and orderly conditions at all times. When ordered to do so by the Engineer, any deficiencies shall be immediately corrected to the satisfaction of the Engineer. If the Contractor fails to correct such deficiencies in a timely fashion, the City of San Rafael may have the necessary work performed at the Contractor's expense and/or stop any further work on the project until a safe and orderly condition has been restored. Before completion and acceptance of the work, the Contractor shall rebuild, repair, restore, and make good all injuries or damages to any portion of the work required under the contract and shall bear the cost thereof. Inability to obtain labor, materials and/or equipment will not be considered an exception.

17-3.07 MEASUREMENT AND PAYMENT

Signs and Traffic Control shall be measured and paid for on a lump sum (LS) basis. The lump sum price paid for Signs and Traffic Control shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals, including but not limited to private property coordination as necessary, preparing and maintaining an adequate traffic control plan, placing, removing, storing, maintaining, moving to new locations, replacing, and disposing of the components of the temporary traffic control measures for pedestrians and vehicular traffic, as specified in the State Standard Specifications and these Special Provisions, and as directed by the Engineer.

Full compensation for flagging cost shall be considered as included in Signs and Traffic Control, and no additional compensation will be allowed therefore. The shared cost for providing flagging

as specified in Section 12-1.03, "Construction," of the State Standard Specifications, shall not apply to the item of Signs and Traffic Control.

The adjustment provisions in Section 4-1.05 "Changes and Extra Work," of the State Standard Specifications, shall not apply to the item of Signs and Traffic Control. Adjustments in the compensation for Signs and Traffic Control will be made only for increased or decreased traffic control system required by changes ordered by the Engineer and will be made on the basis of the cost of the increased or decreased traffic control necessary.

Such adjustment will be made on a force account basis as provided in Section 9-1.04, "Force Account", of the State Standard Specifications for increased work, and estimated on the same basis in the case of decreased work.

17-4 CLEARING AND GRUBBING

17-4.01 GENERAL

The work shall consist of removing all objectionable materials from within the project limits, as specified in Section 15, "Existing Facilities" and Section 17-2, "Clearing and Grubbing," of the State Standard Specifications.

The Contractor shall remove and dispose of trash from the site work area. Objectionable materials removed shall be disposed of outside the street right of way in accordance with the applicable sections of the State Standard Specifications and applicable laws.

The Contractor shall exercise caution when working around existing facilities. Any damage to existing trees (not called out for removal or trimming), to private properties, to public/private utilities and/or other public facilities not identified on the plans for removal shall be repaired or replaced in kind at the Contractor's expense. The repair or replacement shall be to the satisfaction of the Engineer and no additional compensation will be allowed therefore.

Existing potable water and irrigation facilities within the limits of work shall remain in place unless noted otherwise on the plans. Potable water or Irrigation facilities that are damaged by the Contractor's operation shall be reported immediately to the Engineer. The Contractor shall locate and mark all potable water and irrigation facilities. The Contractor shall be responsible for relocation and/or connection to potable water line and or repair of all irrigation lines and utilities that are in conflict with the proposed improvements to the satisfaction of the Engineer.

Nothing herein shall be construed as relieving the Contractor of his responsibility for final cleanup of the project site. Removal and disposal of existing roadside signs and post shall be included in Clearing and Grubbing.

17-4.02 CONCRETE AND ASPHALT CONCRETE REMOVAL

Concrete and asphalt concrete (AC) paving, shall be removed as shown on the plans and in accordance with the provisions in Section 15-1.03B, "Removing Concrete," of the State Standard Specifications and these Special Provisions.

Concrete paving shall be removed to the joint lines; AC pathway shall be removed to the limits shown on the plans and agreed upon in the field with the Engineer. Where no joints exists in paving on which concrete is to be removed, a straight, neat cut with a power driven saw shall be made along said line to a minimum depth of 2-inches before removing concrete. Concrete saw cuts shall be at score marks.

Concrete and AC paving other miscellaneous concrete or AC not identified on the plans for removal which is damaged as a result of the Contractor's operations shall be removed and replaced in kind at the Contractor's expense. Concrete removed shall be disposed of outside the street right of way in accordance with relevant sections of the State Standard Specifications.

The Contractor shall coordinate all clearing and grubbing with the Engineer prior to performing any work. All traffic control devices, barricades, etc., must be on site prior to clearing and grubbing. The schedule shall also show the sequence of clearing and grubbing such that open areas are limited to no more than two (2) unless approved in advance in writing by the Engineer.

17-4.03 EXCAVATION

The work shall consist of excavation and removal of existing material as shown on the plans and as specified in Section 19, "Earthwork," of the State Standard Specifications. As per Occupational

Safety & Health Administration (OSHA) standards, excavation over 4 feet shall follow OSHA shoring and excavation safety procedures.

The Contractor shall remove existing asphalt concrete and soil as shown on the plans for the purposes of installing new roadway and pedestrian improvements. On the line at which the asphalt concrete is to be removed, a straight, neat cut, with a power driven saw (or other acceptable means) shall be made to the full depth of the existing asphalt concrete prior to the removal of the asphalt concrete pavement.

Removal operations shall be performed with minimum damage to any portion of the asphalt concrete pavement that is to remain in place. All damage to the existing asphalt concrete to remain in place shall be repaired to a condition equal to that existing prior to the beginning of removal operations at the Contractor's own expense.

Residue from cutting operations shall not be permitted to flow into storm drains or across lanes occupied by traffic and shall be removed from the pavement surface, concurrent with the cutting operation. All excavated material shall be removed and disposed of outside the street right of way in accordance with relevant sections of the State Standard Specifications.

Surplus excavated material shall become the property of the Contractor and shall be disposed of outside the project site at the Contractor's own expense. No excavated material will be allowed to be stockpiled overnight in or adjacent to public right-of-ways, unless approved by the City. If stockpile locations are approved, all stockpiles shall be properly covered and barricaded.

Unless otherwise provided for in these Special Provisions, the excavation may not be left without backfill during non-working hours except with prior written approval from the Engineer. Excavations left without backfill shall be barricaded and covered or otherwise protected to ensure public safety.

17-4.04 TREE TRIMMING

The Contractor shall coordinate with the City Engineer for overhanging limbs and tree roots which may conflict with construction activities. The Contractor shall verify and obtain approval from the City Arborist prior to any trimming and/or disturbance of existing tree roots and branches.

All groundcover, shrubs, tree branches, tree trunk, tree roots and other landscaping debris shall be removed and disposed of in accordance with relevant State Standard Specifications.

17-4.05 MISCELLANEOUS REMOVALS/WORK

The work shall consist of removing all necessary items in the field to construct the improvements as shown on the plans. This includes, but is not limited to, the following: AC paving, concrete paving, play equipment, light standards, bollards, and foundations (if any), and any other item as directed by the City Engineer.

17-4.06 MEASUREMENT AND PAYMENT

Clearing and Grubbing shall be measured on a lump sum (LS) basis and shall include full compensation for furnishing all the labor, materials, tools, equipment, incidentals, and for doing all the work involved in clearing and grubbing, including adjusting existing irrigation systems (as necessary), tree root removal, trimming shrubs/trees (as necessary), removing concrete or AC sidewalk, pathway, including sawcutting for all items requiring sawcutting on the job, removing native soil, landscaping, excavation of existing asphalt concrete, removing wood arbor system, and all other material requiring excavation for the construction of all improvements as shown on the plans, and proper disposal of materials all as specified in the State Standard Specifications, these Special Provisions, and as directed by the Engineer, and no additional compensation will be allowed therefore.

17-5 STORM DRAINAGE

17-5.01 GENERAL

Storm Drainage shall conform to the provisions in Section 68 of the Standard Specifications.

Work consists of furnishing and installation of required items including: trenching, solid HDPE pipe, sidewalk underdrain pipe, drain box inlets, filter fabric, drain rock, backfill.

17-5.02 MATERIALS

1. Solid HDPE pipe
2. Christy V64 Drain Box or equivalent
3. Christy V05 Drain Box or equivalent
4. Mirafi 140N filter fabric or equivalent
5. $\frac{3}{4}$ " Drain Rock
6. City standard sidewalk underdrain pipe

17-5.03 EXECUTION

1. Excavate as required and dispose of any unwanted material including backfill, rock, dead roots and all other material necessary for the installation of drain inlets and piping.
2. Install all new facilities to the line and grade as shown on the drawings.
3. Install subsurface drain rock and filter fabric as shown on the drawings.
4. Daylight storm drain pipe at existing drainage swale as directed by the Engineer.

17-5.04 MEASUREMENT AND PAYMENT

The price paid per lineal foot for piping and per each drain inlet shall include full compensation for furnishing all labor, materials, equipment and incidentals for the installation of work as shown on the plans and as specified in the State Standard Specifications, these Special Provisions, and as directed by the Engineer, and no additional compensation will be allowed therefore.

17-6 MINOR CONCRETE

17-6.01 GENERAL

Concrete sidewalks shall be constructed in accordance with Section 73, "Concrete Curbs and Sidewalks," of the State Standard Specifications and the provisions of the Uniform Construction Standards of the Cities and County of Marin. Concrete shall be minor concrete in accordance with Section 90-2, "Minor Concrete," of the State Standard Specifications. **All concrete shall include two pounds per cubic yard of BASF Jet black PS1414 coloring admixture, or approved equal.**

Four-inch thick concrete sidewalk shall conform to Type B of the Marin County Uniform Construction Standards and the plans. The Contractor shall backfill voids left by form boards with native soil and grade accordingly.

