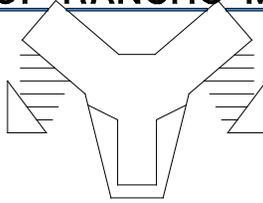


**CITY OF RANCHO MIRAGE**



**CONTRACT DOCUMENTS AND SPECIFICATIONS**

**FOR**

**BOB HOPE DRIVE AND FRANK SINATRA DRIVE  
INTERSECTION IMPROVEMENT PROJECT**

PROJECT NO. CP 12-270-1

Prepared by:

CITY OF RANCHO MIRAGE  
69-825 Highway 111  
Rancho Mirage, California 92270  
(760) 324-4511

March 24, 2016

**CITY OF RANCHO MIRAGE  
CALIFORNIA**

**CONTRACT DOCUMENTS AND SPECIFICATIONS**

**FOR**

**BOB HOPE DRIVE AND FRANK SINATRA DRIVE  
INTERSECTION IMPROVEMENT PROJECT**

**PROJECT NO. CP 12-270-1**

Prepared Under the Supervision of:

*Dilesh Sheth*

\_\_\_\_\_  
Dilesh Sheth, P.E.  
R.C.E. 65078

*3/24/16*

\_\_\_\_\_  
Date



Approved by:

*William A. Enos*

\_\_\_\_\_  
William A. Enos, P.E.  
R.C.E. 43910

*3/24/16*

\_\_\_\_\_  
Date

**TABLE OF CONTENTS  
FOR  
BOB HOPE DRIVE AND FRANK SINATRA DRIVE  
INTERSECTION IMPROVEMENT PROJECT  
CP 12-270-1**

NOTICE INVITING SEALED BIDS ..... 00020-1

INSTRUCTIONS TO BIDDERS ..... 00100-1

PROPOSAL DOCUMENTS

Bid Proposal..... 00310-1

Bid Bond ..... 00310-5

Non-Collusion Affidavit..... 00310-7

Bid Proposal Sheet ..... 00310-8

CONTRACT DOCUMENTS

Standard Agreement for Public Works Construction..... 00312-1

Schedule A to Standard Agreement ..... 00312-11

Letter of Credit ..... 00312-12

Performance Bond ..... 00312-14

Payment Bond ..... 00312-16

Certificate of Completion of Standard Agreement  
for Public Works Construction ..... 00312-23

Notice of Acceptance ..... 00312-24

GENERAL PROVISIONS

Index of General Conditions..... 00700-A-1

General Conditions of the Contract ..... 00700-1 to 00700-11

SPECIAL PROVISIONS

PART 1 - GENERAL PROVISIONS ..... 00800-SP-1

PART 2 - CONSTRUCTION MATERIALS..... 00800-SP-13

PART 3 – CONSTRUCTION METHODS ..... 00800-SP-18

APPENDIX – STANDARD PLANS.....00800 – AP1

CITY OF RANCHO MIRAGE



NOTICE INVITING SEALED BIDS FOR BOB HOPE DRIVE AND FRANK SINATRA DRIVE INTERSECTION IMPROVEMENT PROJECT PROJECT NO. CP 12-270-1

PUBLIC NOTICE IS HEREBY GIVEN that the City of Rancho Mirage, hereinafter referred to as CITY, invites sealed bids for the above-stated project and will receive such bids in the offices of the City Engineer up to the hour of 2:00 P.M., on Tuesday, April 26, 2016, at which time they will be publicly opened and read aloud.

The work to be done consists of furnishing all materials, equipment, tools, labor, and incidentals as required by the Plans, Specifications and Contract Documents for the above-stated project. The general items of work to be done consist of removal of existing improvements including curb and gutter, asphalt, aggregate base, storm drain pipe, and landscaping, and then construction of curb and gutter, aggregate base, placement of asphalt concrete, tire rubber modified asphalt concrete, catch basin, curb inlet and depression, access ramps, storm drain modification, removal and reconstruction of block wall, construction of retaining wall, sidewalk, traffic signal modification, and traffic striping, markers and markings, irrigation, landscaping, as well as all other appurtenant related work.

Plans and Specifications are available only through the City’s website at: www.RanchoMirageCA.gov. Under Quick Links select Notice Inviting Bids/P&S/RFPs ► Plans and Specifications ► BOB HOPE DRIVE AND FRANK SINATRA DRIVE INTERSECTION IMPROVEMENT PROJECT, CP 12-270-1. If you are interested in this project, you will need to visit the City’s website and sign up. To receive plans you must complete the on-line registration form. Once you have signed up you will receive an email with the requested documents for download and printing.

Any contract entered into pursuant to this notice will incorporate the provisions of the State Labor Code. Compliance with the prevailing rates of wages and apprenticeship employment standards established by the State Department of Industrial Relations will be required.

No bidders will be discriminated against on the basis of race, color, national origin, ancestry, sex, or religion in any consideration leading to the award of contract.

The contract documents call for monthly progress payments based upon the engineers’ estimate of the percentage of work completed. The CITY will retain 5 percent of each progress payment as security for completion of the balance of the work. At the request and expense of the successful bidder, the City will pay the amounts so retained upon compliance with the requirements of Public Contract Code, Part 5, Section 22300 and the provisions of the contract documents pertaining to Substitution of Securities.

Bids must be prepared on the approved proposal forms in conformance with the Instructions to Bidders and submitted in a sealed envelope plainly marked on the outside “SEALED BID FOR BOB HOPE DRIVE AND FRANK SINATRA DRIVE INTERSECTION IMPROVEMENT PROJECT, CP 12-270-1 – DO NOT OPEN WITH REGULAR MAIL.” City staff will not be available to respond to questions on the day of bid opening.

The CITY reserves the right to reject any or all bids, to waive any irregularity, to accept any bid or portion thereof, and to take all bids under advisement for a period of sixty (60) days.

At the time of contract award, the prime contractor shall possess a valid Class A contractor’s license and/or a combination of Class “C” specialty contractors license(s) sufficient to perform the work.

BY ORDER OF the City Council of the City of Rancho Mirage.

Dated March 24, 2016

By Vallerie Walthour, Public Works Department Secretary City of Rancho Mirage 69-825 Highway 111 Rancho Mirage, CA 92270 (760) 770-3224

## INSTRUCTIONS TO BIDDERS

### **NOTICE REGARDING REGISTRATION WITH DEPARTMENT OF INDUSTRIAL RELATIONS**

No contractor or subcontractor may be listed on a bid proposal for a public works project unless 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 unless 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.

### **PROPOSAL FORMS**

Bids shall be submitted in writing on the Proposal forms provided by the CITY. All information requested therein must be clearly and legibly set forth in the manner and form indicated. The CITY will not consider any proposal not meeting these requirements.

### **PRE-BID CONFERENCE**

A pre-bid conference will not be held for this project.

### **PROPOSAL GUARANTEE (BID BOND)**

Proposals must be accompanied by a proposal guarantee consisting of a certified check or bid bond payable to the CITY in the amount of ten percent (10%) of the total amount bid. Any proposal not accompanied by such a guarantee will not be considered. If a bidder to whom a contract is awarded fails or refuses to execute the contract documents or furnish the required insurance policies and bonds as set forth in those documents, the proposal guarantee shall be forfeited to the CITY. The proposal guarantees of all bidders will be held until the successful bidder has properly executed all contract documents.

### **NONCOLLUSION AFFIDAVIT**

Bidder shall declare that the only persons or parties interested in the proposal as principals are those named therein; that no officer, agent, or employee of the CITY is personally interested, directly or indirectly, in the proposal; that the proposal is made without connection to any other individual, firm, or corporation making a bid for the same work; and that the proposal is in all respects fair and without collusion or fraud. The Noncollusion Affidavit shall be executed and submitted with the proposal.

### **PROPOSAL BID SHEET**

Bidders shall give unit prices for each and all of the items set forth. No aggregate bids shall be considered. The bidder shall set forth for each item of work, in clearly legible figures, a unit item price and a total for the item in the respective spaces provided for this purpose. The quantities listed in the Bid sheets are supplied to give an indication of the general scope of work, but the accuracy of figures is not guaranteed and the bidder shall make his/her own estimates from the drawings. In case of a variation between the unit price and the totals shown by the bidder, the unit price shall be considered to be the bid.

### **DELIVERY OF PROPOSAL**

Proposals may be mailed or delivered by messenger. However, it is the bidder's responsibility alone to ensure delivery of the proposal to the hands of the CITY'S designated official prior to the bid opening hour stipulated in the "Notice Inviting Sealed Bids." Late proposals will not be considered. Proposals shall be enclosed in a sealed envelope plainly marked on the outside, outside "**SEALED BID FOR BOB HOPE DRIVE AND FRANK SINATRA DRIVE INTERSECTION IMPROVEMENT PROJECT, CP 12-270-1 – DO NOT OPEN WITH REGULAR MAIL.**"

### **WITHDRAWAL OF PROPOSALS**

A proposal may be withdrawn by a written request signed by the bidder. Such requests must be delivered to the CITY'S designated official prior to the bid opening hour stipulated in the "Notice Inviting Sealed Bids." The withdrawal of a proposal will not prejudice the right of the bidder to submit a new proposal, providing there is time to do so. Proposals may not be withdrawn after said hour without forfeiture of the proposal guarantee.

### **IRREGULAR PROPOSALS**

Unauthorized conditions, limitations, or provisions attached to a proposal will render it irregular and may cause its rejection. The completed proposal forms shall be without interlineations, alterations, or erasures. Alternative proposals will not be considered unless specifically requested. No oral, telegraphic, or telephonic proposal, modification, or withdrawal will be considered.

**TAXES**

No mention shall be made in the proposal of Sales Tax, Use Tax, or any other tax, as all amounts bid will be deemed and held to include any such taxes that may be applicable.

**DISQUALIFICATION OF BIDDERS**

In the event that any bidder acting as a prime contractor has an interest in more than one proposal, all such proposals shall be rejected, and the bidder disqualified. This restriction does not apply to subcontractors or suppliers who may submit quotations to more than one bidder, and while doing so, may also submit a formal proposal as a prime contractor.

No contract will be executed unless the bidder is licensed in accordance with the provisions of the State Business and Professions Code.

**INTERPRETATION OF PLANS AND DOCUMENTS**

If any person contemplates submission of a bid for the proposed contract and is in doubt as to the true meaning of any part of the plans, specifications or other proposed contract documents, or finds discrepancies in, or omissions from, the drawings or specifications, he may submit to the Engineer of said CITY a written request for an interpretation or correction thereof. The person submitting the request shall be responsible for its prompt delivery. Any interpretation or correction of the proposed documents shall be made only by addendum duly issued and copy of such addendum shall be mailed or delivered to each person receiving a set of such documents. The Engineer will not be responsible for any other explanation or interpretations of the proposed documents.

**ADDENDA OR BULLETINS**

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

**LEGAL RESPONSIBILITIES**

All proposals must be submitted, filed, made, and executed in accordance with State and Federal laws relating to bids for contracts of this nature whether the same or expressly referred to herein or not.

Any bidder submitting a proposal shall by such action thereby agree to each and all of the terms, conditions, provisions, and requirements set forth, contemplated, and referred to in the Plans, Specifications, and Contract Documents, and to full compliance therewith.

**AWARD OF CONTRACT**

Following a review of the bids, the CITY shall determine whether to award the contract or to reject all bids. The award of contract, if made, shall be to the lowest responsible Bidder as determined solely by the CITY. At the time of contract award, the successful bidder shall hold a **Class A contractor's license and/or a combination of Class C specialty contractors licenses**, as required to perform the work, issued by the State of California. Additionally, the CITY reserves the right to reject any or all proposals, to accept any bid or portion thereof, to waive any irregularity, and to take the bids under advisement for the period of time stated in the "Notice Inviting Sealed Bids," all as may be required to provide for the best interests of the CITY. In no event will an award be made until all necessary investigations are made as to the responsibility and qualifications of the bidder to whom the award is contemplated.

No bidder may withdraw his/her proposal for a period of sixty (60) days after the time set for opening thereof. However, the CITY will return all proposal guarantees within ten (10) days after the award of the contract or rejection of the bids, as the case may be, to the respective bidders whose proposals they accompany.

**LABOR CODE**

Pursuant to the provisions of Section 1773 and 1773.2 of the Labor Code of the State of California, the CITY has obtained the general provisions rate of per diem wages and the general prevailing rate for holiday and overtime work in this locality for each craft, classification or type of workman needed to execute the contract from the director of the Department of Industrial Relations. These rates are on file with the Clerk of the CITY, and copies will be made available to any interested party on request. It shall be the responsibility of the prime CONTRACTOR to comply with all applicable sections of the Labor Code.

The CONTRACTOR shall comply with the provisions of Section 1774 of the Labor Code. Failure to comply with the subject section will subject the CONTRACTOR to penalty and forfeiture provisions of Section 1775 of the Labor Code.

Pursuant to the provisions of Section 1770 of the Labor Code, the general prevailing rate of wages has been ascertained (which rate includes employer payments for health and welfare, vacation, pension and similar purposes) applicable to the work to be done, for straight time, overtime, Saturday, Sunday, and holiday work. The holiday wage rate listed shall be applicable to all holidays recognized in the collective bargaining agreement of the particular craft, classification or type of workmen concerned.

The CITY will not recognize any claim for additional compensation because of the payment by the CONTRACTOR of any wage rate in excess of the prevailing wage rate set forth in the contract. The possibility of wage increases is one of the elements to be considered by the CONTRACTOR in determining his bid, and will not under any circumstances be considered as the basis of a claim against the CITY on the contract.

The CONTRACTOR shall comply with Section 1777.5 of the Labor Code, which allows the employment of properly registered apprentices on public works projects. The CONTRACTOR is responsible for the compliance with this section for all apprenticeable occupations and subcontractors.

The CONTRACTOR and subcontractors shall comply with all State of California laws against employment discrimination.

**WORKERS COMPENSATION CERTIFICATE**

Section 3700 of the State Labor Code requires that every employer shall secure the payment compensation by either being insured against liability to pay compensation with one or more insurers or by securing a Certificate of Consent to Self-Insure from the State of California Director of Industrial Relations.

In accordance with this section and with Section 1861 of the State of California Labor Code, the CONTRACTOR shall submit a Compensation Insurance Certificate prior to performing any work. Reimbursement for this requirement shall be considered as included in the various items of work.

**CLAYTON ACT AND CARTWRIGHT ACT**

Section 4551 of the State Government Code specifies that in executing a public works contract with the City to supply goods, services or materials, the CONTRACTOR or Subcontractor offers and agrees to assign to the CITY all rights, title and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. Sec. 15) or under the Cartwright Act (Chapter 2 commencing with Sec. 16700) of Part 2 of Division 7 of the Business and Professions Code, arising from purchase of goods, services or materials pursuant to the contract or subcontract. This assignment shall become effective when the CITY tenders final payment to the CONTRACTOR without further acknowledgment by the parties.

**SUBSTITUTION OF SECURITIES**

In conformance with the State of California Public Contract Code, Part 5, Section 22300, the CONTRACTOR may substitute securities for any monies withheld by the CITY to ensure performance under the contract.

At the request and expense of the CONTRACTOR, the CONTRACTOR has the option to set up an escrow agreement account with a local bank for direct deposit of the retention or deposit securities which have been approved by the CITY and deposited with a state or federally chartered bank as the escrow agent. Said securities will be used as a substitute for retention earnings required to be withheld by the CITY, pursuant to the construction contract. Said securities shall be solely for this project. When the CONTRACTOR deposits the CITY-approved securities with the escrow agent, the escrow agent shall notify the CITY within 10 calendar days of the deposit. Said securities shall be evaluated quarterly by the escrow agent to verify the current market value. If the current market value of said securities falls below the required amount, the escrow agent shall notify the CONTRACTOR and require additional securities and/or cash be submitted for CITY approval and be held in the escrow account to meet the CONTRACTOR'S obligations. Said securities shall be held by the escrow agent until such time as the escrow agent receives written notification from the CITY that the CONTRACTOR has satisfactorily completed his/her contract obligations.

The type of escrow account or types of securities deposited and the method of release shall be approved by the City Attorney's office.

# BID PROPOSAL

BIDDER'S NAME \_\_\_\_\_

TO CITY OF RANCHO MIRAGE, as CITY:

In accordance with CITY'S "Notice Inviting Sealed Bids", the undersigned BIDDER hereby proposes to furnish all materials, equipment, tools, labor, and incidentals required for the above-stated project as set forth in the Plans, Specifications, and Contract Documents therefore, and to perform all work in the manner and time prescribed therein.

BIDDER declares that this proposal is based upon careful examination of the work site, Plans, Specifications, Instructions to Bidders, and Contract Documents. If this proposal is accepted for award, BIDDER agrees to enter into a contract with CITY at the unit and/or lump sum prices set forth in the following Proposal Bid Sheets. BIDDER understands that failure to enter into a contract in the manner and time prescribed will result in forfeiture to CITY of the Bid Bond accompanying this proposal.

BIDDER understands that a bid is required for the entire work that the estimated quantities set forth in the Proposal Bid Sheet are solely for the purpose of comparing bids, and that final compensation under the contract will be based upon the actual quantities of work satisfactorily completed. It is agreed that the unit and/or lump sum prices bid include all appurtenant expenses, taxes, royalties, and fees. In the case of discrepancies in the amounts bid, unit prices shall govern over extended amounts.

BIDDER agrees and acknowledges that he is aware of the provisions of Section 3700 of the Labor Code which requires that every employer be insured against liability for workers compensation or to undertake self-insurance in accordance with the provisions of that code, and that the successful BIDDER shall comply with such provisions of that code before commencing the performance of the Contract.

BIDDER certifies that in all previous contracts or subcontracts, all reports that may have been due under the requirements of any agency, state, or federal equal employment opportunity orders have been satisfactorily filed, and that no such reports are currently outstanding.

BIDDER declares that the only persons or parties interested in this proposal as principals are those named herein; that no officer, agent, or employee of the CITY is personally interested, directly or indirectly, in this proposal; that this proposal is made without connection to any other individual, firm, or corporation making a bid for the same work; and that this proposal is in all respects fair and without collusion or fraud.

DATED \_\_\_\_\_, 20\_\_

BIDDER \_\_\_\_\_

(BY) \_\_\_\_\_

TITLE \_\_\_\_\_

BIDDER'S ADDRESS:

\_\_\_\_\_  
\_\_\_\_\_

PHONE: \_\_\_\_\_

FAX: \_\_\_\_\_

### BIDDER'S INFORMATION

BIDDER certifies that the following information is true and correct.

Bidder's Name \_\_\_\_\_

Business Address \_\_\_\_\_

Telephone \_\_\_\_\_

State Contractor's License No. and Class \_\_\_\_\_

Original Date Issued \_\_\_\_\_ Expiration Date \_\_\_\_\_

D.I.R. No. \_\_\_\_\_

The following are the names, titles, addresses, and phone numbers of all individuals, firm members, partners, joint ventures, and/or corporate officers having a principal interest in this proposal:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

The dates of any voluntary or involuntary bankruptcy judgments against any principal having an interest in this proposal are as follows:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

All current and prior dbas, aliases, and/or fictitious business names for any principal having an interest in this proposal are as follows.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_





### BID BOND

KNOW ALL MEN BY THESE PRESENTS that \_\_\_\_\_, as  
 BIDDER, and \_\_\_\_\_, as  
 SURETY, are held and firmly bound unto the CITY OF RANCHO MIRAGE, as AGENCY, in  
 the penal sum of \_\_\_\_\_ dollars  
 (\$\_\_\_\_\_), which is ten percent (10%) of the total amount bid by  
 BIDDER to AGENCY for the above-stated project, for the payment of which sum BIDDER  
 and SURETY agree to be bound jointly, severally and firmly by these presents.

THE CONDITIONS OF THIS OBLIGATION ARE SUCH that, whereas BIDDER is about to  
 submit a bid to AGENCY for the above-stated project, if said bid is rejected, or if said bid is  
 accepted and a contract is awarded and entered into by BIDDER in the manner and time  
 specified, then this obligation shall be null and void; otherwise, it shall remain in full force and  
 effect in favor of AGENCY.

WITNESS our hands this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_. (seal)

\_\_\_\_\_  
 CONTRACTOR (CORPORATION)-TYPE

By: \_\_\_\_\_  
 President

By: \_\_\_\_\_  
 Secretary/Treasurer

**NOTE: SIGNATURE OF CORPORATE OFFICIALS MUST BE NOTARIZED.**

BID BOND - page 2

(seal)

\_\_\_\_\_  
SURETY'S NAME-TYPE

\_\_\_\_\_  
Mailing Address

By: \_\_\_\_\_  
Name

\_\_\_\_\_  
Title

**NOTE: SIGNATURE OF SURETY MUST BE NOTARIZED**

**NON-COLLUSION AFFIDAVIT**

STATE OF CALIFORNIA )

)

COUNTY OF )

\_\_\_\_\_, being first duly sworn, deposes and says that he is (sole owner, a partner, president, etc.) of \_\_\_\_\_ the party making the foregoing bid;

That such bid is not made in the interest of or on behalf of any undisclosed person, partnership, company, association, organization or corporation; that such bid is genuine and not a collusive or sham bid, or that anyone shall refrain from bidding; that said bidder has not in any manner, directly or indirectly, sought by agreements, communication or conference with anyone to fix the bid price of said bidder or of any other bidder, or to fix the overhead, profit, or cost element of such 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 such bid are true, and further, that said bidder has not, directly or indirectly submitted his/her bid price, or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid and will not pay any fee in connection, organization, bid depository, or to any member or persons as have a partnership or other financial interest with said bidder in his/her general business.

Signed: \_\_\_\_\_

Title: \_\_\_\_\_

**BID PROPOSAL SHEET  
BOB HOPE DRIVE AND FRANK SINATRA DRIVE  
INTERSECTION IMPROVEMENT PROJECT - CP 12-270-1**

	<u>DESCRIPTION</u>	<u>QTY.</u>	<u>UNIT</u>	<u>UNIT PRICE</u>	<u>TOTAL AMOUNT</u>
1.	Mobilization, Bonds and Insurance (Limited to 10% of Items 2-38)	1	LS	\$ _____	\$ _____
2.	Traffic Control	1	LS	\$ _____	\$ _____
3.	City Encroachment Permit	1	LS	\$ <u>38,000</u>	\$ <u>38,000</u>
<b>DEMOLITION</b>					
4.	Clear and Grub	1	LS	\$ _____	\$ _____
5.	Remove and Dispose of Existing A.C. Pavement and Aggregate Base	38,400	SF	\$ _____	\$ _____
6.	Remove and Dispose of Existing Curb and Gutter	5,740	LF	\$ _____	\$ _____
7.	Remove and Dispose of Existing Access Ramp	3	EA	\$ _____	\$ _____
8.	Remove and Dispose of Existing Catch Basin	5	EA	\$ _____	\$ _____
9.	Remove and Dispose of Existing Trees	18	EA	\$ _____	\$ _____
10.	Remove and Dispose of Existing Block Wall	442	LF	\$ _____	\$ _____
11.	Remove and Dispose of Existing Sidewalk	1,435	SF	\$ _____	\$ _____
12.	Sawcut Existing Asphalt	7,128	LF	\$ _____	\$ _____
13.	Remove and Dispose of Existing Median Stamp Concrete	5,965	SF	\$ _____	\$ _____
14.	Remove and Dispose of Existing Storm Drain Pipe	54	LF	\$ _____	\$ _____
15.	Remove Existing Sod/Landscaping	1	LS	\$ _____	\$ _____
16.	Grind and Dispose of Existing A.C. Pavement (1 – ½” min. depth)	166,560	SF	\$ _____	\$ _____
<b>STREET IMPROVEMENTS</b>					
17.	Construct 2-1/2” Thick Hot Mix Asphalt (based on 67,878 SF and 147 lbs per cubic foot of HMA)	1,040	TONS	\$ _____	\$ _____
18.	Construct 1-1/2” Tire Rubber Modified Paving Asphalt (based on 174,272 SF and 147 lbs per cubic foot of TRMAC)	1,600	TONS	\$ _____	\$ _____
19.	Construct 10” Class II Aggregate Base (based on 67,878 SF and 144 lbs per cubic foot for Class II A.B.)	4,075	TONS	\$ _____	\$ _____
20.	Construct 6” Type “A” Curb and Gutter per CRM Standard Detail 200, Joint per CRM Standard Detail 206	2,785	LF	\$ _____	\$ _____
21.	Construct 8” Type “D” Curb per CRM Standard Detail 203, Joint per Detail 206	1,810	LF	\$ _____	\$ _____
22.	Construct Access Ramp, Grooved Border and Truncated Domes per CRM Standard Detail No. 502	3	EA	\$ _____	\$ _____

**BID PROPOSAL SHEET  
BOB HOPE DRIVE AND FRANK SINATRA DRIVE  
INTERSECTION IMPROVEMENT PROJECT - CP 12-270-1**

	<u>DESCRIPTION</u>	<u>QTY.</u>	<u>UNIT</u>	<u>UNIT PRICE</u>	<u>TOTAL AMOUNT</u>
23.	Construct 3' Grate Inlet Catch Basin & Gutter Depression per CRM Standard Detail 301 and 304	1	EA	\$ _____	\$ _____
24.	Construct 14' Catch Basin & Gutter Depression (modified per plan) per CRM Standard Detail 300 and 303	2	EA	\$ _____	\$ _____
25.	Construct 21' Catch Basin & Gutter Depression (modified per plan) per CRM Standard Detail 300 and 303	2	EA	\$ _____	\$ _____
26.	Construct Median nose per CRM Standard Detail 213, Median Island Flare per CRM Standard Detail 406	128	SF	\$ _____	\$ _____
27.	Retro-fit Existing Access Ramp With Truncated Domes per CRM Standard Detail 502	1	EA	\$ _____	\$ _____
28.	Install Storm Drain Collar per Standard Plans for Public Works Construction Standard Plan 380-4	4	EA	\$ _____	\$ _____
29.	Construct 6' Min. High Block Wall with 8"x8"x16" Blocks, Orco Precision "Single Score" V/S 2S or Equivalent, paint to match, See CRM Building & Safety Wall Details on Sheet 10 (Footing Option "A").	419	LF	\$ _____	\$ _____
30.	Construct Retaining Wall with 8"x16" (8"x8" Pattern) x8", Orco Precision "Single Score" Blocks or Equivalent, 8"x8"x16" V/S 2S or 12"x8"x16" V/S 2S, Painted to Match Existing Block Wall, See CRM Building & Safety Wall Details on Plan Sheet 11 (Type 2:6" Heel), 6' High Max. for Construction Reference. Omit Head Joints in First Course.	581	LF	\$ _____	\$ _____
31.	Construct 6" Type "D" Curb per CRM Standard Detail 203, Joints per Detail 206	1,348	LF	\$ _____	\$ _____
32.	Construct 6' Meandering Sidewalk per CRM Standard Detail 500	1,313	SF	\$ _____	\$ _____
33.	Construct 5" Type "D" Curb per CRM Standard Detail 203 (Modified to 5"), Joints per CRM Detail 206	482	LF	\$ _____	\$ _____
34.	Install 24" RCP Storm Drain Pipe (CLASS IV)	77	LF	\$ _____	\$ _____
35.	Install 36" RCP Storm Drain Pipe (D-1250)	48	LF	\$ _____	\$ _____
36.	Install 42" RCP Storm Drain Pipe (D-1400)	22	LF	\$ _____	\$ _____
	<b>RELOCATION AND ADJUSTMENT</b>				
37.	Adjust Gas Valve Can To Grade	1	EA	\$ _____	\$ _____

**BID PROPOSAL SHEET  
BOB HOPE DRIVE AND FRANK SINATRA DRIVE  
INTERSECTION IMPROVEMENT PROJECT - CP 12-270-1**

	<u>DESCRIPTION</u>	<u>QTY.</u>	<u>UNIT</u>	<u>UNIT PRICE</u>	<u>TOTAL AMOUNT</u>
38.	Adjust Existing Water Valve to Grade per CVWD Requirements	15	EA	\$ _____	\$ _____
<b>TRAFFIC SIGNAL AND SIGNING &amp; STRIPING</b>					
39.	Traffic Signal Modification per Plan Complete in Place	1	LS	\$ _____	\$ _____
40.	Traffic Striping, Marking & Signs per Plans Complete in Place	1	LS	\$ _____	\$ _____
<b>LANDSCAPE AND IRRIGATION IMPROVEMENTS</b>					
41.	Landscape and Irrigation per Plan Complete in Place	1	LS	\$ _____	\$ _____
42.	90-Day Landscape Maintenance period	1	LS	\$ _____	\$ _____

**TOTAL BID AMOUNT (Items 1- 42) \$ \_\_\_\_\_**

**TOTAL BID AMOUNT IN WORDS \_\_\_\_\_**

*(In Words)*

*Note 1: The estimated quantities listed in the Proposal Bid Sheet(s) are supplied to give an indication of the general scope of work. The accuracy of the figures is not guaranteed and the bidder shall make their own estimates from the drawings. In the case of a variation between the unit price and the totals shown by the bidder, the unit price shall be considered to be the bid to determine the final pay amount.*

*By signing below the bidder acknowledges their understanding of the scope of work and that bidder has read, understands, and agrees to the terms and conditions of the project documents and all of the attachments and addenda.*

**AUTHORIZED SIGNATURE:** \_\_\_\_\_

**PRINT SIGNER'S NAME AND TITLE:** \_\_\_\_\_

**DATE SIGNED:** \_\_\_\_\_

**COMPANY NAME, ADDRESS, TELEPHONE:** \_\_\_\_\_

**STANDARD AGREEMENT FOR PUBLIC WORKS CONSTRUCTION**

The CITY OF RANCHO MIRAGE ("CITY") and \_\_\_\_\_ ("CONTRACTOR"), through this agreement ("Agreement"), agree as follows:

A. CONTRACTOR shall construct the following public improvements ("work") identified as:

Furnishing all materials, equipment, tools, labor, and incidentals as required by the Plans, Specifications and Contract Documents for the project. The general items of work to be done consist of removal of existing improvements including curb and gutter, asphalt, aggregate base, and landscaping, and then construction of curb and gutter, aggregate base, placement of asphalt pavement, catch basin, curb inlet and depression, access ramps, storm drain modification, removal and reconstruction of block wall, construction of retaining wall, sidewalk, traffic signal modification, and traffic striping, markers and markings, irrigation, landscaping, as well as all other appurtenant related work.

B. CITY-approved plans and specifications for the construction of the work, which are incorporated herein by reference and prepared by:

Albert A. Webb Associates

are identified as:

**Frank Sinatra and Bob Hope Drive Street Improvements (CP 12-270-1) - Sheets 1-11**  
**Frank Sinatra Drive and Bob Hope Drive Traffic Signal and Signing & Striping (CP 12-270-1) - Sheets 1-4**

**Frank Sinatra and Bob Hope Drive Landscape Improvements (CP 12-270-1) - Sheets L01-15**

**Sunnylands Parkway Landscape Amendment (L0.00 – L1-4.01) – 15 Sheets**

C. The following are attached hereto and made a part hereof and/or are incorporated by reference: Schedule A, Notice Inviting Sealed Bids, Instructions to Bidders, Proposal Documents, Contract Documents, General Provisions, Special Provisions, and all referenced specifications, details, standard drawings and appendices, together with this Agreement and all required bonds, insurance certificates, permits, notices and affidavits; and also including any and all addenda or supplemental agreements clarifying, amending or extending the work contemplated as may be required to ensure its completion in an acceptable manner.

1. **COMPENSATION:** For and in consideration of the payments to be made by CITY, CONTRACTOR agrees to furnish all materials and perform all work required for the project, and to fulfill all other obligations as set forth herein.

CONTRACTOR agrees to receive and accept the prices set forth in the Proposal as full compensation for furnishing all materials, performing all work, and fulfilling all obligations hereunder. Said compensation shall cover all expenses, losses, damage and consequences arising out of the nature of work during its progress or prior to its acceptance, including those for well and faithfully completing the work and the whole thereof in the manner and time specified herein; and also including those arising from actions of the elements, unforeseen difficulties or obstructions encountered in the prosecution of the work, suspension or discontinuance of the work and all other unknowns or risks of any description connected with the work.

Monthly progress payments shall be made by the CITY based upon the City Engineer's estimate of the percentage of work completed. The CITY will retain five (5) percent of each progress payment as security for completion of the balance of the work, in accordance with Section 9203 of the Public Contract Code. The retention shall be released in accordance with applicable law.

2. **IMPROVEMENTS:** For valuable consideration, CONTRACTOR agrees to do, or cause to be done, all of the work described herein by the date specified in Schedule A. CONTRACTOR warrants that all of the materials supplied and work to be done will be of good quality and workmanship. Said work shall be in strict conformity with the plans and specifications of the work, the standard specifications and drawings for public improvements adopted by CITY and this Agreement. CONTRACTOR shall furnish all transportation, equipment, labor, services, permits, utilities and all other items necessary to complete the work. CONTRACTOR shall pay all claims, demands and liability arising out of, or resulting from or in connection with, the performance of the work. CONTRACTOR shall furnish accurate "as constructed" plans. CONTRACTOR'S obligations herein are not limited by any cost estimates nor will any estimate be a measure of damages.
  
3. **TIME FOR COMPLETION:** The work shall be commenced on a date to be specified in a written Notice to Proceed from the CITY and shall be completed within one hundred twenty (120) calendar days from and after said date. It is expressly agreed that except for extensions of time duly granted in the manner and for the reasons specified in the General Provisions, time shall be of the essence.
  
4. **INSURANCE:** CONTRACTOR shall not commence or continue to perform any work unless CONTRACTOR has in full force and effect all insurance required hereunder with companies satisfactory to CITY. To be acceptable, insurers must be authorized to do business, and have an agent for service of process, in California, and have an "A" policyholder's rating and a financial rating of at least Class V, in accordance with the current Best's Ratings. All insurance policies shall be maintained until the work is accepted by CITY and provide for coverage of all causes of action or disputes arising out of acts in performance of the construction of the work herein, whether said causes or disputes are filed or brought to the attention of CITY before or after the termination of this Agreement.

Concurrent with execution of this Agreement, CONTRACTOR shall provide certificate(s) of insurance and endorsements, satisfactory to CITY, or otherwise provide proof of insurance as approved by the City Attorney, certifying that CONTRACTOR has and will maintain for the Agreement period, full worker's compensation insurance coverage as required by State laws, for all persons who are or may be employed in carrying out the work.

Concurrent with execution of this Agreement, CONTRACTOR shall provide to CITY certificate(s) of insurance and endorsements, satisfactory to CITY, or otherwise provide proof of insurance as approved by the City Attorney, certifying that CONTRACTOR has general liability and commercial vehicle liability insurance coverage naming CITY, City Council members, CITY'S engineer, and their consultants, officials, directors, officers, agents and employees, as additional insureds for both bodily injury and property damage of not less than that specified in Schedule A.

General liability and commercial vehicle liability insurance coverage shall include each of the following types of insurance as required by CITY to carry out this Agreement:

:

- |   |  |
|---|--|
| <p>A. General Liability</p> <ol style="list-style-type: none"> <li>1. Comprehensive Form</li> <li>2. Premises-Operations</li> <li>3. Explosion and Collapse Hazard</li> <li>4. Underground Hazard</li> <li>5. Products/Completed Operations Hazard</li> <li>6. Contractual Insurance</li> <li>7. Broad Form Property Damage including Completed Operations</li> <li>8. Independent Contractors</li> <li>9. Personal Injury</li> </ol> | <p>B. Vehicle Liability</p> <ol style="list-style-type: none"> <li>1. Comprehensive Form, Including Loading and Unloading</li> <li>2. Owned</li> <li>3. Hired</li> <li>4. Non-owned</li> </ol> |
|---|--|

Concurrent with execution of any agreements between CONTRACTOR and any subcontractors retained by CONTRACTOR to perform any work required of CONTRACTOR hereunder, and in any event prior to CONTRACTOR authorizing any subcontractors to perform any such work or to even conduct any preliminary activities in preparation for or in anticipation of such work, CONTRACTOR shall collect certificates of insurance from all such subcontractors evidencing proof that all subcontractors have procured and will maintain all the insurance coverages required of CONTRACTOR under this Agreement.

In addition to naming the CITY, City Council members, CITY'S engineer, and their consultants, officials, directors, officers, agents and employees, as additional insureds, as set forth above, the certificates of insurance, including those provided by any subcontractor, provided either on forms required by the CITY or as otherwise approved by the City Attorney, shall bear the following endorsements: (1) each policy required herein must be endorsed to provide that the policy shall not be cancelled or non-renewed by or reduced in coverage or limits (except by paid claims) unless the insurer has provided the CITY with thirty (30) days prior written notice of cancellation; (2) the carriers of all required insurance policies must waive all rights of subrogation against the CITY and its officers, employees, servants, volunteers, agents and independent contractors; and (3) except for worker's compensation insurance, all insurance policies required to be provided by CONTRACTOR must be endorsed to provide that the policies shall apply on a primary and noncontributing basis in relation to any insurance or self-insurance, primary or excess, maintained or available to the CITY, and its officers, employees, servants, volunteers, agents and independent contractors.

Nothing contained in these insurance requirements shall limit the liability of CONTRACTOR or CONTRACTOR's sureties. Review and acceptance of insurance certificates shall not constitute any representation by CITY or its representatives that any required insurance has been issued.

5. **CONTRACTOR'S LIABILITY:** CONTRACTOR shall, at CONTRACTOR'S sole cost and expense, be solely and completely responsible for all matters effecting the design, prosecution, progress and completion of the work (both on and off the job site). CONTRACTOR shall be responsible for observing all laws. CONTRACTOR shall provide for public convenience and safety and safety of workers, including CONTRACTOR'S workers and those of CONTRACTOR'S subcontractors, suppliers and others contributing to the work. CONTRACTOR shall protect CITY property and property rights of others, including the location, maintenance and replacement of utilities, whether shown on the plans or not. CONTRACTOR shall give prior notification to utility owners. CONTRACTOR shall notify Underground Service Alert at 1-800-422-4133 at least 48 hours prior to start of construction. CONTRACTOR shall protect against, and prevent drainage from, storm runoff. CONTRACTOR shall not interfere with easements, rights-of-way and encroachment permits. Nothing in this Agreement, the specifications, or other contract documents, or CITY'S approval of the plans and specifications or inspection of the work is intended to include CITY'S review, inspection, acknowledgment of or responsibility for any such matters. CITY, CITY COUNCIL members, ENGINEER, and their consultants and each of their officials, directors, officers, employees and agents shall have no responsibility or liability for the above.

- 6. CONTRACTOR'S INDEMNIFICATION:** CONTRACTOR shall indemnify and hold harmless CITY, CITY COUNCIL members, ENGINEER, and their consultants and each of their officials, directors, officers, agents and employees from and against all liability, claims, damages, losses, expenses and other costs, including costs of defense and attorneys' fees arising out of or resulting from or in connection with all matters affecting the design or construction of the work, both on and off the job site, and during and after completion. This, provided any of the above is: (1) attributable to bodily injury, sickness, disease or death, or to injury to or destruction of property (other than the work itself) including the loss of use resulting therefrom, and (2) caused in whole or in part by any act or omission of CONTRACTOR, CONTRACTOR'S engineer, any subcontractor, any supplier, anyone directly or indirectly employed by any of them or anyone for whose acts or omissions any of them may be liable. All of this regardless of whether or not it is caused in part by any act or omission (active, passive or comparative negligence included) of a party indemnified hereunder. Said indemnification and agreement to hold harmless shall extend to injuries to persons and damages to or taking of property resulting from all matters affecting the design or construction of said improvements or the diversion of waters or from all matters affecting the design or construction or maintenance of drainage systems, streets and other improvements. Acceptance of these improvements by CITY shall not constitute an assumption by CITY of any responsibility for such damage or taking. As to any and all claims against the indemnified parties by any employee of CONTRACTOR, any contractor, any subcontractor, any supplier, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, the indemnity obligations hereunder shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for the CONTRACTOR, subcontractor, supplier or other person under workers' compensation acts, disability benefit acts or other employee acts.

CONTRACTOR shall also indemnify and hold harmless CITY, CITY COUNCIL members, ENGINEER, and their consultants, and each of their officials, directors, officers, employees and agents from and against all losses, expenses, damages (including damages to the work itself), attorneys' fees and other costs, including costs of defense, which any of them may incur both during and after completion with respect to any latent deficiency in all matters affecting the design, specifications, surveying, planning, supervision, observation or construction of the improvements referred to herein or any injury to a person or property, real or personal, as a result of any such latent portions of the work which CITY reasonably suspects may also be defective by reason of known defects in the work or other work performed by CONTRACTOR or CONTRACTOR'S subcontractors, or suppliers or designed by their representatives. Provisions of this paragraph shall remain in effect ten (10) years following acceptance of improvements by the City. Nothing contained herein shall limit CITY'S remedies pursuant to Code of Civil Procedure, Section 337.15.

- 7. SECURITY:** With the execution of this Agreement, unless otherwise indicated on Schedule A, CONTRACTOR shall furnish and deliver to CITY, at no expense to CITY, a payment bond and a performance bond. Each shall be in the amount of CITY-approved estimate specified on Schedule A. Bonds shall be furnished by surety companies satisfactory to CITY on the forms provided by CITY. No alterations or substitution of said forms shall be allowed. To be acceptable, surety companies must be authorized to do business and have an agent for service of process in California, be on the accredited list of the United States Treasury Department, and have an "A" policyholder's rating and a financial rating of Class V, or better, in accordance with the current Best's Rating. The bonds shall be limited to amounts acceptable to the Treasury Department.

None of the following shall in any way affect the obligations of any surety. Each surety waives notice thereof: (a) any change, extension of time, alteration or additions to the terms of the Agreement, or the work to be performed, or the plans and specifications therefor; (b) any matters unknown to surety which might affect surety's risk, except that CITY shall advise surety upon request of the following: (1) any written claims it receives from unpaid subcontractors or suppliers, (2) any written orders received from other public authorities charging violations of laws, ordinances or regulations, and (3) failure of CONTRACTOR to comply with any written notice to correct defective work. The obligations of CONTRACTOR shall not be limited by the amount of such bonds.

8. **TYPES/AMOUNT OF SECURITY:** If specified in Schedule A, in lieu of payment and performance bonds, CONTRACTOR may furnish CITY either cash, a Letter of Credit, or an Agreement of Deposit as security for performance. Said security shall be in an amount not less than 100% of the cost estimate and, in addition, for payment of those furnishing materials, labor or equipment in an amount not less than 100% of the cost estimate. Said security agreements shall be on forms furnished by CITY. No alterations or substitution of said forms shall be allowed. The obligations of CONTRACTOR shall not be limited by the amount of the security required. No interest shall be paid CONTRACTOR on any cash deposit made pursuant to this paragraph.

9. **SUBSTITUTION OF SECURITIES:** In conformance with the State of California Public Contract Code, Part 5, Section 22300, CONTRACTOR may substitute securities for any monies withheld by the CITY to ensure performance under this Agreement.

At the request and expense of CONTRACTOR, CONTRACTOR has the option of establishing an escrow account with a state or federally chartered bank which shall serve as an escrow agent, for CONTRACTOR'S direct deposit of securities as a substitute for retention earnings required to be withheld by the CITY. Upon CONTRACTOR'S completion of its obligations hereunder, as evidenced by the CITY'S acceptance of the work pursuant to Section 11 hereof, the escrow agent shall return the securities to CONTRACTOR. The escrow agent shall notify the CITY within ten (10) days after deposit of the securities. The market value of the securities at the time of the substitution shall be at least equal to the cash amount then required to be withheld as retention. Securities shall be held in the name of the CITY and shall designate CONTRACTOR as the beneficial owner. Alternatively, on written request of CONTRACTOR, the CITY shall make payments of the retention earnings directly to the escrow account.

10. **PARTIAL UTILIZATION:** Until all work has been completed and accepted by CITY and all other public authorities having jurisdiction, CONTRACTOR shall be responsible for the care and maintenance of, or any damage to, the work.

When the work or any portion of it is sufficiently complete to be utilized or placed into service, CITY shall have the right, upon written notification to CONTRACTOR, to utilize such portions of the work and to place the operable portions into service. With this notice and commencement of utilization or operation by CITY, CONTRACTOR shall be relieved of the duty of maintaining the portions so utilized or placed into operation. However, such use and operation shall not relieve CONTRACTOR of the full responsibility for completing the work in its entirety, for making good any defective work or materials, for protecting the work from damage, and for being responsible for damage and for the work as set forth herein. Nor shall such action by CITY be deemed completion and acceptance. Further, such action shall not relieve CONTRACTOR or CONTRACTOR'S sureties and insurers of the provisions hereof relating to indemnity and guarantees.

11. **ACCEPTANCE OF PROJECT - WARRANTY:** Acceptance of the work shall only be by action of the CITY COUNCIL. Neither the acceptance nor any prior inspections or failure to inspect shall constitute a waiver by CITY of any defects in the work. From and after acceptance, the work shall be owned and operated by CITY. As a condition to acceptance, CONTRACTOR shall certify to CITY in writing that all of the work has been performed in strict conformity with the Agreement and that all costs have been paid or supplied to CITY security, satisfactory to CITY, guaranteeing such performance. In addition to CONTRACTOR'S other obligations under the Agreement CONTRACTOR warrants all work and materials to be good quality and fit for the purpose and intended use. CONTRACTOR shall also repair, replace and restore any other work which is displaced in correcting defective work as well as other portions of the work which CITY by reason of such defects reasonably suspects may also be defective.

In the event of a failure to commence with the compliance of above-mentioned conditions within seven (7) calendar days after being notified in writing or failure to diligently pursue such compliance to completion, CITY is hereby authorized to proceed to have the defects repaired and made good at the expense of CONTRACTOR who hereby agrees to pay the cost and charges therefor immediately on demand.