Exposed corners shall be rounded with a steel tool with a ½ inch radius. All other exposed surfaces shall have a medium broom finish. Curb and gutter shall be broomed parallel to the direction of the curb. Sidewalk shall be broomed perpendicular to the direction of the curb. No separate measurement will be made for medium broom finish.

Subgrade shall be compacted to 95% of maximum relative compaction as determined by standard test method ASTM D 6938 (replaces test D 2922); nuclear density device may be used. All soft or spongy subgrade material within sidewalk areas shall be removed and replaced with suitable material as required by the Engineer.

All concrete paving and sidewalk shall be constructed over 4 inches of aggregate base.

The Contractor shall coordinate with the City for material sampling and testing. The City's independent consultant shall have full access to all areas of the worksite necessary to sample and test required materials, including but not limited to aggregate base rock and minor concrete. Any material tested which does not meet the minimum design standards as outlined in the City's approved Quality Assurance Plan shall be removed and replaced at no cost to the City. The City will assume the cost of the testing.

Where new concrete is joining existing concrete, the new concrete shall align and conform to adjacent elevations. New curbs, gutters and sidewalks shall be attached to existing curbs gutters and sidewalks by means of steel dowels spaced every 12" on center. Steel dowels shall be Grade 40 No. 3 rebar.

The Engineer shall be notified 24 hours prior to concrete pour. The Contractor shall provide string lines and forms delineating the proposed concrete surface for Engineer observation a minimum of 4 (four) hours prior to concrete pour. **No concrete shall be poured until Engineer has approved the forms.**

All oil, paint, tire, graffiti and other marks shall be removed from all minor concrete construction by sandblasting or complete replacement prior to acceptance by the Engineer. Cement mortar will not be an acceptable substitute for sandblasting or complete replacement.

All grade differentials adjacent to new concrete over 1" shall be backfilled with native soil at a 4:1 maximum slope and compacted to 90% relative compaction. No separate payment will be made for backfilling and compaction of native soil.

17-6.02 DAILY SUBMITTAL

The Contractor shall provide delivery tickets at the time of delivery of each load of concrete. Each delivery ticket shall state the total yield in cubic yards, date, and time of day corresponding to when the batch was loaded, when it was dispatched, when it arrived at the job, and the time that unloading began.

17-6.03 MEASUREMENT AND PAYMENT

4" PCC Sidewalk shall be measured and paid for on a per square foot (SF) basis and shall include full compensation for furnishing all the labor, materials, tools, equipment, incidentals, and for doing all the work involved in installation of sidewalk, including subgrade preparation and furnishing, placing, and compacting aggregate base rock, complete in place, all as specified in the State Standard Specifications, these Special Provisions, and as directed by the Engineer, and no additional compensation will be allowed therefore.

17-7 PLANTING AND IRRIGATION

17-7.01 GENERAL

No plants shall be installed until appropriate water services are established for the project. The contractor will work with and coordinate with MMWD to facilities water hookups prior to planting at no additional cost to the City. The contractor shall test the irrigation facilities and seek approval from the engineer prior to installing any plants.

Planting shall conform to the provisions in Section 20 of the Caltrans Standard Specifications.

Work consists of: shrubs, groundcovers and one year maintenance period.

Irrigation shall conform to the provisions in Section 20 of the Caltrans Standard Specifications.

Work consists of furnishing and installation of automatic irrigation system.

It is the intention of this section, together with the Plans, to accomplish the work of installing an irrigation and water supply system, which will operate efficiently and provide full coverage. The Drawings indicate the general arrangement of piping and equipment, but do not necessarily indicate all offsets, fittings, and accessories that may be required. Furnish any incidental materials and labor not specifically called for but required to complete the work intended.

17-7.02 INSPECTIONS AND TESTS (IRRIGATION)

1. Before commencing work, determine the water pressure at Main Line and notify the Engineer of this determination.
2. The irrigation system is subject to inspections at any time by the Engineer.
3. Whenever inspection of the irrigation and water supply work is required or portions of the work are specified to be performed under the direction or inspection of the Engineer, notify the Engineer at least five (5) days in advance of the time such review or direction is required.
4. All irrigation and water supply lines shall be tested in the presence of the Engineer and approved by the Engineer before any portion of the system is backfilled. Do not allow any work to be covered or enclosed until it has been inspected, approved by the Engineer and other governmental agencies having jurisdiction. Should any work be enclosed or covered before such inspection and testing, and approval, Contractor shall uncover the work at his own expense and after inspection make all repairs necessary to restore his work and that of other Contractors to its original conditions.
5. Tests: All main lines shall be center loaded with valves installed and fittings completely visible. A water pressure of 150 psi. shall be applied and held for two and one-half (2-1/2) hours. All leaks shall be repaired and all lines approved by the Engineer before any of the system is backfilled.
6. Final Inspection: Be present for final review and approval by the Engineer of the complete operating, clean, and balanced system which adequately covers all intended areas.

17-7.03 GUARANTEE

1. Be responsible for any damage or defects in the irrigation system being installed and repair any and all components of the system in a manner satisfactory to the Engineer before final acceptance of the work.
2. Any existing building or other structure, materials, equipment, paving, planting, etc., damaged during the course of this work shall be replaced or repaired in a manner satisfactory to the Engineer at the Contractor's own expense before the final payment is made.
3. Damage by Leaks: Be responsible for damages to any property or work caused by leaks in the piping systems being installed, and repair in a manner satisfactory to the Engineer all damage caused.
4. The entire irrigation and water supply system shall be guaranteed in writing against defects and faults of material and workmanship, for one (1) year from the date of acceptance by the Engineer. All new materials used shall carry a manufacturer's guarantee for the length of time specified by the manufacturer, but in no case less than one (1) year.
5. Any damage due to any irrigation failures which may occur during a one (1) year period after final acceptance shall be repaired to the Engineer's satisfaction without expense to the City. Such repair shall include, but not be limited to the complete restoration of all damaged planting, paving, and other improvements of any kind.

17-7.04 SUBMITTALS

1. Submittals are required for the following:
 - A. Quick Couplers
 - B. Valve boxes and locking covers
 - C. Wye strainers
 - D. Irrigation control wires
 - E. PVC pipe and accessories
 - F. Bubbler heads

Provide six copies of each product submittal.

2. Record Drawings:
 - A. Maintain in good order in the field office one complete set of all the irrigation drawings that form a part of this contract. In the event any work is not installed as indicated on the drawings or in the specifications, such work shall be indicated and dimensioned accurately on these record drawings.
 - B. These drawings shall also serve as work progress sheets. Make neat, legible annotations thereon daily as the work proceeds, showing the work, including the exact locations, sizes, and kinds of equipment as actually installed. These drawings shall be available at all times for inspection by the Engineer.
 - C. On or before the date of the final inspection, deliver to Engineer, a corrected, complete set of these as-built drawings, which shall be on reproducible vellum of the original irrigation drawings. Delivery of these drawings to the Engineer will not relieve the Contractor of the responsibility of furnishing any required information.

1. Instructions:

After the irrigation system has been installed and approved, instruct the Engineer on the complete operation and maintenance of the system. Further, before final payment is made, supply the Engineer with all tools called for in the drawings and with operating instructions for all components of the irrigation system.

17-7.05 MATERIALS (IRRIGATION)

1. See materials schedule on plans.

17-7.06 EXECUTION (IRRIGATION)

1. Pipe Installation:

- A. Pipe lines shall be installed in approximately the locations shown in the Drawings. However, for readability, the Drawings sometimes show pipes, valves, and other fixtures in paved areas. In such cases, irrigation system components shall be placed in the nearest adjacent planting area whenever practical.
- B. Storage: Store pipe and fittings under canvas or opaque cover allowing air circulation beneath. Place pipe on flat surface with random lengths stacked separately. No stack shall be higher than three (3) feet. No pipe shall be stored outside longer than 30 days.
- C. Assembly: Assemble joints per manufacturer's recommendations. Use 45 degree fittings for all changes in PVC pipe depth. Snake pipe from side to side of trench bottom to follow for thermal expansion and contraction. center-load pipe with small amount of backfill to prevent arching and whipping under pressure. Pipe line shall not be tested until at least 48 hours have elapsed after solvent welding, to allow for setting and curing.
- D. No line shall be installed directly over or parallel to another line.
- E. The bottom of all trenches shall be free of rocks, clods, and other sharp-edged objects.
- F. Pipe lines shall have a minimum horizontal clearance of three inches (4") from each other and from any other pipe or conduit line. When lines must cross, the angle shall be forty-five to ninety degrees (45-90 degrees), and a minimum of three inches (3") vertical clearance shall be maintained.
- G. All pipes shall be kept free of dirt and debris. Ream all pipes to remove all burrs or scale.
- H. Install main line ring fitted type PVC pipe with concrete thrust blocks at every change in pipe direction per manufacturer's recommendation.
- I. Install pipe lines free from traps and air pockets.
- J. Flushing: Flush all main lines before valves are installed, all laterals when riser assemblies are in place, but before sprinkler heads are installed and all potable systems when complete. Flushing shall be done with all water diverted from any opening in the system.

- K. Sleeves: Install pipe sleeves at all points where pipes pass through or under concrete or masonry. In footings, allow one inch (1") clearance around pipe, and in other locations allow one-half inch (1/2"). Also see drawings.
6. Excavation and Backfill:
- A. Do all excavation and trenching necessary to complete the work included in this section of the Specifications. Trenching and backfilling shall conform to Section 20-5.03D of the Caltrans Standard Specifications.
 - B. Mechanical trench diggers shall be of a type forming straight sided trenches.
 - C. Trenches shall provide a minimum 12" cover for laterals and a minimum 24" cover for mainlines as measured from the top of the pipe to the ground surface above. Trenches shall be no wider than is necessary.
 - D. Compacted Fill Areas: Where trenches must be excavated in compacted fill, these trenches shall be backfilled with the fill materials excavated and re-compacted in the layers and to the density specified for the particular area.
 - E. Existing Paving: Where trenching is through existing paving, replace pavement section to match adjacent section in kind.
 - F. Settling: Bring all backfill flush with adjoining grade. All backfill shall be firm and unyielding, with no visible settling for a period of one year.
7. Staking: Stake all ends of pipes, caps and ties, remote control valves, and boxes which are buried and to be used in future work. Stake with one-half inch (1/2") diameter by thirty-six inches (36") long galvanized iron pipe capped at the surface end. Height of stake above grade shall be zero inches (0") at turf and paved areas and two inches (2") at all other areas unless shown otherwise.
8. Remote Control Valves:
- A. Install each valve as indicated on the drawings. Install "Christy" I.D. tags on valve assemblies.
 - B. Locate valves no closer than 12 inches from walk edges, buildings, walls, header boards, or other structures. Where two or more valve boxes are located together, place them in a neat, orderly alignment.
9. Control Wiring:
- A. Install control wiring in trench for supply main.
 - B. Splices are not allowed except at remote control valves.
 - C. Make splices as indicated on the plans.
 - D. Sleeving: Control wiring under concrete, asphalt, or other masonry shall be installed in schedule 40 PVC conduit - size as required. Each end of sleeve shall extend six inches (6") beyond edge of paving or structure above. Provide removable non-decaying plug at each end of sleeve, to prevent entrance of earth.
10. Irrigation Heads:
- A. Thoroughly flush lines before installing bubblers. Stake each bubbler per plans.

11. Quick coupler Valves:

- A. Thoroughly flush supply line before installing valves.
- B. Install each valve in an individual valve box. Where two or more boxes are located together, place them in neat, orderly alignment as detailed.
- C. Locate valves no closer than 12 inches from walk edges, buildings, walls, header boards, or other structures.

12. Irrigation System:

- A. Install tracer tape along main lines.
- B. Specify proper glue for PVC to IPS flex hose.
- C. Install Master Valves.
- D. Separate Valves for trees.
- E. Provide irrigation details for trees. One bubbler over rootball and one bubbler in drain tube-18" maximum depth.
- F. Install pressure regulator-downstream of backflow devices.
- G. Add wires to each valve manifold.
- H. Reduce number of quick couplers.

17-7.07 LANDSCAPING (Planting and Maintenance)

17-7.07 REGULATIONS AND STANDARDS

- 1. Plant materials shall meet or exceed the American Nurserymen Association standards, as specified in the current edition of *American Standard for Nursery Stock* published by the American Association of Nurserymen, Inc. Provide plant materials in accordance with applicable California Agricultural Codes.
- 2. Provide certificates of inspection of landscape materials with shipments as required by governmental authorities. Comply with all applicable Federal, State and county regulations governing landscape materials. Inspection by Federal or State Governments at place of growth does not preclude rejection of plants at project site.
- 3. Comply with State of California Administrative code, Title 8, Industrial Relations, Chapter 4, Subchapter 4, Construction Safety Orders, and with rules and regulation of all regulatory agencies having jurisdiction over the work.

17-7.08 QUALITY CONTROL

- 1. All reviews by the Engineer of planting work shall be requested by the Contractor at least two (2) Working days prior to anticipated review.
- 2. The Engineer shall inspect all plant materials for size and condition of root systems for injuries and latent defects and to reject unsatisfactory or defective plant material

at any time during the progress of the work. In particular, the Engineer reserves the right to require washing of the root ball of plant materials to inspect for root girdling or root-bound conditions. Rejected plants shall be removed immediately from the site.

3. No plants material shall be planted until the Engineer has approved its quality and placement.
4. The Contractor shall submit to the Engineer written certification stating quantity, type, composition, weight and origin of all amendments and chemicals delivered to the site for soil preparation work.
5. Verification of Material: The Contractor shall, upon demand, produce records to verify the ordering and delivery of specified quantities and types of material for this job.

17-7.09 GUARANTEES AND REPLACEMENT

1. Trees, shrubs and groundcover shall be guaranteed to be in good, healthy, and flourishing condition of active growth at the end of two growing years from the date of final acceptance by the Engineer of the planting work.
2. Delay in the completion of planting operations which extends the work into more than one planting season shall extend the guarantee period correspondingly.
3. Plants shall be free of dead branches and dead branch tips, and shall have foliage of normal density, size and color, in order to be considered vigorous and thriving. Root bound condition will not be acceptable.
4. Dead plants and plants not in a vigorous, thriving condition as determined by the Engineer shall be replaced as soon as weather conditions permit, at no increase in the Contract Amount.
5. Provide replacement plants of comparable quality, type, and size for plants which fail for any reason.

17-7.10 MATERIALS (PLANTING)

1. Plant Quality and Size: Plants shall be vigorous and of normal habit of growth and shall be free of girdling roots, disease, insects, insect eggs and larvae. Trees shall have straight trunks with the leader intact, unless otherwise specified. All abrasions and cuts shall be completely callused over. Plants shall be of standard size for container and species, unless specified otherwise in the Drawings. Any undersized material shall be rejected. The heights of plants and of branching shall be measured where the branches are in normal positions. Plants shall not be pruned prior to delivery, except upon special approval.
2. Nomenclature: Plant names used in the drawings and Specifications conform to *Standardized Plant Names*, by the Joint Committee on Horticultural Nomenclature. Names of varieties not included therein conform generally to names accepted in the Nursery trade.
3. Plant labels: Plant labels shall identify a typical sample of each species and variety.
4. Substitutions: Substitutions are not desired. When substitutions are allowed, all requirements of the specified plant shall be met, and in no case shall substitutions be made without the written approval of the Engineer.

5. Except for turf, annuals, cuttings, and balled or bare root stock plants shall have been grown in a nursery under climatic conditions similar to those in the locality of the project for at least one (1) year prior to delivery to the site. Boxed trees shall be well established in boxes before delivery to the site. Balled stock shall be freshly dug. The ball or balled stock shall have the original soil in which it was grown, without addition; the balls shall be whole and intact, and not broken on arrival at the site. Burlap used shall be of sufficient size to enclose the complete dirt ball and shall be tied securely with stout twine. Balled stock or bare root stock may be furnished where canned containers are specified, only with approval by the Engineer.
6. Bark Mulch: All planting areas are to receive 3" layer of bark mulch. Mulch to be 1" minus, Redwood or Cedar Bark. Submit sample prior to placement for approval by the Engineer.
7. No amendment shall be delivered to the site without prior approval by the Engineer. Contractor shall supply the Engineer with a sample of amendment accompanied by analytical data from an approved laboratory illustrating degree of compliance.
8. Areas of amendment are based on incorporation into each entire contained median and identified by median numbers 1 through 12 as identified on the plans.
9. Green Waste Compost shall meet the following requirements: Provide data from the STA program (Seal of Testing Assurance) to the Engineer for approval prior to ordering.
10. Quantities of Amendment and Fertilizer:

Loosen the top 10" depth and Roto-till thoroughly the following into the top 6 inches of all planting areas to form a homogenous layer:

Amount per 1000 square feet

5 cubic yards	Nitrogen Stabilized Organic Amendment
7 pounds	Ammonium Sulfate (21-0-0)
5 pounds	Potassium Sulfate (0-0-50)

The amendment rate is based on 270 pounds of dry weight of organic matter per cubic yard of amendment. If a composted greenwaste is selected that contains a significant amount of potassium, the potassium sulfate should be reduced or omitted accordingly.