If, in the opinion of CITY, nonconforming work creates a dangerous condition or requires immediate correction or repair to prevent further loss to CITY or to prevent interruption of operations, CITY shall attempt to give the CONTRACTOR notice. If CONTRACTOR cannot be contacted or does not comply with CITY'S request for correction within a reasonable time as determined by CITY, CITY may proceed to make such correction or provide such repair. The costs of such correction or repair shall be charged against CONTRACTOR, who agrees to make payment for said costs upon demand.

Corrective action by CITY will not relieve CONTRACTOR or CONTRACTOR'S sureties or insurers of the guarantees and indemnities of this Agreement.

This paragraph does not in any way limit CITY'S remedies pursuant to Code of Civil Procedure, Section 337 and 337.15, or the guarantee on any items for which a longer guarantee is specified or on any items for which a manufacturer or supplier gives a longer guarantee period. CONTRACTOR agrees to act as a co-guarantor with such manufacturer or supplier and shall furnish CITY all appropriate guarantees or warranty certificates upon completion of the project. No manufacturer's guarantee period shall in any way limit the liability of CONTRACTOR or CONTRACTOR'S sureties and insurers under the indemnity or insurance provisions of this Agreement.

12. **CONTRACTORS AND AGENTS:** CONTRACTOR shall be as fully responsible to CITY for the acts and omissions of CONTRACTOR'S subcontractor and of the persons directly or indirectly employed by CONTRACTOR'S subcontractor as CONTRACTOR is for the acts and omissions of persons directly or indirectly employed by CONTRACTOR. Nothing contained in the Agreement shall create any contractual relationship between any subcontractor or others and CITY. CONTRACTOR shall bind every contractor to be bound by the terms of this Agreement.
13. **DEFAULT BY CONTRACTOR:** CONTRACTOR shall be in default of this Agreement if: CONTRACTOR refuses or fails to prosecute the work or any separable part thereof with such diligence as will ensure its completion within the time specified herein, or any written extension thereof, or fails to complete such work within such time, or if CONTRACTOR should be adjudged a bankrupt, make a general assignment for the benefit of creditors, or if a receiver should be appointed on account of CONTRACTOR'S insolvency, or if CONTRACTOR or any of their subcontractors violate any of the provisions of this Agreement, or if CONTRACTOR fails to make prompt payment for materials or labor, or if CONTRACTOR disregards laws, ordinances, or instructions of CITY. CITY may thereafter serve written notice upon the CONTRACTOR and CONTRACTOR'S surety of its intention to declare this Agreement in default. Said notice shall contain the reasons for such intention to declare a default. Unless, within ten (10) days after the service of such notice, such violations shall cease and satisfactory arrangements for the corrections thereof be made, this Agreement shall upon the expiration of said time be in default.

Upon such default, CITY shall serve written notice thereof upon the surety and CONTRACTOR, and the surety shall have the right to take over and perform this Agreement. If the surety does not, within fifteen (15) days after the serving upon it of a notice of a default, give CITY written notice of its intention to take over and perform this Agreement or does not commence performance thereof within thirty (30) days from the date of CITY'S notice, CITY may take over the work and prosecute the same to the extent of completion it deems necessary by contract or by any other method it may deem advisable for the account and at the expense of CONTRACTOR, and the surety shall be liable to CITY for any cost or other damage occasioned CITY thereby. In such event CITY may, without liability for so doing, take possession of, and utilize in completing such work, such materials, appliances, plants, and other property belonging to CONTRACTOR that may be on the site of the work and be necessary therefor. Should surety fail to take over and diligently perform the Agreement upon CONTRACTOR'S default, surety agrees to promptly on demand deposit with CITY such amount as CITY may reasonably estimate as the cost of completing all of CONTRACTOR'S obligations. For any such work the CITY elects to complete by furnishing its own employees, materials, tools, and equipment, CITY shall receive reasonable compensation therefor including costs of supervision and overhead.

CITY may, at its option, elect not to complete any or all of the work and may elect not to accept any of the work already completed. If CITY elects not to accept any of the work, then all CITY'S obligations to CONTRACTOR and the lands to be served shall terminate. CITY'S obligations to CONTRACTOR and the lands to be served shall continue to the extent of any acceptance, subject to CITY'S right to offset any sums due the CITY.

The foregoing provisions are in addition to and not in limitation of any other rights or remedies available to CITY.

14. **DELAY BY CONTRACTOR**: If the work is suspended or otherwise not continuously prosecuted for any cause whatsoever, within or without the time for completion, CONTRACTOR shall, at CONTRACTOR'S sole cost and expense, remove and replace all or any portion of the work already completed and inspected which CITY, in its sole discretion, determines is or can be damaged.
15. **ATTORNEYS' FEES AND COSTS**: Should CITY engage an attorney to enforce any provision of this Agreement or to defend any claim brought by anyone arising out of the failure of CONTRACTOR to perform any of CONTRACTOR'S obligations under this Agreement, CONTRACTOR shall pay all of CITY'S attorneys' fees incurred in connection therewith, with or without suit, whether or not said attorney is in the regular employ of the CITY.
16. **PREVAILING WAGES**: All work or services performed within the State of California pursuant to this Agreement by CONTRACTOR, CONTRACTOR's employees and independent contractors, or CONTRACTOR's subcontractors and its subcontractors' employees and independent contractors shall be performed by individuals lawfully permitted to perform such work or services in the State of California and/or the United States of America pursuant to all applicable State and/or Federal labor laws, rules and regulations including, but not limited to, any State or Federal law, rule or regulation prohibiting the employment of undocumented workers or any other person not lawfully permitted to perform said work or services in the State of California or the United States of America.

CONTRACTOR represents that it is an equal opportunity employer and shall not discriminate against any subcontractor, employee, or applicant ("person") for employment because of race, religious creed, color, national origin, ancestry, physical disability, mental disability, medical condition, marital status, sex, age or sexual orientation. Unless otherwise permitted under the law, CONTRACTOR shall not refuse to hire or employ any such person or refuse to select any such person for a training program leading to employment, or bar or discharge any such person from employment or from a training program leading to employment, or otherwise discriminate against any such person in compensation or in terms, conditions, or privileges of employment.

CONTRACTOR and all of CONTRACTOR's subcontractors, if any, shall pay each employee engaged in all applicable trades or occupation not less than the prevailing hourly wage rate for work of a similar character in the locality in which the public work is performed, and not less than the general prevailing rate of per diem wages for holiday and overtime work. In accordance with the provisions of Section 1770 of the California Labor Code ("Labor Code"), the Director of Department of Industrial Relations of the State of California has determined the general prevailing rates of wages and employer payments for health and welfare, pension, vacation, travel time, and subsistence pay as provided for in Labor Code Section 1773.8, apprenticeship or other training programs authorized by Labor Code Section 3093 and similar purposes applicable to the work to be done. Said wages are available through the California Department of Industrial Relations' Internet website at <http://www.dir.ca.gov/dlsr/PWD/index.htm> and are on file at City Hall, as provided in Section 1773.2 of the Labor Code. Said rates shall be posted at the project site where work is to be performed, in accordance with Labor Code Section 1773.2. CONTRACTOR shall access a copy of the wage rate determination and shall make all subcontractors, if any, aware of the determination. As the wage determination for each craft reflects an expiration date, it shall be the CONTRACTOR's responsibility to ensure that the prevailing wage rates of concern are current and paid. Subject to the safe harbor provisions of Labor Code Section 1775, CONTRACTOR shall forfeit to the CITY an amount not to exceed two hundred dollars (\$200) for each calendar day or portion thereof, as set by the Labor Commissioner in accordance with the terms of Labor Code section 1775, for each laborer, workmen or mechanics employed that is paid less than the general prevailing rate of wages herein referred to and stipulated for any work done under the proposed contract, by him, or by any subcontractor under him, in violation of the provisions of the Labor Code, and in particular, Sections 1770 to 1781 inclusive. CONTRACTOR and any and all or its subcontractors shall forfeit to the CITY twenty-five dollars (\$25) for each worker employed in the performance of this Agreement for each calendar day during which the worker is required or permitted to work more than eight (8) hours in any one calendar day and forty (40) hours in any one calendar week in violation of the provisions of Section 1813 of the Labor Code.

CONTRACTOR and all subcontractors hired to perform any work for the subject project shall keep accurate payroll records, including the name, address, social security number, work classification, straight time and overtime hours worked each day and week, and the actual per diem wages paid to each worker, in accordance with Section 1776 of the Labor Code. Payroll records shall be on forms provided by the Division of Labor Standards Enforcement ("DLSE") or in a manner containing the same information as the forms provided by the DLSE. Failure to comply with the above may result in monetary penalties to the CONTRACTOR or affected subcontractor. Payroll records shall be verified by written declaration made under penalty of perjury, that the information contained in the records is true and correct. CONTRACTOR and any and all subcontractors shall make a certified copy of all payroll records available for inspection by DLSE, the CITY or any member of the public and otherwise provide certified copies of such records to any of the foregoing within ten (10) days of CONTRACTOR's and subcontractor's receipt of written request therefor. Failure to comply with the above may result in monetary penalties, in accordance with Labor Code Section 1776(d) and (h).

Notwithstanding anything else to the contrary, CONTRACTOR hereby acknowledges that all contractors must be registered with the Department of Industrial Relations ("Department") pursuant to Labor Code Section 1725.5 in order to 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 public work contract, including this Agreement, that is subject to the payment of prevailing wages. CONTRACTOR represents and warrants that CONTRACTOR is registered with the Department in the manner prescribed by the Department and has paid the requisite application fee, as required by Labor Code Section 1725.5. Moreover, prior to CONTRACTOR entering into any contracts with any subcontractor, CONTRACTOR shall obtain proof that all such subcontractors have also registered with the Department in accordance with Section 1725.5.

17. **ASSIGNMENT**: The performance of the Agreement may not be assigned except upon the written consent of CITY. Consent will not be given to any proposed assignment which would relieve CONTRACTOR or CONTRACTOR'S sureties of their responsibilities under the Agreement unless CITY finds that assignee can perform this Agreement and provide security comparable to that provided by CONTRACTOR.
18. **NOTICE**: All notices required hereunder shall be deemed served or given upon the earlier of actual receipt or deposit in the U.S. Postal Service, first class postage prepaid, addressed to CONTRACTOR at the address set forth below, to the surety at the address in the security instrument, and to CITY at 69-825 Highway 111, Rancho Mirage, California 92270.

**CITY OF RANCHO MIRAGE  
STANDARD AGREEMENT FOR PUBLIC WORKS CONSTRUCTION  
SIGNATURE REQUIREMENTS**

(Limited Partnership/General Partnership/Corporation)

**1 WHERE PRINCIPAL IS A LIMITED PARTNERSHIP**

- A. General Partner shall execute on behalf of the limited partnership.
- B. General Partner shall furnish City of Rancho Mirage a copy of the recorded Certificate of Limited Partnership to authenticate the authority of the General Partner to sign on behalf of the limited partnership.

**2 WHERE PRINCIPAL IS A GENERAL PARTNERSHIP**

- A. General Partner shall execute on behalf of general partnership.
- B. General Partner shall furnish City of Rancho Mirage a copy of the General Partnership Agreement authenticating that the General Partner who signs the document has authority to do so.

**3 WHERE PRINCIPAL IS A CORPORATION**

- A. Officers shall execute on behalf of corporation.
- B. Officers shall furnish City of Rancho Mirage a copy of a corporate resolution indicating that the officers who sign the document are the officers of the corporation and authorized to bind the corporation to contract. Corporation requires two signatures.

In each of the foregoing situations (a limited partnership, a general partnership or a corporation) the CITY requires an individual obligor in addition to the partnership or corporate entity.

For example, John Doe may sign on behalf of either partnership or the corporation as the General Partner and/or president thereof, but then, in addition, John Doe is required to sign the document individually as an individual obligor.

By \_\_\_\_\_  
G. Dana Hobart Date

By \_\_\_\_\_  
(Authorized Representative of Corporation) Date

Title: Mayor

Title \_\_\_\_\_

APPROVED AS TO FORM:

Address: \_\_\_\_\_

By: \_\_\_\_\_  
City Attorney

Telephone: \_\_\_\_\_

ATTEST:

By: \_\_\_\_\_  
City Clerk

(SEAL IF CORPORATION)

By \_\_\_\_\_  
Individual Guarantor

Address \_\_\_\_\_

Telephone No. \_\_\_\_\_

By \_\_\_\_\_  
Individual Guarantor

Address \_\_\_\_\_

Telephone No. \_\_\_\_\_

**(SIGNATURES MUST BE NOTARIZED)**

(Seal: Partnership/Corporation)

SCHEDULE A

STANDARD AGREEMENT FOR PUBLIC WORKS CONSTRUCTION

This schedule is attached to and made a part of the Standard Agreement for Construction of Public Improvements between CITY and CONTRACTOR for the above-referenced property.

- 1. Compensation: \$
2. Completion Date (120 calendar days): To be determined by Notice to Proceed
3. Liability Insurance Limits:

General Liability

Table with 2 columns: Amount and Description. Rows include: \$2,000,000 Each Occurrence (Includes Bodily Injury and Property Damage), \$1,000 Medical Expense, \$1,000,000 Personal & Advertising Injury, \$2,000,000 General Aggregate, \$2,000,000 Products-Completed/Operations Aggregate.

Vehicle Liability

Combined Single Limit \$1,000,000 each accident, and \$2,000,000 in the aggregate

Workers Compensation Statutory

- 4. Approved Security Amounts:
a. Performance \$
b. Payment \$

5. Bond Substitute Acceptable: Yes No (Cross out one)

6. Contractor(s):

Table with 3 columns: Name and Address, License No., Phase of Work. Multiple rows for contractor information.

( ) Initial of CITY REPRESENTATIVE ( ) Initials of CONTRACTOR REPRESENTATIVE

# LETTER OF CREDIT

CITY OF RANCHO MIRAGE  
69-825 Highway 111  
Rancho Mirage, CA 92270

Attention: Randal K. Bynder, City Manager

Reference: Irrevocable Letter of Credit No. \_\_\_\_\_

Gentlemen:

This Letter of Credit is given to fulfill the requirements of that certain agreement entered into between the City of Rancho Mirage, a political subdivision of the State of California, hereinafter referred to as "CITY," and

\_\_\_\_\_ hereinafter referred to as "Principal," covering certain improvements to be installed in that certain project known and designated as:

As required by said agreement, and for that purpose only, we hereby establish in favor of CITY our Irrevocable Letter of Credit No. \_\_\_\_\_ in the amount of \_\_\_\_\_ U.S. dollars (\$ \_\_\_\_\_), to be paid by drafts at sight on us if accompanied by the following documents:

CITY'S written statement (signed by the City Manager or City Attorney) certifying that there has been failure of the Principal to perform the above agreement. Said statement shall declare the amount of the sight draft on us and that the amount of this draft is, therefore, now due and payable.

IT IS AGREED that the above funds are on deposit and guaranteed for payment and said funds shall become trust funds for the purposes set forth herein as required by Section 66499.6 of the Government Code of the State of California.

Upon our receipt, from time to time, of a signed and dated certificate, in the form below, from the City of Rancho Mirage, the amount of this Letter of Credit will be reduced by the amount stated in such certificate. Said certificate must read as follows:

Required improvement(s) has been performed in that certain project known and designated as \_\_\_\_\_. The amount and liability under Letter of Credit No. \_\_\_\_\_ is hereby reduced to \$\_\_\_\_\_

All drafts under this Letter of Credit shall be marked:

Name of Bank \_\_\_\_\_

Address \_\_\_\_\_

\_\_\_\_\_

IRREVOCABLE LETTER OF CREDIT NO. \_\_\_\_\_

We expressly agree with you that all drafts drawn under and in compliance with the terms of this Letter of Credit shall meet with due honor upon representation. "Due honor" requires payment to CITY within three (3) banking days after presentation of demand.

This Letter of Credit shall be deemed automatically extended without amendment one year from the present and annually thereafter unless sixty (60) days prior to any such date bank shall notify City Clerk, by registered letter, that bank elects not to renew for such additional one year. In any event, this guaranteed Letter of Credit shall expire forty-five (45) days after CITY'S approval of the foregoing improvements, the recordation of the Notice of Acceptance and notification thereof to bank.

DATED: \_\_\_\_\_

Name of Bank \_\_\_\_\_

By: Authorizing Agent or Representative \_\_\_\_\_

APPROVED AS TO FORM: \_\_\_\_\_

City Attorney

**Note: Letter must be submitted on bank letterhead with resolution or other documentation identifying signature as bank officer authorized to sign on behalf of bank.**

### PERFORMANCE BOND

We, \_\_\_\_\_, as Principal,  
and \_\_\_\_\_, as Surety,  
jointly and severally, firmly bind ourselves, our heirs, representatives, successors and assigns, as set  
forth herein, to the City of Rancho Mirage ("CITY") for payment of the penal sum of: \_\_\_\_\_

\_\_\_\_\_ U.S. Dollars  
(\$\_\_\_\_\_). CITY and Principal have entered into an agreement, or are  
about to enter into the agreement attached hereto and incorporated by reference, for the construction  
of public improvements for property referenced in said agreement. Surety herein approves of the  
terms and conditions of said agreement and binds itself to faithfully perform the obligations of  
Principal therein if Principal fails to so perform. Surety acknowledges that the agreement herein  
referenced shall be that document as executed by CITY and Principal.

THE CONDITION OF THIS OBLIGATION IS SUCH that if the Principal shall in all things stand to and  
abide by, and well and truly keep and perform all of the covenants, conditions, and provisions in said  
agreement, and any alteration thereof made as therein provided, on Principal's part to be kept and  
performed at the time and in the manner therein specified, and shall indemnify and save harmless the  
CITY, CITY'S engineer, and their consultants, and each of their officials, directors, officers, employees  
and agents, as therein stipulated, then this obligation shall become null and void; otherwise, it shall be  
and remain in full force and effect.

Surety agrees that should it fail to take over and diligently perform the agreement upon Principal's  
default after notice and within the time specified in the agreement, Surety will promptly on demand  
deposit with CITY such amount as CITY may reasonably estimate as the cost of completing all of  
Principal's obligations. Surety's obligation for payment herein shall extend, notwithstanding any  
controversy between Principal and CITY regarding Principal's failure under the agreement should be  
conclusively presumed between the parties herein to relieve, as demanded, Surety's obligations  
herein and shall be deemed proper payment as between Principal and Surety.

Surety agrees that no change, extension of time, alteration, or addition to the terms of the agreement,  
or the work to be performed thereunder or the plans and specifications, or any matters unknown to  
Surety which may affect Surety's risk shall in any wise affect its obligation on this bond, and it does  
thereby waive notice thereof.

Principal and Surety agree that if the CITY is required to engage the services of an attorney in  
connection with the enforcement of this bond, each shall pay CITY'S reasonable attorneys' fees  
incurred, with or without suit, in addition to the above sum.

Executed this \_\_\_ day of \_\_\_\_\_, 20\_\_.

Seal of Corporation

By \_\_\_\_\_  
Authorized Representative of Principal

Title \_\_\_\_\_

By \_\_\_\_\_  
Authorized Representative of Principal

Title \_\_\_\_\_

**(ATTACH ACKNOWLEDGEMENT OF AUTHORIZED REPRESENTATIVES)**

Any claims under this bond may be addressed to: (check one)

Surety's agent for service  
of process in California:

( ) \_\_\_\_\_  
Surety Company

\_\_\_\_\_  
Name

\_\_\_\_\_  
Street Number

\_\_\_\_\_  
Street Number

\_\_\_\_\_  
City and State

\_\_\_\_\_  
City and State

\_\_\_\_\_  
Telephone Number

\_\_\_\_\_  
Telephone Number

By \_\_\_\_\_  
Attorney in Fact or other Representative

**(ATTACH ACKNOWLEDGEMENT OF AUTHORIZED REPRESENTATIVE)**

( ) \_\_\_\_\_  
Company Agent

APPROVED AS TO FORM:

\_\_\_\_\_  
Street Number

\_\_\_\_\_  
City Attorney

\_\_\_\_\_  
City and State

\_\_\_\_\_  
Telephone Number

Furnish the name, address and phone number of the company agent as well as the surety company. Sureties must be authorized to do business in and have an agent for service of process in California and be on the accredited list of the United States Treasury Department (their bonds will be limited to such amounts as would be acceptable to the Treasury Department), and otherwise meet the requirements of section 7 of the agreement.

**(NOTICE: No substitution or revision of this bond form shall be accepted.)**

### PAYMENT BOND

We, \_\_\_\_\_, as Principal,  
 and \_\_\_\_\_, as Surety,  
 jointly and severally, firmly bind ourselves, our heirs, representatives, successors and assigns, as set forth herein, to the CITY OF RANCHO MIRAGE ("CITY") and those for whose benefit this bond insures in the sum of \_\_\_\_\_ U.S. Dollars (\$\_\_\_\_\_). CITY and Principal have entered into an agreement, or are about to enter into the agreement attached hereto and incorporated by reference, for the construction of public improvements for the property referenced in said agreement. Surety herein approves of the terms and conditions of said agreement and binds itself to faithfully perform the obligations of Principal therein if Principal fails to so perform. Surety acknowledges that the agreement herein referenced shall be that document as executed by CITY and Principal. If Principal or any of Principal's contractors or subcontractors, fails to pay any of the persons named in Title 15 of the California Civil Code employed in the performance of the agreement for materials furnished or for labor thereon of any kind, or for amounts due under the Unemployment Insurance Code with respect to such work or labor, then Surety shall pay the same in an amount not exceeding the sum specified above, and also shall pay, in case suit is brought upon this bond, such reasonable attorneys' fees as shall be fixed by the court.

Surety agrees that it shall pay the amounts due the persons above named and diligently perform the agreement upon Principal's default after notice and within the time specified in the agreement. If Surety fails to perform within the times specified in the agreement, Surety shall promptly on demand deposit with CITY such amount as CITY may reasonably estimate as the cost of completing all of Principal's obligations. Surety's obligation for payment herein shall extend, notwithstanding any controversy between Principal and CITY regarding Principal's failure under the agreement. Principal and Surety agree that any payment by Surety pursuant to this paragraph should be conclusively presumed between the parties herein to relieve, as demanded, Surety's obligation herein and shall be deemed proper payment as between Principal and Surety.

This bond shall insure to the benefit of any and all of the persons named in Section 9000 *et seq.* of the California Civil Code so as to give a right of action to them or their assigns in any suit brought upon this bond.

Surety agrees that no change, extension of time, alteration, or addition to the terms of the agreement, or the work to be performed thereunder, or the plans and specifications, or any matters unknown to Surety which might affect Surety's risk, shall in any way affect its obligation on this bond, and it does hereby waive notice thereof.

Principal and Surety agree that should CITY become a party to any action on this bond, that each will also pay CITY'S reasonable attorneys' fees incurred therein in addition to the above sums.

Executed this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_.

Seal of Corporation

By \_\_\_\_\_  
Authorized Representative of Principal  
Title \_\_\_\_\_

**(ATTACH ACKNOWLEDGEMENT)**

By \_\_\_\_\_  
Authorized Representative of Principal  
Title \_\_\_\_\_

Any claims under this bond may be addressed to: (check one)

Surety's agent for service  
of process in California:

( ) \_\_\_\_\_  
Surety Company

\_\_\_\_\_  
Name

\_\_\_\_\_  
Street Number

\_\_\_\_\_  
Street Number

\_\_\_\_\_  
City and State

\_\_\_\_\_  
City and State

\_\_\_\_\_  
Telephone Number

\_\_\_\_\_  
Telephone Number

By \_\_\_\_\_  
Attorney in Fact or other Representative

**(ATTACH ACKNOWLEDGEMENT OF AUTHORIZED REPRESENTATIVE)**

( ) \_\_\_\_\_  
Company Agent

APPROVED AS TO FORM:

\_\_\_\_\_  
Street Number

\_\_\_\_\_  
CITY Attorney

\_\_\_\_\_  
City and State

\_\_\_\_\_  
Telephone Number

Furnish the name, address and phone number of the company agent as well as the surety company.

Sureties must be authorized to do business in and have an agent for service of process in California and be on the accredited list of the United States Treasury Department (their bonds will be limited to such amounts as would be acceptable to the Treasury Department), and otherwise meet the requirements of section 7 of the agreement.

**(NOTICE: No substitution or revision of this bond form shall be accepted.)**

**CERTIFICATE OF COMPLETION OF STANDARD AGREEMENT  
FOR PUBLIC WORKS CONSTRUCTION**

To induce the CITY OF RANCHO MIRAGE ("CITY") to accept all the work under the above dated Standard Agreement for Public Works Construction between CITY and CONTRACTOR, CONTRACTOR represents and certifies to CITY as follows:

- 1 All the work described in said agreement has been fully and completely performed in strict conformity with the agreement; and,
- 2. Except for final payments due CONTRACTOR or subcontractors which are contingent upon CITY'S acceptance, all transportation, equipment, labor, service, permits, utilities, and all other items used in completing the work have been fully paid for.

CONTRACTOR: \_\_\_\_\_ (Name) \_\_\_\_\_ (Phase of Work)  
 \_\_\_\_\_ (Date) \_\_\_\_\_ (Authorized Representative) \_\_\_\_\_ (Title)

CONTRACTOR: \_\_\_\_\_ (Name) \_\_\_\_\_ (Phase of Work)  
 \_\_\_\_\_ (Date) \_\_\_\_\_ (Authorized Representative) \_\_\_\_\_ (Title)

CONTRACTOR: \_\_\_\_\_ (Name) \_\_\_\_\_ (Phase of Work)  
 \_\_\_\_\_ (Date) \_\_\_\_\_ (Authorized Representative) \_\_\_\_\_ (Title)

CONTRACTOR: \_\_\_\_\_ (Name) \_\_\_\_\_ (Phase of Work)  
 \_\_\_\_\_ (Date) \_\_\_\_\_ (Authorized Representative) \_\_\_\_\_ (Title)

CONTRACTOR: \_\_\_\_\_ (Name) \_\_\_\_\_ (Phase of Work)  
 \_\_\_\_\_ (Date) \_\_\_\_\_ (Authorized Representative) \_\_\_\_\_ (Title)

Recording Requested By And  
When Recorded Mail to:

CITY OF RANCHO MIRAGE  
69-825 Highway 111  
Rancho Mirage, CA 92270  
No fee

**NOTICE OF ACCEPTANCE**

Notice is hereby given that the following public improvements have been completed and accepted by the CITY COUNCIL of the City of Rancho Mirage on \_\_\_\_\_, 20\_\_.

\_\_\_\_\_  
(Brief description of improvements)

\_\_\_\_\_  
(General location)

\_\_\_\_\_ Rancho Mirage, California,

\_\_\_\_\_  
(Owner of property)

\_\_\_\_\_  
(Contractor(s))

This Notice of Acceptance is executed under authority of a directive from the City Council of the City of Rancho Mirage.

I, \_\_\_\_\_, declare under the penalty of perjury that I am the \_\_\_\_\_ of the City of Rancho Mirage, that I am familiar with the facts stated in the foregoing Notice of Acceptance executed for and on its behalf, and that I have read the foregoing Notice of Acceptance and know the contents thereof to be true.

DATED: \_\_\_\_\_, 20\_\_.

**(SIGNATURES MUST BE NOTARIZED)**

\_\_\_\_\_  
\_\_\_\_\_  
Title

SECTION 00700-A

INDEX OF GENERAL CONDITIONS

<u>ARTICLE</u> .....	<u>PAGE NO.</u>
1. Scope of Work .....	00700-1
2. Location of Work.....	00700-1
3. Time For Completion .....	00700-1
4. Traffic Requirements .....	00700-1
5. Correlation and Intent of Documents.....	00700-1
6. Detail Drawings and Instructions .....	00700-1
7. No Oral Agreements .....	00700-1
8. Shop Drawings.....	00700-2
9. Drawings and Specifications.....	00700-2
10. Materials, Workmanship .....	00700-2
11. Defective Work and Materials.....	00700-2
12. Substitutions of Materials and Equipment .....	00700-2
13. Contractor's Title To Materials.....	00700-2
14. Licenses, Permits, Laws, and Regulations.....	00700-3
15. Patents, Royalties, and Taxes .....	00700-3
16. Engineering, Survey, and Site Examination .....	00700-3
17. Protection of Work and Property.....	00700-3
18. Accident Prevention .....	00700-3
19. Emergencies .....	00700-3
20. Access To The Work .....	00700-3
21. Inspection of The Work.....	00700-4
22. Inspector .....	00700-4
23. Supervision of Contractor .....	00700-4
24. Changes in The Work .....	00700-4
25. Delays .....	00700-4
26. Time Extensions .....	00700-5
27. Owner's Right To Do Work .....	00700-6
28. Owner's Right To Terminate The Contract.....	00700-6
29. Contractor's Right To Terminate The Contract.....	00700-6
30. Payments Withheld.....	00700-7
31. Liens .....	00700-7
32. Assignments .....	00700-7
33. Mutual Responsibility Of Contractors .....	00700-7
34. Separate Contracts.....	00700-7

35. Subcontracts ..... 00700-7

36. Use of Work Area and Cleaning ..... 00700-8

37. Correction of Work After Final Payment & Guarantee 1 Year ..... 00700-8

38. Occupancy By The Owner ..... 00700-8

39. Damage To Adjacent and Existing Property..... 00700-8

40. Utilities ..... 00700-8

41. Temporary Toilet..... 00700-8

42. Climatic Conditions ..... 00700-8

43. Laws Concerning the Owner A Part Hereof ..... 00700-8

44. Wages & Hours..... 00700-8

45. Brand or Trade Name Substitution or "Equals" ..... 00700-9

46. Notice of Completion ..... 00700-9

47. Equal Opportunity Clause..... 00700-9

48. Progress Schedule ..... 00700-8

49. Pre-construction Conference ..... 00700-9

**SECTION 00700**  
**GENERAL CONDITIONS OF THE CONTRACT**

**1. SCOPE OF WORK**

The work to be done consists of furnishing all materials, equipment, tools labor and incidentals as required by the contract documents to construct the above stated project.

The general items of work to be done hereunder consist of removal of existing improvements including curb and gutter, asphalt, aggregate base, storm drain pipe, block wall, and landscaping, and then construction of curb and gutter, aggregate base, placement of asphalt pavement, catch basin, curb inlet and depression, access ramps, storm drain modification, sidewalk, block wall, retaining wall, waterline, traffic signal modification, and traffic striping, markers and markings, irrigation, landscaping, as well as all other appurtenant related work.

**2. LOCATION OF WORK**

The general location and limits of the work are: Street and traffic signal improvements at the intersection of Bob Hope Drive and Frank Sinatra Drive.

**3. TIME FOR COMPLETION**

Time is of the essence, therefore, the CONTRACTOR shall prioritize and schedule the work to be completed within the time specified in the Notice to Proceed and as set forth in Paragraph C.3 of the Standard Agreement, Section 00312-2, "Time For Completion", and shall be initiated as follows:

All long lead delivery time items shall be ordered immediately upon award of the contract. Vendor delivery date commitments shall be provided to the City of Rancho Mirage.

The Contractor shall determine the exact location of all existing utilities prior to commencing work. In the event the Contractor encounters underground utilities not shown on the plans, he/she shall verify the exact location of the utility and immediately notify the Engineer.

After determination of the exact location of all existing utilities, the Contractor shall place the order of traffic signal equipment. The Contractor shall furnish the Engineer with a written statement from the vendor that the order for the said equipment has been received and accepted by said vendor within twenty-one calendar days of the date of the award of the project by the City.

**4. TRAFFIC REQUIREMENTS**

Delineation shall be in accordance with the California Department of Transportation California Manual on Traffic Control Devices, 2014 Edition (California MUTCD). The Contractor shall submit a detailed construction detour plan consistent for Agency review and approval for each stage of construction prior to start of construction.

**5. CORRELATION AND INTENT OF DOCUMENTS**

The Standard Specifications for Public Works Construction (Green Book), 2012 Edition, project plans, special provisions, contract change orders, and all supplementary documents are essential parts of the contract, and a requirement occurring in one is as binding as though occurring in all. They are intended to be complimentary, and to describe and provide for a complete work.

Project Plans shall govern over Standard Plans; Standard Plans and Project Plans shall govern over the Standard Specifications; the Project Special Provisions shall govern over the Project Plans, Standard Specifications, and Standard Plans.

**6. DETAIL DRAWINGS AND INSTRUCTIONS.** The Engineer will furnish to the Contractor, with reasonable promptness, such further detail explanations, instructions and Drawings as may be necessary for the proper execution of the Work. In giving such additional instructions, the Engineer shall have authority to make minor changes in the Work, not involving extra cost, and not inconsistent with the intent of the Drawings and Specifications or the purposes of the improvement. The Contractor shall conform to the intent of the Contract, Drawings and Specifications. The Contractor shall not proceed with any portion of the work unless he is in possession of Plans and information necessary to its proper execution and completion.

The execution of the work as specifically detailed or explained without a written Change Order signed by the Owner and the Engineer, shall constitute an acceptance by the Contractor of detailed Drawings or information as being in conformity with the original intent of the Contract Documents.

**7. NO ORAL AGREEMENTS.** No oral agreement or conversation with any officer, agent, or employee of the Owner, either before or after execution of the Contract, shall affect or modify any of the terms or obligations contained in any of the documents comprising said Contract.

**8. SHOP DRAWINGS**

A. The Contractor shall submit for the approval of the Engineer shop, fabrication and setting drawings required by the Specifications or that may be requested by the Engineer, and no work shall be fabricated by the Contractor, except at his own risk, until such approval has been given.

B. Drawings shall be submitted in quadruplicate accompanied by letter or transmittal which shall give a list of the numbers and dates of the drawings submitted. Drawings shall be complete in every respect and bound in sets.

C. The Drawings submitted shall be marked with the name of the project, numbered consecutively and bear the approval of the Contractor as evidence that the Drawings submitted without this approval will be returned to the Contractor for re-submission.

D. The Contractor shall submit all Drawings and schedules sufficiently in advance of construction requirements to allow ample time for checking, correcting, resubmitting and rechecking.

If the shop drawings show variations from the requirements of the Contract because of standard shop practice or other reasons, the Contractor shall make specific mention of such variations in his letter of transmittal in order that, if acceptable, suitable action may be taken for proper adjustment; otherwise, the Contractor will not be relieved of the responsibility for executing the work in accordance with the Contract even though such shop drawings have been approved.

E. If a Drawing as submitted indicates a departure from the Contract requirements which the Engineer finds to be in the interest of the Owner and to be so minor as not to involve a change in the Contract price or time for performance, he may approve the Drawings.

F. The approval of shop and setting drawings will be general and, except as provided above, shall not be construed: (1) as permitting any departure from the Contract requirements; (2) as relieving the Contractor of the responsibility of any error in details, dimensions or otherwise that may exist; (3) as approving departures from additional details or instructions previously furnished by the Engineer.

**9. DRAWINGS AND SPECIFICATIONS.** The Contractor shall keep on the work site a complete copy of the Drawings and Specifications, including all authorized Change Orders, in good condition, which shall always be available to the Owner, Engineer, and their representatives.

All Drawings, Specifications and copies thereof furnished to the Contractor are the property of the Owner and shall not be used on other work without its consent. Upon completion of this project, all copies of the Drawings and specifications shall be returned to the Engineer, as agent of the Owner.

**10. MATERIALS, WORKMANSHIP.** All materials used in the project, unless otherwise specified, shall be new, of the types and grades specified, and the Contractor shall, if requested, furnish evidence satisfactory to the Engineer that such is the case. All workmanship shall be of the best quality and all workers shall be adequately skilled in the work which they perform.

**11. DEFECTIVE WORK AND MATERIALS.** The Contractor shall promptly remove from the premises all materials condemned by the Owner, the Contractor shall promptly replace and re-execute his work in accordance with the Contract and shall perform that work without expense to the Owner and shall bear the expense of making good all work of other Contractors destroyed or damaged by such removal or replacement. If the Engineer and Owner deem it expedient to correct work injured or done not in accordance with the Contract, the difference in value together with a fair allowance for damage shall be deducted from the sum agreed to be paid the Contractor for the performance of the Contract.

**12. SUBSTITUTIONS OF MATERIALS AND EQUIPMENT.** Materials and equipment, including specially designated makes, must be furnished as specified except when equals are approved by the Owner. Equals will not be accepted unless the Contractor requests and receives permission in writing from the Owner to make specific substitutions. Requests shall be made within sufficient time to allow the Owner to investigate the merits of the proposed substitutes, and the Contractor shall present complete details with specific explanations of the characteristics of those details, which differ, from the Specifications.

**13. CONTRACTOR'S TITLE TO MATERIALS.** No materials or supplies for the work shall be purchased by the Contractor or by any subcontractor subject to any chattel mortgage or under a conditional sale or other agreement by which an interest is retained by the seller. The Contractor warrants that he has good title to all materials and supplies for which he accepts partial payment.

14. **LICENSES, PERMITS, LAWS AND REGULATIONS.** The contractor, acting in the name of the Owner, shall obtain and pay, only where legally required, for all licenses and permits, inspections and inspection certificates, required to be obtained from or made by any authority having jurisdiction over any part of the work included in the Contract. The Contractor shall comply with all laws, ordinances and regulations applicable to the work.

15. **PATENTS, ROYALTIES AND TAXES.** The Contractor shall hold the Owner and the Engineer harmless from liability of any nature, including costs and expenses, for or on account of any patented or unpatented article, appliance, or device used in the performance of the Contract and shall defend all suits or claims for infringement of any patent right. He shall pay all applicable Federal, State and local sales taxes and all other taxes pertinent to the work involved in this Contract.

16. **ENGINEERING, SURVEY AND SITE EXAMINATION.** The Contractor shall be responsible for having ascertained pertinent local conditions such as location, accessibility and general character of the site and for having satisfied himself as to the conditions under which the work is to be performed. No claim for allowances because of his error or negligence in acquainting himself with the conditions at this site will be recognized.

The Owner will furnish surveys necessary to properly locate the improvements and establish the locations thereof, with general reference points as well, that in the Owner's judgment enable the Contractor to proceed with the work.

The Contractor shall provide competent engineering services to lay out the work and all parts thereof and to establish all grades and elevations in accordance with the Contract requirements. He shall verify the figures shown on the survey cut sheets, field stakes and the approved drawings before undertaking any construction work and shall be responsible for the accuracy of the finished work.

The Contractor shall protect and preserve established bench marks and monuments and shall make no changes in locations without the written approval of the Owner. Any bench marks or monuments which are lost or destroyed shall be replaced by a licensed land surveyor at the full expense of the Contractor subsequent to proper notification of the Owner and with his approval.

Any ties, monuments and bench marks disturbed during construction shall be reset by a Licensed Land Surveyor per City and County standards after construction and the tie notes submitted to the City on 8-1/2" x 11" heavy stock grid-lined survey record paper. The tie record shall be signed by the Licensed Surveyor and a corner record shall be filed with the County of Riverside at the Contractor's expense. The Contractor and his sureties shall be liable for, at his expense, any resurvey required due to his negligence in protecting existing ties, monuments, bench marks or any such horizontal or vertical controls.

17. **PROTECTION OF WORK AND PROPERTY.** The Contractor shall at all times safely guard the Owner's property from injury or loss in connection with this Contract. He shall at all times safely guard and protect his own work and adjacent property from damage. All passageways, guard fences, lights and other facilities required for protection by State of municipal laws and regulations and local conditions shall be provided and maintained. Existing pavements located on or near the site shall be protected against damage, and pavements that are accidentally damaged or necessarily cut shall be replaced with the same material upon completion of the work.

18. **ACCIDENT PREVENTION.** Precaution shall be exercised at all times for the protection of persons, including employees, and property. The safety provisions of applicable laws, building and construction codes shall be observed. The Contractor shall maintain sufficient safeguards, such as railings, temporary walks, lights, etc., against the occurrence of accidents, injuries, damage or harm to any person or property and shall also be responsible for the same if such occur.

19. **EMERGENCIES.** In an emergency affecting the safety of life or of any structure or of adjoining property, the Contractor shall take all necessary and proper steps to prevent any threatened loss or injury. If practicable, the Contractor shall communicate with the Owner and shall be guided by the directions and advice of the Owner. But if the character of the emergency is such as to require action with such short limits or time or under circumstances rendering that impracticable, then the Contractor shall act independently and upon his own responsibility, subject to the direction and control of the Owner as soon as it may become practicable to obtain the same.

20. **ACCESS TO THE WORK.** The Engineer, the Owner, and their representatives shall have access at all times to the work for purposes of inspection, wherever said work is in preparation or progress, and the Contractor shall provide proper facilities for such access and inspection.

21. **INSPECTION OF THE WORK.** All material and workmanship (if not otherwise designated by the Specifications) shall be subject to inspection, examination, and test by the Engineer at any all times during manufacture and/or construction and at any and all places where such manufacture and/or construction are carried on. The Engineer shall have the right to reject defective material and workmanship or require its correction. Should the Specifications, the Engineer's instructions, any law, ordinances or public authority require any work to be specially tested or approved, the Contractor shall give the Engineer timely notice of its readiness for inspection, and if the inspection is by an authority other than the Engineer, of the date fixed for such inspection. If any work should be covered, without proper inspection and without approval or consent of the Engineer, it shall, if required by the Engineer, be uncovered for examination at the Contractor's expense.

22. **INSPECTOR.** The Owner may employ an Inspector, who will act as a direct representative of the Owner or the Engineer, and who shall provide full-time and continuous personal supervision and inspection of the work. Such supervision and inspection shall not, in any way relieve the Contractor from responsibility for full compliance with all of the terms and conditions of the Contract, nor be construed to lessen to any degree, the Contractor's responsibility for providing efficient and capable superintendence as required herein. The Inspector is not authorized to make changes in the Drawings or Specifications, nor shall his approval of work and methods relieve the Contractor of responsibility for the correction of subsequently discovered defects.

No work of any kind shall be performed on the project site outside of the regularly established working hours without the knowledge and consent of the Inspector.

23. **SUPERVISION OF CONTRACTOR.** The CONTRACTOR shall give his personal attention constantly to the faithful prosecution of the work, and shall be present, either in person or be represented by a duly authorized and competent SUPERINTENDENT satisfactory to the ENGINEER, continually at the site of the work during progress, to receive directions or instructions from the OWNER. The SUPERINTENDENT shall be qualified to, and shall, represent the CONTRACTOR during all times when the CONTRACTOR is not present and all orders or directions issued to the SUPERINTENDENT by the OWNER shall be as binding as if given to the CONTRACTOR personally. Important directions shall be confirmed in writing to the CONTRACTOR. Other directions shall be so confirmed upon written request in each case. The CONTRACTOR shall designate the Project SUPERINTENDENT in writing to the CITY and obtain ENGINEER approval prior to the start of construction. Both the CONTRACTOR and the SUPERINTENDENT shall cooperate to provide efficient and complete supervision over all phases of the work.

24. **CHANGES IN THE WORK.** The Owner, upon agreement with the Contractor, without invalidating the Contract, may order extra work or make changes by altering, adding to, or deducting from the work, the Contract sum being adjusted accordingly. The Contractor shall not be authorized to comply with such order without previously obtaining written authority therefore from the Owner. All such work shall be executed under the conditions of the original Contract, except that any claims for extension of time caused thereby shall be adjusted at the time of ordering such change.

The Contractor shall, when requested by the Owner, furnish an itemized breakdown of the quantities and prices used in computing the value of any change that may be ordered. If in the opinion of the Contractor any instructions, detail Drawings or notices of any description issued by the Engineer or Owner involve extra cost above the Contract price he shall immediately give the Owner written notice to that effect before proceeding with the work involved. The execution of work without prior submission of such written notice shall constitute the contractor's acceptance of the work as being within the Contract price.

The Contractor agrees that any change orders for extra work represent an accord and satisfaction between the owner and Contractor for such extra work. The Contractor's change order shall contain the entire claim of Contractor for all such extra work, including but not limited to claims for delay, disruption, and acceleration damages. Contractor waives any further claim for costs and damages except as specifically set forth in the change order.

25. **DELAYS**

25.1 **Notice of Delays** – When the CONTRACTOR foresees a delay in the prosecution of the Work and, in any event, immediately upon the occurrence of a delay, the CONTRACTOR shall notify the ENGINEER in writing of the probability of the occurrence and the estimated extent of the delay, and its cause. The CONTRACTOR agrees that no claim shall be made for delays, which are not called to the attention of the ENGINEER at the time of their occurrence.

25.2 **Avoidable Delays** – Avoidable delays in the prosecution of the Work shall include delays, which could have been avoided by the exercise of care, prudence, foresight and diligence on the part of the CONTRACTOR or its subcontractors, at any tier level, or suppliers.

- 25.3 **Unavoidable Delays** – Unavoidable delays in the prosecution or completion of the Work shall include delays which result from causes beyond the control of the CONTRACTOR and which could not have been avoided by the exercise of care, prudence, foresight and diligence on the part of the Contractor or his subcontractors, at any tier level, or suppliers.

Delays in completion of the Work of other Contractors employed by the CITY will be considered unavoidable delays insofar as they interfere with the CONTRACTOR's completion of the current critical activity or item of the Work.

- 25.4 **Abnormal Delays** – Delays caused by acts of God, fire, unusual storms, floods, tidal waves, earthquakes, strikes, labor disputes, freight embargoes, and shortages of materials shall be considered as unavoidable delays insofar as they prevent the CONTRACTOR from proceeding with at least seventy-five (75) percent of the normal labor and equipment force for at least five (5) hours per day toward completion of the current critical activity item on the favorably reviewed progress schedule.

- 25.5 **Material Shortages** – Upon the submission of satisfactory proof to the ENGINEER by the CONTRACTOR, a shortage of materials outside the control of the CONTRACTOR will be acceptable as grounds for granting a time extension. In order that such proof may be satisfactory and acceptable to the ENGINEER, it must be demonstrated by the CONTRACTOR that the CONTRACTOR has made every effort to obtain such materials from all known sources within reasonable reach of the proposed Work and was not due to a lack of scheduling or planning on the CONTRACTOR's part.

Only the physical shortage of material caused by unusual circumstances 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 ENGINEER 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 usual practices in obtaining such quantities. A time extension for shortage of materials will not be considered for material ordered or delivered late or whole availability is affected by virtue of the mishandling of procurement. The above provisions apply equally to equipment to be installed in the Work.