Backfill for Trees and Shrubs

- Excavate planting pits at least twice as wide as the diameter of the root ball.
- Soil immediately below the root ball should be left undisturbed to provide support but the sides and bottom around the sides should be cultivated to improve porosity.
- The top of rootball to be slightly above final soil grade.
- The top 12" of backfill around the sides of the rootball to consist of the following:

3 parts	Site Soil
1 part	Nitrogen Stabilized Organic Amendment

For Cubic Yard of Backfill, uniformly blend with:

1/3 pound	Ammonium Sulfate (21-0-0)
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1/4 pound Potassium Sulfate (0-0-50)

17-7.11 EXECUTION (PLANTING)

1. Plant locations shown on the Planting Plan are relative and the Engineer may make adjustments in the location of plants in order to achieve the intended results. Where possible, the Contractor shall locate shrubs no closer than two feet (2') and trees no closer than four feet (4') to pavements or structures.
2. Plant holes shall be dimensioned as shown in the drawings, or at least twice the width of the rootball. Plant holes shall be roughly cylindrical. The walls and bottoms of plant holes shall be scarified.
3. Proper drainage of plant pits is necessary. The Contractor shall inform the Engineer if any subsoil conditions causes the detention of water in plant holes for more than twenty-four (24) hours, and shall submit proposals for correcting such drainage conditions before proceeding with planting. Planting under such conditions may not proceed without the approval of the Engineer.
4. If plants do not have young feeder roots showing at the edge of the container, loosen their roots and cut in a few places to encourage new feeder root development along the perimeter of the rootball.
5. Soil excavated from plant holes, if suitable as topsoil and approved by the Engineer or his authorized representative, may be re-used for planting operations. If unsuitable soil is encountered in excavation, such soil shall be removed from the site and a sufficient amount of approved topsoil for installing plant material shall be provided.
6. Shrubs and trees shall be set true and plumb with the top of the plant ball, as grown in the nursery can container. The top of the plant ball shall be set at the finish grade of the planting area. The Contractor shall be responsible for any settling and shall raise and replant any plants whose crown settles below the finish grade.
7. Place backfill in bottom of plant hole after making sure base of hole is loose enough for good drainage. After placing plant ball as detailed, firm backfill around ball of roots of plant and water thoroughly.
8. Except where a plant is in a lawn area or where a single plant space is otherwise edged, form a berm or ridge of soil in a neat circle at the drip-line of each tree and shrub, to facilitate watering and hold top mulch.
9. Immediately after planting, securely stake all trees in accordance with the tree planting details. Place each tie as shown in details, in figure eight pattern with a loop large enough to allow for two (2) years of growth.
10. Avoid pruning trees and shrubs in the first year. Pruning should be done only if it is necessary, as directed by the Engineer. No pruning shall be done without inspection and approval by the Engineer.
11. Ground cover plants shall be placed in a triangular pattern. The on-center dimension given in the drawings for plant spacing is a maximum dimension.

10. After planting, water thoroughly. Mulch areas between ground cover plants as specified in the Drawings. Pre-emerge ground cover areas with compatible pre-emergent. After applying pre-emergent, water in per manufacturer's recommendation.
11. Avoid using shredded bark-no build up on crowns.
12. Expose crown of all trees and shrubs.
13. Plant above grade: 1" for shrubs and 2" for trees
14. Backfill below tree to be compacted to prevent settling.
15. Pre-emerge prior to mulching

17-7.12 MAINTENANCE

One (1) year maintenance period includes:

1. Maintain irrigation system and watering schedule.
2. Maintain plant materials.
3. Report water usage on a monthly basis.
4. Weed monthly.
5. Replace plant material as required.
6. Check irrigation system in spring.

Maintenance fertilization:

1. Beginning 45-60 days after planting, apply 5lbs/1000sf ammonium sulfate (21-0-0) with reapplication every 45-60 days.

Contractor to provide one (1) year maintenance bond. The bond shall be submitted to the engineer prior to the finalization of the main project punch list and shall be in an amount of 35% of the total Landscape Item submitted with the bid or as agreed upon by the engineer.

17-7.13 MEASUREMENT AND PAYMENT

The lump sum price for "Landscaping and Irrigation" shall include full compensation for furnishing all labor, materials, equipment and incidentals including but not limited to planting, soil mitigation, topsoil preparation, meters, irrigation lines, irrigation controllers, the 1 year maintenance bond and maintenance in accordance with the maintenance schedule for the installation of work as shown on the Plans and described herein.

17-8 SITE FURNISHINGS

17-8.01 GENERAL

The alternative bid submitted by the contractor shall include the purchase and installation. The contractor shall clearly delineate the cost for equipment in their Lump Sum Breakdown.

17-8.02 REFERENCES, REGULATIONS AND STANDARDS

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

FED-STD-795 (4/1/88) Uniform Federal Accessibility Standards (UFAS).

28 CFR Part 36 (7/26/91) Nondiscrimination on the Basis of Disability by Public Accommodations and in Commercial Facilities, Final Rule.

CPSC (1991) Handbook for Public Playground Safety
U.S. Consumer Product Safety Commission
Washington, D.C. 20207, (301) 504-0494

17-8.03 PERFORMANCE REQUIREMENTS

Safety: Playground equipment shall meet the safety requirements of CPSC and ASTM F 1487.

Accessibility: Playground equipment intended for access by children with disabilities shall meet the requirements of CPSC and ASTM F 1487.

17-8.04 SUBMITTALS

The contractor shall not be required to submit the information stated below with the exception of 9, 10 for the installation of the base bid play equipment. If the City so chooses to proceed with Bid Alternative 1 or Bid Alternative 2 or both the following submittals shall apply.

1. Submit two bound copies of play equipment product data, catalog cuts, photo brochures, specifications, and installation procedures, (including diagrams, instructions, scale models) or other printed information in sufficient detail and scope to verify compliance with requirements of the contract documents.
2. Submit drawings provided by manufacturer showing scaled shop details of playground equipment, including equipment layout, platform heights, protective barriers, play events and use zones, in relationship to the playground design. If playground equipment other than what is shown on the drawings is proposed, shop drawings shall be provided to illustrate how the playground design and layout is modified to accommodate equipment installation and use zones.
3. Submit two copies of the statement by the material supplier or equipment manufacturer asserting that the supplied material or equipment meets and is installed according to the specified requirements.
4. A Certificate of Insurance, shall be provided by the manufacturer, covering both product and general liability, of not less than \$1,000,000. The issuing underwriter shall be AA rated.

5. Submit two copies of color charts displaying manufacturer's color selections and finishes, and identifying those colors and finishes proposed for use.
6. Submit two bound copies of procedures and instructions pertaining to frequency of preventive maintenance, inspection, adjustment, lubrication, and cleaning necessary to minimize corrective maintenance and repair for play equipment. A list of all parts and components for the system, by manufacturer's name, part number, and nomenclature, shall be attached.
7. Submit a copy of product manufacturer's test report indicating compliance with the latest U.S. Consumer Product Safety Commission's Technical Guidelines for Public Playground Safety with regard to thickness of product beneath various equipment height ranges. Test reports shall be by a certified laboratory, to ASTM- F-1292-91 specifications using the f355-Procedure C Test Method.
8. A warranty against all defects in materials and workmanship for play equipment must be provided by contractor. Warranty shall include but not be limited to such defects as bubbling, delamination, peeling, loss of integrity, poor ultraviolet stability, lack of permeability, or general deterioration due to weather.
9. The installer of the play equipment must submit proof of liability insurance of at least \$1,000,000 from a reputable insurance company covering defects in materials, workmanship, and installation. This liability shall cover any bodily harm resulting from a failure of play equipment due to installation defects.
10. The installer of the play equipment must submit proof that they are a certified installer of the play equipment manufacturer.

17-8.05 WARRANTY

Manufactured playground equipment shall be guaranteed against defects in workmanship or materials for a period of one year after acceptance by City. All posts shall be guaranteed against deterioration for ten years. All rotationally molded components shall be guaranteed for five years.

17-8.06 MATERIALS

1. See equipment schedule on plans.

17-8.07 EXECUTION

1. **Staking and Layout: Prior to start of excavation, contractor shall lay out the entire outdoor play area and stake location of all elements, including playground equipment, use zones, pathways, planters, and hard surfaces, based on actual playground equipment supplied to be installed. Use zones shall not overlap hard surfaces, and shall meet criteria of ASTM F 1292. The Engineer reserves the right to adjust the equipment locations and other elements to meet field conditions and use zone safety requirements.**
2. Playground equipment shall be installed according to the manufacturer's installation specifications and as shown on the drawings to meet the requirements of CPSC and ASTM F 1487.
3. A manufacturer's representative who is experienced in the installation, adjustment, and operation of the playground equipment shall be on-site during installation. Manufacturer's certified installer shall be acceptable to meet this requirement. The

representative shall supervise the installation and adjustment of the playground equipment to ensure that the equipment meets the requirements of CPSC and ASTM F 1487.

4. The contractor shall provide means to keep the public from using any play equipment until safety surfaces have been properly installed, the area cleaned and cleared, and all installation reviewed by the Engineer. The area shall be secured until authorized to be opened by the Engineer.
5. All play equipment located in rubber or wood fiber areas shall be clearly marked to indicate the finished level of safety surfacing material to meet impact attenuating requirements. All metal posts, springs or supports shall be as marked by the manufacturer. Those items not marked by the manufacturer shall be marked with a 3/4" circle painted with black epoxy paint.
6. Install picnic table per manufacturer's recommendations.

17-8.08 MEASUREMENT AND PAYMENT

The price paid per each furnishing to Purchase and Install Play Structure & Furnishings shall include shop drawing preparations, ordering, delivery, installation and all labor and materials necessary to install all play structures, picnic table and shall include full compensation for furnishing all labor, materials, equipment and incidentals for the installation of work as shown on the plans.

17-9 PLAY AREA SURFACING

17-9.01 GENERAL

Work consists of furnishing and installation of poured rubber playground safety surfacing and compacted class II aggregate base.

17-9.02 MATERIALS

IPEMA CERTIFIED poured in place playground surfacing and conforming to ASTM F1292 for impact attenuation around playground equipment. Submittal required. The contractor shall submit a certificate of compliance for the material being installed.

Class II aggregate base shall conform to the resilient safety surfacing manufacturer's recommendations for appropriate base condition.

17-9.03 EXECUTION

Install per manufacturer's recommendations.

Thickness of play area safety surfacing shall be appropriate to the adjacent fall height rating of play structure. Minimum 3" thickness.

17-9.04 MEASUREMENT AND PAYMENT

Measurement for this Bid Item shall be per square foot of installed material at required depth. The price paid per square foot of play area safety surfacing and class II aggregate base shall include full compensation for furnishing all labor, materials, equipment and incidentals for the installation of work as shown on the plans.

17-10 RESTROOM BUILDING

17-10.01 GENERAL

A. General, Specifications and Clarification of Prefabricated Building and Site Installation

1. This portion of the bid specifications does not follow the CSI standard format as the prefabricated structure in this bid is an **offsite constructed "product"** and not "typical" general construction.
2. The **installation of the product on site is general construction**, which must be coordinated between the general contractor and the subcontractor. Specifications for the building foundation/pad shall be provided herein by the specified design/build subcontractor. Due to the responsibility of the specified building subcontractor for architecture, engineering and a five-year warranty, the site pad/foundation must meet the subcontractor's design so the pad and building can be considered from a single source for warranty purposes. The subcontractor must accept the pad and compactions tests before they take responsibility for the entire system under their warranty.

B. Architectural Design/Engineering and Insurance Responsibility

1. While the City of San Rafael has provided bid specifications and a design for the building, the building design/build subcontractor remains legally responsible for architecture, engineering, and all applicable building, safety, health, fire, and accessibility code compliance. Since they hold professional design responsibility to the owner, the building subcontractor must furnish certification that they provide product liability insurance in the amounts required by the general specifications **to cover property damage and personal injury**. Final drawings shall be stamped by a California engineer and California Department of Housing and Community Development, suitable for local permitting.

C. Errors and Omissions Insurance

1. The building design/build subcontractor must also provide an additional Professional Architectural and Engineering Errors and Omissions insurance, in the minimum amount of \$2,000,000, **to cover claims against the owner or the general contractor for State and Federal ADA handicapped accessibility and other design/engineering code issues**. This Errors and Omission Policy must remain in effect for 5 years from the completion and owner acceptance of the project. Product liability insurance (since it does not cover professional design responsibility only) will be insufficient for this bid and will be cause for rejection of the bidder.

D. Insurance for the Building offsite, while in transit, and/or on site until turn over and final owner acceptance

1. The subcontractor may request invoicing for a percentage of building completion in-plant, monthly. Under UCC law, this means that the subcontractor is turning over responsibility for the portion invoiced to the owner yet the building will not be on the owner's property and may not be covered by the owners insurance. Therefore, the building subcontractor must provide a separate insurance policy insuring the owner and general contractor as additionally insured for liability, damage and/or vandalism to the building while in the manufacturing facility, while in transit, and/or while in storage at a certified bonded storage facility or at the final project site for up to \$200,000 for each prefabricated building module, until the building is final accepted by owner.

E. General Contractor Coordination with Design/Build Subcontractor

1. The specified prefabricated public restroom building require coordination between the

General Contractor (who prepares the site pad and delivery access for the prefabricated building) and the prefabricated restroom building subcontractor (who completes the architectural design, engineering, off-site building construction, delivery and installation on site.) The specified prefabricated restroom building specifications include unique components/systems which are custom to the restroom building subcontractor. Since the restroom subcontractor is responsible for design, additional insurance requirements for errors and omissions is required.

F. General Contractor, General Scope of Work

1. The general contractor for this project is responsible for the site survey and staking the building locations, finished slab survey elevations and marking on site, construction and compaction of the required building pads; access to the site for a large crane and tractor trailers delivering the prefabricated building; providing water, sewer, and power at a point of connection (POC) within 6 feet of the building and at the depth required by the building subcontractor and local code; and the installation of any sidewalks outside the building footprint.
2. The general contractor is responsible for verification to the building subcontractor design/build firm that there are no unanticipated site delivery issues such as overhead wires, trees, tree roots, or existing grade changes and that prevent a clear path of travel between a roadway and the final site exists for a tractor trailer and crane to expedite delivery. The design/build subcontractor requires that the general contractor certify that the required delivery crane must be able to set the building modules within 35' distance from the center of the building to the center of the crane hoist.

G. Prefabricated Restroom Building, General Scope of Work

1. The prefabricated restroom building specialist (subcontractor) will provide to the general contractor final building design architectural drawings and engineering calculations under the responsibility of a licensed structural engineer, in compliance with all local, state and federal codes. The design/build subcontractor shall construct the building offsite as a permanently relocatable building, transport it to the final required destination, and install the building turnkey, on a general contractor prepared pad per the drawings included in this bid.

H. Licensing

The subcontractor must comply with all the State of California; Department of Housing and Community Development, prefabricated “Commercial Modular Requirements” as follows:

1. The building *manufacturer* must be licensed by the State of California, Department of Housing and Community Development as a manufacturer.
2. The selling dealer (if applicable) must be a California licensed dealer and present their license for verification with the bid.
3. The licensed dealer must also possess a State of California Contractors License Board Class B License and present their license for verification with the bid.

I. Bid Standard for the Prefabricated Restroom Building

1. The City of San Rafael understands that there are several firms who design and build various types of public restroom building in varying quality and architectural styles, using similar or different construction methods and materials. For the purpose of this bid, the owner has selected:

Public Restroom Company, 2587 Business Parkway, Minden, NV 89423 and specifies herein that this firm is the standard for architectural design, safety, green design, code compliance, and site specific compatibility. PRC is also the standard of building performance and quality for the 50 year building design-life with low-maintenance based upon the longevity of the materials selected. See plans for model.

Contact: **Ted Munley, Project Development Manager**

Phone: **888-888-2060 extension 103**
Fax: **888-888-1448**
Email: Ted@PublicRestroomCompany.com
Web: www.publicrestroomcompany.com

2. Other firms quoting “or equal” whose criteria and standards do not comply will be rejected.
3. Pre-cast concrete structures are not acceptable.

J. “Or Equal Restroom Design/Build Subcontractors”

The City of San Rafael may also allow other firms to become qualified to bid, but any firms so authorized to bid must fully comply with these bid specifications and plans, or be subject to post bid rejection. **In order to provide full and open competition, other firms may request approval as an “or equal”, however the Contractor must provide separate line item pricing for the “or equal” restroom in addition to pricing for the “specified” restroom. The City of San Rafael will decide which restroom product they want, and not jeopardize the Contractors bid if and when presenting an “or equal” solution.**

- a) Or Equal applicant shall provide **with their bid submission**, scaled floor plans and elevations, to show general architectural design criteria is met.
- b) Or Equal applicant shall provide **with their bid submission**, a written list of each and every deviation from the published bid specifications/plans. Lack of specificity to each deviation from the bid specifications will be cause for rejection.
- c) Or Equal applicant shall provide **with their bid submission**, manufacturer’s certification of test compliance from a national independent testing laboratory (within the past year) to support the claim for absorption resistance of the slab type that will be used in their proposed restroom. The written report must state the concrete compressive strength (minimum of 7,000 PSI) and absorption resistance (not greater than 3%) per ASTM standard #C39 and #C642, respectively.
- d) Or Equal applicant must provide a list of every building they designed and built over the last 3 years utilizing the same building materials/systems design criteria as published in this bid. Provide date of building bid, date of completion, and most knowledgeable owner contact.
- e) Or equal applicant shall provide certification of the special insurance required in this bid.
- f) Or Equal applicant shall be responsible for and bear all cost for architecture, plan checks, design and structural engineering and all fees in obtaining approvals and permits from applicable agencies.
- g) The City of San Rafael or their consultant will be solely responsible for the decision to accept or reject the “or equal” submission.

K. Certificate of Off-site Inspection and Construction Compliance, Provision for Maintenance Manuals, and Warranty

1. The off-site restroom construction requires that a licensed third party inspection firm provide the owner and the local building official with certification and compliance for the building with the approved plans and specifications. A certificate of compliance shall be issued by this inspector to the local building official to provide certification that the building meet and or exceed the approved plans and applicable codes.
2. At the project conclusion, the building subcontractor shall furnish two sets of complete maintenance manuals including a trouble shooting guide, location of manufacturers of key components for replacement parts together with final as-built plans, and a **five (5) year warranty** to the owner or general contractor.

L. Certifications

Building shall be certified in compliance with the plan approval by the State of California, Department of Housing and Community Development. The building shall be delivered with an applied insignia; in compliance with all State regulations. The local building authority shall provide site inspections for the underground mechanical piping and final connections, footings, and access issues outside the restroom footprint. Restroom building subcontractor shall also furnish 5-year warranty, certifications for the concrete slab specification compliance, and maintenance manuals for the building and components.

17-10.02 SITE PREPARATION

A. Site Scope of Work by General Contractor

The general contractor shall prepare the restroom building subgrade to receive the prefabricated building in accordance with the bid subgrade preparation drawings or foundation plan.