## 26. TIME EXTENSIONS

- 26.1 **Avoidable Delay** – The AGENCY may grant an Extension of Time for avoidable delays if the AGENCY deems it is in its best interest. If the AGENCY grants an Extension of Time for avoidable delays, the CONTRACTOR agrees to pay the AGENCY's actual costs, including changes for engineering, inspection and administration incurred during the extension.

- 26.2 **Unavoidable Delay** – If the CONTRACTOR is delayed in the performance of its work by an act of the CITY or if the CONTRACTOR is delayed in the performance of its work by an unavoidable delay, then the Contract completion date may be extended by the CITY for such time that, in the AGENCY's and ENGINEER's opinion, the CONTRACTOR's completion date will be unavoidably delayed, provided that the CONTRACTOR strictly fulfills the following:

- a. The CONTRACTOR shall provide notification in accordance with Section 25.1 **Notice of Delays** and submit in writing a request for an Extension of Time to the ENGINEER stating at a minimum the probable cause of the delay and the number of days being requested. The time extension request shall be submitted along with a time impact analysis.
- b. If requested by the ENGINEER, the CONTRACTOR shall promptly provide sufficient information to the ENGINEER to assess the cause or effect of the alleged delay, or to determine if other concurrent delays affected the work.
- c. Weather Delays. The CONTRACTOR will be granted a non-compensable time extension for weather-caused delays.

Should the CONTRACTOR fail to fulfill any of the foregoing, which are considered conditions precedent to the right to receive a Time Extension, the CONTRACTOR waives the right to receive a time extension.

Should the CONTRACTOR fail to complete the work within the time specified in the contract, as extended in accordance with this clause if appropriate, the CONTRACTOR shall pay to the AGENCY liquidated damages as specified in the Special Provisions of these specifications.

During such extension of time, neither extra compensation for engineering, inspection and administration, nor damages for delay will be charged to the CONTRACTOR. It is understood and agreed by the CONTRACTOR and AGENCY that time extensions due to unavoidable delays will be granted only if such unavoidable delays involve controlling operations which would prevent completion of the whole Work within the specified Contract Time.

26.3 **Indirect Overhead** – The CONTRACTOR shall be reimbursed for indirect overhead expenses for periods of time when the Work is stopped due to Unavoidable Delays as defined in Section 25.3, of these General Conditions. However, no reimbursement for indirect overhead shall be made for delays as defined in Section 25.4 Abnormal Delays; Section 26.2.c. Weather Delays; or Section 25.5, Material Shortages of these General Conditions.

As a condition precedent to any reimbursement, the CONTRACTOR must fulfill all conditions as provided Section 26.2, Unavoidable Delay.

The reimbursement of indirect overhead is limited to those delay conditions defined above when the CONTRACTOR is prevented from proceeding with seventy-five (75) percent of the normal labor and equipment force for at least five (5) hours per day toward completion of the current critical activity item(s) on the current favorably reviewed progress schedule.

26.4 **Indirect Field Overhead** – For those allowable delay periods as defined in Section 25.3 of these General Conditions, the CONTRACTOR shall be reimbursed for its indirect field overhead based on:

- a. Invoices for all field office equipment.
- b. Actual salary for field office staff.
- c. Fair rental values acceptable to the ENGINEER for construction equipment idled due to the delay.

26.5 **Home Office Overhead** – For those allowable delay periods as defined in Section 25.3, Unavoidable Delays, the CONTRACTOR shall be reimbursed for its home office overhead based on the following formula:

Contract Bid price divided by Contract Period Calendar Days x 0.03 = Daily Home Office Overhead (\$/Day).

Such reimbursement shall be mutually agreed between the AGENCY and CONTRACTOR to encompass full payment for any home office overhead expenses for such periods of time for the CONTRACTOR and all subcontractors. The CONTRACTOR agrees to hold the AGENCY harmless for any indirect overhead claims from its subcontractors.

27. **OWNER'S RIGHT TO DO WORK.** Should the Contractor, at any time during the process of construction, fail or refuse to furnish enough materials and/or workers to properly prosecute the work, unless prohibited from so doing through the action of the Owner, the Engineer, or other authorized official agencies, the Owner, after giving two (2) days written notice to the Contractor may, without prejudice to any other rights he may have, proceed with and/or complete the work, and may deduct the cost thereof, together with reasonable expenses arising from such procedure, from any amounts then due or which may thereafter become due to the Contractor.

28. **OWNER'S RIGHT TO TERMINATE THE CONTRACT.** If the Contractor should be adjudged a bankruptcy, or if he should make a general assignment for the benefit of his creditors, or if a receiver should be appointed on account of his insolvency, if he should, except in cases stated in the following paragraph, persistently or repeatedly refuse or fail to supply enough properly skilled workers or proper materials, or if he should fail to make prompt payment to subcontractors or for materials or labor, persistently disregard laws, ordinances or the instruction of the Owner, or otherwise be guilty of a substantial violation of any provision of the Contract, then the Owner, upon certificate of the Engineer that sufficient cause exists to justify such action, may, without prejudice to any other right or remedy after giving the Contractor ten (10) days written notice, terminate the employment of the Contractor and take possession of the premises and of all materials, tools, and appliances thereon and finish the work by whatever he may deem expedient. In such case, the Contractor shall not be entitled to receive any further payment until the work is finished. If the unpaid balance of the contract price shall exceed the expense of finishing the work including compensation to the Engineer for his additional services, such excess shall be paid to the Contractor. If such expense shall exceed such unpaid balance, the Contractor shall pay the difference to the Owner.

29. **CONTRACTOR'S RIGHT TO TERMINATE THE CONTRACT.** If through no fault of the Contractor, or of anyone employed by him (1) the work is stopped by order of any court or governmental authority, other than the Owner, (2) the Engineer capriciously or arbitrarily fails to issue any certificate for payment within thirty (30) days after it is due, or (3) the Owner fails to pay to the Contractor, within sixty (60) days after presentation of the Engineer's certificate to the Owner, any sum certified by the Engineer, then the Contractor may upon ten (10) days written notice to the Owner and the Engineer stop work or terminate the Contract, and the Owner shall be liable to the Contractor for any loss sustained and reasonable profit.

30. **PAYMENTS WITHHELD.** The Engineer may withhold or, on account of subsequent discovered evidence, nullify the whole or a part of any certificate for payment to such extent as may be necessary to protect the Owner from loss on account of:
- A. Defective work not remedied.
  - B. Claims filed, or reasonable evidence indicating probable filing of claims.
  - C. Failure of the Contractor to make payments properly to subcontractor or for material or labor.
  - D. A reasonable doubt that the Contract can be completed for the balance remaining unpaid.
  - E. Damage to another Contractor.
  - F. Default of the Contractor in the performance of the terms of the Contract.
31. **LIENS.** The Contractor agrees that at any time upon request of either the Owner or the Engineer, he will submit a sworn statement setting forth the work performed or material furnished by subcontractors and material suppliers, and the amount due and to become due to each, and that before the final payment called for hereunder he will, if requested, submit to the Owner or the Engineer a complete set of vouchers showing what payments have been made for materials and labor used in connection with the work.
32. **ASSIGNMENTS.** The Contractor shall not assign the whole or any part of this Contract without the written consent of the Owner and all Sureties executing bonds on behalf of the Contractor in connection with said Contract.
33. **MUTUAL RESPONSIBILITY OF CONTRACTORS.** If the Contractor or any of his subcontractors or employees cause loss or damage to any separate Contract on the work, the Contractor agrees to settle with such separate Contractor by agreement or arbitration, if he will so settle. If such separate Contractor sues the Owner, on account of any loss so sustained, the Owner shall notify the Contractor, who shall indemnify and save harmless the Owner against any expenses and judgment arising therefrom.
34. **SEPARATE CONTRACTS.** The Owner reserves the right to award other contracts in connection with the project and the work, under which may proceed simultaneously with the execution of this Contract. The Contractor shall coordinate operations with those of other Contractors. Cooperation will be required in the arrangement for the storage of materials, and in the detailed execution of the work. The Contractor, including his subcontractors, shall keep himself informed of the progress and the detail work of other Contractors and shall notify the Engineer immediately of lack of progress or defective workmanship on the part of other Contractors where such delay or such defective workmanship will interfere with his own operations. Failure of a Contractor to keep informed of the work progressing on the site and failure to give notice of lack of progress or defective workmanship by others shall be construed as acceptance by him of the status of the work as being satisfactory for proper coordination with his own work.
35. **SUBCONTRACTS.**
- A. The Contractor may, without additional expense to the Owner, utilize the services of subcontractors on those parts of the work that are specified to be performed by subcontractors.
  - B. Nothing contained in the Specifications of Drawings shall be construed as creating any contractual relationship between any subcontractor and the Owner. The divisions or sections of the Specifications are not intended to control the Contractor in dividing the work among subcontractors or to limit the work performed by any trade.
  - C. The Contractor shall be as fully responsible to the Owner for the acts and omissions of subcontractors and of persons employed by them, as he is for the acts and omissions of persons directly employed by him.
  - D. The Contractor shall be responsible for the coordination of the trades, subcontractors and material men engaged upon his work.
  - E. Neither the Owner nor Engineer will undertake to settle any differences between the Contractor and his subcontractors or between subcontractors.
  - F. The Contractor shall cause appropriate provisions to be inserted in all subcontract relative to the work to bind subcontractors to the Contractor by the terms of the General Conditions and other Contract Documents insofar as applicable to the work of subcontractors.
  - G. The Owner and the Engineer reserve the right to approve all subcontractors. Such approval shall be a consideration to the awarding of the Contract and unless notification to the contrary is given to the Contractor prior to the signing of the Contract, the list of subcontractors, which is submitted with his proposal, will be deemed to be acceptable.

H. In accordance with Section 4101 of the Government Code, each bidder, in his bid, shall set forth: (1) the name and location of the place of business of each subcontractor who will perform work or labor, or render services to the Contractor in or about the construction of the work, or improvement, in an amount in excess of one half of 1% of the Contractor's total bid, and (2) the portion of the work which will be done by each such subcontractor.

I. In accordance with Section 4105 of the Government Code, if the Contractor fails to specify such subcontracts, he agrees to perform that portion of the work himself.

J. In accordance with Sections 4107 and 4107.5 of the Government Code, no Contractor whose bid is accepted shall without consent of the awarding authority, either: (1) substitute any person as a subcontractor in place of the subcontractor designated in the original bid; or (2) permit any such subcontractor to be assigned or transferred, or allow it to be performed by anyone other than the original subcontractor listed in the bid; or (3) sublet or subcontract any portion of the work in excess of one half of 1% of the Contractor's total bid as to which his original bid did not designate a subcontractor.

36. **USE OF WORK AREA AND CLEANING.** The Contractor shall maintain the work area under his control in an orderly condition. He shall store his apparatus, materials, supplies and equipment in such a manner as will not interfere with the daily operations of adjacent businesses or residences during the week. The Engineer shall approve all storage and field yard areas. The Contractor shall not permit any load or stress to be placed upon any part of the permanent work or existing work that will endanger the safety or strength of said work.

37. **CORRECTION OF WORK AFTER FINAL PAYMENT AND GUARANTEE ONE YEAR.** Neither the final certificate, final payment, or any provision in the Contract Documents shall relieve the Contractor of responsibility for faulty materials or workmanship, and he shall remedy any defects due thereto and pay for any damage to other work resulting therefrom, which may appear to be discovered up to one year after recording of the Notice of Completion. The Owner shall give notice of observed defects with reasonable promptness, and the Contractor shall proceed to remedy such defects immediately upon receiving such notification. Payments due to the Engineer by the Owner for extra engineering services required in the enforcement of Contractor's guarantee after acceptance of the work shall be paid to the Owner by the Contractor or his Surety.

38. **OCCUPANCY BY THE OWNER.** The Owner has the right to occupy and to use the any and all parts of the property to the completion of the entire work, and that such use shall not operate as an acceptance of any part of the work.

39. **DAMAGE TO ADJACENT AND EXISTING PROPERTY.** The Contractor shall be responsible for any and all damage done to existing property and adjacent construction work during all construction work under this Contract, and he shall make any repairs that result from his operations to the satisfaction of the Owner.

40. **UTILITIES.** The Contractor shall furnish and pay for all water, gas, electricity and other utilities used for construction purposes, unless otherwise provided in the Special Conditions or Specifications.

41. **TEMPORARY TOILET.** The Contractor shall construct a chemical toilet or temporary toilet connected to a cesspool for the use of all persons connected with the work. Structure shall have roof and door and shall be fly-proof. At conclusion of the work, the chemical toilet or cesspool and toilet shall be removed from the premises and excavation filled and left in a thoroughly sanitary condition. Exact location must be approved by the Engineer.

42. **CLIMATIC CONDITIONS.** The Contractor shall provide and maintain heat, fuel, materials, and services necessary to protect all work and materials against injury from extreme heat, cold, dry winds, or dampness as follows:

A. At all times during the placing, setting and curing of concrete and cement work, provide sufficient heat to insure the heating of spaces involved to not less than fifty (50) degrees Fahrenheit.

B. The Engineer shall have full authority to suspend operations on work when subject to damage by climatic conditions or because of insufficient curing or drying of surfaces or materials.

43. **LAWS CONCERNING THE OWNER A PART HEREOF.** The Contract is subject to all provisions of the constitution and laws of California governing, controlling or affecting the Owner, or the property, funds, operations or powers of the Owner, and such provisions are by this reference made a part hereof and of the Contract.

44. **WAGES AND HOURS.** The Owner has determined that the minimum wages paid on this project shall not be less than those set forth in the Notice Inviting Bids. It is the responsibility of bidders to inform themselves as to local labor conditions and prospective changes or adjustments of wage rates. No increase in the Contract price shall be allowed or authorized on account of the payment of increased wage rates.

In accordance with the provisions and requirements of section 1810-16 of the Labor Code, neither the contractor or the subcontractor who employees, directs, or controls the work of any worker employed to execute work done under the Contract, shall require or permit such worker to labor more than eight (8) hours during any one calendar day, except in cases of extraordinary emergency, caused by fire, flood or danger to life or property. Within thirty (30) days after any worker is permitted to work over eight (8) hours in one calendar day due to such extraordinary emergency, the Contractor shall file with the Owner a verified report settling the nature of the emergency. The report shall contain the name of the worker and the hours worked by him on the particular day. Failure to file the report within the thirty (30) day period shall be prima facie evidence that no extraordinary emergency existed. The Contractor and every subcontractor shall keep an accurate record showing the name of, and actual hours worked by, each worker employed by him in connection with the work executed under the Contract. The record shall be kept open to all reasonable hours to the inspection of the Owner and the Division of Labor Law Enforcement. The contractor shall forfeit, as a penalty to the Owner, up to \$200.00 for each worker employed in the execution of the Contract by the contractor or by any subcontractor for each calendar day during which any worker is required or permitted to labor more than eight (8) hours, in violation thereof.

45. **BRAND OR TRADE NAME, SUBSTITUTION OF "EQUALS"**. The provisions of this paragraph control over the provisions of paragraph 10 of these General Conditions.

Whenever any material, product, thing or services is specified by brand or trade name, the specified name shall be deemed to be followed by the words "or equal" (except where the product is designated to match others in use on a particular public improvement; either completed or in the course of completion).

**As a part of his Bid Proposal** any bidder must include a request for a substitution of an item "equal" to any so specified by brand or trade name. Within twenty-one (21) calendar days after award of the Contract, the Contractor may submit to the Engineer data substantiating such a request made in his Bid Proposal; otherwise the request shall be deemed to have been withdrawn. Such submission shall include data showing the equality, his reasons for making the request, and the difference, if any, in cost to the Contractor. The Engineer shall promptly investigate the request and make a recommendation to the Owner, who shall promptly determine whether or not the substitute is equal in every respect to the items specified, shall grant or deny the request accordingly, and shall notify the Contractor in writing. Unless the request is granted by the governing board of the Owner, the substitution shall not be permitted. Nothing herein shall authorize any change in the Contract price nor prevent the use of Change Orders in the manner authorized by law for the project.

46. **NOTICE OF COMPLETION**. Within ten (10) days after the completion of construction in accordance with the Contract, the Contractor shall promptly notify the Engineer when construction is complete to enable the Engineer to make his final inspection, prepare a report and inform the Owner. Upon review and acceptance of the Engineer's report, the Owner shall cause a Notice of Completion to be recorded in the office of the County Recorder. Any significant deficiencies or requests for missing or incomplete portions of the work or submittals found within the report may be cause to withhold filing a Notice of Completion to allow the CONTRACTOR time to provide correction or remedy.

47. **EQUAL OPPORTUNITY**. The Contractor herein agrees not to discriminate in its recruiting, hiring, promotion, demotion or termination practices on the basis of race, religious creed, national origin, ancestry, sex, age, sexual preference or physical handicap in the performance of this Contract and to comply with the provisions of the State Fair Employment Practices as set forth in Part 4.5 of Division 2 of the California Labor Code.

48. **PROGRESS SCHEDULE**

The Contractor shall furnish three (3) copies of Job Progress Schedule to the Owner at the start of the construction and shall provide updates regularly as necessary, or as stipulated and requested by the Owner or his representative.

49. **PRECONSTRUCTION CONFERENCE**

The OWNER shall call a preconstruction conference after the award of the Construction Contract. A principal of the CONTRACTOR shall attend such a conference. At the conference, CONTRACTOR shall submit the name of the proposed Project SUPERINTENDENT for the project, along with a description of documented experience and references to verify the competency of the same. The CONTRACTOR shall also submit the names of each person authorized to execute Change Orders for and on behalf of the CONTRACTOR, a critical path construction schedule, showing the method by which CONTRACTOR proposed to accomplish the work and proposed completion dates of different aspects of the work, and what arrangements the CONTRACTOR wishes as to storage of on-site materials or equipment for the project.

At the preconstruction conference, CONTRACTOR will be asked whether he is aware of any ambiguity in the Contract Documents requiring clarification and whether the methods of accomplishment of the work provided for in the specifications are appropriate.

CONTRACTOR shall at the preconstruction conference report in detail as to what steps have been taken to provide the requisite personnel to accomplish the work, whether listed subcontractors have entered into subcontracts with him and what arrangements have been made for providing necessary equipment and material for the accomplishment of the work.

At the preconstruction conference, the CONTRACTOR shall submit to the ENGINEER a Schedule of Values of the various portions of the work, including quantities if required by the ENGINEER aggregating the total Contract Sum, divided so as to facilitate payment, prepared in such form as specified or as the ENGINEER and CONTRACTOR may agree upon, and supported by such data to substantiate its correctness as the ENGINEER may require. Each item in the Schedule of Values shall include its proper share of overhead and profit. This schedule, when approved by the ENGINEER, shall be used as a basis for CONTRACTOR 'S Applications for Payment.

The Contractor shall also provide the following submittals at or prior to the preconstruction meeting:

1. A Storm Water Pollution Prevention Plan (SWPPP) and Local Air Quality Management Plan (LAQMP).
2. Vendor submittals and confirmation showing proof of ordering with delivery dates for all long lead items.
3. A traffic control, phasing and staging plan. (The traffic control plan shall include designated paths of travel for the disabled in compliance with the requirements of Title 24 and the Americans with Disabilities Act [ADA] through or around the project work area.)
4. Copies of permits.
5. Any requests for variances or substitutions.

END OF SECTION

**SPECIAL PROVISIONS**  
**PART 1 - GENERAL PROVISIONS**

The Standard Specifications of the City are contained in the Standard Specifications for Public Works Construction (“Green Book”), 2012 Edition as written and promulgated by the Joint Cooperative Committee of the Southern California Chapter of the American Public Works Association and the Southern California District of the Associated General Contractors of California. Copies of these Standard Specifications are available from the publisher:

Building News, Incorporated  
990 Park Center Drive, Suite E  
Vista, CA 92081  
(760) 734-1113

The Standard Specifications set forth above will control the general provisions, construction materials and construction methods for this contract except as amended by the Plans, Special Provisions, or other contract documents.

The Section Numbers of the following Special Provisions coincide with those of the Standard Specifications for Public Works Construction (“Green Book”), 2012 Edition. Only those sections requiring amendment or elaboration, or specifying options, are called out.

The Standard Specifications shall prevail in all cases except where a Contract Document of a higher order, provides a different requirement on a given topic or topic aspect. All language in the Standard Specifications that is not in conflict with the language in the prevailing contract Documents on a given topic or topic aspect shall remain in full force and effect, unless the language in the prevailing Contract Document specifically cites the section number in the Standard Specification and states that said provision is in lieu of that Standard Specification section.

References in the Special Provisions to “CALTRANS Standard Specifications” shall mean the Standard Specifications (2010 Edition or any updates thereof) of the State of California, Department of Transportation. Copies of these specifications may be obtained from the internet at [dot.ca.gov/hq/esc/techpubs/](http://dot.ca.gov/hq/esc/techpubs/), or:

State of California – Department of Transportation  
1820 Alhambra Blvd.  
MS 9/101  
Sacramento, California 95816-8041  
(916) 227-4132

References in the Special Provisions to Standard Plans shall mean the most recent Standard Plans of the City of Rancho Mirage and where applicable, the Riverside County and the State Department of Transportation, 2010 edition, or any updates thereof. Applicable Standard Plans for this project are contained in the Appendix of the Specifications.

Where the Plans or Specifications describe portions of the work in general terms, but not in complete detail, it is understood that the item is to be furnished and installed complete and in place and that only the best general practice is to prevail and that only materials and workmanship of the first quality are to be used. Unless otherwise specified, the CONTRACTOR shall furnish all labor, materials, tools equipment and incidentals, and do all the work involved in executing the contract.

**SECTION 1 - TERMS, DEFINITIONS, ABBREVIATIONS AND SYMBOLS**

**1-2 DEFINITIONS**

- Agency/City/Owner - City of Rancho Mirage
- Board/Council - Rancho Mirage City Council
- Caltrans - California Department of Transportation
- County - County of Riverside
- Federal - United States of America
- State - State of California
- Engineer - City Engineer or Designated Representative
- Laboratory -The designated laboratory authorized by the City of Rancho Mirage to test materials and work involved in the contract.
- Standard Specifications - Standard Specifications for Public Works Construction (Green Book)

**SECTION 2 - SCOPE AND CONTROL OF THE WORK**

**2-1 AWARD AND EXECUTION OF THE CONTRACT.**

(Replace with the following:)

**Within ten (10) working days after the date of the Notice of Award**, the CONTRACTOR shall execute and return the following contract documents to the AGENCY:

- Contract Documents
- Faithful Performance Bond
- Payment Bond
- Public Liability and Property Damage Insurance Certificate
- Worker's Compensation Insurance Certificate
- Proposed Construction Schedule
- Source and submittals of all contract materials, including proof of availability

Failure to comply with the above will result in annulment of the award and forfeiture of the Proposal Guarantee. The Contract Agreement shall not be considered binding upon the agency until executed by the authorized AGENCY officials.

A corporation to which an award is made may be required, before the Contract Agreement is executed by the AGENCY, to furnish evidence of its corporate existence, of its right to enter into contracts in the State of California, and that the officers signing the contract and bonds for the corporation have the authority to do so.

**2-3 SUBCONTRACTS**

The Bidder's attention is directed to the provision in Section 2-3 of the Standard Specifications for the Requirements and Conditions that he must observe in the preparation of the proposal form and the submission of the bid.

**REQUIRED LISTING OF PROPOSED CONTRACTORS**--In accordance with the subletting and Subcontracting Fair Practices Act, commencing with Section 4100 of the Public Contract Code:

The bidder's attention is directed to other provisions of said Act related to penalties for failure to observe the provisions by using unauthorized Subcontractors or by making unauthorized substitutions.

A sheet for listing Subcontractors, as required, is included in the Bid Proposal.

**2-4 CONTRACT BONDS**

Both the Faithful Performance Bond and the Payment Bond shall each be for not less than one-hundred percent (100%) of the total contract amount. The Payment Bond shall remain in force for (6) six months after date of recordation of the Notice of Completion. The Faithful Performance date shall be released immediately after date of recordation of the Notice of Completion.

## 2-5 PLANS AND SPECIFICATIONS

### 2-5.1 General (Replace the first paragraph with the following:)

The CONTRACTOR shall maintain a control set of plans and specifications on the project site at all times. All final locations determined in the field, and any deviations from the plans and specifications, shall be marked in red on this control set to show the record conditions. Upon completion of all work, the CONTRACTOR shall return the control set to the Engineer. Final payment shall not be made until this requirement is met.

### 2-5.3.3 Submittals. [Replace the last two sentences of the first paragraph with the following]:

One (1) original of each product or construction document submittal shall be transmitted to the Engineer, along with a sequentially numbered Submittal Response Form (see Appendix). One (1) photocopy of the submittal shall be returned to the CONTRACTOR with the Submittal Response Form appropriately marked.

### 2-5.3.3 Submittals. [Add the following]:

Except as otherwise specified herein, the CONTRACTOR shall furnish for approval, within fifteen (15) working days following award of the Contract, all submittals as required on the Plans or in the Specifications. This provision shall not authorize any extension of time for performance of the Contract. The Engineer will check and approve such submittals, within ten (10) working days from receipt of same, only for conformance with design concept of work and for compliance with information and regulatory documents given in Contract Documents. Work shall be in accordance with approved submittals.

Unless specified otherwise, sampling, preparation of samples, and tests shall be in accordance with the latest standards of the American Society for Testing and Materials.

Samples of materials and/or articles shall, upon demand, be submitted for tests or examinations and consideration before incorporation of same in work started. The CONTRACTOR shall be solely responsible for delays due to submittals not being submitted in time to allow for proper time to make tests. Acceptance or rejection will be expressed in writing. The Engineer shall have sole discretion as to the acceptance or rejection of submittals. Rejection of submittals and any demand for re-submittal for review and approval by the Engineer shall not entitle the CONTRACTOR to additional time or costs caused by the rejection.

Materials furnished must be equal to approved samples in every respect. Samples which are of value after testing will remain the property of the CONTRACTOR.

## 2-8 RIGHT OF WAY [Add the following]:

The Agency reserves the right to prohibit the CONTRACTOR to work on property where right of way or right of entry has not been obtained prior to issuing the notice to proceed.

## 2-9 SURVEYING

**2-9.1 Permanent Survey Markers.** The Contractor shall notify the Engineer, at least 7 days before starting work to allow for the preservation of survey monuments, lot stakes (tagged), and bench marks. The Contractor shall not disturb survey monuments, lot stakes (tagged), or bench marks without the consent of the Engineer. The Contractor shall bear the expense of replacing any that may be disturbed without permission. Replacement shall be done only under the direction of the Engineer by a Registered Land Surveyor or a Registered Civil Engineer authorized to practice land surveying within the State of California.

When a change is made in the finished elevation of the pavement of any roadway in which a permanent survey monument is located, the Contractor shall adjust the monument cover to the new grade within 7 days of finished paving unless otherwise specified in the Special Provisions.

Full compensation for conforming to these requirements shall be considered as included in the various contract items and no separate payment will be allowed therefore.

### 2-9.2 Surveying Service. [Replace the first two paragraphs with the following]:

The Agency will provide surveying and construction staking required for the construction of this project, consistent with industry standards and as determined by the Engineer.

The cost of any additional surveying and/or construction staking primarily for the convenience of the CONTRACTOR, not in conformance with usual and customary practices, and for replacement of stakes lost as a result of the CONTRACTOR'S operations will be the responsibility of the CONTRACTOR. The cost of said additional surveying shall be deducted from the CONTRACTOR'S progress payments. The CONTRACTOR shall make all requests for construction stakes in writing at least 48 hours in advance of the day required. The CONTRACTOR shall dig all holes necessary for line and grade stakes, or to determine locations of any utility or structure.

The CONTRACTOR shall establish his own finish elevation control from the offset construction staking provided. Payment for setting additional control shall be considered as included in the price bid for the applicable items of work.

If construction staking is provided and subsequently removed, destroyed or impacted, whether accidentally or otherwise, or the CONTRACTOR desires additional staking from the above sets, the CONTRACTOR will be charged for replacement staking and survey control at a fee of \$250.00 per hour (4 hour minimum).

**SECTION 3 - CHANGES IN WORK**

3-3.1 **General** (Add the following):

(a) No CONTRACTOR claims for extra work shall be accepted or approved by the Agency that are submitted more than 10 days after the work was performed unless the work has been authorized in writing by the Engineer.

3-3.2.3 Markup (Replace with the following):

(a) **Work by Contractor.** The following percentages shall be added to the CONTRACTOR'S costs and shall constitute the markup for all overhead and profit.

- |    |                              |     |
|----|------------------------------|-----|
| 1) | Labor                        | 15% |
| 2) | Materials                    | 10% |
| 3) | Equipment Rental             | 10% |
| 4) | Other Items and Expenditures | 5%  |

To the sum of the costs and markups provided for in this subsection, 1 percent shall be added as compensation for bonding.

(b) **Work by Subcontractor.** When a Subcontractor performs all or any part of the extra work, the markup established in 3-3.2.3(a) shall be applied to the Subcontractor's actual cost of such work. **The Contractor may add a markup of 5 percent of the subcontracted portion of the extra work.**

**SECTION 5 - UTILITIES**

5-1 **LOCATION** (Add the following paragraphs:)

The CONTRACTOR shall notify the utilities at least 48 hours in advance of excavating around any of their structures.

The existence and locations of utilities shown on the drawings have been determined by a search of the available records as provided by the respective utility owner. The exact locations have not been determined by potholing unless so indicated on the drawings. **The CONTRACTOR shall determine the exact location of all existing utilities prior to commencing work.** He/She agrees to be fully responsible for any and all damages which may be occasioned by his failure to exactly locate and preserve any and all underground utilities, whether shown on the plans or not. **In the event the CONTRACTOR encounters underground utilities not shown on the plans, he/she shall verify the exact location of the utility and immediately notify the Engineer, regardless of whether the unknown utility conflicts with the proposed construction or not.** In the event of such a previously unknown conflict, the CONTRACTOR shall immediately notify the Engineer as to the extent, if any, of delays or additional costs resulting from said conflict.

The CONTRACTOR shall perform work and provide necessary materials to disconnect or relocate existing utilities as indicated. The CONTRACTOR shall document on record drawings all existing utility termination points before disconnecting.

The CONTRACTOR shall protect in place all existing power poles and overhead lines in the work area. Where underground main distribution conduits such as water, gas, sewer, electric power, telephone, or cable television are shown on the Plans, the CONTRACTOR shall assume that every property parcel will be served by a service connection for each type of utility.

When uncharted or incorrectly charted underground piping or other utilities and services are encountered during site work operations, notify the applicable utility company immediately to obtain procedure directions. Cooperate with the applicable utility company in maintaining active services in operation.

The CONTRACTOR is advised of the existence of the utility notification service provided by UNDERGROUND SERVICE ALERT (USA). USA member utilities will provide the CONTRACTOR with the precise locations of their substructures in the construction area when the CONTRACTOR gives at least 48 hours notice to the Underground Service Alert by calling 1-800-227-2600. CONTRACTOR shall provide the AGENCY with proof of contact with USA upon request.

1. Southern California Gas Company  
USA Member Utility, Phone 1-800-422-4133  
Protection of existing facilities by Contractor.
2. Southern California Edison Company  
Local Telephone (760) 202-4227/4254  
USA Member Utility, Phone 1-800-422-4133  
Protection of existing facilities by Contractor.
3. Verizon –Telephone  
USA Member Utility, 1-800-422-4133  
Protection of existing facilities by Contractor.
4. Coachella Valley Water District (Water, Sewer and Flood Control)  
USA Member Utility, Phone 1-800-422-4133  
Protection of existing facilities by Contractor.
5. Time Warner Cablevision  
Local Telephone (760) 340-2225  
Protection of existing facilities by Contractor.
6. City of Rancho Mirage, Public Works Department  
Local Telephone (760)770-3224  
Protection of existing facilities by Contractor.

The California Public Utilities Commission mandates that, in the interest of public safety, main line gas valves be maintained in a manner to be readily accessible and in good operating condition. The CONTRACTOR shall notify the Southern California Gas Company's Headquarters Planning Office at (714) 369-0680 at least two (2) working days prior to the start of construction.

The CONTRACTOR shall exercise extreme care to protect all existing utilities in place whether shown on the plans or not, and shall assume full responsibility for all damage resulting from his operations. The CONTRACTOR shall coordinate with each utility company as to the requirements and methods for the duration of protection, and shall be responsible for preparation and processing of any required plans or permits. The CONTRACTOR shall assume full responsibility to maintain uninterrupted service for all utilities.

By submitting a bid, the CONTRACTOR acknowledges the above referenced utility work to be completed in conjunction with this project. The CONTRACTOR shall schedule his work and conduct his operations so as to permit access and time for the required utility work to be accomplished during the progress of the work.

The CONTRACTOR shall coordinate with each utility company as to the extent of required work and the time required to do so. The CONTRACTOR shall include this time in his/her schedule. Payment for the above, if any, shall be deemed as included in the items of work, and no additional compensation as will be allowed.

**5-4 RELOCATION.** [Delete the Second and Fourth Paragraphs and add the following paragraph]:

Except as otherwise directed or called out on the approved plans, the alteration or temporary relocation of all service connections (including but not limited to: water, irrigation water, sewer, natural or manufactured gas, underground and/or overhead telephone and electrical) to any adjacent property or landscaped medians shall be the responsibility of the CONTRACTOR. The CONTRACTOR shall restore the service connections immediately after any disruption in service. No attempt has been made to show all service connections on the Plans. The CONTRACTOR shall make all arrangements with the utility owners regarding such work. The costs for such work on service connections, except when specified in the detailed specifications that the utility owners will make no charges for the work, shall be absorbed in the unit prices or included in the lump sum amounts bid for the various other contract items.

**SECTION 6 - PROSECUTION, PROGRESS AND ACCEPTANCE OF WORK****6-1 CONSTRUCTION SCHEDULE AND COMMENCEMENT OF WORK**

(Replace with the following):

The CONTRACTOR'S proposed construction schedule shall be submitted to the Engineer within ten (10) working days after the date of the Notice of Award of Contract. The schedule shall be supported by written statements from each supplier of materials or equipment indicating that all orders have been placed and acknowledged, and setting forth the dates that each item will be delivered.

Prior to issuing the Notice to Proceed, the Engineer will schedule a preconstruction meeting with the CONTRACTOR to review the proposed construction schedule and delivery dates, arrange the utility coordination, discuss construction methods, and clarify inspection procedures.

The CONTRACTOR shall submit periodic progress reports to the Engineer by the tenth day of each month. The report shall include an updated construction schedule. Any deviations from the original schedule shall be explained. Progress payments will be withheld pending receipt of any outstanding reports.

**6-7 TIME OF COMPLETION****6-7.1 General** (Add the following):

The time for completion shall be as set forth in Paragraph C.3 of the Standard Agreement, Section 00312-2 "Time For Completion", and Paragraph 3, Section 00700-1, "Time For Completion", of the General Conditions.

**6-7.2 Working Day** (Add the following):

The CONTRACTOR'S activities shall be confined to the hours between 7:00 A.M. and 4:00 P.M., Monday through Friday, excluding holidays. Deviation from these hours will not be permitted without the prior consent of the Engineer, except in emergencies involving immediate hazard to persons or property.

In the event of either a requested or emergency deviation where additional time, days or inspectors are deemed necessary, inspection service charges will be charged against the CONTRACTOR. The service charges will be calculated at overtime rates including benefits, overhead, and travel time. The service charges will be deducted from any amounts due the CONTRACTOR.

**6-9 LIQUIDATED DAMAGES**

(Replace last sentence of the first paragraph and the entire second paragraph with the following):

For each consecutive calendar day in excess of the time specified, as adjusted in accordance with Subsection 6-6, for completion of the work the CONTRACTOR shall pay to the AGENCY, or have withheld from monies due it, the sum of \$1,000.

Execution of the Contract shall constitute agreement by the Agency and CONTRACTOR that \$1,000 per day is the minimum value of the costs and actual damage caused by the failure of the CONTRACTOR to complete the Work within the allotted time. Such sum is liquidated damages and shall not be construed as a penalty, and may be deducted from payments due the CONTRACTOR if such delay occurs.

**SECTION 7 - RESPONSIBILITIES OF THE CONTRACTOR****7-1 CONTRACTOR'S EQUIPMENT AND FACILITIES** (Add the following):

A noise level limit of 86 dba at a distance of fifty feet (50') shall apply to all construction equipment on or related to the job whether owned by the CONTRACTOR or not. The use of excessively loud warning signals shall be avoided except in those cases required for the protection of personnel.

**7-2 LABOR****7-2.1 Laws** (Add the following):

The CONTRACTOR, and all subcontractors, suppliers and vendors, shall comply with all AGENCY, State, and Federal orders to ensure equal employment opportunities and fair employment practices.

**7-3 LIABILITY INSURANCE**

(Replace the entire Subsection with the following):

**7-3.1 Indemnification**

The CONTRACTOR shall indemnify and save harmless the City of Rancho Mirage, the State of California, the County of Riverside, and/or any incorporated city for all claims or suits for damages arising from his/her prosecution of the contract work, as more fully described in Subsection 7-3.2 "Contractor's Liability."

**7-3.2 Contractor's Liability**

The City of Rancho Mirage, its City Council, or its Engineer, shall not be answerable or accountable in any manner for any loss or damage that may happen to the work or any part thereof; or for any of the materials or other things used or employed in performing the work; or for injury to any person or persons, either workmen or the public; or for damage to adjoining property from any cause which might have been prevented by the CONTRACTOR or his/her workmen or any one employed by him, against all of which injuries or damages to persons and property the CONTRACTOR, having control over such work, must properly guard. The CONTRACTOR shall be responsible for any damage to any person or property resulting from defects or obstructions or any time before its completion and final acceptance, and shall indemnify and save harmless the City of Rancho Mirage, its City Council, and the Engineer from all suits or actions of every name and description brought for, or on account of, any injuries or damages received or sustained by any person or persons, by the CONTRACTOR, his/her servants or agents, in the construction of the work or by or in consequence of any negligence in guarding the same, in improper materials used in its construction, or by or on account of any act or omission of the CONTRACTOR or has agents, and so much of the money due the CONTRACTOR under and by virtue of the contract as shall be considered necessary by the CITY may be retained by the CITY until disposition has been made of such suits or claims for damages aforesaid.

If, in the opinion of the Engineer, the precautions taken by the CONTRACTOR are not safe or adequate at any time during the life of the contract, he may order the CONTRACTOR to take further precautions, and if the CONTRACTOR shall fail to do so, the Engineer may order the work done by others and charge the CONTRACTOR for the cost thereof, such cost to be deducted from any money due or becoming due the CONTRACTOR. Failure of the Engineer to order such additional precautions, however, shall not relieve the CONTRACTOR from his/her full responsibility for public safety.

**7-5 PERMITS** (Replace the first sentence with the following):

Prior to the start of any work, the CONTRACTOR shall take out the applicable CITY permits and make arrangements for CITY inspections. The CONTRACTOR and all subcontractors shall each obtain any and all other permits, state licenses, CITY Business licenses, inspections, certificates, or authorizations required by any governing body or public utility. The City of Rancho Mirage encroachment permit fee is listed in the Bid Proposal. The permit shall be obtained by the contractor prior to the start of work. Payment for this work shall be included in the bid item of work "Encroachment Permit" and no additional compensation will be allowed.

**7-8 PROJECT SITE MAINTENANCE** (Add the following):

**7-8.1 Cleanup and Dust Control.**

The CONTRACTOR shall read and abide by the requirements set out in the **Local Air Quality Management Plan** attached to the Plans. In particular this has provisions for: control of the site construction dust through **daily watering** of all disturbed areas and/or treatment of said areas with an approved "Dust Palliative" as described under Section 7-9, "Protection and Restoration of Existing Improvements", any requirements for all hauled materials to be appropriately covered with tarps; and a provision for street sweeping to remove sand and dust from traffic zones. Any sandblasting must be done by the "wet" method, and all residues must be cleaned up by street sweepers as soon as possible. Any substance other than water to be used for dust control for this project must be pre-approved by both the Engineer and the Regional Water Quality Control Board.

Costs for maintaining dust control measures, including hydromulch, fiber and other palliatives during construction and obtaining and applying construction water for dust control shall be paid for in the listed Bid Item "Clearing and Grubbing".

**7-8.1.1 Demolition and Construction Material Recycling.**

CONTRACTOR shall recycle demolition and construction materials from the job site. For example, asphalt, concrete, metals, glass, and greenwaste are all recyclable materials. CONTRACTOR shall provide the City with verification, including name and address, of the company hauling the recyclable materials. Weight tickets shall be submitted to the City from the facility receiving the materials.

**7-8.6 Water Pollution Control** [Add the following]:

The CONTRACTOR shall be responsible for complying with all requirements of Caltrans Standard Specifications Section 7-1.01G, "Water Pollution," and the "Caltrans Storm Water Quality Handbook, Construction Contractor's Guide and Specifications," latest edition, for development and implementation of the Storm Water Pollution Prevention Plan (SWPPP). The SWPPP shall also be in full conformance with the latest requirements of the Regional Water Quality Control Board, the Whitewater River Region Storm Water Management Plan (SWMP), the City of Rancho Mirage Local Implementation Plan (LIP), and the project specific requirements of the City Engineer. The most stringent current requirements shall be in effect.

The CONTRACTOR is hereby notified that specific construction practices in the Caltrans Standard Specifications, Section 7, "Responsibilities of the Contractor," are considered to be the Best Management Practices, and are in some cases subject to amendments and updates from regulatory agencies and ordinances. Applicable construction practices in the Standard Specifications and other current relevant sources shall be incorporated into the SWPPP. Additionally, at a minimum, the CONTRACTOR'S work will be in compliance with the Caltrans Statewide National Pollutant Discharge Elimination System (NPDES) Storm Water Permit, Order No. 99-06 DWQ, and NPDES No. CAS000003, adopted by the State Water Resources Control Board (SWRCB) on July 15, 1999, in addition to the BMP's specified in the Caltrans Storm Water Management Plan (SWMP), the Whitewater River Region SWMP, the City of Rancho Mirage LIP and the Regional Water Quality Control Board Permit for Linear Projects. When applicable, the Permittee will also conform to the requirements of the General NPDES Permit for Construction Activities, Order No. 2009-0009-DWQ, NPDES No. CAS000002, and any subsequent General Permit in effect at the time of issuance of this Encroachment Permit.

At the time of the preconstruction meeting the CONTRACTOR must have the SWPPP completed and signed by the responsible parties, and it shall be reviewed and accepted by the City prior to submittal to the Regional Board and the start of any work. The CONTRACTOR shall name himself as the "responsible party" in the permit.

**The CONTRACTOR shall be responsible for conducting all required monitoring inspections and shall file original copies of the inspections and all other reports, certifications or records as required by the SWPPP with the City. All fines levied as a result of the CONTRACTOR's failure to comply with the requirements of the SWPPP, shall be the CONTRACTOR's responsibility.**

Time extensions will not be allowed for any suspension of work as a result of the CONTRACTOR's noncompliance with the SWPPP.

Payment for preparing and gaining approval of the SWPPP, complying with the SWPPP, and implementation of the SWPPP, shall be paid for in the bid item Clear and Grub, and no additional compensation shall be allowed.

**7-8.7 Drainage Control** (Add the following):

Flow, Acceptance and Removal of Water

It is anticipated that storm, surface or other waters will be encountered at various times during the work herein contemplated. The CONTRACTOR, by submitting a bid acknowledges that he/she has investigated the risk arising from such waters and has prepared his/her bid accordingly, and CONTRACTOR submitting a bid, assumes all said risk.

The CONTRACTOR shall conduct his/her operations in such a manner that storm or other existing waters may proceed uninterrupted along their existing street or drainage courses. Diversions of water for short reaches to protect construction in progress will be permitted if public and/or private properties, in the opinion of the Engineer, are not subject to probability of damage. The CONTRACTOR shall obtain written permission from the applicable public agency or property owner before any diversion of water outside of public right-of-way will be permitted.

The CONTRACTOR shall provide and maintain at all times during construction ample means and devices to promptly remove and properly dispose of all water entering the excavations or other parts of the work. No concrete footing or structure shall be laid in water nor shall water be allowed to rise over them until the concrete or mortar has set at least eight (8) hours. Water shall not be allowed to rise unequally against a wall for a period of twenty-eight (28) days. Dewatering for the structures and pipelines shall commence when ground water is first encountered, and shall be continuous until such time as water can be allowed to rise in accordance with the above paragraph. Dewatering shall be accomplished by well points or some other method which will insure a dry hold and preservation of final lines and grade of the bottoms of excavation, all subject to the approval of the Engineer.

#### **7-9 PROTECTION AND RESTORATION OF EXISTING IMPROVEMENTS** (Add the following):

If any irrigation facilities are encountered they shall be preserved in place or repaired quickly so no serious disruption in watering takes place.

Restoration of other landscape items shall follow the Standard Specifications except as modified by these Special Provisions. If questions arise about how the finished products should look, the CONTRACTOR should anticipate allowing direction from the residents and the Engineer. If resident requests appear to be beyond the scope of the plans and specifications, the CONTRACTOR shall get written clearance from the Engineer to proceed prior to doing the work. However, the City is not opposed to the CONTRACTOR setting up separate construction agreements outside this contract if they do not interfere with this project. If such "side-jobs" require City Permits, the CONTRACTOR is responsible for getting them prior to the work being done.

At the end of the project, and/or prior to stopping the daily watering routine, all non-traffic disturbed areas shall be sealed with a wood fiber or recycled paper "hydromulch" containing a natural or chemical binding agent acceptable to the City and the Regional Water Quality Control Board per Caltrans Standard Specifications 20-2.07 "Fiber". Formulations and application should be aimed at stabilizing the soil until such time as native plants re-establish themselves. Alternately, such areas may be treated by seeding them with a grass or flower seed and continuing the watering operations until the plants are at least 2" high.