1. The building subgrade/footings shall be constructed per the bid drawings
2. The General Contractor shall provide water point of service at 30" below finished building slabs; sewer at 24" below the finished building slabs; and electrical at 36" below the finished building slabs or other per bid plans.
3. General Contractor shall coordinate with restroom subcontractor to provide full site delivery access for a 70' tractor-trailer and hydro crane to the final building sites.
4. If the final site access is over existing sidewalks, utilities, or landscaping, the General Contractor shall be responsible for plating and or tree trimming, utility line removal, or other to protect any existing conditions.
5. The hydro crane must be able to locate no greater than 35' from the center point of the building to the center point of the crane.
6. The utilities shall be furnished per bid site plans at specified points of connection (POC) nominally 6 feet from the building lines.
7. General contractor shall furnish and install final grading, landscaping and sidewalks.

17-10.03 UTILITY CONNECTIONS

A. Connection to Utilities

1. The restroom subcontractor will stub-out: Electrical, Water, and Sewer at the proper POINT OF CONNECTION AND AT THE PROPER ELEVATION BELOW GRADE, for this project. Restroom subcontractor shall provide final hook up of the water from building to POC; sewer hookup to POC; and electrical sleeve from building panels to POC only. Final utility connections shall be by General Contractor or others. General contractor shall flush the water lines thoroughly before making final water connection to the building. **Thoroughly flushing the water lines for AT LEAST 30 MINUTES is critical to ensure that the new code required low-flow fixtures and flush valves that are extremely sensitive to particulate matter in the water will not malfunction.**

17-10.04 PREFABRICATED RESTROOM

A. Concrete Slab, Required Independent Testing Laboratory Certification:

1. The prefabricated building slabs special concrete technology claims to be water and urine resistant for life due to special additive technology. The building subcontractor must furnish a test certification of compliance from a national independent testing laboratory to support the claim for absorption resistance. The written report must state the concrete compressive strength (minimum of 7,000 PSI) and absorption resistance (not greater than 3%) per ASTM standard #C642 and #C39 respectively. Since this non-absorbency capability is so significant, the design/build subcontractor must provide a general certification of compliance.

B. Prefabricated Restroom Building:

1. The City of San Rafael has evaluated several prefabricated restroom building subcontractors. This bid requires such building be used in lieu of site-built traditional construction because of the unique built-in advantages guaranteed by the design/build firm. This technology includes many new innovations such as non-absorbent concrete; anti-microbial components to reduce health risks; built in vandal resistance design; lowered maintenance and long term warranties that reduce owner risk for failure. The specifications below are written around this new technology.

C. Mat Engineered Concrete Building Slab/Foundation:

1. The mat engineered 8" thick slab/foundation shall be engineered and constructed to withstand the transportation weight of the building without cracking and to resist absorption from any liquids deposited on the surface. The concrete slab shall be constructed inside a steel angle curb, reinforced with dual mats (tension and compression,) and poured with a custom concrete formula with special admixtures to create a finished slab that is water proof for life.
2. The building slab/foundation will include the area under the covered entry.
3. Perimeter Steel Curb: 5/16" 50,000 kip steel 6" X 6" welded continuous angle.
4. Rebar Steel Mat: Two layers of 40,000 tensile steel rebar in varying sizes per engineers requirements, including a perimeter structural continuous grade beam design inside the exterior steel angle and at any other location deemed by the engineer of record as required for the use intended. In coastal locations or when required for corrosion resistance rebar shall be epoxy coated or fiberglass to resist permanent corrosion. Rebar mats shall be wire tied to code with a minimum of three turns of the wire and overlaps shall be minimum of 15 diameters for any connection.
5. All slab openings shall be surrounded with two layers of steel collars as required by the engineer of record to stop corner cracking and to reinforce the openings for lifting.
6. 1" thick by 3" minimum length threaded nuts shall be welded to the steel perimeter frame with continuous ¼" fillet welds. Nuts shall be welded to common steel plates per the engineer of records design and attached to the interior steel rebar structural mats.
7. The engineer of record shall provide lifting locations with sufficient reinforcement to allow the safe lifting of the entire designed weight of the structure with dual 1" steel bolts and washers at each lifting location. The number of lifting locations with each location fitted with removable ¾" 8" X 8" 50,000 tensile strength steel angles shall be determined by the engineer of record.
8. The slab shall be poured over a 1" thick steel plate table. The concrete mix design shall not exceed a 3" slump and shall be stinger vibrated for maximum consolidation. All floors shall slope to any floor drains within each room and if no floor drain is present the floor should not slope. The surface shall be a very light broom that should meet a coefficient of friction on the surface of .06. Birdbaths shall be cause for rejection.
9. The steel perimeter angle will remain below the concrete surface by nominal two inches to prevent corrosion. After the site concrete sidewalks are poured, the joint shall be full flow sealed with self-leveling grey urethane caulk to prevent penetration of water into the joint.
10. The building shall be designed for future relocation and shall provide protection for the lifting openings in the mat slab so that the threaded openings will be available for future use if needed.
11. The building systems shall be designed for placement on a general contractor site prepared class 2 building pads/and or footings as required by code, per the bid drawings, suitable for 1500 pounds soil bearing capacity minimum. Any soils survey (if necessary) shall be by owner or engineer of record.

D. Exterior & Interior Masonry Block Walls

1. The block walls shall be nominal 8" x 16" CMU. The building corners shall have special corner return block that matches the exterior finish and creates a uniform appearance. All CMU shall be custom fabricated with an enlarged interior hole for placement of the

grout and vertical rebar. The exterior walls shall be 4" thickness per State of California codes or engineering for wind and seismic. The interior walls shall be 4" block to nominally 7'-4" above finished floor and framed with applicable required finishes above for pony and gable walls. A structural steel tubular .188 wall cap beam shall be welded to 5/16" 40,000 kip steel plate embeds, at intervals per the engineer of record, within the masonry wall. Cap beam shall be ZRC primed and painted color to be selected by owner.

2. The 8" mat engineered concrete slab shall be cured a minimum of 7 days. Holes for vertical dowels shall be drilled into the mat engineered slab avoiding any grade beams or other structural reinforcement. Once the holes are drilled, blow out the remaining material and using two part structural epoxy, wet set the #3 or #4 vertical rebar (as specified on the engineering calculations into holes drilled to the depth per the engineer of record requirements. Each rebar shall be held vertical to allow equal epoxy support to each dowel during the drying period. Engineering calculations require that rebar shall be installed in each concrete block center void or every block hole. The engineered uplift on each rebar shall be sufficient to restrain any load imposed on the masonry block wall for vertical rebar pull out from the concrete mat engineered slab.

E. Roof System

1. The roof structure shall be 2" x 6" wood rafters at 24" on center with 5/8" OSB sheathing, ice and water shield membrane with 26 gauge standing seam metal roof panels, color to be selected by Owner. The rake and fascia shall be 14 gauge formed steel painted in a color selected by Owner.
2. The roof design shall exceed compliance with local code at 20 PSF live load and wind load "C".
3. The restroom ventilation screens (described in a following section) shall be attached to the gable truss frames and vandal resistant. Roof color shall be determined by owner and selected from the color chart by restroom supplier.
4. Roof to have one 24"x24" skylight, installed above restroom per manufactures specifications.

F. Interior Wall Finish/ Floor Finish:

1. Interior precision CMU block masonry walls (Restroom) shall be smoothed to a pebble grain finish with 2-4 mil layers of 7-day curing block fillers and painted with two additional 4 mil layers of industrial high solids (white) industrial grade enamel. Walls shall be painted white with industrial high solids enamel.

G. Exterior Wall Finish, Masonry and Gable

1. The building exterior finish shall be sealed Tan precision 8" x 16" CMU to wall height per the exterior elevations in the bid plans.
2. The gable ends above the cap beam shall be surfaced with fiber-cement siding stucco in pattern, painted with industrial enamel, color to be selected by owner.

H. Gable Ventilation System (Restroom)

1. Shall be woven 3/16" X 1" X 1", 316T stainless steel wire mesh set in welded stainless steel angles attached to the masonry wall with vandal resistant stainless steel screws, per plans.
2. Skylight (bid-alternate)

I. Doors and Gates

1. The restroom entry doors shall be 7'-0" high, custom fabricated, 14 gauge steel; reinforced with concealed, 14 gauge steel ribs welded at 6" intervals on each face, reinforced with a welded plate for door closer mounting.
2. Doors shall be hung on a single continuous, 1 million cycle, aluminum gear hinge with stainless steel vandal resistant screws at nominal 4" on center.
3. Custom fabricated 14 gauge steel door jambs with 4" steel heads shall be welded to the

steel cap beam and be solid filled with 3000 psi masonry grout mix.

4. All exterior entry doors shall have a ¼” thick stainless steel “Z-shaped” anti-microbial pull handles and Schlage B-600 series commercial series dead bolts with thumb-turn lock/unlock on the interior side.
5. The door closer (restroom entry doors only) shall be “LCN” heavy duty #4210 Series, fastened to a structural reinforced door plate per door manufacturer design. Stainless steel vandal resistant fasteners shall be used on all hardware.
6. Stainless steel vandal resistant fasteners shall be used on all hardware.