Fiber shall be produced from natural or recycled (pulp) fiber, such as wood chips or similar wood materials or from newsprint, chipboard, corrugated cardboard or a combination of these processed materials, and shall be free of synthetic or plastic materials. Fiber shall not contain more than 7 percent ash as determined by the Technical Association of the Pulp and Paper Industry (TAPPI) Standard T413, shall contain less than 250 parts per million boron and shall be otherwise nontoxic to plant or animal life.

Fiber shall have a water-holding capacity by mass of not less than 1200 percent as determined by the procedure designated in the Caltrans Final Report, CA-DOT-TL-2176-1-76-36, "Water-Holding Capacity for Hydromulch," available from the Caltrans Laboratory.

Fiber shall be of such character that the fiber will disperse into a uniform slurry when mixed with water. Water content of the fiber before mixing into slurry shall not exceed 15 percent of the dry mass of the fiber. The percentage of water in the fiber shall be determined by California Test 226. Fiber shall have the moisture content of the fiber marked on the package. Fiber shall be colored to contrast with the area on which the fiber is to be applied, and shall not stain concrete or painted surfaces.

A certificate of Compliance for fiber shall be furnished to the Engineer in conformance with the provisions in Section 6-1.07, "Certificates of Compliance," in the Caltrans Standard Specifications.

The hydromulch shall have a binder material that is safe for the environment; such as may be created from natural substances like lignin or cellulose, or chemical binders that have been approved by the Regional Water Quality Control Board such as Acrylic Polymer. The binder shall be of sufficient strength when combined with the hydromulch that weeds will be able to re-establish themselves before the hydromulch breaks down. An application rate shall be chosen that leaves a layer approximately ¼ inch thick on all surfaces. A neutral colorant (typically green or brown) shall be added to the hydromulch so that it contrasts slightly with the sand, so that application thoroughness can be readily checked. The colorant shall not stain concrete or other materials that it may come in contact with, and it should be designed to fade after application.

Payment for disturbed area sealant shall be included in the **Lump Sum** unit price bid for Clearing and Grubbing, and no additional payment will be made therefore.

**7-10 PUBLIC CONVENIENCE AND SAFETY**

**7-10.1 Traffic and Access** [Add the following paragraphs]:

When entering or leaving roadways carrying public traffic, the CONTRACTOR’S equipment, whether empty or loaded, shall in all cases yield to public traffic. Construction access shall only be as allowed by the City Engineer and as set forth in these Special Provisions and as shown on the approved Storm Water Pollution Control Plans and the approved Traffic Control Plan.

To the extent possible, access shall be maintained to all properties, businesses and residences by use of temporary ramps and/or detours. Driveway construction shall be phased to allow access during construction. Any closures shall be approved by the City Engineer prior to occurrence.

The CONTRACTOR shall notify all affected property owners of the proposed schedule a minimum of 48 hours, but not more than 72 hours, in advance of any limitation or closure of access to their property. Form of said notice shall be as approved by the Engineer and shall contain the date and time of the closure. In the event of delay, whether beyond the control of the CONTRACTOR or not, the CONTRACTOR shall notify all affected property owners as to the extent of the delay and his revised schedule. In the event of delay over 72 hours, the CONTRACTOR shall re-notify the property owners as described above. Payment for notification and coordination shall be included in the compensation paid for the various items of work and no additional compensation will be allowed.

**7-10.1.1 Traffic Control System** [Add the following section]:

A traffic control system shall consist of closing traffic lanes in accordance with the current California Department of Transportation California Manual on Traffic Control Devices, Latest Edition.

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 7-1.09, “Public Safety,” of the Standard Specifications.

**The CONTRACTOR shall submit a detailed traffic control plan (for each phase of construction), signed by a Registered Civil Engineer, to the City of Rancho Mirage 15 days prior to start of construction.**

All traffic signals shall remain in operation during the entire construction period. Any temporary modification of existing traffic signals shall be approved by the ENGINEER.

The CONTRACTOR shall furnish, install and maintain temporary construction signs, delineators, barricades, and other safety devices that are clean, in good condition, and are highly reflective as required for public safety as or directed by the ENGINEER. Attention is directed to Section 7, “Responsibilities of the CONTRACTOR” of the Standard Specifications and these Special Provisions. This work shall conform to the Standard Specifications, these special provisions and the APWA “Work Area Traffic Control Handbook” (Watch Manual). This includes but is not limited to:

- A. Mobilization
- B. Furnish, install and maintain temporary signs, flashers, barricades, delineators, etc.
- C. Remove temporary facilities upon completion of the project.

The CONTRACTOR shall place advance warning signs approved by the ENGINEER on both BOB HOPE DRIVE AND FRANK SINATRA DRIVE in all directions one week (minimum) prior to start of construction, to remain in place during the work, that notify public of construction period and possible delays. Changeable message signs shall be placed on BOB HOPE DRIVE AND FRANK SINATRA DRIVE in both directions at locations approved by the ENGINEER during the first 10 working days of the project, after which the changeable signs may be removed.

The CONTRACTOR shall provide at all times:

- **Bob Hope Drive** - One (1) 12-foot wide lanes of traffic and one (1) 11-foot wide left turn lane in each direction for use by public traffic during construction (to the extent possible) and at all times outside of working hours.
- **Frank Sinatra Drive** – One (1) 12-foot wide lane and one (1) 11-foot wide left turn lane in each direction for use by the public traffic during construction (to the extent possible) and at all times outside of working hours.
- Extra effort to facilitate flow of traffic at intersection.

Portions of the work at or near the project intersection may cause major disruptions to the flow of traffic or cause excessive delays that may require a Riverside County Sheriff's Deputy to direct traffic at the discretion of the City Inspector. Prior to work at the intersection, the CONTRACTOR shall alert the Inspector to the upcoming work and the proposed traffic control. If a Deputy is required, the CONTRACTOR shall make arrangements with the Riverside County Sheriff's Department and pay for the services.

CONTRACTOR shall notify adjacent businesses 48 hours prior to construction that will provide limited access to their business. Access to existing businesses shall be maintained at all times outside of working hours.

CONTRACTOR shall provide access to all existing bus stop locations outside the travel way. Any deviations requirements shall be approved by Sunline Transit Agency and shall be submitted to the CITY for approval.

CONTRACTOR shall at all times provide minimum 4' wide pedestrian access along Frank Sinatra and across the intersection during the work.

Each vehicle used to place, maintain, and remove components of a traffic control system shall be equipped with a Type II flashing arrow sign which shall be in operation when the vehicle is being used for placing, maintaining, or removing said components. The sign shall be controllable by the operator of the vehicle while the vehicles in motion. The flashing arrow sign shown on the plans shall not be used on the vehicles which are doing the placing, maintaining, and removing of components of a traffic control system, and shall be in place before a lane closure requiring its use is completed.

If any component in the traffic control system is displaced, or ceases to operate or function as specified, from any cause, during the progress of the work, the CONTRACTOR shall immediately repair said component to its location.

When lane closures are made for work periods only, at the end of each work period, all components of the traffic control system, except portable delineators placed along open trenches or excavation adjacent to the traveled way, shall be removed from the traveled way and shoulder. If the CONTRACTOR so elects, said components may be stored at selected central locations, approved by the ENGINEER, within the limits of the highway right of way.

**7-10.1.2 Payment**

Full compensation for providing the **Traffic Control** system (including signs) shall be considered as included in the Bid Item for Traffic Control and no additional payment will be made thereof.

**7-10.2 Storage of Equipment and Materials in Public Streets.** [Add the following]

The CONTRACTOR may, at his/her own expense, maintain and operate a work and storage area outside of the public right-of-way. In such case the CONTRACTOR shall submit to Agency written authorization from the owners of the subject property prior to occupation. Occupation of site without written authorization shall be grounds for immediate suspension of work. The Location of site is to be approved by Agency prior to usage. Condition and operation of yard shall conform to these specifications. The CONTRACTOR shall assume full responsibility for all damage to the site resulting from his/her operations and shall repair and or replace same at his/her own expense to the satisfaction of the owner of the subject property. The CONTRACTOR shall vacate site and clean it and seal it with a "hydromulch" or fiber per Section 7-9, "Protection and Restoration of Existing Improvements" noted above and as approved by the City Engineer within five (5) working days following application for Notice of Completion. The CONTRACTOR shall obtain a written release from the property owner specifying the condition of the vacated site and releasing the CONTRACTOR from any further clean-up or restoration work and shall submit a copy of such release to Agency. The Notice of Completion will not be issued until said release is submitted. Work areas and storage areas shall be included in and subject to the project Storm Water Pollution Prevention Plan (SWPPP).

Payment for the performance of any work, use or lease of property, maintenance and cleanup during occupation and following completion of all work shall be included in the compensation paid for the various items of work, and no additional compensation will be allowed.

**7-10.3 Street Closures, Detours and Barricades.** [Add the following]:

The CONTRACTOR shall maintain the minimum traffic requirements designated in the General Conditions.

No street or access closure to through traffic will be allowed without the express approval of the Agency.

The CONTRACTOR shall be responsible for providing temporary access to all driveways at the end of each work day and as much as possible during the construction day.

The CONTRACTOR shall provide and maintain all other signs, barricades pedestals, flashers, delineators and other necessary facilities for the protection of the public within the limits of the construction area. The CONTRACTOR shall also post proper signs to notify the public regarding detours and the condition of the roadway, all in accordance with the provisions of the Vehicle Code and the current California Department of Transportation California Manual on Traffic Control Devices, 2014 Edition. Should the CONTRACTOR appear to be neglectful or negligent in furnishing warning and protective measures as provided, the Engineer may direct attention to the existence of a hazard and the necessary warning and protective measures shall be furnished and installed by the CONTRACTOR at his expense. Should the Engineer point out the inadequacy of warning and protective measures, such action on the part of the Engineer shall not relieve the CONTRACTOR from responsibility for public safety or abrogate his obligation to furnish and pay for these devices.

When lane closures are made for work periods only, at the end of each work period, all components of the traffic control system, except portable delineators placed along open trenches or excavation adjacent to the traveled way, shall be removed from the traveled way and shoulder. If the CONTRACTOR so elects, said components may be stored at selected central locations, approved by the Engineer, within the limits of the highway right of way.

Full compensation for conforming to this article shall be considered as included in the various items of work involved, and no additional compensation will be allowed therefore.

All existing stop signs, street name signs and regulatory signs shall be maintained in visible locations during construction and permanently relocated or removed as directed by the plans and the Engineer.

**7-10.4.1 Safety Orders.** [Add the following paragraph]:

The CONTRACTOR shall comply with the provisions of any Agency ordinances or regulations regarding requirements for the protection of excavations and the nature of such protection.

**7-10.5 Truck Haul Route.** [Add as a new section]:

A truck haul route plan will be prepared and submitted to the City Engineer for all trucks transporting materials to and from the project site.

**7-10.5.1 General Requirements.** [Add as a new section]:

A Proposed truck haul route is to be submitted to the City Engineer's office for review. Upon approval, an approved copy shall be returned to the CONTRACTOR. The CONTRACTOR shall post an approved copy on the job site. All trucks working that project shall also carry a copy. If a truck is found not to be carrying an approved copy, the CONTRACTOR shall be subject to a Notice of Noncompliance (stop work order).

All trucks must cover the dirt with an acceptable tarp during transport for dust containment. Provisions for street sweeping and watering will also be required unless an active wheel washing facility proves that they are unnecessary to the satisfaction of the City Engineer.

All truck haul routes, as approved, are good only for the project time period, and trucks shall have to comply with the approved route only. If during the progress of the project an alternate route is needed, the CONTRACTOR shall submit a new plan. The haul route application shall contain the following information:

1. Map showing the proposed route
2. Project name
3. Owner's name, address and phone number
4. Grading Contractor's name, address and phone number
5. Type of material being hauled
6. Tract or Project Number involved
7. Grading, construction or Encroachment Permit number.

**SECTION 9 - MEASUREMENT AND PAYMENT**

**9-1 MEASUREMENT OF QUANTITIES FOR UNIT PRICE WORK**

**9-3.2 Partial and Final Payment** (Replace the last paragraph with the following):

The closure date for periodic progress payments shall be five (5) working days prior to the first Monday of each month. The final progress payment shall not be released until the CONTRACTOR returns the control set of plans and specifications showing the record conditions, and provides any other documentation or submittals required by these specifications.

The full five percent (5%) retention shall be deducted from all payments. The final retention shall be authorized for payment thirty-five (35) days after the date of recordation of the Notice Completion and Acceptance of the work.

In conformance with the State of California Public Contract Code Part 5, Section 22300, the CONTRACTOR may substitute securities for any monies withheld by the CITY to ensure performance under the contract.

**9-3.3 Delivered Materials** (Replace with the following):

Materials and equipment delivered but not incorporated into the work will not be included in the estimate for progress payment, subject to the discretion of the Engineer.

**9-3.4 Mobilization** (Replace with the following):

Mobilization shall consist of preparatory work and operations, including but not limited to those necessary for the movement of personnel, equipment, supplies and incidentals to the project site; for the establishment of all portable offices, buildings and other facilities necessary for the work on this project; and for all other work and operations which must be performed or cost incurred prior to beginning work on the various contract items on the project site.

Mobilization shall also include, but not be limited to, temporary power, construction water (including meter acquisition and fees), scheduling, progress reports, invoicing, permits (except as otherwise provided in these specifications), staging areas, special inspection, mobilizing equipment, personnel and materials, and all other indirect costs associated with completing the work and not covered or compensated under relevant bid items.

The compensation paid for mobilization shall be included in accordance with the Standard Specifications and paid for under the **lump sum** mobilization bid item and shall be full compensation for all costs incurred by the CONTRACTOR for doing all the work involved in mobilization as specified herein. Payment for mobilization will be included with the first month progress payment and shall be considered full compensation for the cost of such mobilization and administered for the entire contract period.

**PART 2 - CONSTRUCTION MATERIALS**

**SECTION 200 - ROCK MATERIALS**

**200-1 ROCK PRODUCTS**

**200-1.1 General.** [Add the following]:

Crushed Aggregate Base shall be per Section 26, Class 2 Aggregate Base, of the State Standard Specifications (Caltrans), ¾" maximum.

Subsection 26-1.02A "Class 2 Aggregate Base," of the Caltrans Specifications, shall be revised to include the following:

"Disintegrated granite, glass, porcelain, brick, wood, steel (reinforcing nails, etc.) or slag shall not be used for aggregate base. If any detrimental material or deleterious substance is found in the base material, it shall be cause for rejection and be removed from the site."

"Grading or blending of the material shall be done through a screening process."

Subsection 26-1.04, "Spreading" of the Caltrans Specifications, shall be revised to include the following:

"Tailgate spreading by dump truck will not be permitted except for spot dumping and in areas not readily accessible to spreading equipment."

**SECTION 201 - CONCRETE, MORTAR, AND RELATED MATERIALS**

**201-1 PORTLAND CEMENT CONCRETE**

**201-1.1 Requirements**

**201-1.1.2 Concrete Specified by Class** (Add the following as minimums for this project:)

Construction	Concrete Class	Maximum Slump
Street surface improvements (curb and gutter, curb, gutter, drive approach, spandrels, cross gutters):	560-C-3250	4"
Sidewalks, and access ramps	560-C-3250	4"
Concrete surrounding manhole, cleanouts, and vault frames.	560-C-3250	4"

**201-1.2 Materials**

**201-1.2.1 Portland Cement** (Add the following:)

The cement to be used or furnished shall be Type V Portland Cement conforming to ASTM C150, unless otherwise specified.

Portland Cement Concrete for structures shall conform to the provisions in Section 201 of the Standard Specifications except as modified herein.

All cast in place concrete structures shall be cured by the water method except where curing compound method is approved by the Engineer.

**201-1.2.4 Chemical Admixtures** (Add the following)

Admixtures may be used by the CONTRACTOR if approved by the Engineer and shall conform to Section 201-1.2.4 - Admixtures.

**201-1.2.5 Fly Ash** (Add the following)

Fly ash shall not be used in the concrete for this project.

**SECTION 203 - BITUMINOUS MATERIALS**

**203-6.1 General.** [Add the following to the end of the subsection]:

Asphalt concrete shall conform to the provisions of Subsection 400-1, "Rock Products," and Subsection 400-4, "Asphalt Concrete", except shall be in accordance with the Caltrans Aggregate Grading Requirement and performance grade as indicated.

The following aggregate size and performance grade of paving asphalt shall be used.

Asphalt Base Course	¾" Max., Medium	PG 70-10
Leveling and Final Course	½" Max., Medium	PG 70-10

The CONTRACTOR shall submit final asphalt mix designs to the Agency for review prior to paving.

**203-14.2.1 Tire Rubber Modified Paving Asphalt** [Revise section as shown below]:

Tire rubber modified paving asphalt shall be designed as MAC-15TR and requirements shown in Table 203-14.2.1 (A).

**203-14.3 Composition and Grading** (revise first paragraph as shown below):

TRMAC will be designed by class and tire rubber content for type for gap-graded mixes (TRMAC-15-GG-C).

The CONTRACTOR shall submit final asphalt mix designs to the Agency for review prior to paving.

**SECTION 209 – ELECTRICAL COMPONENTS**

**209-5.3.3 Interconnect Cable.** [Add the following]:

**Bob Hope Drive and Frank Sinatra Drive**

The existing Signal Interconnect Cable (SIC) will need to be removed with extreme care and pulled back to new controller cabinet. The contractor will be responsible for any damages to the SIC.

**SECTION 210 – PAINT AND PROTECTIVE COATINGS**

**210-1 PAINT**

**210-1.1 General Requirements.** [Add the following]:

Coatings and finishes on signal pole standards, poles, mast arms and other fixtures shall be protected from damage. Scratches, scrapes and other blemishes caused by the CONTRACTOR shall be repaired or refinished in kind and with the same color finish or coating to match existing.

**210-1.6 Traffic Signal Equipment Painting.** [Add the following section]:

**Any new traffic signal equipment shall be subject to the following specifications:**

All signal standards, mast arms and luminaire arms shall be finished in the factory with Tnemec Series 1075 Endura-Shield II polyurethane enamel topcoat in conjunction with 90-97 Tnemec-zinc urethane primer for ferrous metals and Series L69 High-Build Epoxoline II for aluminum surfaces for protection and finish of the exterior of colored equipment.

The pole manufacturer will be required to furnish the CITY with an original notarized Certificate of Compliance which guarantees the coating system used is in conformance with these specifications, that it is an equivalent coating system, and that it is free of defective workmanship. Final payment will be withheld pending the City's receipt of this certificate.

All signal standards, mast arms and luminaire arms shall be finished in the factory complete in accordance with the following specifications:

## SURFACE PREPARATION OF GALVANIZED STEEL AND NONFERROUS METAL

- A. Prepare galvanized steel and nonferrous metal surfaces in accordance with manufacturer's instructions.
- B. Ensure surfaces are dry.
- C. Remove Rust From Galvanized Steel:
  - 1. Remove white rust from galvanized steel by hand or power brushing.
  - 2. Remove rust from old galvanized steel in accordance with SSPC-SP 2 or SP 3.
  - 3. Do not damage or remove galvanizing.
- D. For interior and exterior moderate to severe exposure, galvanized surfaces shall be prepared by abrasive blast and/or chemical cleaning.
  - 1. Remove visible oil, grease, dirt, dust, protective mill coatings, and other soluble contaminants in accordance with SSPC-SP 1 or manufacturer's instructions as specified for coating system. Follow initial cleaning with one of the following Methods:
    - 1) SURFACE PREPARATION METHOD A (Preferred): Thoroughly roughen the entire surface to be coated using compressed air brush off blast cleaning with a fine abrasive to achieve a uniform anchor profile of 1-2 mils. Reference ASTM D 6386-99 (2005) Section 5.4.1.
    - 2) SURFACE PREPARATION METHOD B (Alternate method when Method A is not feasible): Chemically treat with one of the following products to etch the galvanized surface to be coated: Clean & Etch by Great Lakes Laboratory or Henkel Galvaprep 5. Reference ASTM D 6386-99 (2005) Section 5.4.2.

***NOTE: It is imperative to follow the above Manufacturer's recommendations in order to provide an effectual preparation.***

## SHOP APPLIED PAINT COATING REQUIREMENTS

- A. PRIMER: After galvanized steel surface preparation, apply a primer coat consisting of TNEMEC Series L69 High-Build Epoxoline II (**color 68BR Twine**) at a minimum of 2.5 mils D.F.T to all exterior surfaces, including all mounting surfaces. Primer coating shall be strictly applied according to manufacturer's recommendations. All surfaces shall be kept free of moisture, oil, grease and other organic matter until coating.
- B. TOPCOAT: Color topcoat shall consist of two coats of TNEMEC Series 1075 Endura-Shield II (**color 84BR Weathered Bark**), and each coat shall be a minimum thickness of 2.5 mils D.F.T. The finished topcoat shall be a minimum of 5 mils D.F.T. The total finished exterior coating system (primer and topcoat) shall be a minimum of 7.5 mils D.F.T.
- C. The complete coating system (primer and topcoat) shall be performed by the same shop coating vendor to ensure a compliant protective coating system resistant to corrosion, abrasion and impact.

## TOUCH-UP OF SHOP APPLIED COATINGS

- A. All shop applied coatings with the specified manufacturer's paint, shall be touched-up with the same specified manufacturer's primer. Notify the Project Engineer or Owner's Representative in writing of anticipated problems due to incompatible coating systems.
- B. All shop applied coatings with the specified primer shall be touched up with same specified primer before any specified topcoat(s) are applied.

The Controller Cabinet shall not be painted.

1. Handling and Shipment:

Poles shall be handled in a manner that will preserve the overall appearance and prevent damage to the coating. The use of chains or cables for loading, unloading, moving, relocating, shipping or installing is prohibited. Only 0.75-inch diameter or larger non-abrasive rope or equivalent nylon belting shall be used. Adequate hold-downs and appropriate blocking shall be utilized for shipping to prevent load movement and damage to the outer coating in transit. No handling shall be allowed until "dry through" condition has been achieved with the coating.

Signal heads, signal head housings and mountings, brackets and fittings, outside of hoods, pedestrian push button housings, pedestrian signal head housings and hood, back faces of back plates, service equipment cabinets, I.S.N.S. frames, hangers and clamps, and luminaries shall be finished to all requirements per Shop Applied Paint Coating Requirements A and B.. Care shall be taken not to paint over the photo cells on the back of the Programmed Visibility Signal Heads.

Interior of signal hoods, louvers and front faces of backplates shall be finished with two applications of enamel, "Traffic Signal Lusterless, Black" as specified in subsection 91-4.01 of the Caltrans Standard Specifications, Latest Edition, and shall have treated powder coating prior to painting by a City-approved process.

**SECTION 211 - MATERIAL TESTS**

**211-1.1 Laboratory Maximum Density.** [Replace with the following]:

Laboratory maximum density tests shall be performed in accordance with Test Method No. Calif. 216G, Part II. The correction for oversized material as stated in Test Method No. Calif. 216 shall be replaced with Note 2 of ASTM D1557.

**211-1.2 Field Density.** [Add the following Paragraph]:

The Engineer will make field density tests during the course of construction at the expense of the Agency. If field density tests indicate that any portion of the compacted subgrade has density lower than that specified, the CONTRACTOR shall rework that portion until the specified density is obtained. Retest of areas which have failed compaction will be performed by the Engineer at the CONTRACTOR'S expense.

**SECTION 214 – TRAFFIC STRIPING, CURB AND PAVEMENT MARKINGS, AND PAVEMENT MARKERS**

**214-1 General** [Add the following]:

Raised pavement markers shall conform to the provisions in Section 82, "Markers and Delineators," of the State Standard Specifications and these special provisions.

**All reflective raised pavement markers shall be Apex Universal Inc., Model 921AR (No Equal).**

Raised Reflective Pavement Markers at fire hydrants shall be Type-I two-way blue reflective markers conforming to the requirements to section 214-6 of the Standard Specifications.

Raised Reflective Pavement Markers shall be installed with Henry HE184 Flexible Dot Stick Adhesive.

**214-4 Paint for Striping and Markings**

**214-4.1 General.** [Add the following]:

Paint for traffic striping and marking shall conform to Caltrans Specification 84-3.

Materials - Materials shall conform to the provisions in Section 84- "Materials," of the State Standard Specifications and these Special Provisions and contained on the list of "pre-qualified and tests signing and delineation materials".

Painted striping shall have a minimum of two coats.

Paint and glass beads shall conform to the following State Specifications:

<u>Paint</u>	<u>State Specifications No.</u>
Rapid Dry water borne white,	
Yellow and black	8010-91D-30
Glass beads	8010-11E-22 Type 11

**214-5 Thermoplastic Material for Traffic Striping and Markings.** [Add the following]:

**214-5.1** Thermoplastic materials shall conform to the provisions in Section 84-2.02 “Materials” of the State Standard Specifications and these Special Provisions and as contained on the list of “pre-qualified and tests signing and delineation materials.”

**214-5.1.1 Scope.** [Add the following section]:

This specification covers a reflectorized pavement striping material of the type that is applied to the road surface in a molten state by “SCREENED/EXTRUSION” means with a surface application of glass beads at a specified rate. Upon cooling to normal pavement temperature, the material produces an adherent reflectorized stripe of specified thickness and width, capable of resisting deformation by traffic.

**214-5.1.2 Materials.** [Add the following section]:

The Thermoplastic material shall be available in white, yellow and black.

The thermoplastic material shall be homogeneously composed of pigment, fillers, resins and glass reflectorizing spheres. The vendor shall have the option of formulating the material according to his own specifications. However, the solid resin shall be “maleic-modified glycerol ester resin” (alkyd binder). The physical and chemical properties, as specified below, shall apply regardless of the type of formulation.

Glass beads shall be uncoated and conform to AASHTO M247-81 Type 1.

The thermoplastic material shall not deteriorate on contact with sodium chloride, calcium chloride or other de-icing chemicals or because of oil content of paving materials or oil droppings.

**214-5.1.3 Requirements of the Thermoplastic Mixture.** [Add the following section]:

The Specific Gravity of the white and yellow thermoplastic traffic line material shall not exceed 2.15.

The pigment, beads and fillers shall be uniformly dispersed in the resin. The material shall be free from all skins, dirt and foreign objects and shall comply with the requirements according to the table below.

**COMPOSITION (Percent by Weight)**

COMPONENT	WHITE	YELLOW	BLACK
Binder – See Note (b)	18.0 min.	18.0 min.	18.0 min.
Glass Beads 30-40 min.	30-40 min.	30-40 min.	0.0 max
Titanium Dioxide	10.0 min.	-----	0.0 max.
Calcium Carbonate & Inert Fillers	42.0 max.	50.0 max.	52.0 max.
Yellow and Black Pigments	-----	See Note (a)	See Note (a)

Note (a) Amount of yellow and black pigment, calcium carbonate and inert fillers shall be at the option of the manufacturer, providing that all other requirements of this specification are met.

Note (b) Alkyd binder shall consist of a mixture of synthetic resins, at least once of which is solid at room temperature, and high boiling point plasticizers. At least one-third of the binder composition shall be solid aleic-modified glycerol ester resin and shall be no less than 8 percent by weight of the entire material formulation. The binder shall not contain petroleum based hydrocarbon resins.

The color of the thermoplastic material, after heating for four hours + five minutes at 425 + 3 (218 + C) underagitation, shall meet with the following requirements:

White: Daylight reflectance at 45 degrees – 0 degrees – 75% minimum.

Yellow: Daylight reflectance at 45 degrees – 0 degrees – 45% minimum.

(For highway use, the yellow color shall reasonably match Color Chip Number 13538 of the Federal Standard Number 595 – Test performed at 77F)

Set Time. When applied at a temperature range of 412.5 + 12.5F (211 + 7C) and thickness of 0.060 to 0.125 inch (1.524 to 4.736 mm), the material shall set to bear traffic in not more than 2 minutes.

**214-6 Pavement Markers**

**214-6.1 Types of Markers** [Replace the following section]:

The description, type of markers, sampling, tolerances, packaging, and storage of non-reflective and reflective pavement markers shall be as specified in CALTRANS Specification Section 85 "Pavement Markers". The description, sampling, testing, packaging, labeling and storing of epoxies shall be as specified in CALTRANS Specification Section 95 "Epoxy".

**214-6.7 Measurement and Payment.** [Add the following section]:

Payment for the installation of pavement markers will be paid for at the contract **lump sum** price bid for Traffic Striping, Markings, Markers & Signs. The price bid shall be considered to include full payment for all materials, labor, equipment and incidentals required to construct the improvements in accordance with the Plans and Specifications, and no additional compensation will be made therefore.

**PART 3 - CONSTRUCTION METHODS****SECTION 300 - EARTHWORK****300-1.1 General.** [Add the following]:

## Miscellaneous

1. CONTRACTOR shall supply and apply an approved soil sterilant prior to installing new paving.
2. CONTRACTOR shall protect existing asphalt concrete pavement within the travelways of the project streets unless specifically indicated to be removed. The CONTRACTOR shall exercise extreme care with his operations so as to not damage the existing pavement. The CONTRACTOR shall repair, at his own expense, all pavement deemed solely by the Agency to have been damaged during the project by the CONTRACTOR.
3. CONTRACTOR shall be responsible for the removal and replacement in kind of all disturbed landscape irrigation and electrical lighting systems and the removal and disposal of any and all trees/landscaping necessary to complete the planned improvements shown or not shown on the plans. Existing irrigation facilities are to be plugged by the CONTRACTOR until the replacement system is constructed. To ensure the remainder landscaping irrigation still functions as it exists, temporary facilities will be constructed at the CONTRACTOR'S expense to allow the protection of the existing foliage. Palm trees that are designated to be removed shall be disposed of by the CONTRACTOR.
4. CONTRACTOR shall protect pipelines, curbs, sidewalks, pavements and facilities from damage caused by settlement, lateral movement, undermining, washout and other hazards created by the demolition operations. Any damage to existing improvements shall be replaced in kind as approved by the Engineer at the CONTRACTOR'S own expense.
5. Complete compliance with the Local Air Quality Management Plan (LAQMP) for this project, and all other items of work as directed in these Special Provisions. The CONTRACTOR shall be responsible for the procurement and application of a City approved "hydromulch" dust palliative. The City PM10 ordinance and local water quality control Best Management Practices. The CONTRACTOR shall place this approved "hydromulch" on all unimproved areas which have been disturbed by their operations. Unimproved areas shall include as a minimum the disturbed areas behind the curb and gutter and the select fill areas within the raised median islands.
6. CONTRACTOR shall provide for watering, including developing a water supply and furnishing and placing all water required for work done in the contract, including water used for extra work. CONTRACTOR shall obtain a temporary water meter or supply.
7. CONTRACTOR shall protect existing utilities, paving, curb and gutter, plant material, and irrigation not indicated on plans to be removed or otherwise made known to the CONTRACTOR prior to or during demolition work. If damaged, immediately notify the Agency's Representative. If existing active facilities encountered are not indicated or otherwise made known to the CONTRACTOR and require protection or relocation, the CONTRACTOR shall be responsible for taking whatever immediate steps are necessary to ensure that the service provided is not interrupted. If services are interrupted as a result of the CONTRACTOR'S operation, immediately notify the Agency's Representative. If existing utilities are found to interfere with the permanent facilities under construction under this Contract, immediately notify the Agency's Representative, in writing, requesting instructions on their disposition. Do not proceed until written instructions are received from the Agency's Representative.
8. CONTRACTOR shall be responsible for cleanup of the job site. CONTRACTOR shall leave the site in a clean and orderly manner. This item shall also be interpreted to include the removal or relocation of any additional items not specifically mentioned herein or covered by specific bid item, which may be found within the work limits whether shown or not shown on the plans to be removed or relocated.
9. Measurement and payment for all of the items of work noted above and for the supply and application of any AGENCY approved material shall be included in the CONTRACTOR'S bid item for Clearing and Grubbing and no additional compensation shall be allowed.
10. Contractor shall coordinate with CVWD for relocation of fire hydrant and air valve. Contractor shall allow five (5) days to CVWD to mobilize and complete the relocation work. Contractor shall rough grade site and remove obstructions prior to CVWD mobilization. Contractor shall delay installation of 20' section of curb and gutter at lateral locations until after the completion of CVWD work. Contractor shall provide and maintain traffic control during CVWD work. There shall be no additional measurement or payment made for accommodation of CVWD work and it shall be considered incidental to the project.

**300-1.3.2(a)** [Add the following]:

Removal of bituminous pavement shall be made to a sawcut at the designated lines of removal shown on the Plans or as designated by the Engineer. A wheel cut may be used at the discretion of the Engineer. Location of sawcut and width of existing pavement to be removed shall be as shown on the plans or as determined by the Engineer in the field. Minimum laying depth of new pavement material shall be 0.12 foot at join lines.

The areas and quantities shown on the plans or specifications are given only for the CONTRACTOR'S aid in planning the work and/or preparing bids. The Engineer shall designate the limits to be removed and these designated areas shall be considered to take precedence over the areas shown on the plans. No guarantee is made that areas or quantities shown will equal the areas or quantities designated by the Engineer. Spalled or loose blocks of pavement and pavement cracks wider than 3/8 inch will be deemed justification for extending or adding to the removal and replacement of asphalt concrete pavement.

The areas indicated for removal and replacement shall be excavated to the full depth of the proposed pavement section (asphalt and base), or as shown on the plans, regardless of thickness.

**300-1.4 Payment.** [Replace the first paragraph with the following]:

Compensation for **Clearing and Grubbing** shall be paid for at the **Lump Sum** contract price and no additional compensation will be allowed. Payment shall include full compensation for furnishing all labor, materials, tools, equipment, and doing all work involved in clearing and grubbing as specified. Payment for removal of bituminous pavement and base will be paid in the Sawcut and Remove A.C. Pavement and Base bid item. Existing curb and gutters, sidewalks, and other items of removal necessary for construction of the improvements will be considered included in their respective bid items. Items not covered under respective bid items shall be paid for under the bid item for Clearing and Grubbing, and no additional compensation shall be allowed.

**300-2 UNCLASSIFIED EXCAVATION**

Payment for unclassified excavation shall be included in the compensation paid for the various items of work and no additional compensation will be allowed.

**300-4 UNCLASSIFIED FILL****300-4.1 General.** [Add the following]:

Unclassified Fill shall be placed to the lines and grades shown on the plans, incorporated exhibits or detail drawings and in accordance with the methods of Section 300-4 of the Standard Specifications. Median islands, once constructed, shall be filled to four (4) inches below top of curb. **Any imported soil for the median island fill must have a soil test conducted to verify agricultural suitability.**

**Soil testing for agricultural suitability will include but is not limited to the following analysis: soil ph; EC; Boron, Calcium and Magnesium content and N, P, and K levels. A minimum of one composite sample will be taken for every five acres.**

Payment for unclassified fill shall be included in the compensation paid for the various items of work and no additional compensation will be allowed.

**SECTION 301 TREATED SOILS, SUBGRADE PREPARATION AND PLACEMENT OF BASE MATERIALS****301-1 SUBGRADE PREPARATION.**

Preparation of the pavement subgrade shall conform to the provisions of Section 301-1 of the Standard Specifications and these provisions.

**301-1.3 Relative Compaction.** [Add the following]:

Exposed subgrade to receive new pavement shall be scarified to a depth of 4", moisture conditioned, and recompacted. The top 12" of subgrade under pavement shall be compacted to 95% relative compaction.

**301-1.3 Payment.** Compensation for subgrade preparation shall be deemed to be included in the bid price of other items, and no additional compensation will be allowed.

**301-2 UNTREATED BASE****301-2.1 General.** [Add the following]:

Untreated base material shall conform to Section 200-1.1 of these specifications.

Preparation of the pavement subgrade shall conform to the provisions of Section 301-1 of the Standard Specifications and these provisions.

**301-2.3.1 Compacting.** [Add the following]:

Aggregate Base shall be compacted to 95% relative compaction.

**301-2.4 Measurement and Payment.** [Add the following]:

Payment for **Class II Aggregate Base** shall be included in the contract price per **Ton**. Payment shall be full compensation for furnishing all labor, materials, tools, equipment, and incidentals and all work involved in subgrade preparation, scarification, and compaction, and placement of untreated base and no additional compensation will be allowed therefore.

**301-6 SOIL STERILANT.** [Add the following sections]:

**301-6.1 General.**

All areas indicated on the Plans to receive P.C.C., stamped concrete or Asphalt Concrete Pavement over base material shall be prepared in accordance with applicable sections of the Standard Specifications concerning subgrade preparation. In addition, after the compaction is completed, the CONTRACTOR shall apply a soil sterilant to the subgrade. Application shall be by spray equipment which provides good mechanical agitation and even coverage of the area to be treated. Spray equipment shall be calibrated before material is applied, and the Engineer's decision as to the effectiveness of the spray equipment shall be final. Great care shall be taken to apply soils sterilant to the designated areas only. Concrete or asphalt may be placed immediately after placement of soil sterilant.

**301-6.2 Operator's License.**

The CONTRACTOR'S operator applying the soil sterilant shall be licensed by the State of California, Department of Food and Agricultural Affairs and registered with the Office of the Agricultural Commissioner of Orange County as a pest control officer.

**301-6.3 Application.**

Any soil sterilant, which is approved in writing by a licensed pest control advisor (for the purpose to which it will apply) may be used upon acceptance by the Engineer. The dye shall not stain concrete or masonry. Certification shall be furnished to the Engineer showing the purchase receipt and manufacturer's recommended rate of application of the material.

**301-6.4 Payment.**

The CONTRACTOR shall supply all labor, materials and equipment to apply the soil sterilant and shall include the cost for application in the unit price quoted for the related items of work.

**SECTION 302 - ROADWAY SURFACING**

**302-5 ASPHALT CONCRETE PAVEMENT**

**302-5.2.1.1 Localized Full Depth Pavement Repair** [Add the following section]:

Full depth Pavement Repair shall be done in the areas indicated in the project plans prior to overlay and shall consist of the sawcut and removal of the full AC pavement section, scarification and recompaction of the top 4" of base material, and placement of Asphalt Concrete to existing finish surface.

**302-5.2.3 Removal and Disposal of Material** [Add the following]:

Removal shall consist of planing and cutting the pavement where indicated and removing loosened material. No aggregate shall remain on the project at the end of each work day. Aggregate material loosened and directed removed shall become the property of the CONTRACTOR and shall be disposed of off the site in accordance with Subsection 300-2.6 as amended by these Special Provisions.

**The CONTRACTOR shall divert from the landfill all Portland Cement Concrete material and Asphalt Grindings removed from this project. The CONTRACTOR shall keep accurate weight tickets for material removed from this project to be reused as recycled material. Copies of weight tickets shall be provided to the City.**

**302-5.4 Tack Coat** [Replace with the following]:

Prior to paving over existing asphalt concrete, the surface shall be cleaned, cracks shall be sealed as shown below, and the surface shall have a tack coat of SS-1h emulsion at a rate of 0.10 gallon per square yard applied. The surface shall be free of water, foreign material, or dust, when the tack coat is applied. To minimize public inconvenience, no greater area shall be treated in any one day than is planned to be covered by asphalt concrete during the same day unless otherwise authorized by the Engineer.

A similar tack coat shall be applied to the surface of any course if the surface is such that a satisfactory bond cannot be obtained between it and the succeeding course. The contact surfaces of all cold pavement joints, curbs, gutters, and manholes shall be painted with grade SS-1h emulsified asphalt immediately before the adjoining asphalt concrete or ARHM is placed.

**All pavement cracks 1/8" to 1" in width shall be cleaned with a heat lance and sealed with crafcopolyflex type III crack sealant, or approved equal. Crack sealant shall be applied with a wand such that finish surface of the crack seal shall be left 1/4" low in the crack with no sealant at the surface. All cracks 1" or greater shall be cleaned with compressed air and broom to remove all loose material from the crack. Asphalt emulsion tack coat shall be applied to the crack faces. The CONTRACTOR shall fill the crack with 1/2" maximum medium hot mix and tamp. Any voids beneath the pavement must be filled with compacted hot mix prior to the asphalt overlay. Finish surface of the crack seal shall be flush with the surface in preparation of the asphalt overlay.**

Payment for crack sealing, patching and tack coating shall be included in the payment for Hot Mix Asphalt and tire Rubber Modified Paving Asphalt overlay and shall include full compensation for all labor, materials, tools, and equipment and for doing all work involved in crack sealing, patching, and tack coating, complete in place.

**302-5.5 Distribution and Spreading.** [Add the following]:

The base course, final course, and overlay shall be in conformance with Section 203-6.1 of these specifications.

At those locations where new asphalt concrete pavement joins existing asphalt pavement, the CONTRACTOR shall provide by cold milling or cold planning a 0.125' minimum header cut such that a butt joint can be achieved. No "feathering" or overlay of asphalt less than 0.125' will be allowed.

The Asphalt Concrete delivered to the site during paving operations may be deposited from bottom-dump trucks into a uniformly sized windrow, then pick up the material and convey it to the spreading machine with loading equipment provided that all Greenbook requirements are met.

**302-5.8 Manholes (and other structures).** [Add the following]:Adjustment of Sewer Manholes, Cleanouts and Water Valve Covers

All water valve covers and manhole covers shall be lowered by the Contractor prior to paving, and will be raised after paving is completed by Coachella Valley Water District.

Water valves shall be protected in a place and shall be accessible at all times during construction.

The CONTRACTOR shall notify the Coachella Valley Water District forty-eight (48) hours prior to beginning of work.

Other Utility Vaults and Valves

The CONTRACTOR shall check with the utility companies shown in Section 5-1 to confirm whether the CONTRACTOR is responsible for readjusting vault covers and valves or if it is to be done by the utility company. If such facilities must be lowered for the CONTRACTOR to prepare the roadway, the CONTRACTOR shall make any arrangements for the utility company to temporarily lower and place suitable steel plates and/or caps over said facilities. The time for such preparation should be included in the CONTRACTOR'S scheduling. For emergency purposes, gas valves shall be kept readily accessible at all times. **Payment for any such utility preparation shall be included with the clearing and grubbing bid item.**

**302-5.9 Measurement and Payment.** [Add the following]:

**Asphalt Concrete** for pavement sections shall be measured by the ton. Payment shall be made at the contract unit price bid per ton and shall include full compensation for all labor, materials, tools, and equipment and for doing all work involved in placing asphalt concrete, complete in place. **The CONTRACTOR will not be paid for more than ten percent (10%) additional tonnage without the prior approval of the Engineer.**

**Lower Water Valve Covers and Manhole Covers** including all appurtenant work will be included in the contract price per each.

**SECTION 303 - CONCRETE AND MASONRY CONSTRUCTION****303-1 CONCRETE STRUCTURES.****303-1.1 General.** [Add the following paragraphs]:

Catch Basin and Local Depression shall conform to the provisions of the Standard Specifications as modified herein.

Reinforcing steel shall be Grade 60 billet steel conforming to ASTM A615.

Catch Basins and Local Depressions shall be constructed in accordance with the provisions of Section 303-1 Concrete Structures of the Standard Specifications.

**303-1.11 Payment.** [Add the following]:

Payment for concrete structures shall be made at the contract unit bid price as noted in the bid schedule for each item and shall include full compensation for providing this item of work, complete in place, including structure excavation, structure backfill, reinforcing, forming, finishing, drainage and filter material, and all provisions of the standard plans as depicted in the contract documents and no additional compensation will be allowed.

Concrete Masonry [Add the following paragraphs]:

**GENERAL**

DESCRIPTION: The applicable provisions of the General Conditions and the Special Conditions of these specifications shall govern the work of this section as if herein written in full. Provide concrete unit masonry, complete.

Work In this Section: Principal items include:

- Concrete block masonry.
- Grouting of masonry.
- Installing reinforcing steel bars in masonry.
- Furnishing and delivery of steel bar reinforcing for masonry.
- Dowels in concrete for masonry.
- Waterproofing behind masonry foundation wall.

JOB CONDITIONS: Inspect and verify surfaces to receive work of this section. Report all conditions that prevent correct installation of masonry.

**PART 2 - PRODUCTS****BASIC MATERIALS:**

Portland cement: ASTM C150, Type II, low alkali. Masonry cement is not acceptable. Use only one brand.

Hydrated lime: ASTM C207, Type S.

Mortar sand: ASTM C144, not less than 4% passing No. 100 sieve, uniformly graded from fine to coarse.

Grout sand: ASTM C404, natural, Size No. 1.

Pea gravel: ASTM C404, gravel, except maximum 5% passing No. 8 sieve and all passing a 3/8" sieve.

Mortar admix: Sika Red Label or equal.

Grout admix: Sika Chemical Corp. GA Grout Aid II; no substitution.

Water: From domestic potable source.

Control Joint Filler: Dur-O-Wal "Rapid Control Joint", wide flange unless regular flange is shown, sizes as required.

CONCRETE BLOCK MATERIALS: ASTM C90, Grade N, Type I, standard precision medium weight aggregate units, steam-cured or yard air cured for 28 days, meeting Quality Control Standards of Concrete Masonry Association, natural cement color smooth faced units unless otherwise indicated or specified. Included matching control joint, bond beam, and other special shape, type, or size units as required.

**MORTAR AND GROUT PROPORTIONS AND MIXING:**

Strengths: Minimum compressive strengths, 1,800 psi for mortar and 2,000 psi for grout at 28 days.

Proportions: Accurately measure all mortar and grout by the volume method using calibrated containers. Shovel measurements are not acceptable.

1. Mortar: Type S conforming to Building Code Table 24-A; include mortar admix in mortar for exterior masonry, quantity per manufacturer's directions.

2. Grout: By volume, 1 part Portland cement, not more than 3 parts damp loose sand, and 1 to 2 parts pea gravel; exact proportions as required for the minimum 2,000 psi compressive strength. For coarse grout, add 2 parts pea gravel to fine grout mix. Include grout admix of correct type, proportioned per manufacturer's directions.

Mixing: Place half of the required water and sand in an operating machine mixer; then add Portland cement, remainder of sand and water, and then hydrated lime. Machine mix not less than 5 minutes after all ingredients are charged

Retempering: Retemper mortar within one hour after leaving the mixer and maintain high plasticity. Add water in a basin formed in the mortar and rework mortar into water. Discard all mortar that is not used within one hour or that has begun to initially set.