J. Specialties

1. All specialty washroom equipment shall be commercial grade stainless steel fastened securely to walls with vandal resistant stainless steel screws to avoid removal by vandals as follows:
2. Toilet paper holders shall be, covered, three-roll, 18 gauge stainless steel with lock. Toilet paper holders shall be attached to block walls with 4 epoxy bedded vandal resistant stainless steel fasteners.
3. Stainless steel grab bars to code shall be 1 ¼” minimum exposed fastener vandal resistant design and installed at each accessible water closet.
4. Cast Aluminum, California Title-24 compliant signage shall be recessed into block surface flush with masonry exterior and door sign shall be blind fastened with epoxy adhesive and stainless steel fasteners. Wall signs shall have raised pointed Braille tips. Wall sign shall comply with codes related to single-occupant toilet rooms and read “All Gender Restroom”.
5. Hand dryer shall be a wall mounted Dyson “V-blade”, adjacent to lavatory in the restroom.
6. Baby Changing station Koala Care Model # KB200-00 per AB-1127 Baby changing stations are required.

K. Plumbing:

1. Building shall be fully compliant with current with the following codes:
 - a) All applicable State of California Building Codes. Latest edition applicable.
2. GENERAL: All components and fabrications shall be designed to reduce life cycle maintenance, be compatible with current maintenance spare parts, and shall be listed in a spare parts/maintenance manual (two copies) delivered in utility chase of building.
3. WATER PIPING: Shall be type L copper soldered per code above grade and type K with silver solder below grade. All water piping shall be designed and constructed with high and low point drain fittings. All piping shall be mounted on Uni-strut wall brackets with neoprene isolators, to code.
4. WATER PRESSURE GAUGE/VALVE COMBO: install three commercial grade industrial water pressure gauges (one on incoming line, one at pressure regulator valve and one after water filter), isolation ball valves, 150 PSI pressure regulator with wye strainer, 10-micron water filter with clear canister, and check valve.
5. PLUMBING FAUCETS, ISOLATION VALVES AND ACTUATORS: All fixtures except those with flush valves shall be isolated with ball valves for each fixture, concealed antimicrobial impregnated flush handle valves, and metered push-button lavatory faucets.
6. DWV PIPING: DWV piping shall be concealed behind the wall. DWV piping shall be PVC DWV, solvent welded, for all concealed piping. A cast iron no hub DWV vent pipe with a cast iron roof mounted vandal cap vent shall be required, through the roof.
7. REMOVABLE PIPE TRAPS: all floor drain, sink drain, and waste traps shall be removable for maintenance. Floor drains shall be trapped behind the wall in the utility chase using a combination waste and vent system. Floor drains shall be increased two pipe sizes over standard to allow code use. Trap primers for restroom floor drains shall not be used as restroom maintenance is hose-down. All surface mounted utility chase piping shall be mounted on Uni-strut with plastic isolators to code. Sink drain traps shall be concealed behind the utility chase walls where maintenance staff can access all

plumbing.

8. **PLUMBING FIXTURES:** Plumbing fixtures shall be 14 gauge, 316 stainless steel manufactured by Acorn. Toilets shall be wall hung, rear discharge, with concealed, ADA-compliant, lever-type, flush valves. Toilet seats shall be black solid core plastic, non-flammable construction with continuous stainless steel concealed self-checking hinges. Lavatories shall have concealed remote traps behind the mechanical wall. Schedule of fixtures:
 - a. Water Closets: Acorn Penal-Ware, 1675-W-1-HET-FVBO-ADA-PFS
 - b. Water Closet Flush Valve: Zurn Z6143AV-HET-BG-7L
 - c. Lavatories: Acorn Penal-ware 1652LRB-1-DMS-03-M
9. **FLOOR GRATES:** Removable 350 lbs per square foot pultruded fiberglass non-skid floor grates shall be installed over every opening in the utility chase for OSHA compliance.
10. **HOSE BIB:** There shall be one Woodford 24B hose bib provided in the utility chase.

L. Electrical:

1. **GENERAL:** Electrical system and components shall be commercial grade or better and piping conduits shall be installed on commercial Uni-strut wall hangers. Interior electrical lighting fixtures in public areas shall provide lifetime manufacturer's warranty.
2. **PANEL/WIRING:** One 100 amp, 120/240v, single-phase, industrial grade Panel Board, Square "D" QO series with 100 amp main circuit breaker, shall be mounted in the utility chase in the restroom building. All breakers shall be snap-on type, minimum 10,000 A.I.C. RMS (Sym). Wiring shall be copper wire #12 min in EMT piping with compression fittings.
3. **PIPING:** All piping shall be surface mounted to the masonry block walls with minimum of 2" fastener penetration. EMT conduit shall be compression type. Main panel shall maintain a 30" X 36" safety code required clear space, floor to 6' above finished floor.
4. **HAND DRYER:** Shall be Dyson Airblade V, Nickel finish
5. **WATER HEATER:** Shall be tankless, Stiebel-Eltron DHC-8/10-E Water heater shall be located in the utility chase. There shall be a tempering valve servicing the restroom lavatories.
6. **EXTERIOR LIGHTING:** Luminaire YWP610, 15 watt LED, vandal resistant, high-impact polycarbonate lens fixtures shall be installed per plans,
7. **INTERIOR LIGHTING:** Luminaire SWP610, 15 watt, LED, vandal resistant high-impact polycarbonate lens fixtures shall be installed in the restrooms per plans (one in each restroom). The chase shall have one 4' single-tube, 18 watt LED fixture, suitable for wet locations, with a single switch at door entry.
8. **LIGHTING CONTROL:** All interior restroom lighting shall be controlled by a timeclock mounted in the utility chase. The utility chase will have 2 bypass switches (one for interior lighting and one for exterior lighting), so maintenance staff can check operation during daylight hours. A single photo cell, roof mounted, and shall control all exterior lighting.
9. **ELECTRICAL OUTLETS:** One (1) commercial spec grade duplex outlet shall be located in the utility chase adjacent to the entry switch.
10. Electrical service is anticipated to be in the mechanical room with lockbox for PG&E access.

M. Shipping Protection

The building, while traveling over roads to the destination may encounter inclement weather or road grime that could require substantial cleaning when it arrives on site. The building shall be shrink-wrapped before transportation and sufficiently strong to arrive at the owner site intact for exterior finish protection. Materials removed on site shall be disposed of and recycled by restroom building install staff.

17-10.05 MEASUREMENT AND PAYMENT

Prefabricated Restroom shall be measured on a lump sum (LS) basis and shall include full compensation for furnishing all the labor, materials, tools, equipment, incidentals, and for doing all the work involved in prefabrication off-site, delivery to site, installation and utility connections and as directed by the Engineer, and no additional compensation will be allowed therefore.

17-11 ELECTRICAL SYSTEMS

17-11.01 GENERAL

The work consists of installing electrical connections for the restroom building from panel inside the community center, per electrical plans. The free standing light pole to be connected to circuit of removed light poles.

17-11.03 MEASUREMENT AND PAYMENT

Electrical Systems shall be measured and paid for on a lump sum (LS) basis. Full compensation for all additional materials and labor, not shown on the plans or specified, which are necessary to provide for a complete and functioning traffic signal system, shall be considered as included in the price paid for Electrical Systems, and no additional compensation will be allowed therefore.

APPENDIX A
CITY OF SAN RAFAEL
POLLUTION PREVENTION: IT'S PART OF THE PLAN

MAKE SURE YOUR CREWS AND SUBS DO THE JOB RIGHT!

RUNOFF FROM STREETS AND OTHER PAVED AREAS IS A MAJOR SOURCE OF POLLUTION IN SAN FRANCISCO BAY. CONSTRUCTION ACTIVITIES CAN DIRECTLY AFFECT THE HEALTH OF THE BAY UNLESS CONTRACTORS AND CREWS PLAN AHEAD TO KEEP DIRT, DEBRIS, AND OTHER CONSTRUCTION WASTE AWAY FROM STORM DRAINS AND LOCAL CREEKS. FOLLOWING THESE GUIDELINES WILL ENSURE YOUR COMPLIANCE WITH CITY OF SAN RAFAEL ORDINANCE REQUIREMENTS.

CITY OF SAN RAFAEL STORM WATER PROGRAM (415) 485- 3355

MATERIALS STORAGE & SPILL CLEANUP

NON-HAZARDOUS MATERIALS MANAGEMENT

- SAND, DIRT, AND SIMILAR MATERIALS MUST BE STORED AT LEAST 10 FEET FROM CATCH BASINS, AND COVERED WITH A TARP DURING WET WEATHER OR WHEN RAIN IS FORECAST
- USE (BUT DON'T OVERUSE) RECLAIMED WATER FOR DUST CONTROL AS NEEDED
- SWEEP STREETS AND OTHER PAVED AREAS DAILY. DO NOT WASH DOWN STREETS OR WORK AREAS WITH WATER!
- RECYCLE ALL ASPHALT, CONCRETE, AND AGGREGATE BASE MATERIAL FROM DEMOLITION ACTIVITIES.
- CHECK DUMPSTERS REGULARLY FOR LEAKS AND TO MAKE SURE THEY DON'T OVERFLOW. REPAIR OR REPLACE LEAKING DUMPSTERS PROMPTLY.