## EXECUTION

### GENERAL INSTALLATION REQUIREMENTS:

Layout: Lay plumb, level and to plane surface. Mortar joints straight, clean and uniform in thickness.

#### Interface With Other Work:

Locate dowel positions before concrete is placed so dowels match reinforcing steel in masonry. Furnish a dowel placing plan. Locate elevations for joint between concrete footing and masonry.

Place bolts, anchors, drilled-in wedge type anchors, metal attachments, and inserts required for other work for attaching other items to masonry.

**INSTALLATION OF CONCRETE BLOCK MASONRY:** Lay out unit masonry to minimize cutting of units and use of odd joint sizes or bond. Construct all masonry in accordance with Code and Concrete Masonry Association standards for reinforced masonry. Place and embed in masonry anchors, bolts, reglets, sleeves, conduits, and all other items furnished under other sections, fully grouted in place. Work out details and be responsible for size, position, and arrangement of embedded items and necessary openings. Cut units by machine saw. Install only clean uncracked units.

Setting: Install masonry to preserve unobstructed vertical continuity of block cells. full bed face shells and cross webs in mortar. Fill header or end joints solid with mortar to a depth from face of wall or unit not less than the thickness of the longitudinal face shells. Provide corner bond by lapping units in successive vertical courses.

Cleanout Openings: Provide openings at the bottom of cells containing bar reinforcing. Remove all overhanging mortar and other obstructions or debris from the interior of block cells. Seal cleanouts with matching whole units and mortar joints.

Placing Reinforcing Steel: Use deep-cut bond beam units at horizontal reinforcing bars. Install open end units for vertical bars unless otherwise shown.

Position vertical bars accurately at the lateral position indicated within a tolerance of 1/8 inch. Maintain a minimum clearance between the bars and masonry units of 1/2 inch and between parallel bars of one diameter of the reinforcement. Hold vertical reinforcing on place using metal supports, centering clips, spacers, ties or caging devices located near the ends of each bar and at intermediate intervals of not more than 192 diameters of the reinforcement. Laying ties in mortar joints will not be permitted.

Splices: Locate splices only as indicated. Stagger splices in adjacent bars at least 24 inches. Lap bars a minimum of 40 diameters of the reinforcement or two feet, whichever is greater. Welded or mechanical connections shall develop the full strength of the reinforcement.

Grouting: Fill all cells with grout. Pour in 4-foot lifts, waiting about 1-hour between lifts. Pour full height in each section of the wall in one work shift. Consolidate grout by puddling or internal vibration, then reconsolidate about 10 minutes later before plasticity is lost. Form horizontal construction joints by stopping the grout pour 1-1/2" below top of masonry units. High lift group placement may be used at Contractor's option as approved and according to Code.

Bond and Joints: Lay units with 1/2-unit running bond, vertical joints in alternate courses aligned and plumb. Make joints uniformly 3/8" size, concealed joints struck flush. For joints in walls to receive waterproof membranes, use care to obtain smooth surface to receive waterproofing. Compact and dense con-cave tool exposed joints with 1-1/2" diameter plastic or similar non-staining tool.

Weep Holes: Provide 1/4" diameter weep holes at bottom of ungrouted cells of exterior walls, or provide weep holes at maximum 32" centers with drain slots under webs of intervening units.

WALL CONTROL JOINTS: Provide for walls where shown, control joint filler placed for full height of each joint. Caulk exterior face of joints according to Section 07920.

PARGING: Parge walls wherever required to assure smooth surfaces to receive waterproofing.

Clean wall surfaces thoroughly. Apply Larson Products Co. Weldcrete bonding agent to surfaces of wall in accordance with manufacturer's instructions.

Apply parge coat of Type S mortar, conforming to Title 24, Table 24-A (1 part Portland cement, 1/4 to 1/2 part hydrated lime, 2-1/4 to 3 parts fine aggregate) with Laticrete latex admix added per admix manufacturer's directions. Apply in uniform coats to a total thickness of 3/4 inch. Scarify first parging coat to ensure full bond to subsequent coat.

Use a steel-trowel finish to produce a smooth, flat, dense surface with a maximum surface variation of 1/8 inch per foot. Form a wash at top of parging and a cove at bottom. Damp cure parging for at least 24 hours and protect until cured. Provide nailers if required for attachment of membrane.

CURING: Keep newly constructed masonry damp for 3 days with regulated fog spray of water sufficient only to moisten faces of masonry but not in an amount as to cause water to flow down over masonry. Do not saturate masonry with water for curing or any other purposes and protect from rain or flooding during curing period.

CLEANING: Clean mortar and grout off exposed surfaces immediately and as the work progresses. Acceptably repair imperfect joints, holes, defaced units, chipped edges or corners, and all other defects, or replace the defective units as required for approval. Mortar or grout staining on exposed masonry surfaces is subject to sandblast cleaning of the entire surface involved to obtain clean uniform approved appearance, as directed and at no additional contract cost.

PAINT: The Contractor shall match paint (Moroccan Pink) for the proposed block wall and retaining wall to existing block wall.

ANTI-GRAFFITI: The contractor shall apply Hi-build Anti Graffiti Coatings for exterior of the block wall. There shall be no additional measurement or payment made for Anti-Graffiti coating.

**Payment** [Add the following section]:

Payment for removal and construction of block wall shall be considered as included in the linear feet of 6' Min. High Block Wall with 8"x16" Orco Precision "Single Score" Block. It shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals as shown on the plans and as required in the Specifications.

It shall also include installation of foundation.

Payment for construction of retaining wall shall be considered as included in the linear feet of Retaining Wall with 8"x16" Orco Precision "Single Score" Block. It shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals as shown on the plans and as required in the Specifications.

It shall also include installation of foundation.

**303-3 CONCRETE CURBS, WALKS, GUTTERS, CROSS GUTTERS, MEDIAN NOSE DETAIL, ACCESS RAMPS AND DRIVEWAYS**

**303-3.1 General.** [Add the following paragraph]:

Concrete curbs, walks, gutters and driveways shall conform to the Standard Specifications as modified herein.

**303-3.2 Gutter.** [Add the following]:

Prior to acceptance of the curb and gutter constructed by the CONTRACTOR, a flow test shall be conducted by the CONTRACTOR in the presence of the Engineer. Any new work found to be defective shall be repaired or replaced by the CONTRACTOR in accordance with Subsection 303-5.7 of the Standard Specifications.

**303-3.3 Measurement and Payment.** [Add the following to this section]:

Payment for **Curb, Curb and Gutter, Sidewalks, Drive Approaches, Median Nose Detail, Access Ramps, ~~Parkway Drains~~, and Cross Gutters with Spandrels** shall be made at the contract unit bid price as noted in the bid schedule for each item and shall include full compensation for providing this item of work, complete in place, and no additional compensation will be allowed. The integral/monolithic curb on curb returns at cross gutters/spandrels will be included in the cost of the related items and will not be measured for payment. Payment for the landing area at access ramps will be included in the cost of sidewalks.

Payment for **access ramps** shall be made at the contract bid price as noted on the bid schedule. The landing area and PC Concrete is considered in the cost of the sidewalk. The ramp pay item shall include only the portion of the ramp within the distinctive scoring markings shown on the standard plans, and **shall not** include concrete surfaces between curb returns as indicated on the standard drawings. **The 3' x 4' truncated dome panel required (brown "Castin Tact" or equivalent set-in-concrete style) shall be included in the ramp contract bid price.**

The aggregate base required under curb and gutters, cross gutters, and spandrels, and driveway approaches shall be included in the cost for the related items of work and no additional compensation will be allowed.

### **307 STREET LIGHTING AND TRAFFIC SIGNALS**

#### **307-1 General** [Add the following]:

The CONTRACTOR shall furnish all tools, equipment, materials, supplies and manufactured articles and shall perform all operations necessary to construct traffic signal and street lighting facilities as shown on the drawings and as specified herein.

#### **Reference Specifications, Standard Plans and Agencies** [Add the following]:

Standard Specifications - Materials and installation for the traffic signal and safety lighting facilities shall conform to the Caltrans Standard Specifications (CSS), Latest Edition. All references in this section to "Standard Specifications" shall be understood to be referenced to the Caltrans Standards Specifications unless otherwise specified. Control of the project shall be observed under the requirements of the "Green Book," and as modified by these special provisions.

Standard Plans – For the Traffic Signal and Safety Lighting Facilities all references in this section to "Standard Plans" shall be understood to be referenced to the Caltrans Standards Plans (CSP), Latest Edition, except as otherwise modified by the special provisions.

Codes, Ordinances, and Regulations - All electrical materials and equipment furnished and installed under this section shall conform to the referenced regulations and codes specified in Section 86-1.02 of the Standard Specifications, and to all other ordinances, specifications, standards and regulations of the authorities having jurisdiction.

City Standard Plans – The details and standards for street lighting and traffic signals within the scope of this section are referenced to the City of Rancho Mirage Standards, as noted on the project plans.

#### **307-1.1 Prepare and Paint Existing Signal Equipment** [Add the following]:

The work to be done consists of surface preparation and painting all traffic signals specified on the bid proposal sheet. Such work shall include, but not be limited to, surface preparation, painting all traffic signal standards, bases, mast arms, luminaire heads, luminaire mast arms, pedestrian signal heads, pedestrian push buttons, backs of signal heads, back plate of signal heads, illuminated street name sign framework, all mounting hardware, and electrical service pedestals. No paint will be applied on any glassware, pole numbers, lenses, traffic control cabinets, and any un-painted surfaces. The fronts of all signal head visors will be painted with a flat black enamel color. The inside of lens visors are to be painted with a flat black enamel color. The pole number is to be masked or neatly trimmed around.

The painting process will include surface preparation, cleaning, finish coating, and clean up of the area. The contractor is responsible for the protection of the public and property from paint droppings and from contact with wet paint. Special care is to be taken to prevent any paint from dripping on sidewalks. Any paint, solvent or other chemicals which stain the sidewalk must be thoroughly cleaned.

Inspection will be required by the City representative after preparation and after each application of paint. It will be the responsibility of the contractor to trim or prune any trees or shrubbery adjacent to the traffic signals as necessary to permit proper preparation and finish. The contractor will remove all debris and soil around the traffic signal base as is necessary to properly prepare and paint the bottom portion of the traffic signal down to the junction with the cement base.

The contractor will guarantee his work and materials for a period of three years against fading, chipping, or peeling.

Contractor shall apply Tnemec paints on all items stated in the contract as follows:

1. The contractor shall prepare the existing surfaces for top coating by removing all loose rust, dirt, moisture, grease, and other contaminants from the surface. Light sanding of the surface to be coated with a medium-grit sandpaper (120-150 grit) may be required if a glossy sheen remains after cleaning surfaces with an approved solvent. The contractor shall notify the City Inspector immediately if rusted or heavily damaged areas are found.
 

The contractor's cleaning procedure shall be presented to the Engineer in writing for approval prior to the start of work. The Contractor may additionally consult with the Tnemec representative for further guidelines.
2. Colored top coat shall consist of one coat acrylic polymer **Tnemec Series 1028 Color "Weathered Bark" 84BR**. Paint thickness shall be a minimum 2.5-3 mils D.F.T.
3. Paint application shall be by brush or roller only. No sprayer application shall be allowed. Care shall be taken not to drip paint on sidewalks, pavement, vehicles, etc.
4. Care shall be taken to not paint over the photocells on the back of the programmed visible signal heads.
5. Care shall be taken to not paint over photocells on the top of the safety lighting and illuminated street name signs.
6. For areas that have been finished but need touch up, the following procedure shall be used:
  - a) Wipe area to be touched up with a dry cloth or one slightly dampened with solvent. If solvent is used, allow area to dry before painting.
  - b) Mix the paint per the label instructions and attached specifications.
  - c) Apply a smooth, even coat with a brush or a roller to the touch up area.
  - d) Allow to dry completely.

### 307-1.3 Equipment List and Drawings [Add the following]:

**If any new traffic signal controller, or significant other control equipment is required, then the following applies:**

Equipment list and drawings of electrical equipment and material shall conform to the provisions in Section 86-1.03, "Equipment List and Drawings", of the Caltrans Standard Specifications, except as amended herein and the Special Provisions. The controller cabinet schematic wiring diagram and intersection sketch shall be on 24"x36" size sheets, or if desired, on 36"x48" size sheets for five through eight phase installations only, and shall be drawn in sufficiently large scale to be clearly readable by field technicians. Partial schematic diagrams of the basic cabinet wiring on 8½"x11" sheets will not be acceptable. One mylar reproducible print with 2 blue-line copies shall be provided for each diagram. The CONTRACTOR shall furnish a maintenance manual for all controller units, auxiliary equipment, and vehicle detector sensor units, control units, and amplifiers. The maintenance manual and operation manual shall be submitted at the time of the controllers are delivered for testing or, if ordered by the Engineer, previous to purchase. The maintenance manual shall include, but need not be limited to, the following items:

- Specifications
- Design characteristics
- General operation theory
- Function of all controls
- Detailed circuit analysis
- Troubleshooting procedure (diagnosis routine)
- Voltage charts with wave forms
- Block circuit diagram
- Geographical layout of components
- Schematic diagrams
- List of replaceable component parts with stock numbers

The CONTRACTOR shall submit to the Engineer "as-built" prints prior to final acceptance of the work. The "as-built" prints shall indicate in red all deviations from the contract plans.

**307-1.5 Maintenance of Existing Systems** [Add the following]:

Maintaining existing and temporary electrical systems shall conform to the provision in Section 86-1.06, "Maintaining Existing and Temporary Electrical Systems," of the Standard Specifications, except as amended herein and Special Provisions.

Maintenance of the existing traffic signals, street lighting, signs or approved temporary replacements shall be the responsibility of the CONTRACTOR. The CONTRACTOR shall provide a twenty-four (24) hour number where any intersection problem can be reported. He will have one (1) hour in which to respond to the maintenance call. Unless permission has been granted by the Engineer, the intersection shall not be left on flash more than two (2) hours. Existing streetlights shall remain in operation during construction and until the new lighting system is in operation.

All work to be done in connection with the modification of traffic signals shall be performed in such a manner that the signals shall be in continuous operation except for one (1) hour period between the hours of 8:30 AM and 3:30 PM on weekdays when they may be turned off for necessary work. Work requiring longer periods of time must be authorized by the Engineer. The placement of any temporary wiring necessary to maintain traffic signal operations shall provide a minimum of 5.5 m {18'} vertical clearance for vehicles and a minimum of 3 m {10'} over pedestrian areas. All safety regulations and precautions shall be observed in the installation work.

At those locations where existing poles and foundations must be relocated or removed to allow for installation of new or relocated poles and foundations, temporary signals shall be placed consisting of standard red, yellow and green 300-mm {12-inch} indications with backplates on standard 3 m {10'} Type 1-A poles unless otherwise approved by the City Engineer. The pole may be supported by attaching a metal base plate of sufficient size to prevent tipping. The temporary signal shall remain in operation until the new signal is put into operation.

A minimum of two (2) clearly visible signal faces shall be provided for traffic from each direction, one being adjacent to the right side of the travel way. At major intersections temporary mast arm signal indications shall be required and any additional signal equipment as determined by the Engineer.

48 hours prior to any turn-on, shutdown or flashing condition of the traffic signals, the CONTRACTOR shall notify the Engineer of his anticipated schedule.

During the shutdown, the CONTRACTOR shall provide a minimum of two (2) standard 900 mm {36-inch} stop signs placed on each approach of the intersection to the satisfaction of the Engineer. The CONTRACTOR shall make arrangements with the Police Department for traffic control if deemed necessary by the Engineer.

Existing traffic signal systems shall not be placed in proposed phasing operation until all equipment is installed and pavement markings are complete.

All signal indications, pedestrian push buttons, detectors and control equipment shall be maintained in operation except during shutdown hours as specified above.

Full compensation for maintaining and relocating existing and temporary electrical systems, poles, mast arms or other appurtenances and devices, shall be considered as included in the **lump sum** price paid for construction of traffic signals and lighting, and no additional compensation will be allowed.

**307-2 Construction General** [Add the following]:

Furnishing and installing traffic signals, interconnect, lighting and sign illumination systems and payment, therefore, shall conform to the provisions in Section 86, "Signals, Lighting and Electrical Systems," of the Caltrans Standard Specifications, Latest Edition.

Prior to the commencement of any work within public right-of-way, the CONTRACTOR shall obtain a City of Rancho Mirage Encroachment Permit, at the unit price shown in the BID PROPOSAL, from the City of Rancho Mirage Public Works Engineering Department.

**307-2.2 Foundations** [Add the following]:

Foundations for electroliers, signal standards, posts, cabinets, and pedestals shall conform to the applicable provision in Section 86-2.03, "Foundations," of the Standard Specifications except as amended herein and the Special Provisions.

Portland cement concrete shall conform to Section 90, "Portland Cement Concrete," of the Standard Specifications and Section 90-10, "Minor Concrete," of the Caltrans Standard Specials Provisions (CSSP), latest update. Concrete for reinforced pile foundations shall contain not less than 350 kg {590 pounds} of cement per cubic meter {cubic yard}.

**307-2.3 Standards, Pedestals, and Posts** [Add the following]:

Standards, steel pedestals, and posts shall conform to the provisions in Section 86-2.04, "Standards, Steel Pedestals, and Posts," of the Standard Specifications, the Standard Plans, except as amended herein and Special Provisions.

The location of all standards shall be approved in the field by the Engineer.

Standards, pedestals and posts shall be installed with 900-mm {36"} minimum clearance from pole centerline to face of curb or edge of shoulder unless otherwise shown on the plans or as directed by the Engineer.

Signal standard and mast arms shall be the designed per dimensions noted on the plans and Standard Plans. Slip-fit mast arms, truss arms and tie rods shall not be used with mast arm installation unless otherwise shown on the construction plans.

Standards shall be manufactured and installed as such that the handhole access faces parallel to travel lanes and in the direction of vehicular travel.

In addition to identifying each pole shaft as detailed on Standard Plan ES-7M, the CONTRACTOR shall also identify mast arm for both signals and luminaires. The standard metal identification tag shall be located on the mast arm near the connection plate.

Plumbing of the standards shall be accomplished by adjusting the nuts on the anchor bolts before the foundation cap is placed. Shims or other similar devices for plumbing the standard or raking will not be permitted. After plumbing the standard, anchor bolts shall be cut off 6 mm {0.250-inch} above the nuts. The newly exposed surfaces shall be repaired by thoroughly wire brushing the damaged areas to remove all loose and cracked coating. The cleaned exposed areas shall be painted with two (2) applications of unthinned zinc-rich primer (organic vehicle type) conforming to the provisions in Section 91, "Paint," of the Standard Specifications, and as modified by these specifications. Aerosol cans shall not be used.

The CONTRACTOR shall furnish and install all intersection signs on standards as shown on the plans and per the Special Provisions to the satisfaction of the Engineer.

**307-2.4 Pull Boxes** [Add the following]:

Pull boxes shall conform to the provisions in Section 86-2.06, "Pull Boxes," of the Standard Specifications, Standard Plans, except as amended herein and these Special Provisions.

In unimproved areas, install "Carsonite" (Class I Type E Flexible) pull box markers and marker posts with P.B. stenciled on the face of the marker.

Plastic pull boxes shall not be used.

The pull boxes shown on the plans are to be installed as a minimum. The CONTRACTOR may, at his own expense, install additional or large pull boxes to facilitate his work with the approval of the Engineer.

All pull boxes shall be set in a 1 foot wide, 4 inch thick "collar" of concrete in all areas other than A.C. or P.C.C. paving.

Pull boxes shall be No. 6 unless noted otherwise on the construction plans.

Pull box extensions shall be installed at pull box locations adjacent to the controller cabinet or as shown on the construction plans unless otherwise specified by the Engineer.

Installation of traffic pull boxes and covers shall not be permitted unless otherwise shown on the construction plans or approved by the City Engineer. Steel covers for pull boxes shall be provided when the boxes are subject to vehicular traffic loads and shall be of the overlapping or recessed types. Recessed steel covers shall be used within sidewalk areas subject to traffic loads.

Pull boxes shall not be installed in any part of a driveway, wheelchair access ramp or other vehicular traveled way excepted as otherwise provided in these special provisions.

After conductors have been installed, the ends of conduits terminating in pull boxes and controller cabinet shall be sealed with an approved type of sealing compound.

Inside bottom of all pull boxes shall be grouted and contain a 1" drain hole.

**307-2.5 Conduit** [Add the following]:

Conduit shall conform to the provisions of Section 86-2.05, "Conduit," of the CALTRANS Specifications, except as amended herein in the Special Provisions.

Non-metallic type conduit shall not be used.

Rigid metal conduit to be used as a drilling rod or jacking casing shall be fitted with suitable drill/jacking bits for the size hole required.

Insulated bonding bushings will be required on all conduits.

After conductors have been installed, the ends of conduits terminating in pull boxes and controller cabinets shall be sealed with an approved type of sealing compound.

Conduit runs are shown in schematic form only. Actual installation shall be done in the most direct manner, as approved by the ENGINEER. The CONTRACTOR shall locate the interfering underground facilities, if any, and the actual installation shall be done in the most direct manner as the existing underground condition permits and as approved by the ENGINEER.

**307-2.6 Wiring** [Add the following]:

Conductors and wiring shall conform to the provisions in Section 86-2.08, "Conductors," and Section 86-2.09, "Wiring," of the CALTRANS Standard Specifications, except as amended herein and in these Special Provisions.

Neutral and ground shall be No. 10 AWG copper. Three feet of slack shall be provided for each conductor in each pull box.

Nylon-jacketed conductors shall not be used.

Conductors No. 8 AWG and larger shall be stranded.

Where new conductors are to be added to existing conductors in a conduit, the CONTRACTOR shall:

Pull out existing conductors in the conduit and test the conductors for any defects per the Standards Specifications.

Clean the conduit per the Standard Specifications.

Replace all defective conductors with new conductors. Replacement of damaged conductors will be made by the CONTRACTOR. Compensation will be granted for the replacement of the conductors in accordance with Section 3-3 "Extra Work," of the "GREENBOOK, Standard Specifications for Public works Construction, latest edition.

Pull both the old and new conductors into the conduit as a unit.

Unless specified otherwise or permitted by the Engineer, splices will be permitted only in the following types of circuits at the following locations:

Grounding signal light conductors in pull boxes.

Pedestrian push buttons circuits in pull boxes.

Multiple lighting conductors in bases of standards or in pull boxes.

No splices shall be made in conduits.

Splice insulation shall conform to the provisions in Section 86-2.09E, "Splice Insulation," of the Caltrans Standard Specifications, Latest Edition, and these special provisions.

Conductors No. 10 AWG or larger shall be spliced by the use of "C" shaped compression connectors.

Splices shall be insulated by the Method "B".

The CONTRACTOR shall install new conductors where the plans designate that the existing conductors are to be "replaced".

Unless otherwise specified or permitted by the Engineer there will be no looping of phase wires between poles. The CONTRACTOR may install conductor cables in lieu of individual field wires with prior permission of the ENGINEER. However, extra work to increase conduit size as shown on the plans, or for installation of new additional conduits to compensate for shortfalls in conduit capacity shall not be granted. A conductor cable layout shall be submitted to the ENGINEER for approval.

### **307-2.7 Bonding and Grounding**

Bonding and Grounding shall conform to the provisions in Section 86-2.10, "Bonding and Grounding," of the Standard Specifications and Special Provisions, except as amended herein.

Grounding jumper shall be attached by a 3/16" or larger brass bolt in the standard or pedestal and shall be run to the conduit, ground rod or bonding wire in adjacent pull box.

Grounding jumper shall be visible after cap has been poured on foundation.

### **307-2.8 Service**

Service shall conform to the provisions in Section 86-2.11, "Service," of the **CALTRANS** Specifications and these Special Provisions.

The **CONTRACTOR** shall furnish and install a new Type III-CF Dual Metered Service per the Standard Plans ES-2F and painted per these Special Provisions. The controller and signal operation shall be serviced by one meter and the safety lighting and internally illuminated street name sign shall be serviced by the other.

The service cabinet shall be provided with two (2) test switches and two (2) photoelectric control units and shall be positioned so as to face in a northerly or easterly direction.

The **CONTRACTOR** shall notify the **ENGINEER** in writing at least 15 calendar days in advance of the date on which he desires any service connections or disconnects to be made. The **CONTRACTOR** shall be entitled to no extension of time or other compensation for any delay to this operation resulting from his failure to give the prescribed notification.

The twelfth paragraph of Section 86-2.11 is amended as follows: It shall be the Contractor's responsibility to verify the location of and to make arrangements for and to pay for all costs to provide the necessary connection for the traffic signal and lighting system..

### **307-4.9 Vehicle Detectors.**

#### **307-4.9.1 General.** [Delete the paragraph and replace with the following]:

Detectors shall conform to the provisions in subsection 86-5, "Detectors," of Caltrans Specifications and these Special Provisions. The location, type or types shall be as shown on the plans or as directed by the City Engineer.

#### **307-4.9.2 Sensor Units** [Add the following]:

Detector sensor units shall be detector systems card rack mounted two ~~or four~~ channel as indicated on the plans.

#### **307-4.9.3 Inductive Loops** [Delete the section and add the following]:

The CONTRACTOR shall furnish and install inductive loop vehicle detectors at the intersections to replace those removed or damaged as part of the paving and widening operation as shown on the plans.

Inductive Loops shall be installed after cat tracking and before thermoplastic placement.

All sawed loop slots shall be of the necessary width and a minimum of 3-inches in depth, clean, dry, and with no sharp corners which could damage the wire insulation during installation.

Section 86-5.01A (4), "Construction Materials", of the Caltrans Standard Specifications, the fourth paragraph, the last sentence, is amended to read:

Loop Wire shall be Type "2". Loop detector lead-in cables shall conform to Type "B" lead-in cable.

Residue resulting from slot cutting operations shall not be permitted to flow across shoulders or lanes occupied by public traffic and shall be removed from the pavement surface.

Unless otherwise directed by the engineer, saw cuts shall be sealed with an asphalt rubber crack sealant and shall conform to the provisions in Section 86-05.01A (5) "Hot-Melt Rubberized Asphalt Sealant."

All loop wire in the roadway shall be held tightly in the bottom of the sawed slot by means of a plastic foam type material referred to as "Backer Rod." A roller disc must be used to tightly compress the "Backer Rod" into the sawed slot as far as possible without damaging the loop wire. A maximum of two loops shall be connected per home run.

All adjacent loops shall be wound in alternating directions (i.e. CW, CCW, etc.) to provide a uniform field over the loop network.

Where loop wires leave the roadway behind the curb or edge of pavement, they shall be tightly twisted together with a minimum of five (5) turns per foot.

All loops shall have four (4) turns.

**All loops which detect for the same phase shall be connected in series.**

Add following Video Detection Specifications to the provisions in subsection 86-5, "Detectors," of Caltrans Specifications

**Video Detection – General**

This specification sets forth the minimum requirements for a system that monitors vehicles on a roadway via processing of video images. The detection of vehicles passing through the field-of-view of an image sensor shall be made available to a large variety of end user applications as simple contact closure outputs that reflect the current real-time detector or alarm states (on/off) or as summary traffic statistics that are reported locally or remotely. The contact closure outputs shall be provided to a traffic signal controller and comply with the National Electrical Manufacturers Association (NEMA) type C or D detector rack standards.

The system architecture shall fully support Ethernet networking of system components through a variety of industry standard and commercially available infrastructures that are used in the traffic industry. The data communications shall support direct connect, [modem,] and multi-drop interconnects. Simple, standard Ethernet wiring shall be supported to minimize overall system cost and improve reliability, utilizing existing infrastructure and ease of system installation and maintenance. Both streaming video and data communications shall optionally be interconnected over long distances through fiber optic, microwave, or other commonly used digital communications transport configurations.

On the software application side of the network, the system shall be integrated through a client-server relationship. A communications server application shall provide the data communications interface between as few as one to as many as hundreds of Machine Vision Processor (MVP) sensors and a number of client applications. The client applications shall either be hosted on the same PC as the communications server or may be distributed over a local area network of PC's using the industry standard TCP/IP network protocol. Multiple client applications shall execute simultaneously on the same host or multiple hosts, depending on the network configuration. Additionally, a web-browser interface shall allow use of industry standard Internet web browsers to connect to MVP sensors for setup, maintenance, and playing digital streaming video.

**System Hardware**

The machine vision system hardware shall consist of three components: 1) a color, 559 step, 10x zoom, MVP sensor 2) a modular cabinet interface unit 3) a communication interface panel. Additionally, an optional personal computer (PC) shall host the server and client applications that are used to program and monitor the system components. The real-time performance shall be observed by viewing the video output from the sensor with overlaid flashing detectors to indicate the current detection state (on/off). The MVP sensor shall optionally store cumulative traffic statistics internally in non-volatile memory for later retrieval and analysis.

The MVP shall communicate to the modular cabinet interface unit via the communications interface panel and the software applications using the industry standard TCP/IP network protocol. The MVP shall have a built-in, Ethernet-ready, Internet Protocol (IP) address and shall be addressable with no plug in devices or converters required. The MVP shall provide standard MPEG-4 streaming digital video. Achievable frame rates shall vary from 5 to 30 frames/sec as a function of video quality and available bandwidth.

The modular cabinet interface unit shall communicate directly with up to eight (8) MVP sensors and shall comply with the form factor and electrical characteristics to plug directly into a NEMA type C or D detector rack providing up to thirty-two (32) inputs and sixty-four (64) outputs or a 170 input file rack providing up to sixteen (16) contact closure inputs and twenty-four (24) contact closure outputs to a traffic signal controller.

The communication interface panel shall provide four (4) sets of three (3) electrical terminations for three-wire power cables for up to eight (8) MVP sensors that may be mounted on a pole or mast arm with a traffic signal cabinet or junction box. The communication interface panel shall provide high-energy transient protection to electrically protect the modular cabinet interface unit and connected MVP sensors. The communications interface panel shall provide single-point Ethernet connectivity via RJ45 connector for communication to and between the modular cabinet interface module and the MVP sensors.

#### System Software

The MVP sensor embedded software shall incorporate multiple applications that perform a variety of diagnostic, installation, fault tolerant operations, data communications, digital video streaming, and vehicle detection processing. The detection shall be reliable, consistent, and perform under all weather, lighting, and traffic congestion levels. An embedded web server shall permit standard internet browsers to connect and perform basic configuration, maintenance, and video streaming services.

There shall be a suite of client applications that reside on the host client / server PC. The applications shall execute under Microsoft Windows XP, Vista or Windows 7. Available client applications shall include:

- Master network browser: Learn a network of connected modular cabinet interface units and MVP sensors, display basic information, and launch applications software to perform operations within that system of sensors.
- Configuration setup: Create and modify detector configurations to be executed on the MVP sensor and the modular cabinet interface unit.
- Operation log: Retrieve, display, and save field hardware run-time operation logs of special events that have occurred.
- Software install: Reconfigure one or more MVP sensors with a newer release of embedded system software.
- Streaming video player: Play and record streaming video with flashing detector overlay.
- Data retrieval: Fetch once or poll for traffic data and alarms and store on PC storage media.
- Communications server: Provide fault-tolerant, real-time TCP/IP communications to / from all devices and client applications with full logging capability for systems integration. The communications server shall operate as a Windows® Service.

#### **Functional Capabilities**

##### MVP Sensor

The MVP sensor shall be an integrated imaging color CCD array with zoom lens optics, high-speed, dual-core image processing hardware bundled into a sealed enclosure. The CCD array shall be directly controlled by a dual-core MVP processor providing quality video with virtually no noise to degrade detection performance. It shall be possible to zoom the lens as required to satisfy detection objectives. The sensor shall provide JPEG video compression as well as standard MPEG-4 digital streaming video with flashing detector overlay. The MVP shall provide direct real-time iris and shutter speed control. The MVP image sensor shall be equipped with an integrated 559 step, 10x zoom lens that can be changed using either configuration computer software. The faceplate of the enclosure shall be glass and shall have a thermostatically controlled indium tin oxide (ITO) heater, directly connected to the faceplate to minimize power consumption, and to keep the faceplate clear in extreme weather conditions. The exterior of the lens shall have hydrophilic coating to reduce debris accumulation and maintenance of the lens. The digital streaming video output and all data communications shall be transmitted over the three-wire power cable.

**The Contractor shall furnish and install four (4) MVP sensors and furnish one (1) spare MVP sensor.**

##### Power

The MVP sensor shall operate on 110/220 VAC, 50/60Hz at a maximum of 25 watts. The camera and processor electronics shall consume a maximum of 10 watts and the remaining 15 watts shall support an enclosure heater.

##### Detection Zone Programming

Placement of detection zones shall be by means of a PC with a Windows XP, Vista or Windows 7 operating system, a keyboard, and a mouse. The PC monitor shall be able to show the detection zones superimposed on images of traffic scenes.

The detection zones shall be created by using a mouse to draw detection zones on the PC monitor. Using the mouse and keyboard it shall be possible to place, size, and orient detection zones to provide optimal road coverage for vehicle detection. It shall be possible to download detector configurations from the PC to the MVP sensor and cabinet interface module, to retrieve the detector configuration that is currently running in the MVP sensor, and to back up detector configurations by saving them to the PC fixed disks or other removable storage media.

The supervisor computer's mouse and keyboard shall be used to edit previously defined detector configurations to permit adjustment of the detection zone size and placement, to add detectors for additional traffic applications, or to reprogram the MVP sensor for different traffic applications or changes in installation site geometry or traffic rerouting.

#### Optimal Detection

The video detection system shall optimally detect vehicle passage and presence when the MVP sensor is mounted 30 feet (10 m) or higher above the roadway, when the image sensor is adjacent to the desired coverage area, and when the distance to the farthest detection zone locations are not greater than ten (10) times the mounting height of the MVP. The recommended deployment geometry for optimal detection also requires that there be an unobstructed view of each traveled lane where detection is required. Although optimal detection may be obtained when the MVP is mounted directly above the traveled lanes, the MVP shall not be required to be directly over the roadway. The MVP shall be able to view either approaching or receding traffic or both in the same field of view. The preferred MVP sensor orientation shall be to view approaching traffic since there are more high contrast features on vehicles as viewed from the front rather than the rear. The MVP sensor placed at a mounting height that minimizes vehicle image occlusion shall be able to simultaneously monitor a maximum of six (6) traffic lanes when mounted at the road-side or up to eight (8) traffic lanes when mounted in the center with four lanes on each side.

#### Count Detection Performance

Using an installed camera that meets the optimal viewing specifications described above for count station traffic applications, the system will be able to accurately count vehicles with at least 98% accuracy under normal operating conditions (day and night), and at least 93% accuracy under artifact conditions.

Artifact conditions are combinations of weather and lighting conditions that result from shadows, fog, rain, snow, etc. The volume count will be accumulated for the entire roadway (all traveled lanes), and accumulated over time intervals that contain a minimum of one hundred (100) vehicles to ensure statistical significance.

#### Demand Presence Detection Performance

Using an installed camera that meets the optimal viewing specifications described above for intersection control traffic applications, the system will be able to accurately provide demand presence detection.

Different detector types will be selectable during configuration. All of the following Detector Types will be supported: Stop Line, Count Detector, Presence Detector, Bicycle Detector, Speed Detector, Detector Function, Station, Input, Label, Scheduler, Speed Alarm, and Contrast Loss Detector.

The demand presence accuracy will be based on the ability to enable a protected turning movement on an intersection stop line, when a demand exists. The probability of not detecting a vehicle for demand presence will be less than 1% error under all operating conditions. In the presence of artifact conditions, the MVP will minimize extraneous (false) protected movement calls to less than 7%.

To ensure statistical significance, the demand presence accuracy and error will be calculated over time intervals that contain a minimum of one hundred, protected turning movements.

These performance specifications will be achieved with a minimum of 2 presence detectors coupled with a single detector function (Type-9) to provide adequate road coverage to sample the random arrival pattern of vehicles at the stop line.

The calculation of the demand presence error will not include turning movements where vehicles do not pass through the presence detectors, or where they stop short or stop beyond the combined detection zones.

#### Speed Detection Performance

The MVP will accurately measure average (arithmetic mean) speed of multiple vehicles with more than 97% accuracy under all operating conditions for approaching and receding traffic.

The average speed measurement will include a minimum of 100 vehicles in the sample to ensure statistical significance. Optimal speed detection performance requires the camera location to follow the specifications

described above for count station traffic applications with the exception that the camera must be higher than 13 m (40 feet).

The MVP will accurately measure individual vehicle speeds with more than 94% accuracy under all operating conditions for vehicles approaching the camera (viewing the front end of vehicles), and more than 90% accuracy for vehicles receding from the camera (viewing the rear end of vehicles).

These specifications will apply to vehicles that travel through both the count and speed detector pair and will not include partial detection situations created by lane-changing maneuvers.

To ensure statistical significance, the average speed accuracy and error will be calculated over time intervals that contain a minimum of one hundred vehicles.

Using a MVP sensor installed within the optimal viewing specifications described above or count station traffic applications

#### Modular Cabinet Interface Unit

The modular cabinet interface unit shall provide the hardware and software means for up to eight (8) MVP sensors to communicate real-time detection states and alarms to a local traffic signal controller. It shall comply with the electrical and protocol specifications of the detector rack standards. The card shall have 1500 Vrms isolation between rack logic ground and street wiring.

The modular cabinet interface unit shall be a simple interface card that plugs directly into a 170 input file rack or a NEMA type C or D detector rack. The modular cabinet interface unit shall occupy only 2 slots of the detector rack. The modular cabinet interface unit shall accept up to sixteen (16) phase inputs and shall provide up to twenty-four (24) detector outputs.

#### Communications Interface Panel

The communications interface panel shall support up to six MVPs. The communications interface panel shall accept 110/220 VAC, 50/60 Hz power and provide predefined wire termination blocks for MVP power connections, a Broadband-over-Power-Cable transceiver to support up to 14Mb/s interdevice communications, electrical surge protectors to isolate the modular cabinet interface unit and MVP sensors, and an interface connector to cable directly to the modular cabinet interface unit.

The interface panel shall provide power for up to eight (8) MVP sensors, taking local line voltage 110/220 VAC, 50/60 Hz and producing 110/220 VAC, 50/60 Hz, at about 30 watts to each MVP sensor. Two ½-amp SLO-BLO fuses shall protect the communications interface panel. Spare fuses shall be included with each panel.

#### Branch Cable Specification

This specification sets forth the minimum requirements for the branch cable. This “three-wires-only” cable is designed for 110VAC use between MVP sensors mounted on traffic structures and the traffic cabinet.

#### CABLE CONSTRUCTION

The cable shall consist of three conductors 18 AWG with an overall UV-resistant Low Density Polyethylene jacket.

- **18 AWG COMPONENTS:** Three conductors, 18 AWG, 19 strands of 30 gauge tin-plated
- copper conductor diameter .046”/.052”
- **CONDUCTOR INSULATION:** Extruded polyethylene 200 with nominal .030” wall thickness
- **COLORS:** Black, green, and white
- **JACKET:** Extruded black polyethylene .040”/.050” wall thickness, UV-resistant
- **FINISHED DIAMETER:** .330” - .354” maximum
- **ELECTRICAL:** 600 volts (rms)
- **CABLE IDENTIFICATION:** The cable identification shall be printed with the manufacturer’s part number, number of conductors, conductor size, voltage rating, jacket material, and an indication that it is conduit rated (e.g., **Terra** Cable, Part #1175-011, 3 COND, 18 AWG, 600V, polyethylene jacket, conduit rated).
- **PART NUMBER and CABLE LENGTHS:** The Econolite part number for this cable is 1175-011 on a 1000 ft. spool, and 1175-010 on a 500 ft. spool.

#### System Installation & Training

The contractor shall have the supplier of the video detection system supervise the installation and testing of the video detection system and computer equipment.

The supplier of the video detection system shall provide training to City Traffic Signal Technician in the operation, set up, and maintenance of the video detection system. The MVP sensor and its support hardware/software is a sophisticated leading-edge technology system. Proper instruction from certified instructor shall be provided to ensure that the City has complete competency in system operation. The User's Guide is not an adequate substitute for practical classroom training and formal certification.

#### Warranty, Service, & Support

For a minimum of three (3) years, the supplier shall warrant the video detection system. Ongoing software support by the supplier shall include software updates of the MVP sensor, modular cabinet interface unit, and supervisor computer applications. These updates shall be provided free of charge during the warranty period. The supplier shall maintain a program for technical support and software updates following expiration of the warranty period.

#### Payment

Full compensation for furnishing all labor, materials, tools, equipment, and incidentals and install of video detection system shall be included in the lump sum price paid for Traffic Signal Modification per Plan Complete in Place and no additional compensation will be allowed therefor.

### **307-5 Inspection and Testing** [Add the following]:

#### **307-5.2 Testing**

Testing shall conform to the provisions in Section 86-2.14, "Testing," of the Caltrans Standard Specifications, except as amended herein and the Special Provisions.

The Engineer/Traffic Engineer shall be notified, in writing, at least five (5) days prior to the intended "turn-on" and beginning of functional test.

Turn-on of the new traffic signal system shall not be on, nor shall the five (5) day functional test start on a Friday, Saturday, Sunday, holiday or any day proceeding a holiday. No exceptions will be made.

Testing of traffic signal equipment, including controller units, fully wired cabinets and auxiliary equipment as specified in subsection 86-3, "Controllers," of the Caltrans Standard Specifications will be performed by a signal testing laboratory designated by the City. The CONTRACTOR shall arrange to have the City designated signal technician to work on controller and the controller cabinet manufacturer, or his representative, present at the time the equipment is turned on during the first day of the functional test and upon completion of the field installation. Approximately 21 days will be required for testing and notification of the final results.

Prior to turn-on, all equipment, and wiring as shown on the plans, shall be installed and operable. A qualified representative from the CONTRACTOR shall be present to immediately correct any deficiencies (i.e., loop wiring, signal wiring, head adjustments, etc.) that are discovered subsequent to the turn-on. All louvers, hoods and signal heads shall be directed to provide proper visibility. All signs, striping and pavement markings as required on the plans shall be in place prior to turn-on.

The CONTRACTOR shall test the detectors with a motor-driven cycle, as defined in the California Vehicle Code that is licensed for street use by the Department of Motor Vehicles of the State of California. The unladen weight of the vehicle shall not exceed 220 pounds and the engine displacement shall not exceed 100 cubic centimeters. Special featured, components or vehicles designed to activate the detector will not be permitted.

The CONTRACTOR shall provide an operator who shall drive the motor-driven cycle through the response of the detection areas of the detector at not less than 3 miles per hour nor more than 7 miles per hour. The detector shall provide an indication in response to this test.

Payment for conformance to Section 86-2.14 "Testing," shall be considered as included in the **lump sum** price paid for construction of traffic signal and no additional compensation will be allowed.

### **307-10 Standards, Pedestals and Mast Arms** [Add the following]:

Internally Illuminated Street Name Signs (IISNS) shall be attached to a 10 foot steel mast-arm extending from the shaft of the pole above and parallel to the signal mast arm. Each 10 foot arm shall have 3 mounting tabs welded to it. The tabs shall be spaced to allow installation of either an 8 feet or 6 feet sign. A set bolt shall be used to assure the mast arm will not change position after it is installed and aligned.

### **307-17.2 Controllers** [Add the following]:

Testing of all modules shall conform to NEMA Standard Publication No. TS 2-1992 for *Traffic Controller Assemblies*.

Cabinet assemblies: Prior to shipment of a cabinet assembly, the cabinet shall undergo a functional test for a minimum 24 hour period. The **CONTRACTOR** shall provide a Certificate of Compliance to the ENGINEER prior to installation of the cabinet.

### **SECTION 308 – LANDSCAPE AND IRRIGATION INSTALLATION** [Add the following]:

The Contractor shall install landscape and irrigation as shown on landscape and irrigation plans. The specifications for landscape and irrigation are shown on Landscape and Irrigation plans.

Installation of landscape and irrigation complete in place shall be considered as included in the lump sum bid for Landscape and Irrigation per Plan Complete in Place, and shall include full compensation for furnishing all labor, materials, tools, equipment, earthwork, topsoil placement, trench excavation & backfill, topsoil preparation & conditioning, fertilizing, finish grading, planning, irrigation, cobbles, pavers, aggregate base for pavers, plastic edging, bedding, sand, decomposed granite, and incidentals and for doing all the work involved and no additional compensation will be allowed therefor.

The Contractor shall provide ninety (90) days of maintenance after the project is completed (notice of completion) and accepted by the City and it shall be considered included in the lump sum bid for 90-day Landscape Maintenance Period.

### **SECTION 308-4 – PLANTING**

#### **308-4.5 Tree and Shrub Planting.**

#### **Relocate Trees (aka “Transplant Trees”)**

Trees to be transplanted shall be removed and stored or transplanted to the locations shown on the plans in conformance with the provisions in Section 20-4, “Highway Planting,” of the Standard Specifications and these special provisions.

When the trees are removed and the work within the areas to which the trees are to be transplanted is not completed to the stage at which the trees can be planted, the trees shall be stored and maintained until transplanting can be completed. In other cases, the trees shall be planted at the new locations the same day the trees are removed.

Trees to be transplanted shall be pruned just prior to removing the trees. Pruning of trees to be transplanted shall include removal of broken or bruised branches one inch or larger in diameter, deadwood, and suckers. Pruning shall be in conformance with the provisions in Section 20-4.055, “Pruning,” of the Standard Specifications. Tree seal compounds shall not be used to cover pruning cuts.

Removed pruned materials shall be disposed of in conformance with the provisions in Section 7-1.13, “Disposal of Material Outside the Highway Right-of-Way,” of the Standard Specifications. At the Contractor’s option and expense, prunings may be reduced to chips. Chipped materials shall be spread within the highway right-of-way at those locations designated by the Engineer.

The Contractor shall determine the methods to be used to transplant trees, including removing, transporting, storing if required, planting, guying, and maintaining the trees. The Contractor shall submit a proposed plan for this work, in writing, to the Engineer prior to the start of the work. The proposed plan shall include, but not necessarily be limited to, root ball size, method of root ball containment, and maintenance programs for each tree to be transplanted.

When trees are planted, a root stimulant, approved by the Engineer, shall be applied to the roots of each tree in conformance with the printed instructions of the root stimulant manufacturer. A copy of the instructions shall be furnished to the Engineer before applying any stimulant. Root stimulant to be used shall be submitted to the Engineer not less than 2 weeks prior to the stimulant’s intended use. Root stimulants not approved by the Engineer shall not be used.

Holes resulting from the removal of transplanted trees shall be backfilled the same day the trees are removed. Soil from the surrounding area may be used to backfill these holes. The backfill shall be graded to conform with the adjacent existing grade. Watering basins shall be constructed around each transplanted tree.

Trees to be transplanted shall be maintained from the time the trees are removed to the time of acceptance of the contract, provided however, that the contract will not be accepted unless the trees have been satisfactorily maintained for 90 days after transplanting has been completed. The trees shall be watered and fertilized as necessary to maintain the trees in a healthy condition. Trash, debris and weeds within basins, including the basin walls, shall be removed and disposed of in conformance with the provisions in Section 7-1.13, “Disposal of

Material Outside the Highway Right-of-Way,” of the Standard Specifications. Weeds shall be removed before the weeds exceed 2 inches in length. Pesticides to be used for weed control shall be submitted to the Engineer not less than 2 weeks prior to their intended use. Pesticides not approved by the Engineer shall not be used.

The quantity of transplant trees will be measured by the unit as determined from actual count in place, excluding additional replacement trees.

The contract unit price paid per **Each** for Relocate Existing Tree and Up-lighting shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in transplanting trees and relocate up-lighting, complete in place, as shown on the plans, as specified in the Standard Specifications and these special provisions, and as directed by the Engineer.

**314 Traffic Striping, Curb and Pavement Markings and Pavement Markers**

**314-1 General** [Add the following]:

Traffic signs, stripes, legends, and raised pavement markers shall conform to California Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD) 2014 Edition.

Markers and delineators shall conform to the provisions in Section 82, “Markers and Delineators,” of the State Standard Specifications and these special provisions.

Flexible posts shall conform to the details shown on the plans and shall be, at the **CONTRACTOR’S** option, one of the following types, or equal:

<b>Type</b>	<b>Manufacturer or Distribution</b>
Auto Post	Western Highway Products P.O. Box 7 Stanton, CA 90680 Telephone (800) 422-4420
Carsonite Electron MCD Road marker CRM-375 Curve-Flex CFRM-400	Carsonite International Corp. 2900 Lockheed Way Carson City, NV 89701 Telephone (702) 883-5104
Safe-Hit Self-Locking Guide Post (SH248SLP)	Safe-Hit Corporation 1930 West Winton Avenue Building #11 Hayward, CA 94549 Telephone (415) 783-6550

Flexible posts shall be made from a flexible white plastic which shall be resistant to impact, ultraviolet light, ozone and hydrocarbons. Flexible posts shall resist stiffening with age and shall be free of burns, discoloration, contamination, and other objectionable marks or defects which affect appearance or serviceability.

The first coat of traffic striping shall be placed within 24 hours after the new roadway surface is complete. The second and final coat of traffic striping shall be placed no earlier than 14 calendar days after the first coat or at the time the reflective pavement markers are placed.

Traffic striping shall conform to Sections 210 and 310 as modified by these Special Provisions. Traffic control shall be as per APWA "WATCH" Handbook and the current California Department of Transportation California Manual on Traffic Control Devices, 2014 Edition.

Raised pavement markers shall conform to the California Department of Transportation, Standard Specifications, Section 85 and shall be of the type as called for on the Plans and these special provisions.

All lines 8" or greater in width shall be thermoplastic, unless otherwise noted.

All legends, crosswalks, limit lines, and shapes shall consist of Alkyd Resin Thermoplastic, unless otherwise noted (See Specifications below). Legends shall conform to City stencils, size and shape.

Any removal of conflicting traffic stripes and markings shall be accomplished by the wet sandblasting method or water blasting method. The machine used for this purpose shall meet all requirements of the air pollution control district having jurisdiction in the project area. All sand used in wet sandblasting shall be removed by the use of a street sweeper without delay as the operation progresses.

Crosswalk lines, stop limit lines, and chevrons are considered as pavement markings.

All thermoplastic markings shall be reflectorized.

Placement of markers using bitumen adhesive shall conform to the requirements for placing markers in said Section 85-1.06 of the State Standard Specifications, except as follows:

Markers shall not be placed when the pavement or air temperature is 50° F or less.

**The Contractor shall paint all new curb and gutter placed on the outside of the roadway red.** Curb to be painted shall be marked for approval prior to painting.

Signs shall be set on steel 2" X 2" (brown) quick punch posts, with 2 ¼" X 2 ¼" sleeved base set in a PCC base of 560-C-2500 concrete. All posts shall be electrostatically powder coated with City approved brown coating. Base shall be a minimum of 24" deep by 12" square (City of Rancho Mirage Standard Detail No. 602, unless otherwise noted), as directed by the **ENGINEER**.

New signs shall be per sizes shown on plans. All warning, regulatory and guide signs shall be 3M (or pre-approved equal) high intensity grade reflective. Prior to installation, all new signs shall be approved by the City of Rancho Mirage.

Contractor shall paint 4" wide white centerline extensions through the intersections with dual left turns per Caltrans Standard Plan A20D, Detail 40.

#### **314-4.3.4 Application Equipment**

##### **314-4.3.4.1 General** [Add the following]:

All parts of the equipment which come in contact with the material shall be constructed for easy accessibility for cleaning and maintenance. The equipment shall operate so that all mixing and conveying parts, including the line dispensing device, maintain the material at the plastic temperature. The use of pans, aprons, or similar appliances which the dispenser overruns will not be permitted. The equipment shall provide for traffic marking application of varying widths.

The application equipment shall be mobile and maneuverable to the extent that straight lines can be followed and normal curves can be made in a true arc.

Glass spheres shall be applied to the surface of the completed stripe by an automatic bead dispenser attached to the striping machine so that the beads are dispensed closely behind the installed line. The glass sphere dispenser shall be equipped with an automatic cut-off control synchronized with the cut-off for the thermoplastic material.

A special kettle shall be provided for uniformly melting and heating the thermoplastic material. Each kettle must be equipped with an automatic thermostatic control device for positive temperature control and to prevent overheating or scorching of the material. The heating kettle and application equipment shall meet the requirements of the National Fire Underwriters of the National Fire Protection Association of the State and local authorities.

#### **314-4.2 Control of Alignment and Layout**

##### **314-4.2.1 General** [Add the following]:

Layout - The **CONTRACTOR** shall furnish the necessary control points for all striping and markings, and shall be responsible for the completeness and accuracy thereof, to the satisfaction of the **ENGINEER**.

The **CONTRACTOR** shall perform all layout, alignment, and spotting for traffic stripes and markings. Traffic striping shall not vary by more than ½ inch in 50 feet from the alignment shown on the lanes. The dimensional details of the stripes and markings shall conform to the provisions set forth in the Traffic Manual and Maintenance Manual, available from **CALTRANS**.

Spotting with cat tracks or dribble lines shall be performed prior to the removal of existing stripes. Cat tracks shall consist of spots of paint not more than 3 inches in width and not more than 5 feet apart along the alignment of the stripe. Paint for the cat tracks shall be the same color as that for the intended stripe.

Spotting - Spotting shall be completed prior to the removal of any existing stripes or markings. Existing stripes and markings shall be removed prior to painting new ones, but in no case shall any section of street be left without the proper striping for more than 24 hours, or over weekends or holidays.

**NO STRIPING SHALL BE INSTALLED UNTIL THE LAYOUT AND SPOTTING HAVE BEEN SPECIFICALLY APPROVED BY THE ENGINEER.**

##### **314-4.3.5 Application of Paint** [Add the following]:

A primer sealer, recommended by the manufacturer of the thermoplastic material, shall be applied prior to the installation of the thermoplastic material on Portland Cement Concrete surfaces, and on other types of pavement if recommended by the thermoplastic material manufacturer. The primer shall be void of solvent and water prior to the installation of the thermoplastic material.

For optimum adhesion, the thermoplastic material shall be installed in a melted state at a temperature between 400-440F (204-226C) on a clean, dry, and solvent-free surface.

Longitudinal lines shall be offset at least 2 inches (5 cm) from the construction joint(s) of Portland Cement concrete pavements and joint(s) and shoulder breaks of bituminous concrete pavements.

Thermoplastic pavement marking materials shall not be applied by the extrusion method when pavement temperatures are below 50F (10C), or by the spray method when the pavement temperatures are below 55F (13C), or when the surface of the pavement shall evidence moisture. If thermoplastic material is not dispensed by a screen/extrusion device or a spray device, the material shall not be applied when the pavement or air temperature is below 65F (18C).

NOTE: Opening 6 inches (15 cm) in length may be provided at 20 foot (6 cm) intervals in edgelines placed on the inside of super elevated curves to prevent ponding of water on the pavement surface.

Thickness measurement shall be accomplished by placing black tapes, film, or metal plates of known and uniform thickness in the area to be striped. Once the striper has passed over, the sample is removed by making sharp cuts with a knife, and measurements of the stripe plus film are made with a micrometer or vernier calipers with a property correction for the film base. For longitudinal lines, these thickness checks shall be made every 1.3 mile or more frequently, at the judgment of the Engineer. For symbols and intersection markings, the frequency of checking shall be at the option of the Engineer. These thicknesses shall be considered as the average of 2 or more measurements made in a 3 foot distance.

#### **314-4.7 Observation Period** [Add the following Section]:

Prior to consideration of final acceptance of all work completed under these sections and as shown on the plans, there shall be a 90-day observation period, beginning upon the satisfactory completion of all work required by the intermediate completion date to be determined by the City Engineer for substantial completion of the work.

During the 90-day observation period, the thermoplastic pavement marking material furnished and installed shall be warranted against failure due to blistering, excessive cracking, bleeding, staining, discoloration, oil content of the pavement materials, smearing or spreading under heat, deterioration due to contact with grease deposits, oil diesel fuel, or gasoline drippings, chipping, spalling, poor adhesion to the pavement materials, loss of reflectivity, vehicular damage and wear.

The CONTRACTOR, at no expense to the City, shall replace any pavement markings that will not perform satisfactorily under traffic during the 90-day observation period due to defective materials and/or application. (Failure to comply with any portion of this specification shall be considered as unsatisfactory performance of the thermoplastic pavement marking material.

Marking replacement shall be performed in accordance with the requirements specified herein for the initial application, including but not limited to, surface cleaning, pavement marking removal, seasonal and weather limitations, etc.

#### **314-4.8**

#### **314-4.9 Warranty** [Add the following section]:

The thermoplastic pavement marking materials furnished and installed by the CONTRACTOR under this specification shall be guaranteed by the CONTRACTOR against failure due to poor adhesion resulting from defective materials or methods of application.

For non-defective pavement surfaces carrying volumes less than 50,000 vehicles per day, the CONTRACTOR shall guarantee to replace or renew, without cost to the City, that part of the pavement markings installed which have not remained to perform useful service as follows:

- Stop**
- a) Crosswalks, stop lines and legends** – 75% of the total any one intersection for one year.
  - b) Lane lines, edgelines and centerlines** – 90% of a unit for two years and 80% of a unit for four years. [A “unit” is defined as any length of highway having installed thereon 2,000 lineal feet (610 meters) of line of specified width in any combination or pattern.]

The replacement material installed under this guarantee shall be guaranteed the same as the original material, from the date of the original installation.

#### **314-4.4.6 Payment** [Add the following section]:

Payment for pavement markers shall be included in the **lump sum** bid for Traffic Striping, Markings, Markers & Signs, and shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals, including establishing alignment for layout work as shown on the plans and as required in the Specifications.

Payment for red curb painting shall be included in the **lump sum** bid for Traffic Striping, Markings, Markers & Signs, and shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals,

including painting the new curb of the outside curb and gutter as shown on the plans and as required in the Specifications.

Payment for Traffic Stripes and Pavement Markings shall be considered as included in the **lump sum** bid for Traffic Striping, Markings, Markers & Signs and shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals and for doing all the work involved in traffic stripes, and pavement markings, including establishing alignment for stripe and layout work as shown on the plans and as required in the Specifications.

**314-5.7 Install, Remove and Relocate Roadside Signs** [Add the following Section]:

Existing roadside signs at locations shown on the plans to be removed shall not be removed until replacement signs have been installed or until the existing signs are no longer required for direction of public traffic, unless otherwise directed by the **ENGINEER**.

New roadside signs shall be installed at the locations shown on the plans or as directed by the **ENGINEER**, and shall conform to the provision in Section 56-2 "Roadside Signs," of the State Standard Specifications and these Special Provisions.

**314-5.7.1 Payment** [Add the following section]:

Payment for removing and relocating roadside signs shall be considered as included in the lump sum bid for Traffic Striping, Markings, Markers & Signs and shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals as shown on the plans and as required in the Specifications.

Payment for new traffic roadside signs and posts shall be considered as included in the **Lump Sum** bid price for Traffic Striping, Markings, Markers & Signs, and shall include full compensation for furnishing all labor, materials, tools and equipment for installing sign panels, and sign posts, footings and other related appurtenances as shown on the plans, and as required in the Specifications.

**315 Improvements to Sunnylands Estate (property located at the northwest corner)**

The Contractor shall follow following for work within or around Sunnylands Estate (Estate):

1. Any portion of the perimeter wall that must be relocated shall not be removed until the replacement wall is completed to assure the Estate's security at all times.
2. The Contractor shall be required to provide indemnification, such that the Contractor indemnifies, defends and hold harmless the Trust and Sunnylands from any and all liability of any kind for personal injury, property damage or destruction resulting from the Contractor's use, improvement, maintenance or operation of the right of way and/or easement.

**END OF SECTION**

APPENDIX  
STANDARD PLANS USED FOR THE PROJECT

N:\RNCH\0008-09 General Matters\DOC\5094 - Bid Specifications for Bob Hope Drive and Frank Sinatra Drive Improvements  
(03.16.16).Docx



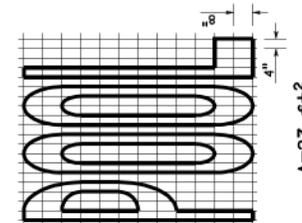
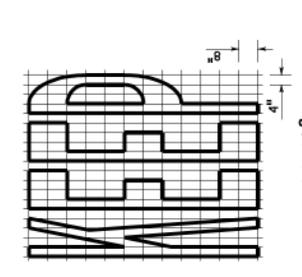
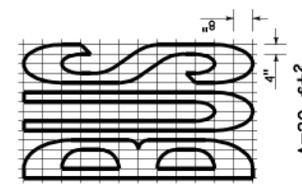
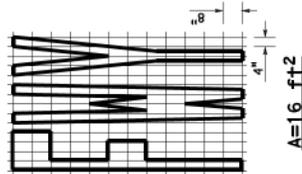
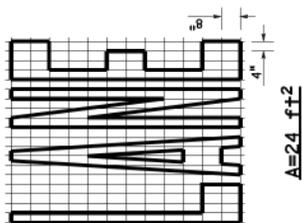
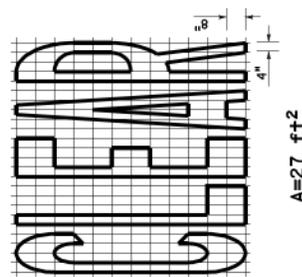
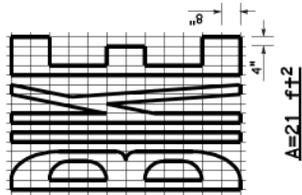
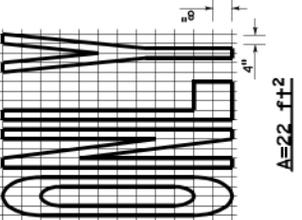




DIST COUNTY ROUTE PROJECT SHEET NO. SHEETS

REGISTERED CIVIL ENGINEER  
 July 20, 2012  
 PROFESSIONAL ENGINEER  
 Robert L. McLaughlin  
 C-00375  
 Exp. 3-31-13  
 STATE OF CALIFORNIA  
 BOARD OF CIVIL ENGINEERS

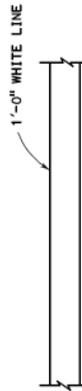
TO ACCOMPANY PLANS DATED \_\_\_\_\_



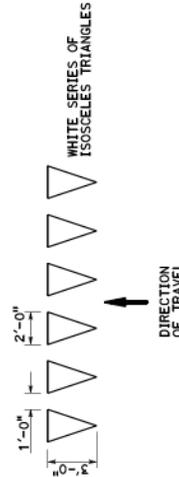
WORD MARKINGS			
ITEM	ft±	ITEM	ft±
LANE	24	NO	14
POOL	23	BIKE	21
CAR	17	BUS	20
CLEAR	27	ONLY	22
KEEP	24	FWD	16

**NOTES:**

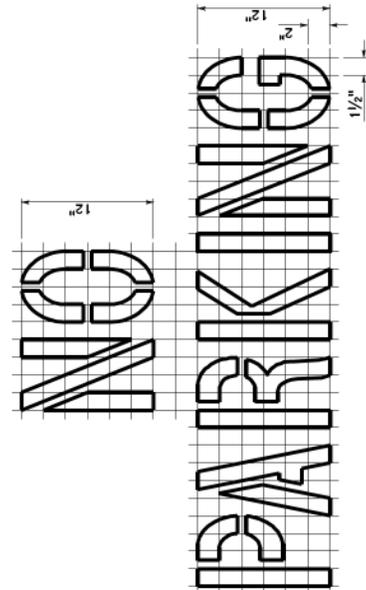
- If a message consists of more than one word, it should read "up", i.e., the first word should be nearest the driver.
- The space between words should be at least four times the height of the characters for low speed roads, but not more than ten times the height of the characters. The space may be reduced appropriately where there is limited space because of local conditions.
- Minor variations in dimensions may be accepted by the Engineer.
- Portions of a letter, number or symbol may be separated by connecting segments not to exceed 2" in width.
- The words "NO PARKING" pavement marking is to be used for parking facilities. For typical locations of markings, see Standard Plans A90A and A90B.
- The words "NO PARKING" shall be painted in white letters no less than 1/2" high on a contrasting background and located so that it is visible to traffic enforcement officials.



**LIMIT LINE (STOP LINE)**



**YIELD LINE**



STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION

**PAVEMENT MARKINGS  
 WORDS, LIMIT AND YIELD LINES**

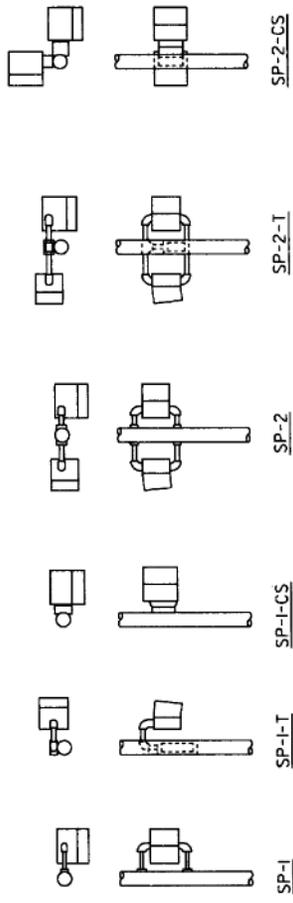
NO SCALE

RSP A24E DATED JULY 20, 2012 SUPERSEDES STANDARD PLAN A24E  
 DATED MAY 20, 2011 - PAGE 17 OF THE STANDARD PLANS BOOK DATED 2010.

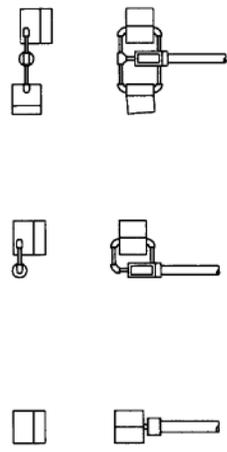
**REVISED STANDARD PLAN RSP A24E**

POST	COUNTY	ROUTE	DATE	TOTAL SHEETS	TOTAL SHEETS USED

REGISTERED ELECTRICAL ENGINEER  
*Robert L. Donner*  
 July 1, 1992  
 PLANS APPROVAL DATE

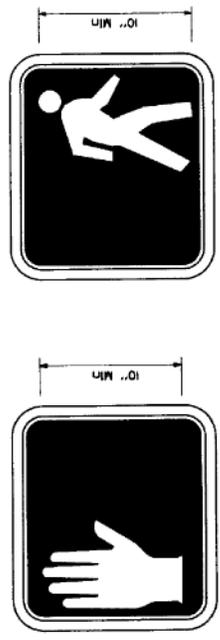


SIDE MOUNTINGS



TOP MOUNTINGS

PEDESTRIAN SIGNALS AND MOUNTINGS



PEDESTRIAN SIGNAL FACE  
SYMBOL TYPE

**NOTES:**

1. Mounting shall be oriented to provide maximum horizontal clearance to adjacent roadway.
2. Pedestrian signals shall be positioned on the side of standard nearest crosswalk controlled.
3. Bracket arms shall be long enough to permit proper alignment of signals.
4. See Standard Plans ES-3D and ES-3E for attachment fittings details.

**ABBREVIATIONS:**

- TP Top mounted pedestrian signal
- SP Side mounted pedestrian signal
- T Terminal compartment
- I2 Number of signal faces

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

**SIGNAL, LIGHTING AND ELECTRICAL SYSTEMS  
SIGNAL HEADS AND MOUNTINGS**

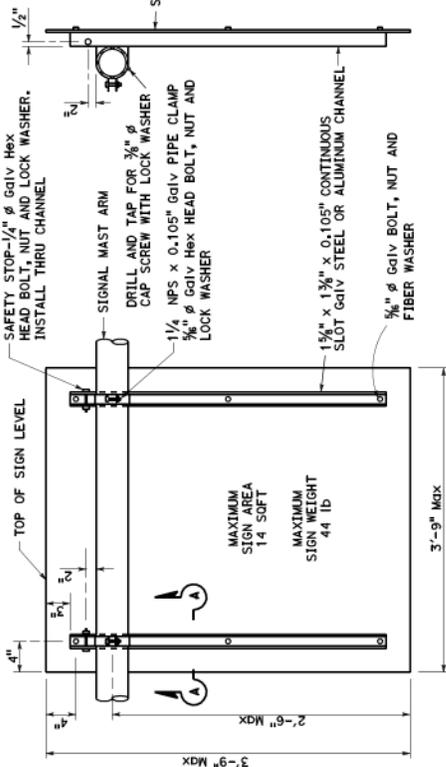
NO SCALE

**ES-3B**

*Return to Table of Contents*



DIST COUNTY ROUTE POST MILES SHEET PROJECT NO. SHEETS  
 DATE: MAY 20, 2011  
 REGISTERED CIVIL ENGINEER  
 PROFESSIONAL ENGINEER  
 STATE OF CALIFORNIA  
 CIVIL  
 No. 33134  
 EXPIRES 05/20/12  
 THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE ACCURACY OF ALL DIMENSIONS AND CONDITIONS OF THE FIELD. THE ENGINEER'S RESPONSIBILITY IS LIMITED TO THE DESIGN OF THE STRUCTURE SHOWN ON THESE STANDARD PLAN SHEETS.

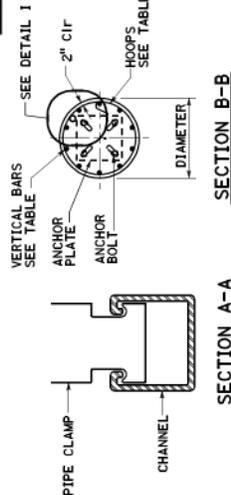


REAR VIEW

SIDE VIEW

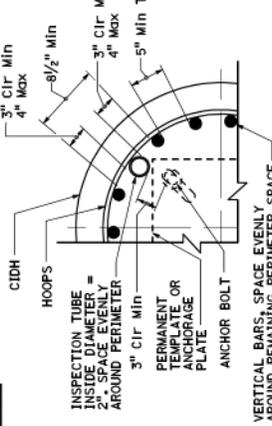
**SIGN MOUNTING DETAILS**

DETAIL U



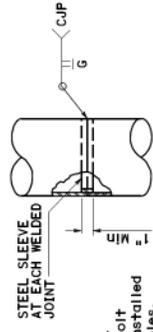
SECTION A-A

SECTION B-B



**INSPECTION TUBE PLACEMENT**

DETAIL I



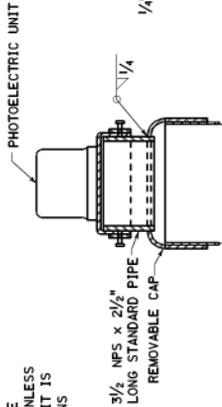
FOR POLES TO BE INSTALLED ON EXISTING FOUNDATIONS:  
 The Contractor shall verify bolt circles, anchor bolt sizes and dependent dimensions for poles to be installed on existing foundations before fabricating the poles.

\* FOR SLIP BASE VERSIONS WITH 3 ANCHOR BOLTS USE 3 INSPECTION TUBES.

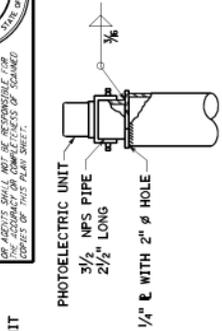
CIDH REINFORCING AND INSPECTION TUBE SCHEDULE		
CIDH DIAMETER	VERTICAL BARS	HOOPS (WELDED) INSPECTION TUBE
2 FT	8-#5	#4 AT 6
2.5 FT	10-#6	4*
3 FT	12-#7	#5 AT 6
3.5 FT	14-#8	4
4 FT	18-#9	2-#4 AT 7
5 FT	22-#10	2-#5 AT 7
6 FT	26-#11	2-#6 AT 7



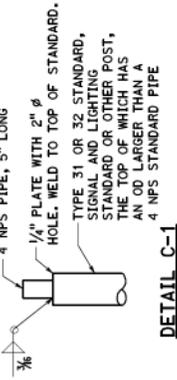
STANDARD TOP DETAIL B-1



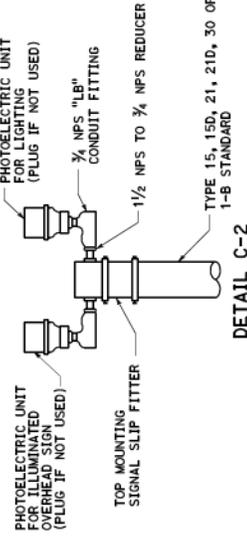
MOUNTING ADAPTER FOR PHOTOELECTRIC UNIT DETAIL B-2



ALTERNATIVE MOUNTING ADAPTER DETAIL B-3



DETAIL C-1



DETAIL C-2

**DUAL PHOTOELECTRIC UNIT MOUNTING DETAIL**

DETAIL C

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION

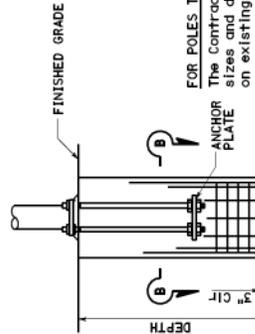
**ELECTRICAL SYSTEMS  
 (SIGNAL AND LIGHTING STANDARD,  
 DETAIL NO. 2)**

NO SCALE

ES-7N

**CAST-IN-DRILLED HOLE PILE FOUNDATION, REINFORCED PILE**

DETAIL A



ELEVATION

FOR UNIFORM TUBE THICKNESS AT TUBE THICKNESS CHANGE  
 DETAIL T-2

DETAIL T-2

DETAIL T-1

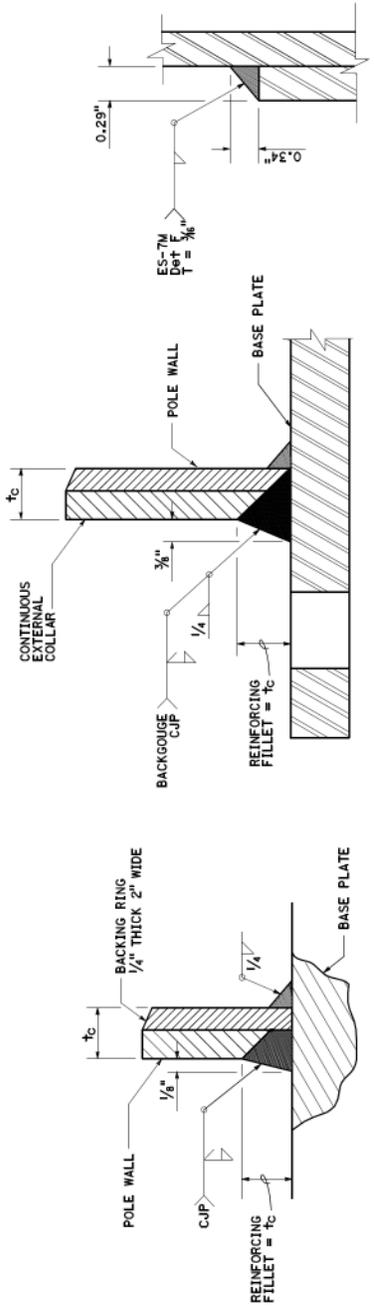
**POLE SPLICES**

DETAIL I

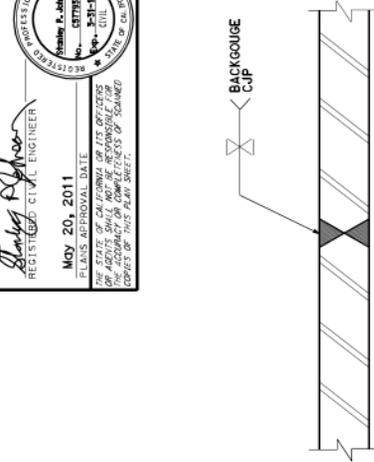
DIST.	COUNTY	ROUTE	POST MILES	SHEET PROJECTS
			TOTAL PROJECT	NO. SHEETS

**Blair R. Johnson**  
 REGISTERED CIVIL ENGINEER  
 No. 47793  
 Exp. 3-31-12  
 STATE OF CALIFORNIA  
 PROFESSIONAL ENGINEER

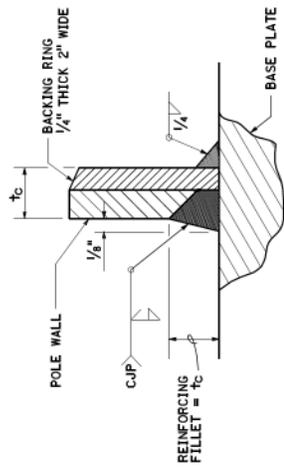
MAY 20, 2011  
 DATE OF APPROVAL  
 PROJECT NO. 07-002-0002  
 SHEET NO. 07-70-11  
 THIS DESIGN IS VALID FOR THE PROJECT ONLY.  
 THE DESIGNER SHALL NOT BE RESPONSIBLE FOR  
 ANY ALTERATIONS MADE TO THIS DESIGN OR FOR  
 CONFLICTS BETWEEN THIS PLAN SHEET AND  
 ANY OTHER CONTRACT DOCUMENTS.



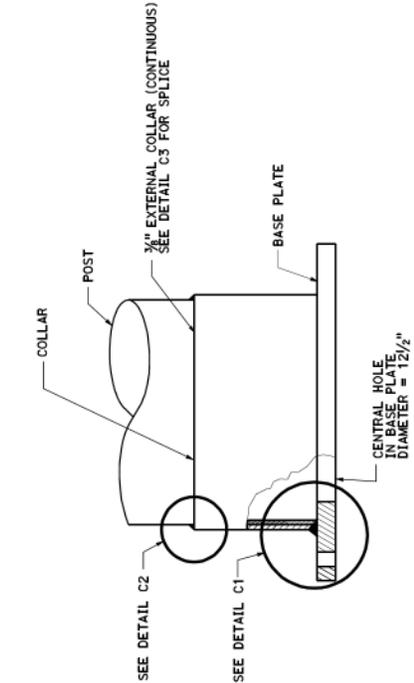
DETAIL C1



DETAIL C3

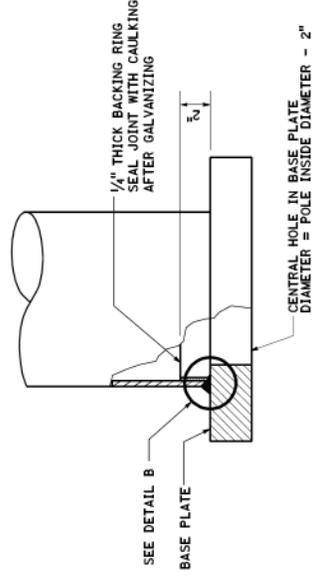


DETAIL B



ELEVATION C

For alternative base, see Detail C4



ELEVATION B

DETAIL C4

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION  
**ELECTRICAL SYSTEMS**  
**(SIGNAL AND LIGHTING STANDARD,**  
**DETAIL No. 3)**  
 NO SCALE

ES-70

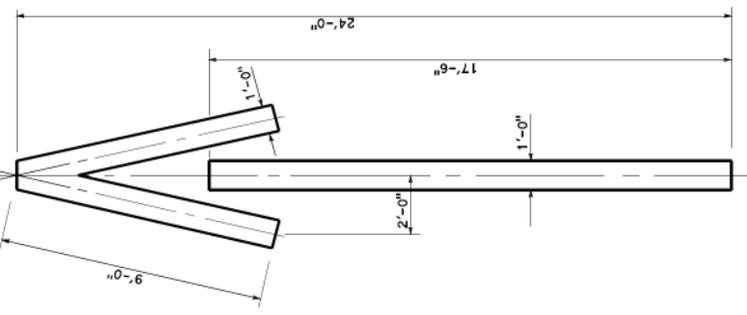
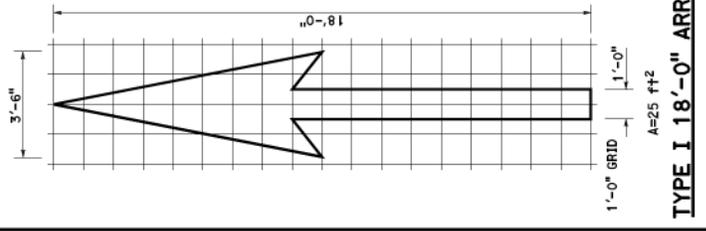
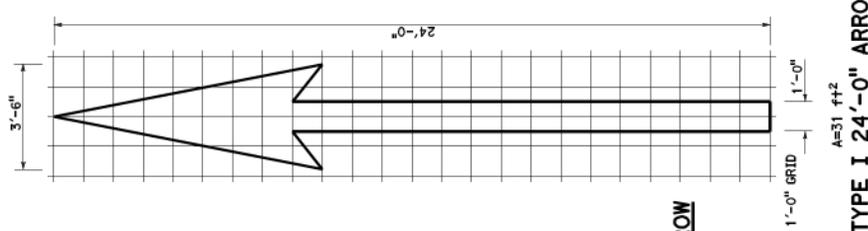
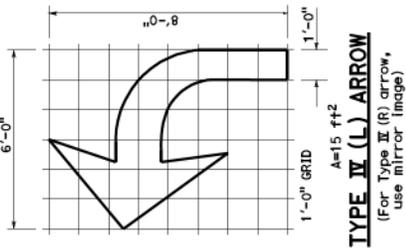
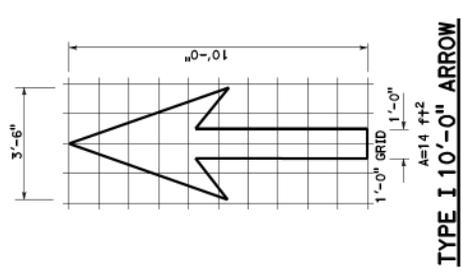
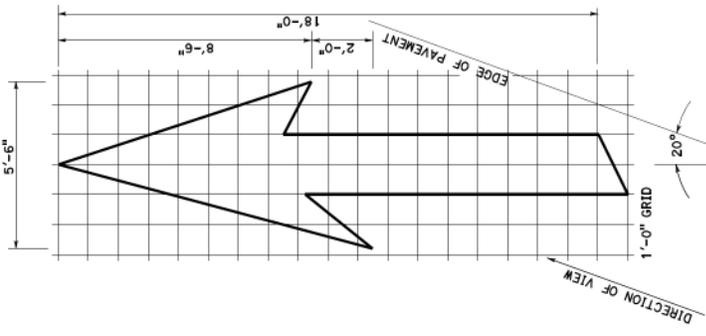
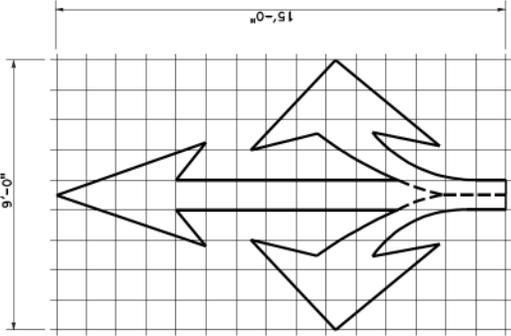
DIST	COUNTY	ROUTE	POST MILES	SHEET PROJECT	NO. SHEETS

**Robert L. McLaughlin**  
REGISTERED CIVIL ENGINEER  
No. C40375  
Exp. 3-31-13  
EXPIRES ON 3-31-13

APR 11 20, 2012

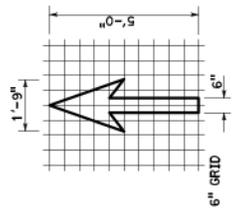
2010 SUPERSEDES STANDARD PLAN A24A  
ON AGENCIES SHALL BE RESPONSIBLE FOR  
CORRECTING ANY ERRORS OR OMISSIONS  
CONFLICTING WITH THIS PLAN SHEET.

TO ACCOMPANY PLANS DATED \_\_\_\_\_



STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION  
**PAVEMENT MARKINGS**  
**ARROWS**  
NO SCALE

**TYPE VII (L) ARROW**  
A=27 ft±  
(For Type VII (R) arrow, use mirror image)



**NOTE:**  
Minor variations in dimensions may be accepted by the Engineer.

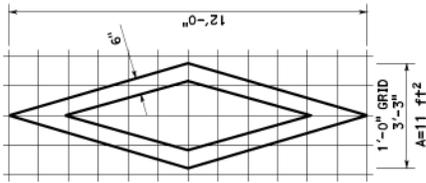
DIST COUNTY ROUTE CROSS WALKS SHEET PROJECT NO. SHEETS

REGISTERED CIVIL ENGINEER  
**Robert L. McLaughlin**  
 No. C00375  
 Exp. 3-31-13  
 STATE OF CALIFORNIA

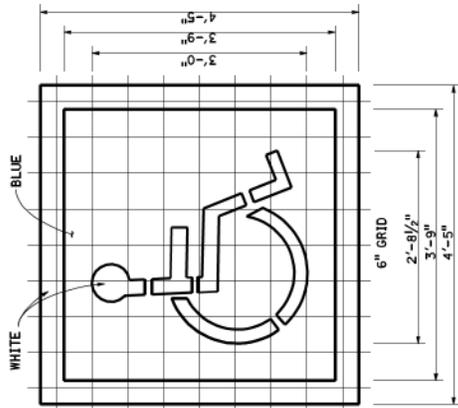
October 19, 2012

THIS DOCUMENT IS TO BE USED ONLY FOR THE PROJECT AND LOCATION SPECIFICALLY IDENTIFIED ON THESE PLANS. IT IS NOT TO BE REPRODUCED, COPIED, OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, WITHOUT THE WRITTEN PERMISSION OF THE ENGINEER.

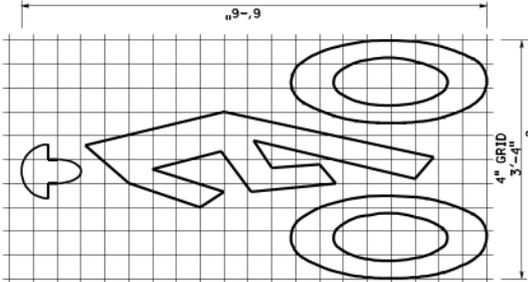
**NOTE:** TO ACCOMPANY PLANS DATED \_\_\_\_\_  
 Minor variations in dimensions may be accepted by the Engineer.



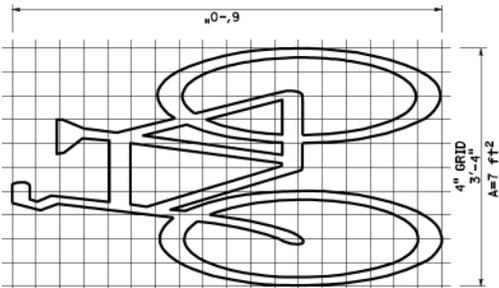
**DIAMOND SYMBOL**



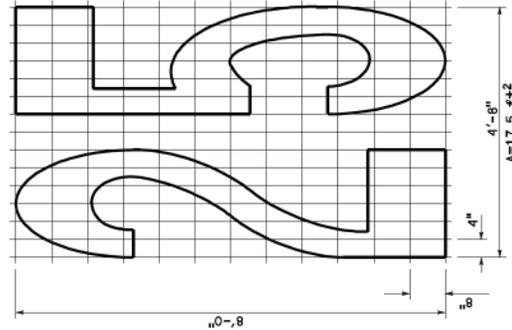
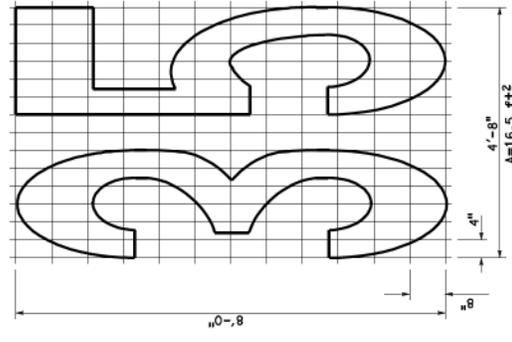
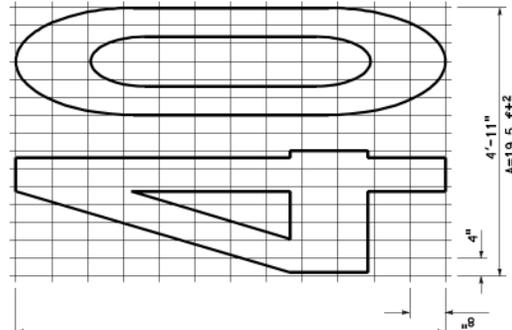
**INTERNATIONAL SYMBOL OF ACCESSIBILITY (ISA) MARKING**



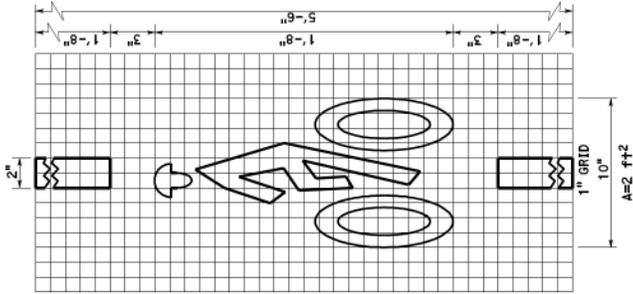
**BIKE LANE SYMBOL WITH PERSON**



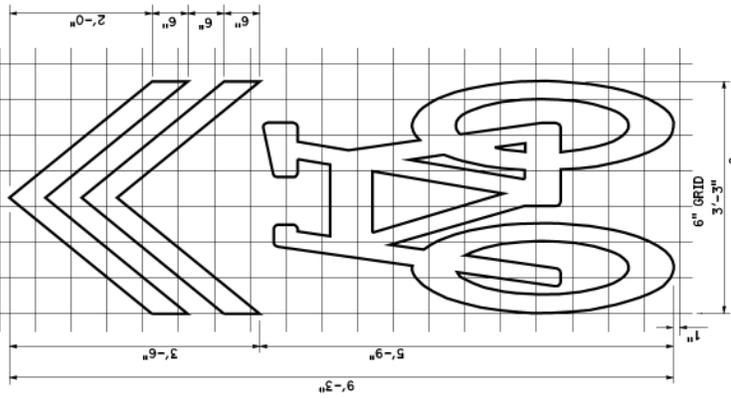
**BIKE LANE SYMBOL WITHOUT PERSON**



**NUMERALS**



**BIKE LOOP DETECTOR SYMBOL**



**SHARED ROADWAY BICYCLE MARKING**

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION  
**PAVEMENT MARKINGS SYMBOLS AND NUMERALS**  
 NO SCALE

RSP A24C DATED OCTOBER 19, 2012, SUPERSEDES STANDARD PLAN A24C DATED MAY 20, 2011 - PAGE 15 OF THE STANDARD PLANS BOOK DATED 2010.