HAZARDOUS MATERIALS MANAGEMENT

- LABEL ALL HAZARDOUS MATERIALS AND HAZARDOUS WASTES (SUCH AS PESTICIDES, PAINTS, THINNERS, SOLVENTS, FUEL, OIL, AND ANTIFREEZE) IN ACCORDANCE WITH CITY, STATE, AND FEDERAL REGULATIONS.
- STORE HAZARDOUS MATERIALS AND WASTES IN SECONDARY CONTAINMENT AND COVER THEM DURING WET WEATHER
- FOLLOW MANUFACTURER'S APPLICATION INSTRUCTIONS FOR HAZARDOUS MATERIALS AND BE CAREFUL NOT TO USE MORE THAN NECESSARY. DO NOT APPLY CHEMICALS OUTDOORS WHEN RAIN IS FORECAST WITHIN 24 HOURS.
- BE SURE TO ARRANGE FOR APPROPRIATE DISPOSAL OF ALL HAZARDOUS WASTES.

SPILL PREVENTION AND CONTROL

- KEEP A STOCKPILE OF SPILL CLEANUP MATERIALS (RAGS, ABSORBENTS, ETC.) AVAILABLE AT THE CONSTRUCTION SITE AT ALL TIMES.
- WHEN SPILLS OR LEAKS OCCUR, CONTAIN THEM IMMEDIATELY AND BE PARTICULARLY CAREFUL TO PREVENT LEAKS AND SPILLS FROM REACHING THE GUTTER, STREET, OR STORM DRAIN. NEVER WASH SPILLED MATERIAL INTO A GUTTER, STREET, STORM DRAIN OR CREEK!
- REPORT ANY HAZARDOUS MATERIALS SPILLS IMMEDIATELY! CALL CITY OF SAN RAFAEL FIRE DEPARTMENT AT (415) 485-3308.

VEHICLE AND EQUIPMENT MAINTENANCE & CLEANING

- INSPECT VEHICLES AND EQUIPMENT FOR LEAKS FREQUENTLY. USE DRIP PANS TO CATCH LEAKS UNTIL REPAIRS ARE MADE; REPAIR LEAKS PROMPTLY
- FUEL AND MAINTAIN VEHICLES ON SITE ONLY IN A BERMED AREA OR OVER A DRIP PAN THAT IS BIG ENOUGH TO PREVENT RUNOFF
- IF YOU MUST CLEAN VEHICLES OR EQUIPMENT ON SITE, CLEAN WITH WATER ONLY IN A BERMED AREA THAT WILL NOT ALLOW RINSE WATER TO RUN INTO GUTTERS, STREETS, STORM DRAINS, OR CREEKS
- DO NOT CLEAN VEHICLES OR EQUIPMENT ON-SITE USING SOAPS, SOLVENTS, DEGREASERS, STEAM CLEANING EQUIPMENT, ETC.

EARTHWORK & CONTAMINATED SOILS

- KEEP EXCAVATED SOIL ON THE SITE WHERE IT IS LEAST LIKELY TO COLLECT IN THE STREET. TRANSFER TO DUMP TRUCKS SHOULD TAKE PLACE ON THE SITE, NOT IN THE STREET.
- USE HAY BALES, SILT FENCES, OR OTHER CONTROL MEASURES TO MINIMIZE THE FLOW OF SILT OFF THE SITE.
- AVOID SCHEDULING EARTH MOVING ACTIVITIES DURING THE RAINY SEASON IF POSSIBLE. IF GRADING ACTIVITIES DURING WET WEATHER ARE ALLOWED IN YOUR PERMIT, BE SURE TO IMPLEMENT ALL CONTROL MEASURES NECESSARY TO PREVENT EROSION.
- MATURE VEGETATION IS THE BEST FORM OF EROSION CONTROL. MINIMIZE DISTURBANCE TO EXISTING VEGETATION WHENEVER POSSIBLE.
- IF YOU DISTURB A SLOPE DURING CONSTRUCTION, PREVENT EROSION BY SECURING THE SOIL WITH EROSION CONTROL FABRIC, OR SEED WITH FAST-GROWING GRASSES AS SOON AS POSSIBLE. PLACE HAY BALES DOWN-SLOPE UNTIL SOIL IS SECURE.
- IF YOU SUSPECT CONTAMINATION (FROM SITE HISTORY, DISCOLORATION, ODOR, TEXTURE, ABANDONED UNDERGROUND TANKS OR PIPES, OR BURIED DEBRIS), CALL THE FIRE DEPT., (415) 485-3308, FOR HELP IN DETERMINING WHAT TESTING SHOULD BE DONE.
- MANAGE DISPOSAL OF CONTAMINATED SOIL ACCORDING TO FIRE DEPARTMENT INSTRUCTIONS.

DEWATERING OPERATIONS

- REUSE WATER FOR DUST CONTROL, IRRIGATION, OR ANOTHER ON-SITE PURPOSE TO THE GREATEST EXTENT POSSIBLE.
- BE SURE TO CALL THE CITY'S STORMWATER MANAGER BEFORE DISCHARGING WATER TO A STREET, GUTTER, OR STORM DRAIN. CALL THE STORMWATER MANAGER AT (415) 485-3355. FILTRATION OR DIVERSION THROUGH A BASIN, TANK, OR SEDIMENT TRAP MAY BE REQUIRED.
- IN AREAS OF KNOWN CONTAMINATION, TESTING IS REQUIRED PRIOR TO REUSE OR DISCHARGE OF GROUNDWATER. CONSULT WITH THE CITY FIRE DEPT. TO DETERMINE WHAT TESTING TO DO AND TO INTERPRET RESULTS. CONTAMINATED GROUNDWATER MUST BE TREATED OR HAULED OFF-SITE FOR PROPER DISPOSAL.

SAW CUTTING

- ALWAYS COMPLETELY COVER OR BARRICADE STORM DRAIN INLETS WHEN SAW CUTTING. USE FILTER FABRIC, HAY BALES, SAND BAGS, OR FINE GRAVEL DAMS TO KEEP SLURRY OUT OF THE STORM DRAIN SYSTEM.
- SHOVEL, ABSORB, OR VACUUM SAW-CUT SLURRY AND PICKUP ALL WASTE AS SOON AS YOU ARE FINISHED IN ONE LOCATION OR AT THE END OF EACH WORK DAY (WHICHEVER IS SOONER).
- IF SAW CUT SLURRY ENTERS A CATCH BASIN, CLEAN IT UP IMMEDIATELY.

PAVING/ASPHALT WORK

- DO NOT PAVE DURING WET WEATHER OR WHEN RAIN IS FORECAST.
- ALWAYS COVER STORM DRAIN INLETS AND MANHOLES WHEN PAVING OR APPLYING SEAL COAT, TACK COAT, SLURRY SEAL, OR FOG SEAL.
- PLACE DRIP PANS OR ABSORBENT MATERIAL UNDER PAVING EQUIPMENT WHEN NOT IN USE.
- PROTECT GUTTERS, DITCHES, AND DRAINAGE COURSES WITH HAY BALES, SAND BAGS, OR EARTHEN BERMS.
- DO NOT SWEEP OR WASH DOWN EXCESS SAND FROM SAND SEALING INTO GUTTERS, STORM DRAINS, OR CREEKS. COLLECT SAND AND RETURN IT TO THE STOCKPILE, OR DISPOSE OF IT AS TRASH.
- DO NOT USE WATER TO WASH DOWN FRESH ASPHALT PAVEMENT.

CONCRETE GROUT AND MORTAR STORAGE & WASTE DISPOSAL

- BE SURE TO STORE CONCRETE, GROUT AND MORTAR UNDER COVER AND AWAY FROM DRAINAGE AREAS. THESE MATERIALS MUST NEVER REACH A STORM DRAIN.
- WASH OUT CONCRETE EQUIPMENT/TRUCKS OFF-SITE OR DESIGNATE AN ON-SITE AREA FOR WASHING WHERE WATER WILL FLOW ONTO DIRT OR INTO A TEMPORARY PIT IN A DIRT AREA. LET THE WATER SEEP INTO THE SOIL AND DISPOSE OF HARDENED CONCRETE WITH TRASH.
- IF A SUITABLE DIRT AREA IS NOT AVAILABLE, COLLECT THE WASH WATER AND REMOVE IT FOR APPROPRIATE DISPOSAL OFF SITE.
- DIVERT WATER FROM WASHING EXPOSED AGGREGATE CONCRETE TO A DIRT AREA WHERE IT WILL NOT RUN INTO A GUTTER, STREET, OR STORM DRAIN. IF A SUITABLE DIRT AREA IS NOT AVAILABLE, FILTER THE WASH WATER THROUGH HAY BALES BEFORE DISCHARGING TO A STORM DRAIN.

PAINTING

- NEVER RINSE PAINT BRUSHES OR MATERIALS IN A GUTTER OR STREET.
- PAINT OUT EXCESS WATER-BASED PAINT BEFORE RINSING BRUSHES, ROLLERS, OR CONTAINERS IN A SINK. IF YOU CAN'T USE A SINK, DIRECT WASH WATER TO A DIRT AREA AND SPADE IT IN.
- PAINT OUT EXCESS OIL-BASED PAINT BEFORE CLEANING BRUSHES IN THINNER.
- FILTER PAINT THINNERS AND SOLVENTS FOR REUSE WHENEVER POSSIBLE. DISPOSE OF OIL-BASED PAINT SLUDGE AND UNUSABLE THINNER AS HAZARDOUS WASTE

STORM DRAIN POLLUTERS MAY BE LIABLE FOR FINES OF UP TO \$500 PER