**REVISED STANDARD PLAN RSP A24C**

DIST	COUNTY	ROUTE	POST MILES	SHEET PROJECT	SHEET NO.	TOTAL SHEETS

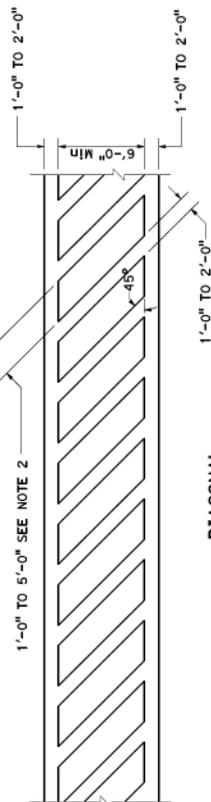
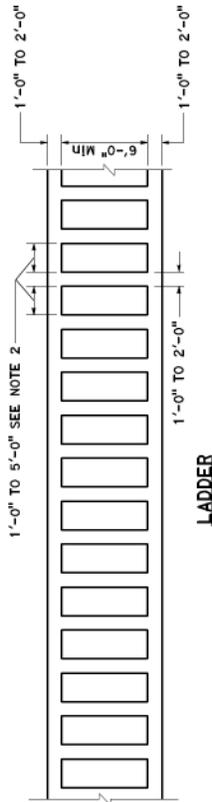
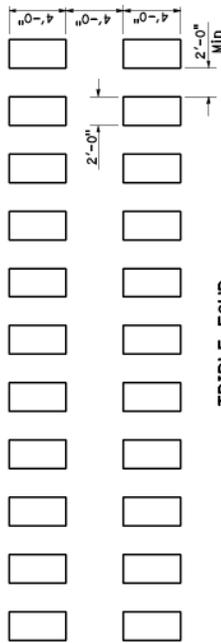
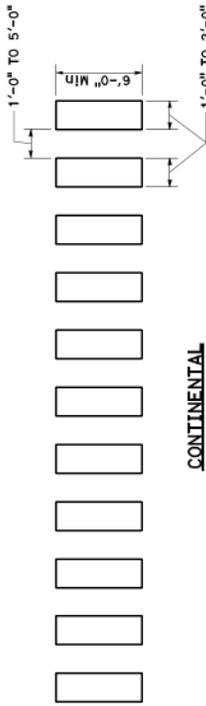
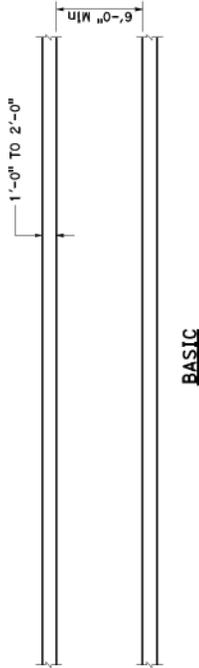
**REGISTERED CIVIL ENGINEER**  
*Robert L. McLaughlin*  
 REGISTERED CIVIL ENGINEER  
 No. 40375  
 Exp. 3-31-13  
 STATE OF CALIFORNIA  
 BOARD OF CALIFORNIA REGISTERED PROFESSIONAL ENGINEERS

JULY 20, 2012  
 2010 REVISED STANDARD PLAN RSP A24F  
 FOR ALL PROJECTS. THE USER SHALL BE RESPONSIBLE FOR  
 VERIFYING THE ACCURACY OF THE DATA AND THE COMPLETION OF ALL  
 NECESSARY PERMITS AND REGULATORY REQUIREMENTS.

TO ACCOMPANY PLANS DATED \_\_\_\_\_

**NOTES:**

1. Spaces between markings should be placed in wheel tracks of each lane.
2. Spacings not to exceed 2.5 times width of longitudinal line.
3. All crosswalk markings must be white except for those near schools must be yellow.

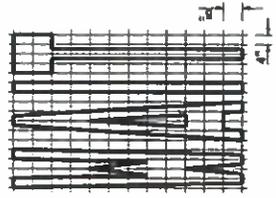


STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION  
**PAVEMENT MARKINGS  
CROSSWALKS**

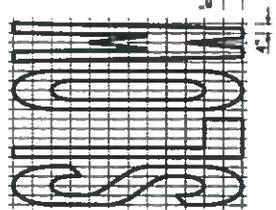
NO SCALE  
RSP A24F DATED JULY 20, 2012 SUPPLEMENTS THE  
STANDARD PLANS BOOK DATED 2010.

**REVISED STANDARD PLAN RSP A24F**

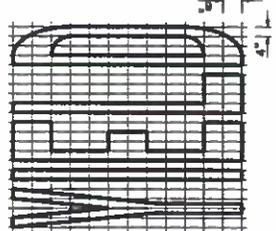
DISTRICT COUNTY ROUTE SHEET NO. SHEETS  
 TOTAL PROJECT TOTAL SHEETS  
 REGISTERED CIVIL ENGINEER  
 May 20, 2011  
 APPROVAL DATE  
 THE STATE ENGINEER'S OFFICE  
 FOR HIGHWAYS SHALL NOT BE RESPONSIBLE FOR  
 THE ACCURACY OF THE INFORMATION OR  
 THE COMPLETION OF THIS PROJECT.



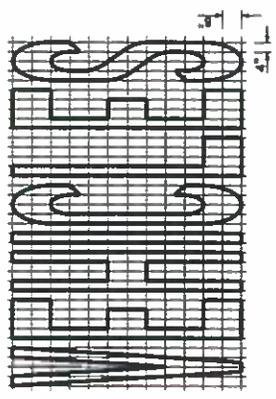
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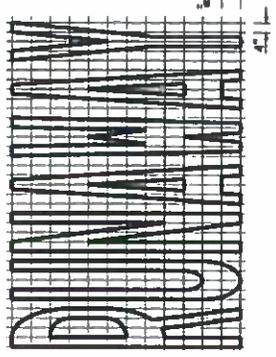
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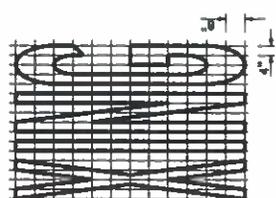
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A=42 ft+2



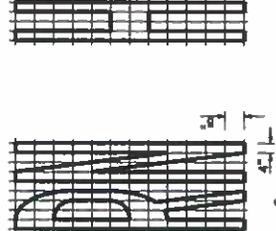
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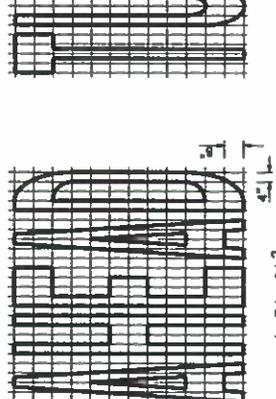
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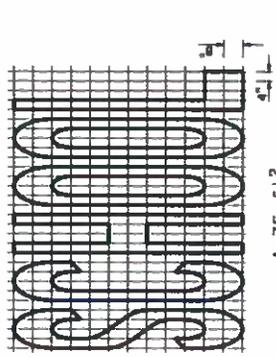
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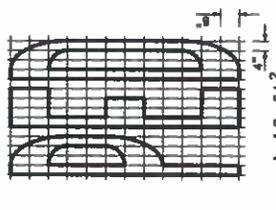
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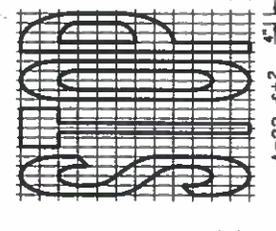
A=31 ft+2



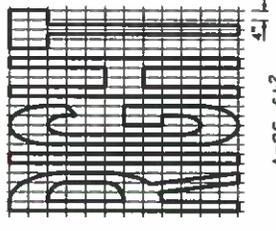
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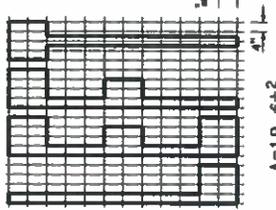
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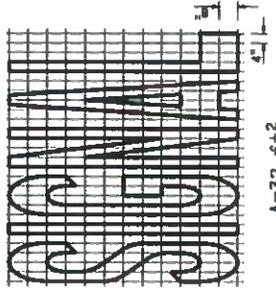
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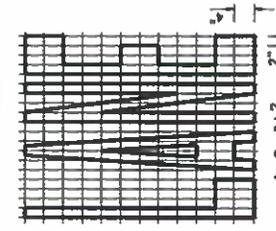
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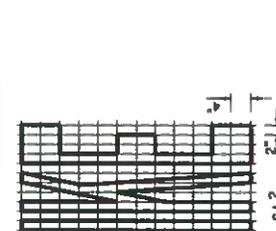
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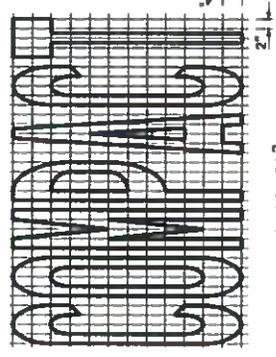
A=32 ft+2



A=6 ft+2



A=5 ft+2



A=10 ft+2

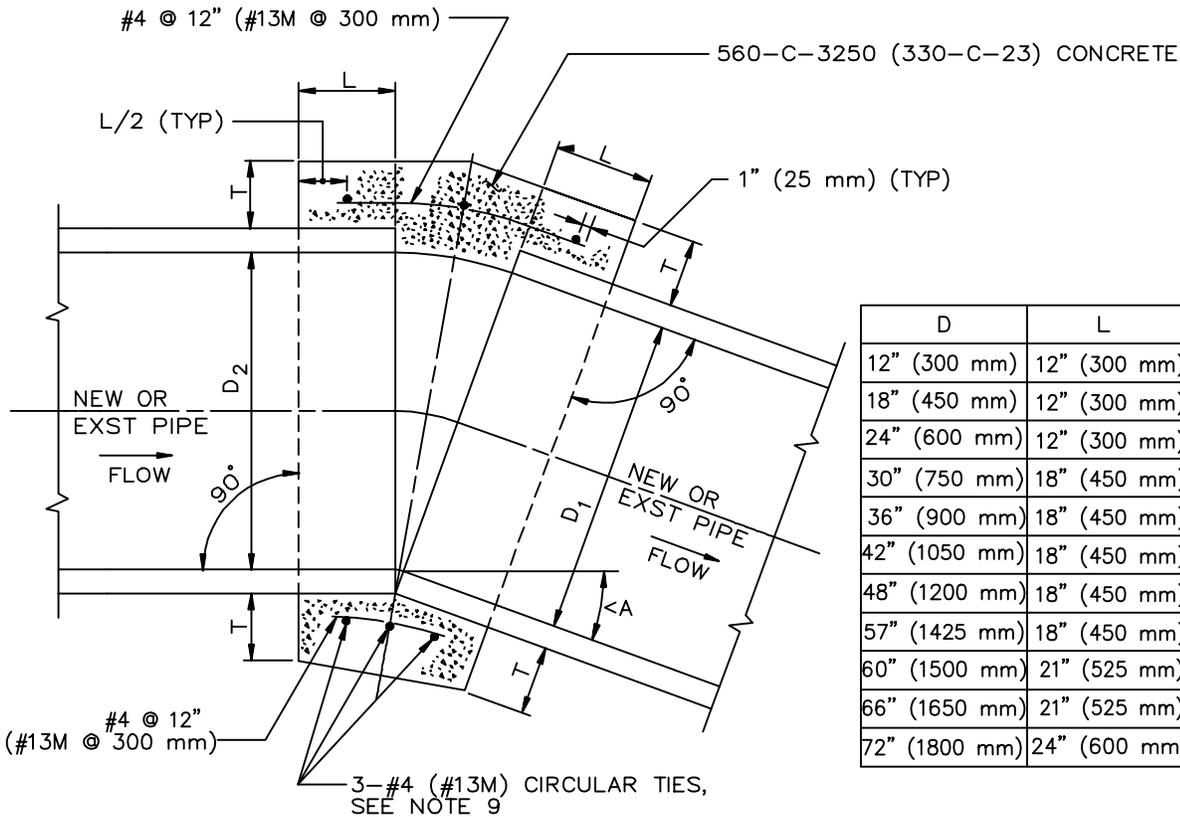
**NOTES:**

1. If a message consists of more than one word, it should read "UP", i.e., the first word should be nearest the driver.
2. The space between words should be at least four times the height of the characters for low speed roads, but not more than ten times the height of the characters. The space may be reduced appropriately where there is limited space because of local conditions.
3. Minor variations in dimensions may be accepted by the Engineer.
4. Portions of a letter, number or symbol may be separated by connecting segments not to exceed 2" in width.

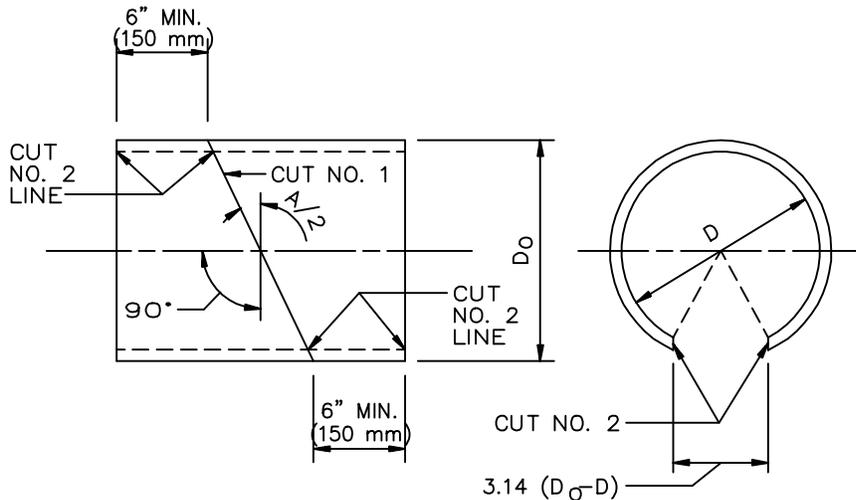
WORD MARKINGS					
ITEM	ft+2	ITEM	ft+2	ITEM	ft+2
XING	21	YIELD	24	BIKE	5
AHEAD	31	SCHOOL	35	SLOW	23
WAIT	19	SIGNAL	32	STOP	22
LANE	6	TURN	24	LEFT	19
RIGHT	26	HERE	26	VEHICLES	42

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION  
**PAVEMENT MARKINGS**  
**WORDS**  
 NO SCALE

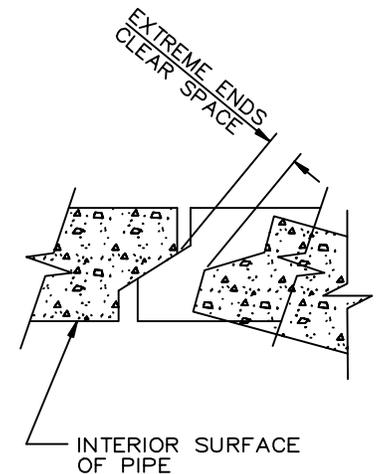
A 24D



D	L	T
12" (300 mm)	12" (300 mm)	4" (100 mm)
18" (450 mm)	12" (300 mm)	5" (125 mm)
24" (600 mm)	12" (300 mm)	6" (150 mm)
30" (750 mm)	18" (450 mm)	7" (175 mm)
36" (900 mm)	18" (450 mm)	9" (225 mm)
42" (1050 mm)	18" (450 mm)	9" (225 mm)
48" (1200 mm)	18" (450 mm)	10" (250 mm)
57" (1425 mm)	18" (450 mm)	10" (250 mm)
60" (1500 mm)	21" (525 mm)	11" (275 mm)
66" (1650 mm)	21" (525 mm)	11" (275 mm)
72" (1800 mm)	24" (600 mm)	12" (300 mm)



DETAIL "A" (SEE NOTE 10)  
SONO-TUBE, OR EQUAL, INTERIOR FORM



DETAIL "B"  
TYPICAL JOINT FOR  
REINFORCED CONCRETE PIPE

CUT NO. 1: SAW THE TUBE AT AN ANGLE OF A/2 WITH THE TRANSVERSE PLANE. REVERSE ONE SECTION AND TAPE BOTH SECTIONS TOGETHER FORMING THE DEFLECTION ANGLE A.

CUT NO. 2: SAW THE TUBE LONGITUDINALLY REMOVING A STRIP 3.14 (D<sub>0</sub>-D) WIDE ON THE SIDE OPPOSITE THE OPEN JOINT. BEND THE ENDS OF THE CUT TOGETHER AND INSERT THE TUBE IN THE PIPE.

STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION

PROMULGATED BY THE  
PUBLIC WORKS STANDARDS INC.  
GREENBOOK COMMITTEE  
1992  
REV. 1996, 1997, 1999, 2009

**CONCRETE COLLAR FOR RCP**  
**12" (300 mm) THROUGH 72" (1800 mm)**

STANDARD PLAN

**380-4**

USE WITH STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION

SHEET 1 OF 2

NOTES

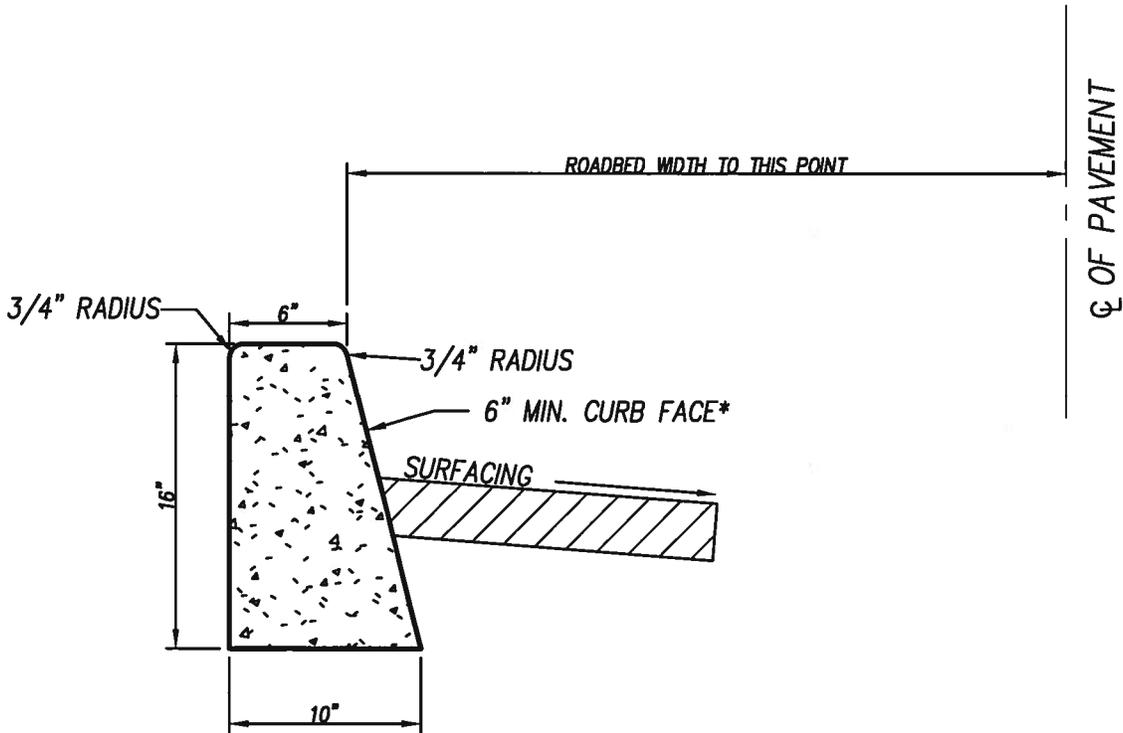
1. A CONCRETE COLLAR IS REQUIRED WHERE THE CHANGE IN GRADE EXCEEDS 10%.
2. FOR CURVE JOINTS (SEE DETAIL B, SHEET 1)  
 IF THE EXTREME ENDS OF THE PIPE LEAVE A CLEAR SPACE THAT IS GREATER THAN 1" (25 mm), BUT IS LESS THAN 3" (75 mm) A CONCRETE COVER IS REQUIRED IN ACCORDANCE WITH SSPWC 306-1.2.4.  
 IF THE EXTREME ENDS OF THE PIPE LEAVE A CLEAR SPACE THAT IS EQUAL TO OR GREATER THAN 3" (75 mm), BUT LESS THAN 6" (150 mm), A CONCRETE COLLAR IS REQUIRED. IF THE CLEAR SPACE IS 6" (150 mm) OR GREATER, A TRANSITION STRUCTURE IS REQUIRED.
3. CONCRETE COLLAR SHALL NOT BE USED FOR A SIZE CHANGE ON THE MAIN LINE.
4. CONNECTOR PIPES
  - A. WHERE PIPES OF DIFFERENT DIAMETERS ARE JOINED WITH A CONCRETE COLLAR, L AND T SHALL BE THOSE OF THE LARGER PIPE.  $D = D_1$  OR  $D_2$ , WHICHEVER IS GREATER.
  - B. WHEN  $D_1$  IS EQUAL TO OR LESS THAN  $D_2$ , JOIN INVERTS AND WHEN  $D_1$  IS GREATER THAN  $D_2$ , JOIN SOFFITS.
5. FOR PIPE LARGER THAN 72" (1800 mm) SPECIAL COLLAR DETAILS ARE REQUIRED.
6. FOR PIPE SIZE NOT LISTED USE NEXT SIZE LARGER.
7. REINFORCEMENT SHALL CONFORM TO ASTM A 615 (A 615 M) GRADE 40 (300).
8. WHERE REINFORCING IS REQUIRED THE DIAMETER OF THE CIRCULAR TIES SHALL BE  $D + (2X \text{ WALL THICKNESS}) + T$ .
9. REINFORCING SHALL BE USED WHERE THE PIPE DIAMETER IS GREATER THAN 21" (525 mm) AND ON ALL PIPES WHERE THE SPACES BETWEEN THE EXTREME OUTER ENDS IS 3" (75 mm) OR LARGER.

CIRCULAR TIES:

PIPE DIAMETER	NO. OF CIRCULAR TIES
21" (525 mm) OR LESS	3
24" (600 mm) TO 30" (750 mm)	3
33" (825 mm) TO 57" (1425 mm)	4
60" (1500 mm) TO 72" (1800 mm)	5

WHERE THE SPACE BETWEEN PIPE ENDS EXCEEDS 3" (75 mm), THE NUMBER OF CIRCULAR TIES SHALL BE INCREASED TO MAINTAIN AN APPROXIMATE SPACING OF 6" (150 mm) O.C.

10. WHERE THE PIPE IS 21" (525 mm) OR LESS IN DIAMETER AN INTERIOR FORM OF UNSEALED SONO-TUBE OR EQUAL SHALL BE USED TO PROVIDE A SMOOTH INTERIOR JOINT. THE PAPER FORM MAY BE LEFT IN PLACE (SEE DETAIL A). WHEN THE PIPE IS 24" (600 mm) OR LARGER A REMOVABLE INTERIOR FORM SHALL BE USED OR THE INTERIOR JOINT SHALL BE COMPLETELY FILLED WITH MORTAR AND NEATLY POINTED.



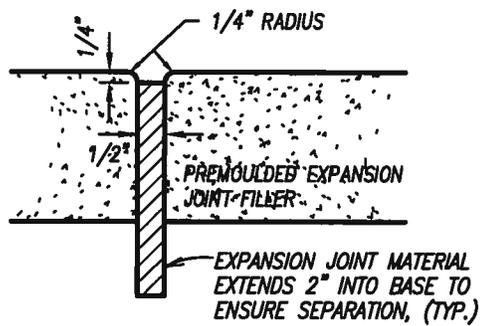
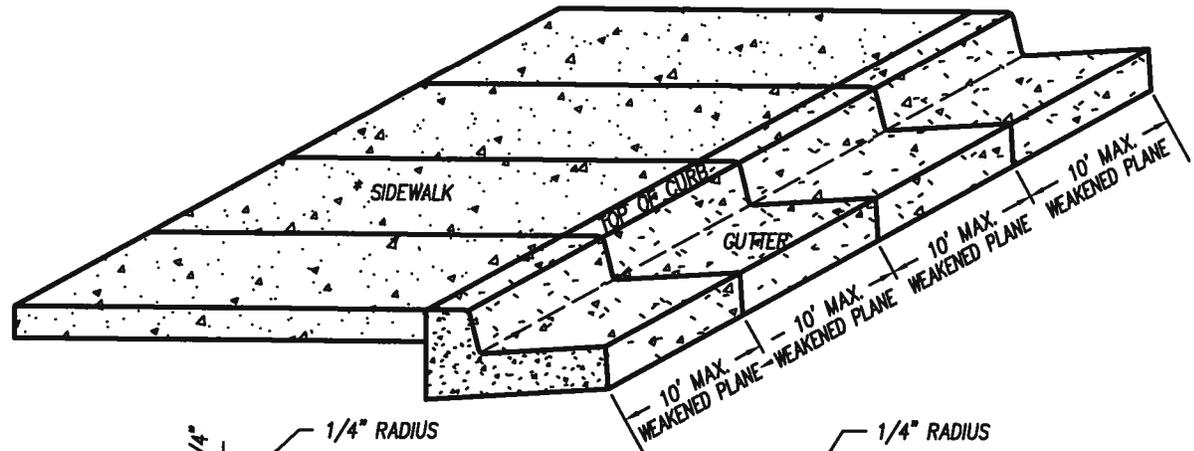
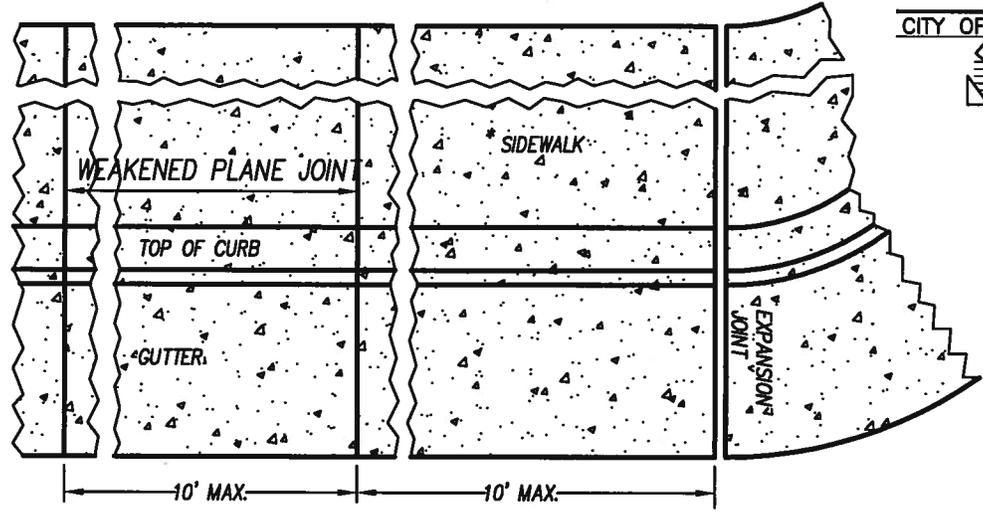
CLASS 560-C-3250 CONCRETE (NO FLY ASH)  
 .888 CU. FT./L.F.  
 1 CU. YD. = 30.41 L.F.

MINIMUM PERMISSIBLE GRADE 0.50%  
 MINIMUM SUBGRADE COMPACTION 95% RELATIVE TO MAXIMUM  
 MAX. GRADE BREAK ON ROADWAYS SHALL NOT EXCEED 0.50%  
 SEE STANDARD 206 FOR JOINT DETAILS

\* USE CONCRETE CURING COMPOUND, ASTM C309/AASHTO M148, TYPE 2,  
 CLASS A OR B, WITH WHITE PIGMENT. AFTER CURING, COMPOUND SHALL  
 BE "POWER WASHED" OFF CURB TOP AND FACE BEFORE ANY CURB PAINTING

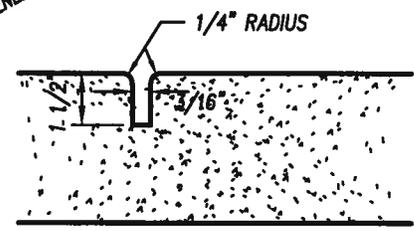
**8" CURB FACE SHALL BE USED ON ALL ROADWAY MEDIAN CURBS**

<b>CITY OF RANCHO MIRAGE</b>		<b>STANDARD DETAIL 203</b>
REVISIONS	<b>TYPE "D" (6" OR 8") CURB</b>	
12/17/2001		
* 7/5/2012		
	<i>[Signature]</i> 7/12/12	
	APPROVED BY: CITY ENGINEER DATE	



**EXPANSION JOINT**

- EXPANSION JOINTS TO BE INSTALLED AT ALL B.C., E.C.,
- \* CURB RETURNS, DRIVEWAYS, CATCH BASINS, OR
- \* SIMILAR STRUCTURES, IN CURBS AND SIDEWALKS
- \* SIDEWALKS SHALL ALSO GET EXPANSION JOINTS @ 40' O.C.



**WEAKENED PLANE JOINT**

10' INTERVAL BETWEEN TRANSVERSE JOINTS MAY BE VARIED TO ALLOW MATCHING OF JOINTS IN ADJACENT EXISTING IMPROVEMENTS.

**NOTE:**

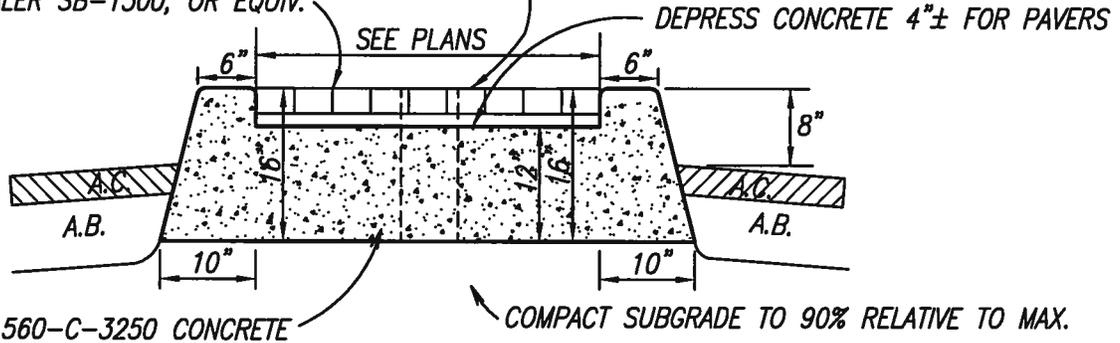
FOR MACHINE EXTRUDED CURBING IT IS REQUIRED TO "SAWCUT" JOINTS INTO THE CONCRETE WHEN IT HAS SET ENOUGH TO NOT FRACTURE. DO PARTIAL CUTS AT 10' INTERVALS, THROUGH THE CURB AND 1.5" INTO THE GUTTER FOR WEAKENED PLANE JOINTS. FOR EXPANSION JOINTS IN EXTRUDED CURBING, SAWCUT COMPLETELY AND INSERT JOINT MATERIAL AS DESCRIBED ABOVE.

<b>CITY OF RANCHO MIRAGE</b>		<b>STANDARD DETAIL 206</b>
<b>REVISIONS</b>	<b>CURB, GUTTER &amp; SIDEWALK JOINTS</b>	
11/27/2002		
* 7/5/2012		
APPROVED BY: CITY ENGINEER      DATE: 7/12/12		

\* SET 4" Lx4" Wx2.36" D PAVERS IN 1.64" ± SAND BED, "STACK BOND" PATTERN  
 (60mm ACKERSTONE HOLLAND II, STANDARD FINISH, "THROUGH MIX, CREAM COLOR", OR EQUIV.)



STABILIZED SAND JOINTS WITH SUREBOND JOINT STABILIZING SEALER SB-1300, OR EQUIV.



**SECTIONAL VIEW**

PAVERS OVER 1" BEDDING SAND OVER 4" CL. 2 AGG. BASE

STD. 203 BARRIER CURB

SEE PAVER SECTION DETAIL ON SHEET 2

EXPANSION JOINT

EXPANSION JOINTS

PAVERS OVER 1.64" BEDDING SAND OVER CONCRETE NOSE

MEDIAN NOSE DESIGNS PER STANDARD DETAIL 406

2 WAY REFLECTOR ON TOP OF CURB

6" DIAMETER PVC SLEEVE

1 WAY REFLECTORS ON TOP OF CURB

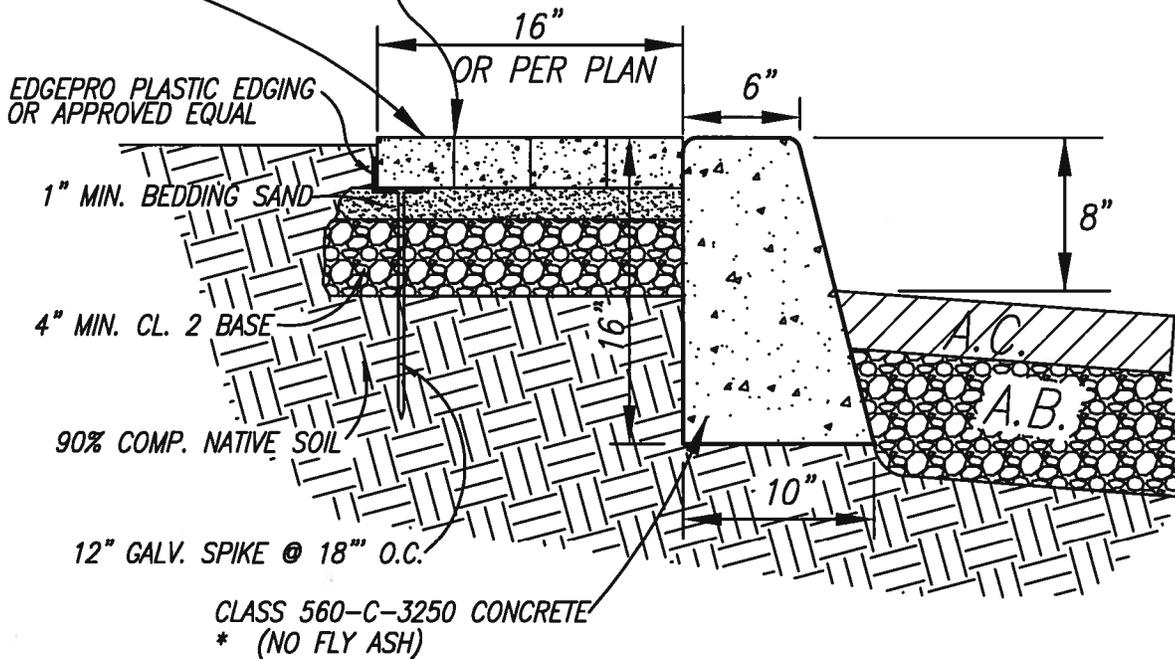
**TOP VIEW**

<b>CITY OF RANCHO MIRAGE</b>		<b>STANDARD</b>
<b>MEDIAN NOSE DETAIL</b>		
REVISIONS		<b>DETAIL</b>
07/01/2008		<b>213</b>
09/12/2011		<b>SHT. 1 OF 2</b>
* 7/5/2012	<i>[Signature]</i> 7/12/12	
APPROVED BY: CITY ENGINEER		DATE



\* SET 4" Lx4" Wx2.36" D PAVERS IN 1" MIN. SAND BED, "STACK BOND" PATTERN  
 (60mm ACKERSTONE HOLLAND II, STANDARD FINISH,  
 "THROUGH MIX, CREAM COLOR", OR EQUIV.)

STABILIZED SAND JOINTS WITH SUREBOND JOINT  
 STABILIZING SEALER SB-1300, OR EQUIV.



**PAVER SECTION DETAIL**

**CITY OF RANCHO MIRAGE**

**STANDARD**

REVISIONS

**MEDIAN PAVER DETAIL**

**DETAIL**

07/01/2008

09/12/2011

\* 7/5/2012

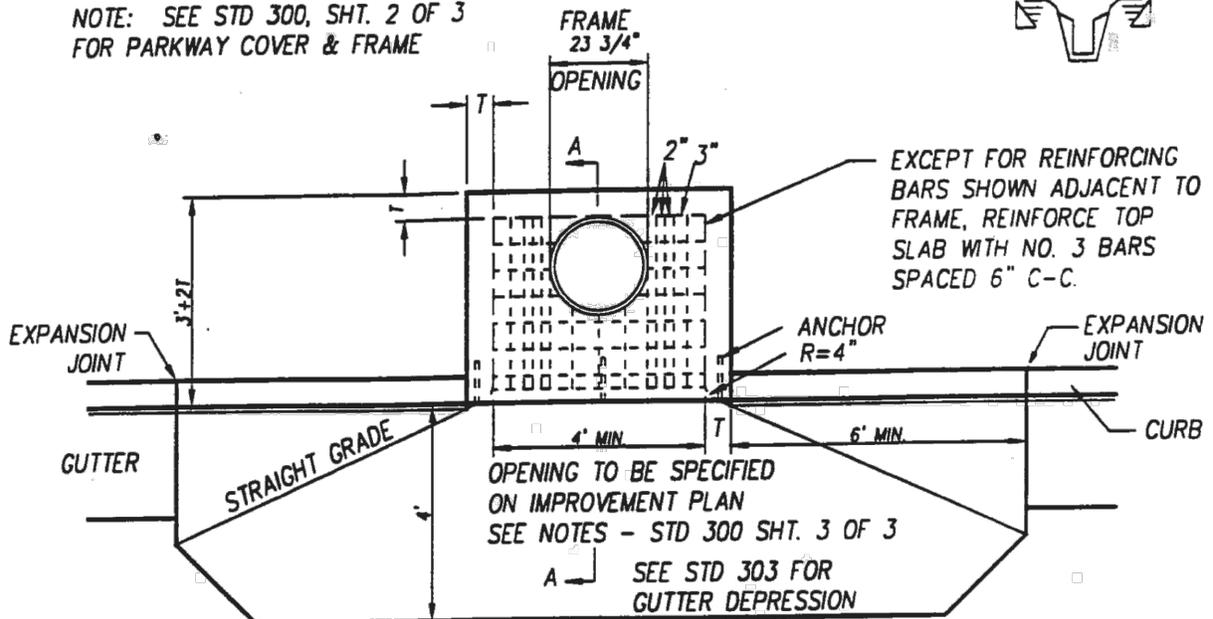
*William J. Perry* 7/12/12  
 APPROVED BY: CITY ENGINEER DATE

**213**

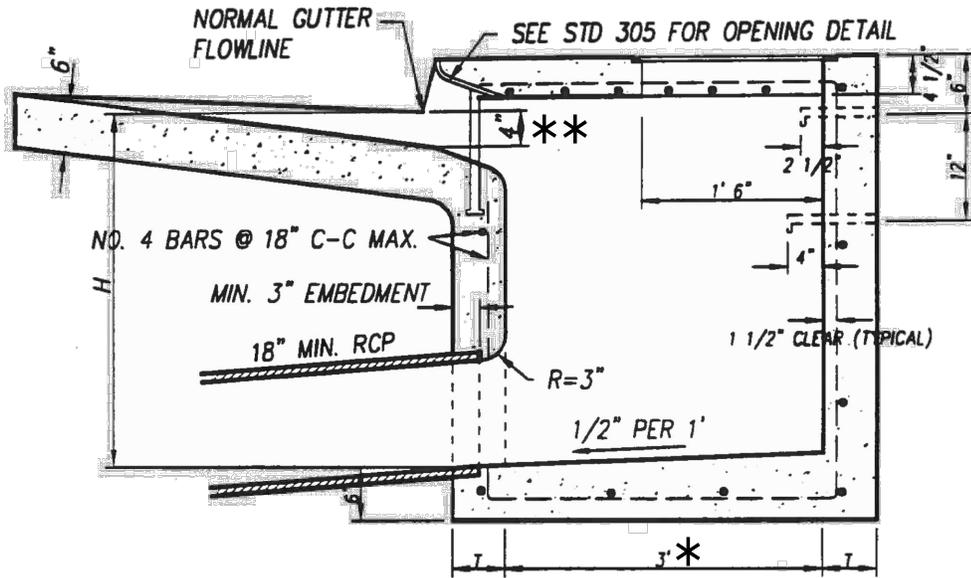
**SHT. 2 OF 2**



NOTE: SEE STD 300, SHT. 2 OF 3 FOR PARKWAY COVER & FRAME



COMPACT BACKFILL TO 90% MIN., WITH THE TOP 12" COMPACTED TO 95% MIN. UNDER PAVING.



SECTION A-A

\* MODIFIED TO 4' FOR CB ON FRANK SINATRA DR.

\*\* MODIFIED TO 2"

CITY OF RANCHO MIRAGE

STANDARD

REVISIONS

CURB INLET CATCH BASIN

DETAIL

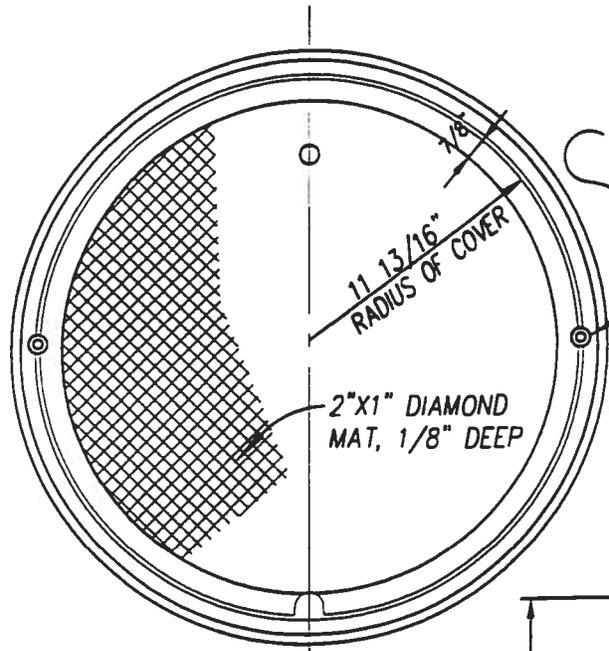
*William A. Cas*

5/31/01

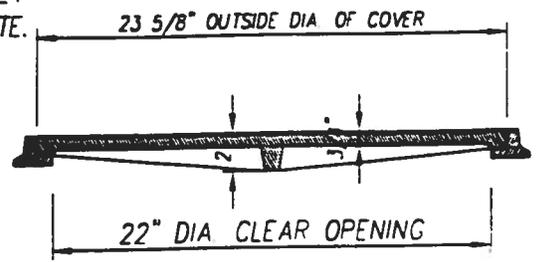
300

APPROVED BY: CITY ENGINEER DATE

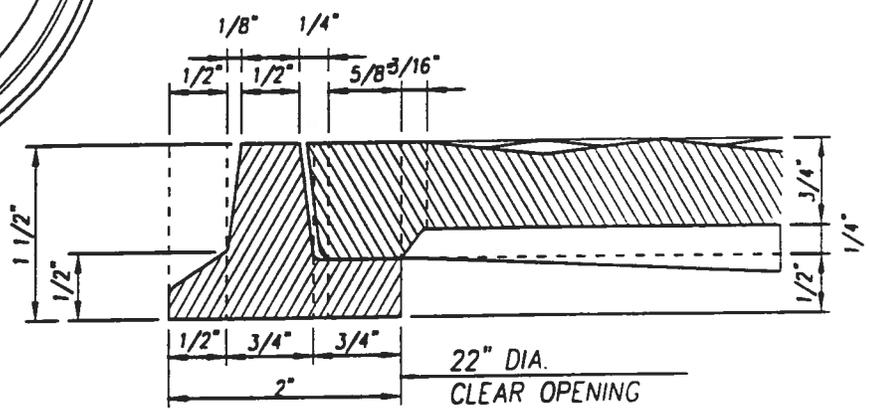
SHT. 1 OF 3



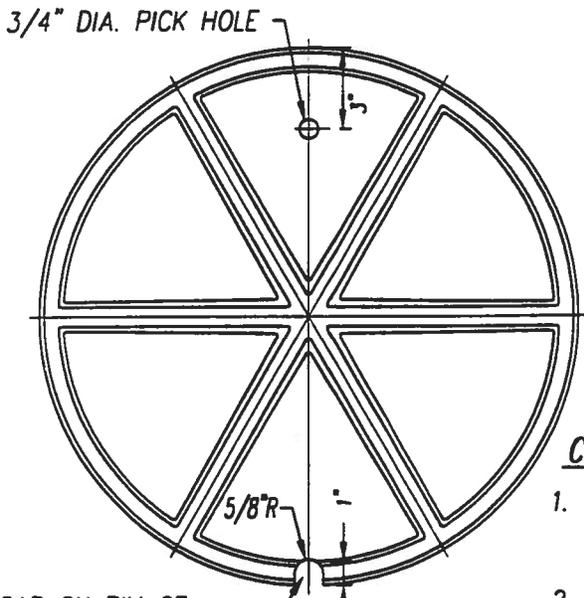
**TOP OF MANHOLE FRAME & COVER**  
TOTAL WT. = 130 LBS.



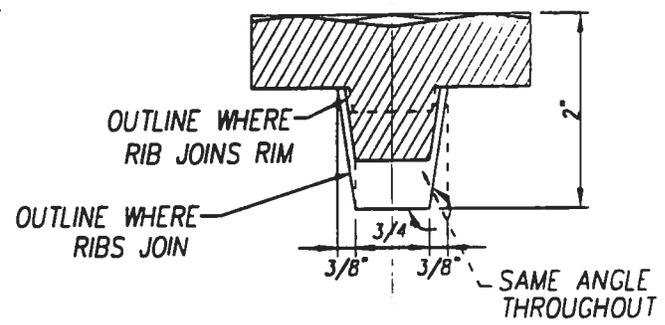
**CROSS SECTION THRU FRAME & COVER**



**CROSS SECTION THRU RIM**



**BOTTOM OF MANHOLE COVER**  
GAP ON RIM OF COVER OPPOSITE PICK HOLE



**CROSS SECTION THRU RIB AT MID RADIUS**

1. FRAME AND COVER SHALL BE GRAY CAST IRON CONFORMING TO THE LATEST A.S.T.M. STANDARD A48, CLASS 30 OR BETTER. GALVANIZE PER A.S.T.M. A385.
2. INSTALL TWO 3/4"x3/4" ALLEN SOCKET SET SCREWS, 90° TO PICK HOLE, IN HOLES DRILLED AND TAPPED 1" IN DEPTH. GALVANIZE PER A.S.T.M. 153.
3. FRAME AND COVER SHALL BE TESTED FOR ACCURACY OF FIT AND SHALL BE MARKED IN SETS BEFORE DELIVERY. RETAP FRAME AS REQUIRED TO SUIT SET SCREWS.

**CITY OF RANCHO MIRAGE**

**STANDARD**

REVISIONS

**CURB INLET CATCH BASIN  
MANHOLE FRAME AND COVER**

**DETAIL  
300**

APPROVED BY: *[Signature]* 5/31/01  
CITY ENGINEER DATE

SHT. 2 OF 3



CONNECTION PIPES MAY BE PLACED ANY POSITION AROUND THE WALLS, PROVIDED THEY POINT IN THE PROPER DIRECTION AND THE POSITION IS OTHERWISE CONSISTENT WITH THE IMPROVEMENT PLANS.

CURVATURE OF THE LIP AND SIDEWALLS AT GUTTER OPENING SHALL BE FORMED BY CURVED FORMS AND SHALL NOT BE MADE BY PLASTERING.

**DIMENSIONS:**

- T = 6" IF H IS 8' OR LESS
- T = 8" IF H IS GREATER THAN 8' AND LESS THAN 20'
- H = 3' 6", UNLESS OTHERWISE SPECIFIED

FLOOR OF BASIN SHALL BE GIVEN A STEEL-TROWELLED FINISH.

MANHOLE SHALL BE PLACED AS SHOWN ON STD 300, SHEET 1 OF 3, UNLESS NOTED DIFFERENTLY ON IMPROVEMENT PLANS.

OUTLET PIPE SHALL BE TRIMMED TO THE FINAL SHAPE AND LENGTH BEFORE CONCRETE IS POURED.

OPENING SHALL BE 4' UNLESS OTHERWISE SPECIFIED.

REINFORCING STEEL SHALL BE NO. 3 ROUND DEFORMED BARS IN TOP SLAB AND NO. 4 BARS AT 18 INCH CENTERS IN SIDES OF BOX.

STEPS SHALL BE 3/4" PLAIN ROUND GALVANIZED STEEL AND SHALL BE ALHAMBRA FDY. A-3320 OR EQUAL.

IF H IS 3.5 FEET OR LESS, NO STEPS ARE REQUIRED.

IF H IS MORE THAN 3.5 FEET, AND NOT MORE THAN 5', INSTALL 1 STEP 16" ABOVE FLOOR OF BASIN.

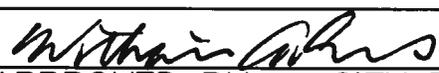
IF H IS MORE THAN 5 FEET, INSTALL STEPS 12" APART, WITH THE TOP STEP 6" BELOW THE SURFACE OF THE BASIN.

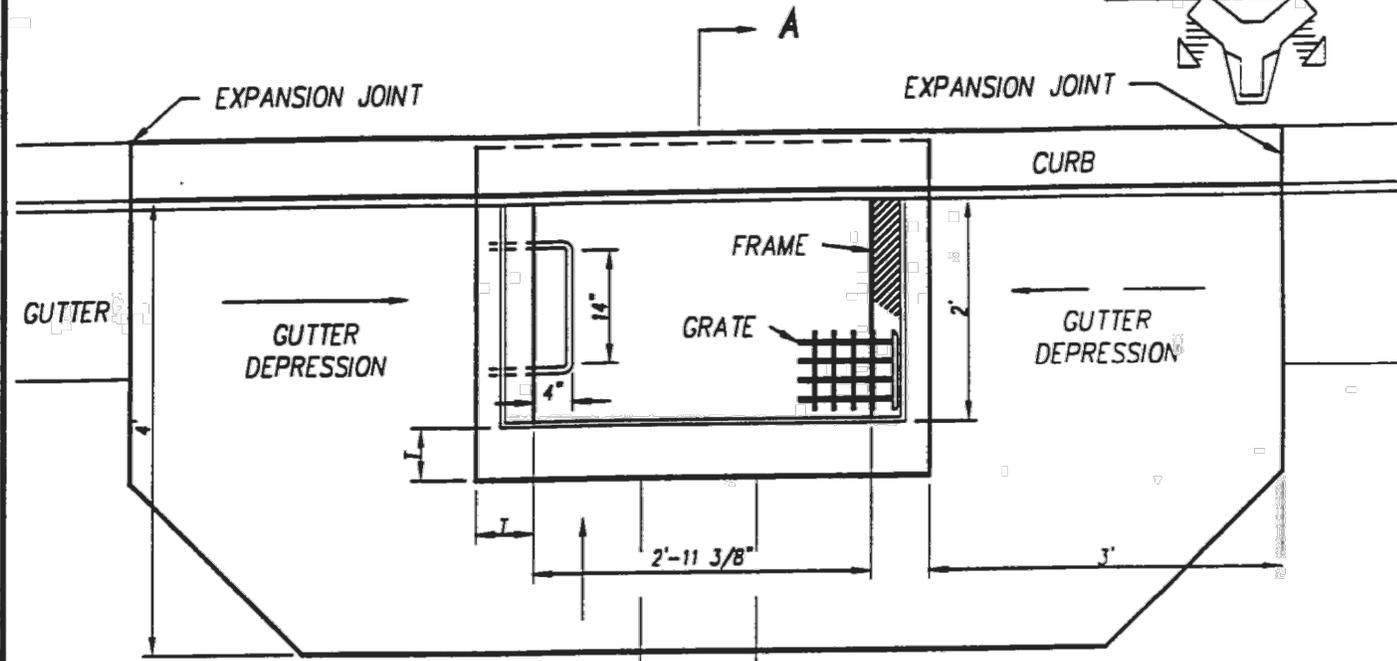
ALL STEPS SHALL BE 4" FROM THE WALL, EXCEPT THE TOP STEP, WHICH SHALL BE 2 1/2" (CLEAR) FROM THE WALL, AND ANCHORED NOT LESS THAN 5 INCHES IN THE WALL OF THE BASIN.

SURFACE OF ALL EXPOSED CONCRETE IN BASIN SHALL CONFORM IN SLOPE, GRADES, COLOR, FINISH AND SCORING TO EXISTING OR PROPOSED CURB AND WALL ADJACENT TO THE BASIN.

CONCRETE SHALL BE CLASS 560-C-3250. WHEN THE BASIN IS CONTIGUOUS TO A SIDEWALK, THE TOP OF THE BASIN SHALL BE POURED MONOLITHIC WITH THE SIDEWALK USING CLASS 560-C-3250 CONCRETE

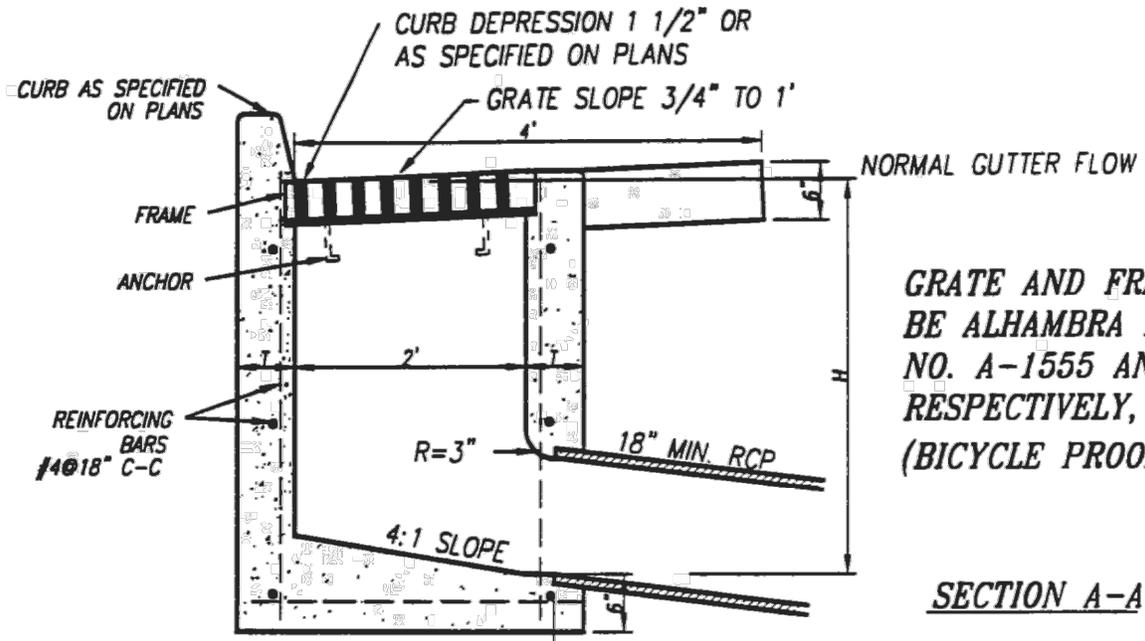
\* FOR THE SIDEWALK AND THE TOP OF THE CATCH BASIN FINISHED PER SIDEWALK STANDARDS, (NO FLY ASH).

<b>CITY OF RANCHO MIRAGE</b>		<b>STANDARD DETAIL 300 SHT. 3 OF 3</b>
REVISIONS	<b>CURB INLET CATCH BASIN NOTES</b>	
* 7/5/2012		
		
	APPROVED BY: CITY ENGINEER      DATE: 7/12/12	



COMPACT BACKFILL TO 90% MIN., WITH THE TOP 12" COMPACTED TO 95% MIN. UNDER PAVING.

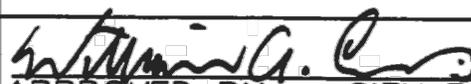
SEE STD 304 FOR GUTTER DEPRESSION

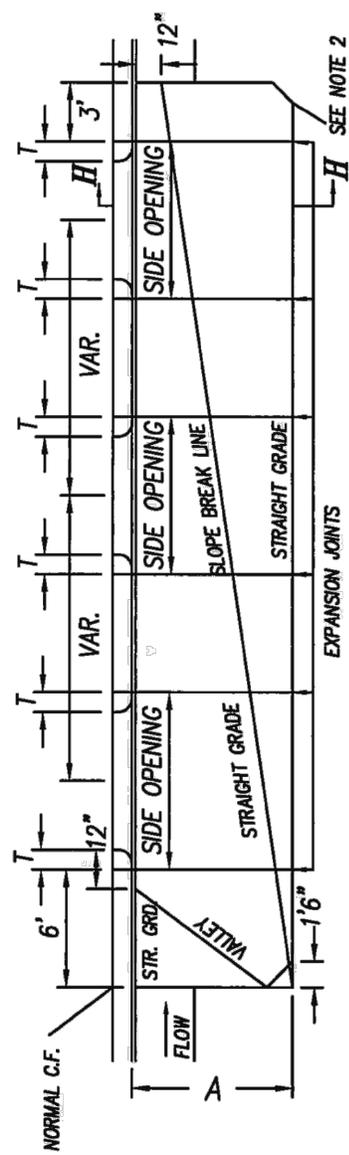


GRATE AND FRAME SHALL BE ALHAMBRA FOUNDRY NO. A-1555 AND A-1557, RESPECTIVELY, OR EQUAL (BICYCLE PROOF GRATE)

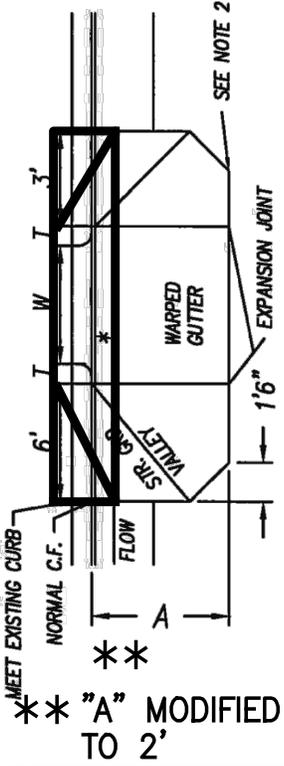
SECTION A-A

SEE STD 302, SHT 2 OF 2 FOR APPLICABLE NOTES  
 NOTE: USE OF THIS STANDARD REQUIRES PRIOR APPROVAL OF CITY ENGINEER

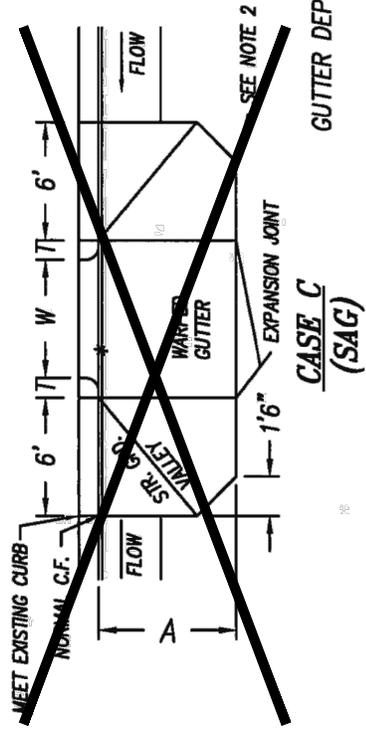
<b>CITY OF RANCHO MIRAGE</b>		<b>STANDARD</b>
REVISIONS	<b>GRATE INLET CATCH BASIN</b>	<b>DETAIL</b>
	 APPROVED BY: CITY ENGINEER	<b>301</b>
	DATE	5/31/01



**CASE A - MULTIPLE C.B.**



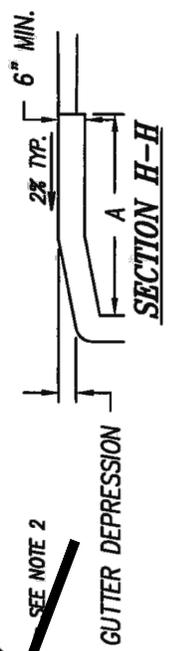
**CASE B (CONTINUOUS GRADE)**



**CASE C (SAG)**

**NOTES:**

1. GUTTER DEPRESSION SHALL BE CASE B UNLESS OTHERWISE NOTED ON PROJECT DRAWINGS.
2. ELEVATION OF OUTER CORNERS SHOWN ON PROJECT. IF NO ELEVATIONS ARE SPECIFIED, THE OUTER EDGE GUTTER DEPRESSION SHALL CONFORM TO FINISHED STREET SURFACE.
3. A=4 FEET UNLESS OTHERWISE SPECIFIED.  
T= (SEE STD 300 SHT. 3 OF 3)
4. WHERE NO CURB EXIST, CURBS SHALL BE CONSTRUCTED BETWEEN ENDS OF GUTTER DEPRESSION. CURB SECTION SHALL CONFORM TO A STANDARD CURB APPROVED BY THE CITY ENGINEER.
5. DEPRESSION SHALL BE CLASS 560-C-3250 P.C. CONCRETE. (NO FLY ASH) PLACED OVER COMPACTED NATIVE OR AGGREGATE BASE MATERIALS. COMPACTION SHALL BE 90% RELATIVE TO MAXIMUM, EXCEPT IN THE TOP FOOT, WHERE THE RELATIVE COMPACTION SHALL BE 95%, MINIMUM.
6. CATCH BASIN OPENING = NORMAL CURB HEIGHT + 4 INCHES UNLESS OTHERWISE SPECIFIED.



**CITY OF RANCHO MIRAGE**

STANDARD

REVISIONS
* 7/5/2012

**GUTTER DEPRESSION FOR CURB OPENING CATCH BASIN**

DETAIL

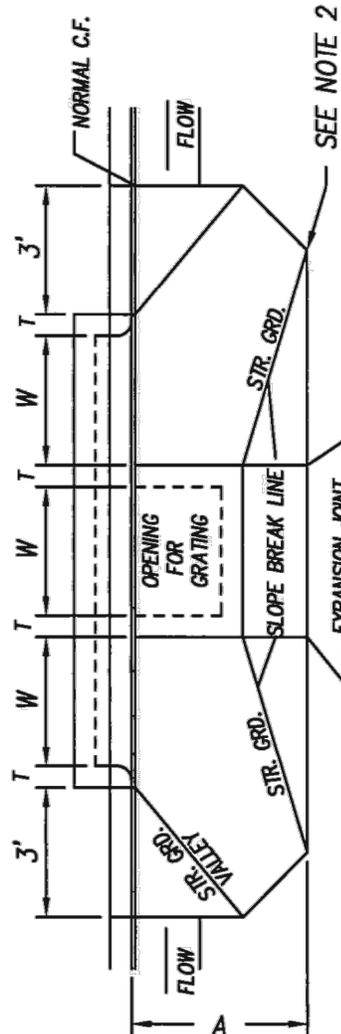
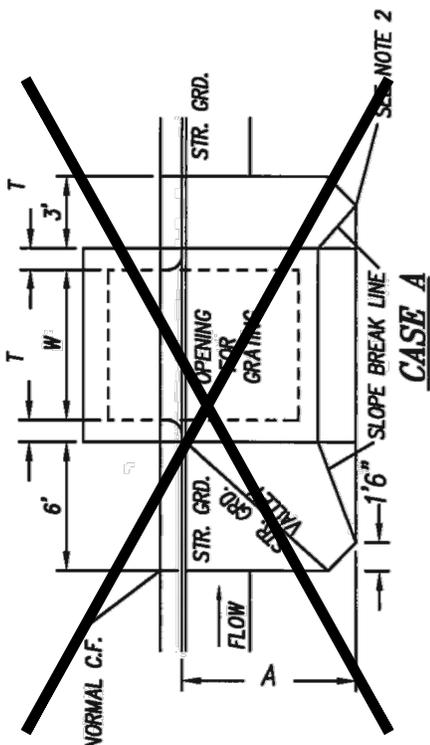
APPROVED BY: *William G. ...* 7/12/12  
CITY ENGINEER DATE

**303**



**NOTES:**

1. GUTTER DEPRESSIONS SHALL BE CASE "A" (SEE STD 302) UNLESS OTHERWISE SPECIFIED.
2. ELEVATIONS AT OUTER CORNERS SHOWN ON THE PROJECT DRAWINGS. IF NO ELEVATIONS ARE SPECIFIED, THE OUTER EDGE OF THE GUTTER DEPRESSION SHALL CONFORM TO THE FINISHED STREET SURFACE.
3. A = 4 FEET UNLESS OTHERWISE SPECIFIED.  
 T = SEE STD 302, SHT 2 OF 2  
 W = SEE STD 302, SHT 2 OF 2
4. WHERE NO CURB EXISTS, CURB SHALL BE CONSTRUCTED BETWEEN ENDS OF GUTTER DEPRESSION. CURB SECTION SHALL CONFORM TO A STD CURB APPROVED BY THE CITY ENGINEER.
- \* 5. DEPRESSION SHALL BE CLASS 560-C-3250 P.C. CONCRETE, (NO FLY ASH), PLACED OVER COMPACTED NATIVE OR AGGREGATE BASE MATERIALS. COMPACTION SHALL BE 90% RELATIVE TO MAXIMUM, EXCEPT IN THE TOP FOOT WHERE THE RELATIVE COMPACTION SHALL BE 95%, MINIMUM.



**CASE B (SAG)**

**CITY OF RANCHO MIRAGE**

STANDARD

REVISIONS

**GUTTER DEPRESSION FOR GRATE OPENING CATCH BASIN**

DETAIL

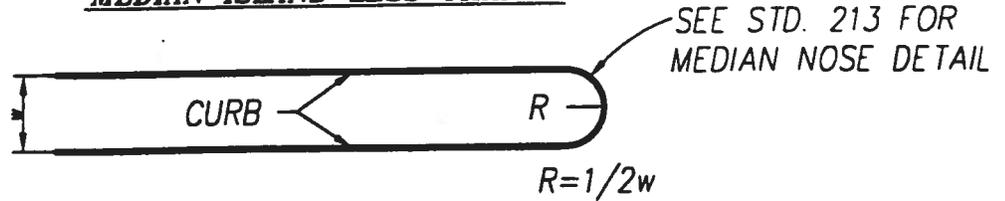
\* 7/5/2012

APPROVED BY: *[Signature]* DATE: 7/12/12

**304**

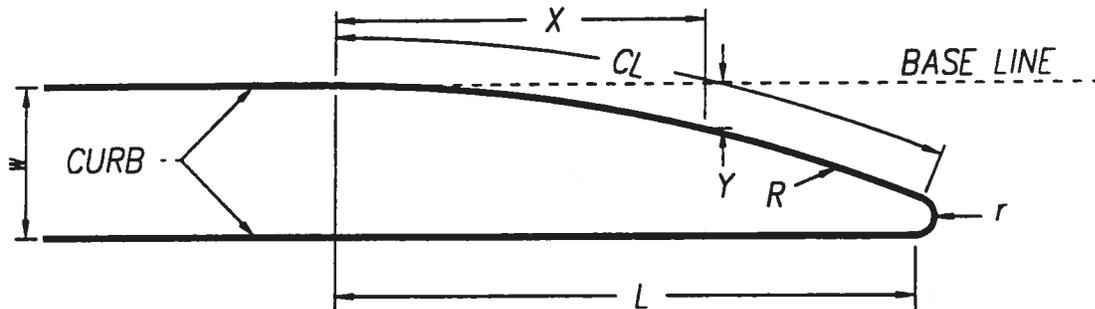


MEDIAN ISLAND LESS THAN 4'



FOR MEDIAN ISLANDS 4' AND LESS, A SEMICIRCULAR END SHALL BE USED. SEE STD 404 FOR LEFT TURN POCKETS.

MEDIAN ISLAND GREATER THAN 4'



FOR CONVENIENCE, THE STANDARD PARABOLIC NOSE FLARE MAY BE APPROXIMATED HERE WITH A RADIUS. FOR THE 16' MEDIAN,  $R=158.00'$ ,  $r=2'$ ,  $L=60'$ ,  $CL=62.38'$ .

OTHER MEDIAN SPACING MAY REQUIRE SPECIAL DESIGN TO BE DETERMINED.

16' MEDIAN L=60'	"X"	10'	20'	30'	40'	50'	60'	60.77'PCC
	"Y" (PARAB.)	0.33'	1.33'	3.00'	5.33'	8.33'	12.00'	12.15'
	"Y" (RAD.)	0.32'	1.27'	2.87'	5.15'	8.12'	11.84'	12.15'

**CITY OF RANCHO MIRAGE**

STANDARD

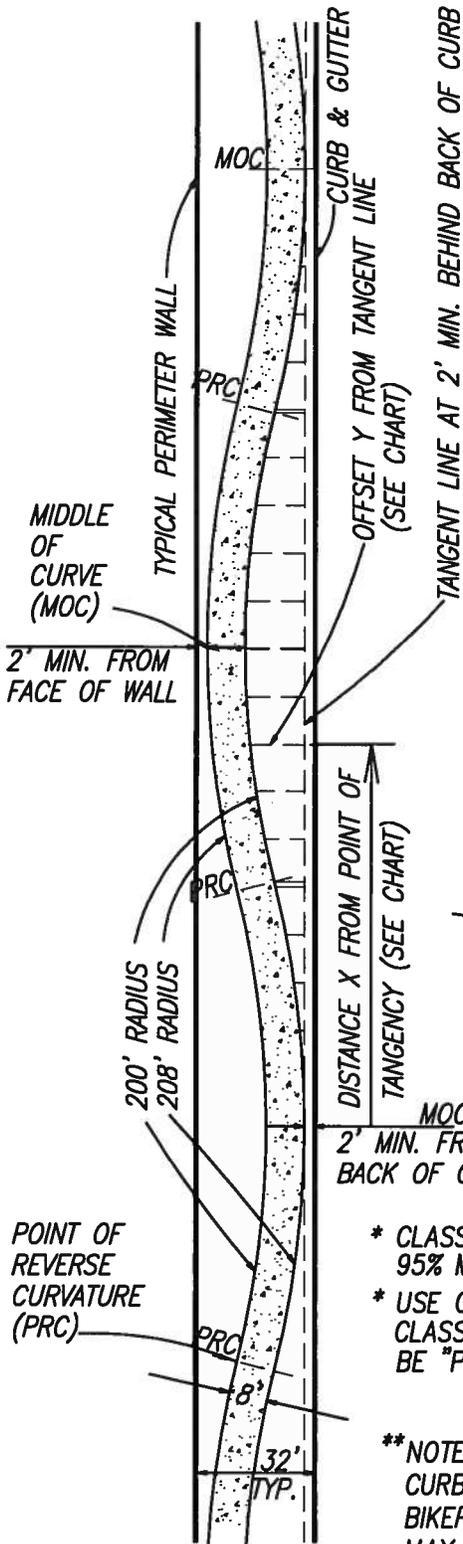
REVISIONS

**MEDIAN ISLAND NOSE FLARE**

DETAIL

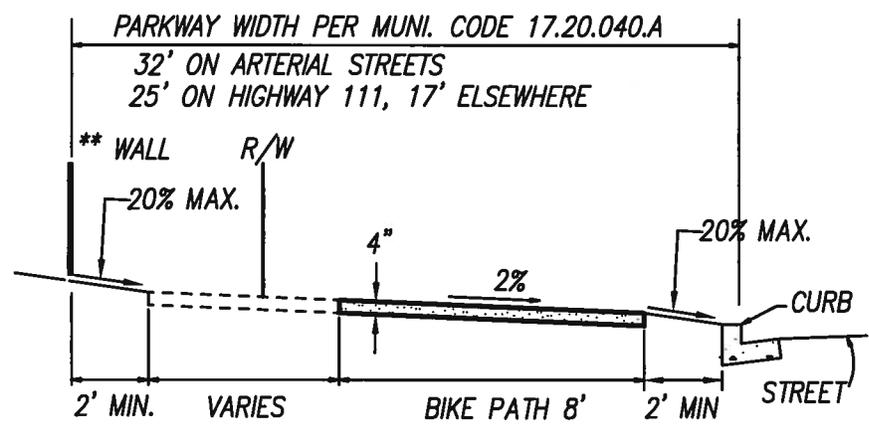
*William L. ...* 5/21/01  
APPROVED BY: CITY ENGINEER DATE

**406**



**DESIGN CRITERIA:**

- \* • R=200' MIN., 500' MAX.  
(SEE CHARTS ON SHEET 2 OF 2 FOR R=200' DATA)
- PROVIDE A MINIMUM OF 2' CLEARANCE FROM OBSTRUCTIONS
- 10' MIN. TO BRANCHING TREES FROM CURB
- 5' MIN. TO BRANCHING TREES FROM BIKEPATH
- 3' MIN. TO PALM TREES FROM CURB OR BIKEPATH  
(SEE "LANDSCAPE SPECIFICATION AND DETAIL MANUAL")
- \* • IN SECTION 30, BIKEPATH WIDTH IS 6' AND CONCRETE IS COLORED "YOSEMITE BROWN"
- \* • BIKEPATH LAYOUT ON PLANS IS CONCEPTUAL ONLY, AND FINAL APPROVAL OF THE BIKEPATH LAYOUT SHALL BE MADE BY THE INSPECTOR PRIOR TO CONSTRUCTION.



**TYPICAL CROSS SECTION**

- \* CLASS 560-C-3250 P.C.C. (NO FLY ASH) ON COMPACTED SUBGRADE  
95% MIN. RELATIVE COMPACTION (SEE STD 206 FOR JOINT DETAILS)
- \* USE CONCRETE CURING COMPOUND, ASTM C309/AASHTO M148, TYPE 2, CLASS A OR B, WITH WHITE PIGMENT. AFTER CURING, COMPOUND SHALL BE "POWER WASHED" OFF CURB TOP AND FACE BEFORE ANY CURB PAINTING
- \*\*NOTE: TYPICAL ARTERIAL PARKWAYS ARE 32 FEET FROM CURB TO WALLS WITH BIKEPATH MEANDERING BETWEEN. BIKEPATH EASEMENTS OR ADDITIONAL RIGHT-OF-WAY MAY BE REQUIRED ON A CASE BY CASE BASIS.

**CITY OF RANCHO MIRAGE**

STANDARD

REVISIONS
12/04/2002
10/29/2003
* 7/5/2012

**MEANDERING BIKE PATH**

DETAIL  
**500**

APPROVED BY: *William G. Cross* 7/12/12  
CITY ENGINEER DATE

SHEET 1 OF 2



8' BIKEPATH WITH 19.50' OFFSET,  
TYPICAL FOR 32' PARKWAY

8' BIKEPATH WITH 12.50' OFFSET,  
TYPICAL FOR 25' PARKWAY

8' BIKEPATH WITH 4.50' OFFSET,  
TYPICAL FOR 17' PARKWAY

RADIUS	PT.	DIST. X	OFFSET Y	RADIUS	PT.	DIST. X	OFFSET Y	RADIUS	PT.	DIST. X	OFFSET Y
208'	MOC	0.00'	0.00'	208'	MOC	0.00'	0.00'	208'	MOC	0.00'	0.00'
208'		10.00'	0.24'	208'		10.00'	0.24'	208'		10.00'	0.24'
208'		20.00'	0.96'	208'		20.00'	0.96'	208'		20.00'	0.96'
208'		30.00'	2.17'	208'		30.00'	2.17'	208'		30.00'	2.17'
208'		40.00'	3.88'	208'		40.00'	3.88'	208'/200' PRC		30.81'	2.29'
208'		50.00'	6.10'	208'		50.00'	6.10'	200'		40.00'	3.45'
208'		60.00'	8.84'	208'/200' PRC		51.09'	6.37'	200'		50.00'	4.23'
208'/200' PRC		63.54'	9.94'	200'		60.00'	8.41'	200'		60.00'	4.50'
200'		70.00'	11.90'	200'		70.00'	10.20'	200'	MOC	60.43'	4.50'
200'		80.00'	14.46'	200'		80.00'	11.48'	200'		70.00'	4.27'
200'		90.00'	16.48'	200'		90.00'	12.24'	200'		80.00'	3.54'
200'		100.00'	17.98'	200'		100.00'	12.50'	200'		90.00'	2.30'
200'		110.00'	18.96'	200'		100.22'	12.50'	200'/208' PRC		90.05'	2.29'
200'		120.00'	19.45'	200'	MOC	110.00'	12.26'	208'		100.00'	1.05'
200'	MOC	124.63'	19.50'	200'		120.00'	11.52'	208'		110.00'	0.28'
200'		130.00'	19.43'	200'		130.00'	10.27'	208'		120.00'	0.00'
200'		140.00'	18.91'	200'		140.00'	8.50'	208'	MOC	120.86'	0.00'
200'		150.00'	17.88'	200'/208' PRC		149.35'	6.37'	MAXIMUM OFFSET 4.50'			
200'		160.00'	16.35'	208'		150.00'	6.21'	PEAK TO PEAK 120.86'			
200'		170.00'	14.29'	208'		160.00'	3.97'				
200'		180.00'	11.68'	208'		170.00'	2.24'				
200'/208' PRC		185.72'	9.94'	208'		180.00'	1.01'				
208'		190.00'	8.62'	208'		190.00'	0.26'				
208'		200.00'	5.92'	208'		200.00'	0.00'				
208'		210.00'	3.74'	208'		MOC 200.44'	0.00'				
208'		220.00'	2.07'								
208'		230.00'	0.89'								
208'		240.00'	0.21'								
208'	MOC	249.25'	0.00'								

MAXIMUM OFFSET 19.50'  
PEAK TO PEAK 249.25'

**CHART OF DISTANCES AND OFFSETS FOR R=200'**  
**FOR TYPICAL MEANDERING BIKEPATHS**

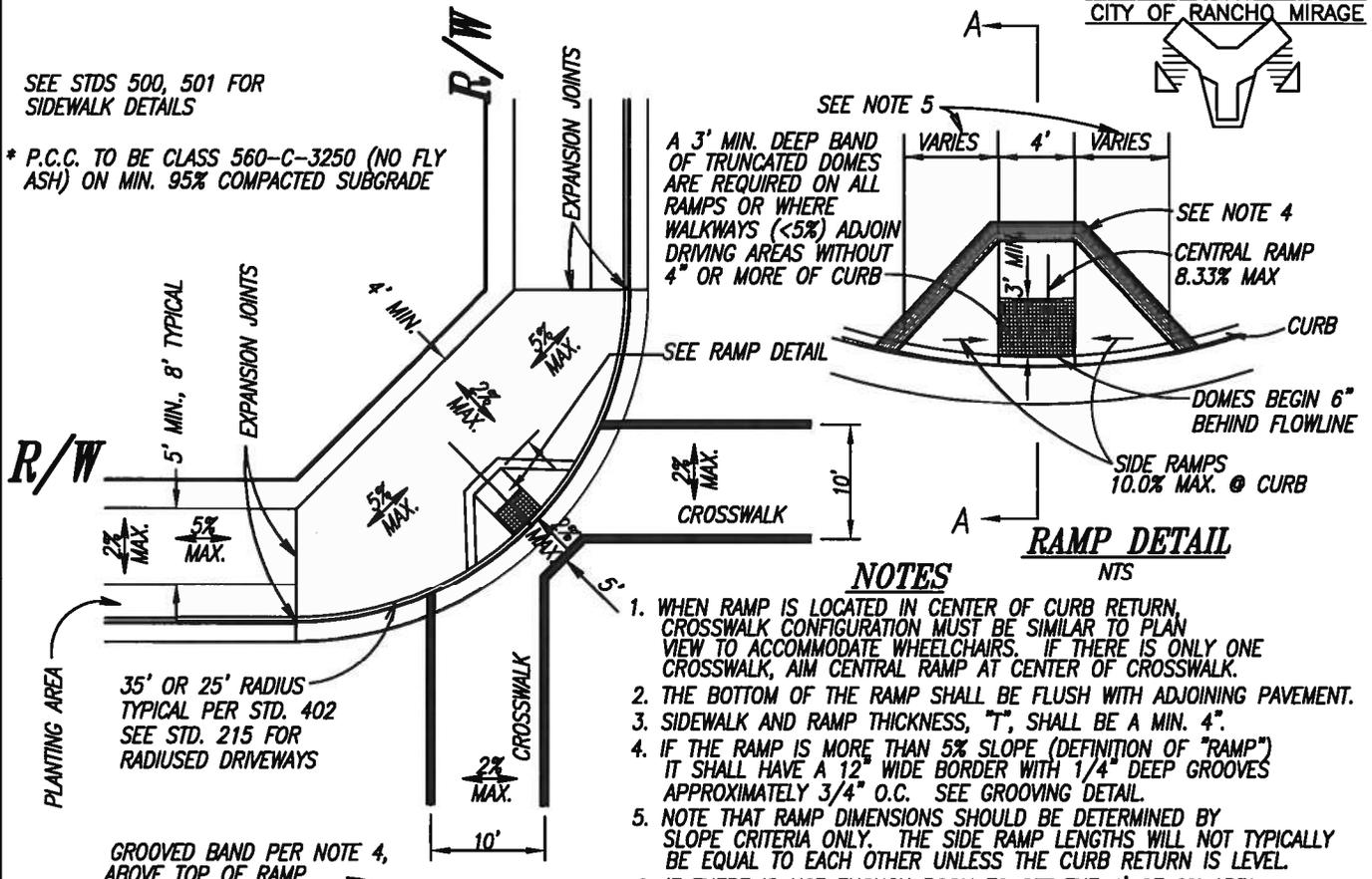
NOTE: ADD 2' MINIMUM FROM BACK OF CURB TO OFFSETS FOR DISTANCE FROM CURB.  
IF THE DESIGN DOES NOT CONFORM TO ONE OF THE TYPICAL MEANDERING CHARTS ABOVE, A SIMILAR OFFSET CHART FOR THE DESIGN MAY BE REQUIRED TO BE PLACED ON THE STREET PLANS OR WHEREVER THE DESIGN FOR THE BIKEPATH IS OTHERWISE SHOWN.

<b>CITY OF RANCHO MIRAGE</b>		<b>STANDARD DETAIL 500 SHEET 2 OF 2</b>
REVISIONS	<b>* BIKE PATH OFFSETS</b>	
12/04/2002		
10/29/2003		
* 7/5/2012		
APPROVED BY: CITY ENGINEER DATE 7/12/12		

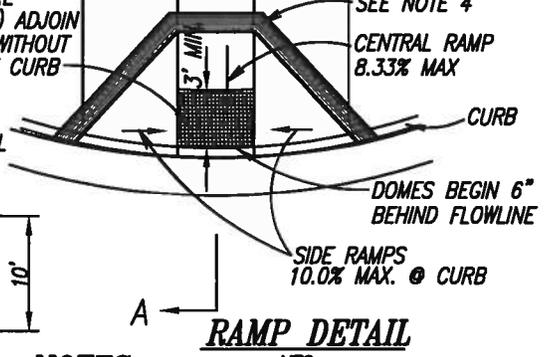


SEE STDS 500, 501 FOR SIDEWALK DETAILS

\* P.C.C. TO BE CLASS 560-C-3250 (NO FLY ASH) ON MIN. 95% COMPACTED SUBGRADE



SEE NOTE 5  
A 3' MIN. DEEP BAND OF TRUNCATED DOMES ARE REQUIRED ON ALL RAMP OR WHERE WALKWAYS (<5%) ADJOIN DRIVING AREAS WITHOUT 4" OR MORE OF CURB



**RAMP DETAIL**  
NTS

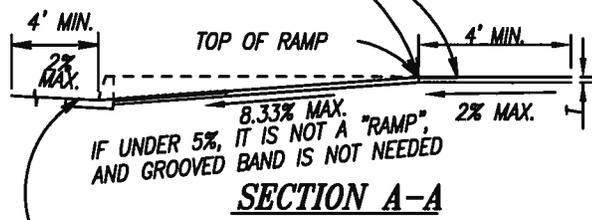
**NOTES**

1. WHEN RAMP IS LOCATED IN CENTER OF CURB RETURN, CROSSWALK CONFIGURATION MUST BE SIMILAR TO PLAN VIEW TO ACCOMMODATE WHEELCHAIRS. IF THERE IS ONLY ONE CROSSWALK, AIM CENTRAL RAMP AT CENTER OF CROSSWALK.
2. THE BOTTOM OF THE RAMP SHALL BE FLUSH WITH ADJOINING PAVEMENT.
3. SIDEWALK AND RAMP THICKNESS, "T", SHALL BE A MIN. 4".
4. IF THE RAMP IS MORE THAN 5% SLOPE (DEFINITION OF "RAMP") IT SHALL HAVE A 12" WIDE BORDER WITH 1/4" DEEP GROOVES APPROXIMATELY 3/4" O.C. SEE GROOVING DETAIL.
5. NOTE THAT RAMP DIMENSIONS SHOULD BE DETERMINED BY SLOPE CRITERIA ONLY. THE SIDE RAMP LENGTHS WILL NOT TYPICALLY BE EQUAL TO EACH OTHER UNLESS THE CURB RETURN IS LEVEL.
6. IF THERE IS NOT ENOUGH ROOM TO GET THE 4' OF 2% AREA BEHIND THE RAMP, THEN IT CAN BE OMITTED BY SETTING THE SIDES OF THE RAMP AT A SLOPE BETWEEN 6.67% AND 8.33%.
7. ALL RAMP NOW REQUIRE AT LEAST A 3' DEEP BAND OF "TRUNCATED DOME" WARNING SURFACE MARKERS NO MATTER WHAT THE SLOPE IS. A SIMILAR 3' DEEP BAND OF "TRUNCATED DOMES" IS ALSO REQUIRED WHEREVER WALKWAYS (NOT CONSIDERED "RAMPS" WHEN SLOPE < 5%) ADJOIN VEHICLE AREAS WITH LESS THAN A 4" CURB SEPARATING THEM. THESE ARE AVAILABLE ON INSERTABLE PANELS, INDIVIDUAL UNITS, OR AS A "STAMP" FOR THE CONCRETE. THEY NEED TO BE COLORED \* "FEDERAL YELLOW" WITHIN THE PUBLIC RIGHT-OF-WAY.
8. MAXIMUM SLOPES OF ADJOINING GUTTER, THE ROAD SURFACE IMMEDIATELY ADJACENT TO THE CURB RAMP AND CONTINUOUS PASSAGE TO THE CURB RAMP SHALL NOT EXCEED 5% WITHIN 4' OF THE BOTTOM OF THE CURB RAMP.

35' OR 25' RADIUS TYPICAL PER STD. 402 SEE STD. 215 FOR RADIUS DRIVeways

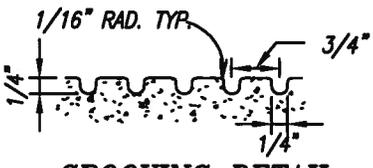
PLANTING AREA

GROOVED BAND PER NOTE 4, ABOVE TOP OF RAMP

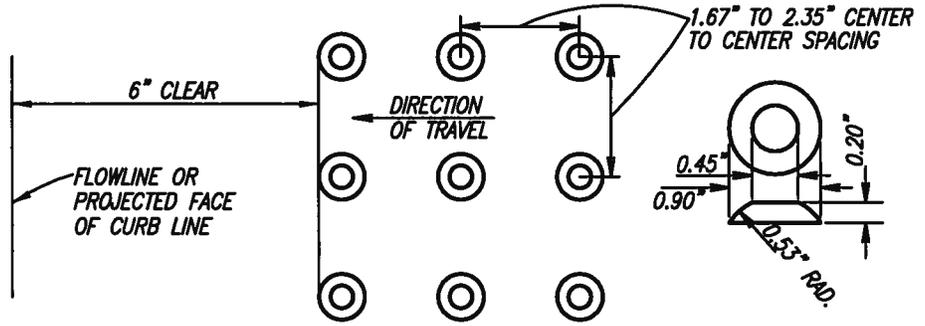


**SECTION A-A**

SEE NOTE 8  
FLATTEN GUTTER TO 2% MAX. IN RAMP AREA.



**GROOVING DETAIL**



**TRUNCATED DOME DETAILS**

**CITY OF RANCHO MIRAGE**

**STANDARD**

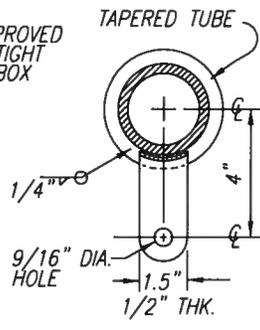
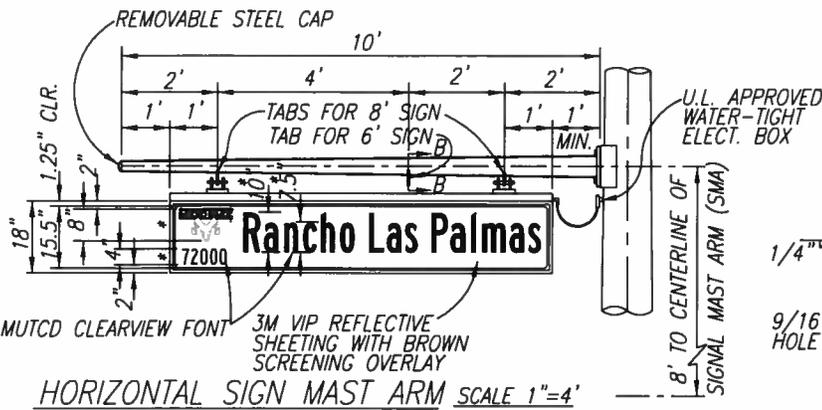
REVISIONS
1/22/2009
* 7/5/2012

**ACCESS RAMP,  
TYPICAL INTERSECTION**

**DETAIL**

**502**

APPROVED BY: *[Signature]* 7/12/12  
CITY ENGINEER DATE

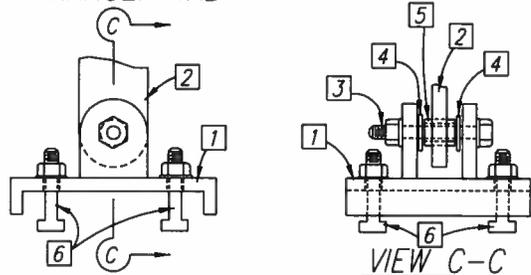


- NOTES:
1. MATERIAL: STEEL OF 48,000 PSI MIN. YIELD AFTER FABRICATION, GALVANIZED. \*
  2. PAINTED FINISH PER RANCHO MIRAGE PAINT SPECIFICATIONS.
  3. ALL WELDS SHALL CONFORM TO AWS D1.1 SPECIFICATIONS.
  4. BASE PLATES AND FLANGES SHALL BE PER ASTM A-35 & A-36 STEEL

HORIZONTAL SIGN MAST ARM SCALE 1"=4'

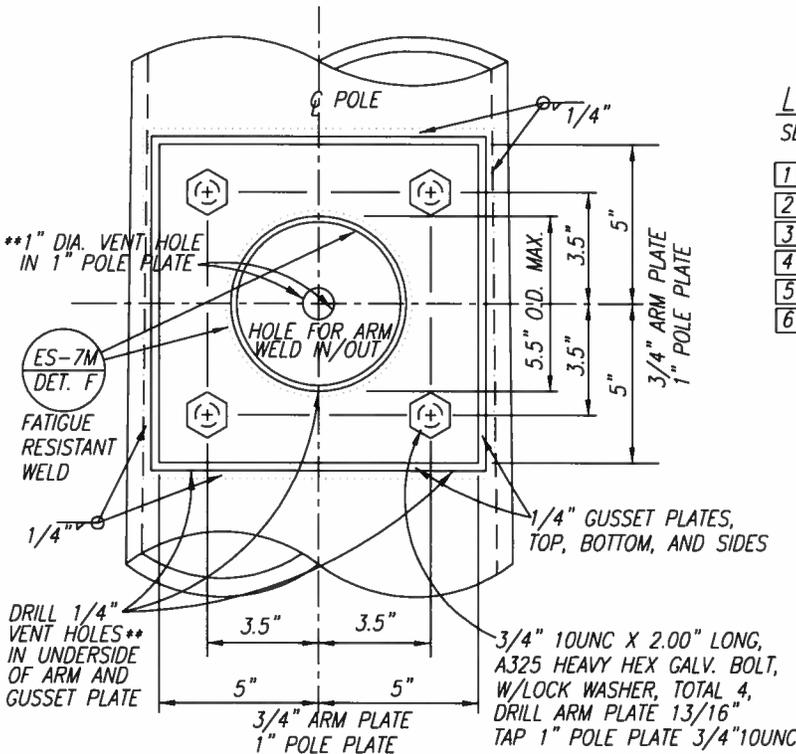
1. FOR INTERNALLY ILLUMINATED STREET NAME SIGN, MOUNTING HARDWARE, AND ELECTRICAL DETAILS, SEE CALTRANS STD. ES-70, AND SPECIAL PROVISIONS
2. MAST ARM SHALL BE ROUND TAPERED STEEL TUBE, 0.1793", WITH MAXIMUM TAPER OF 0.14" PER FOOT AND 5.25"-5.50" O.D. AT POLE. \*\*
3. IN LIEU OF THE TORQUE REQUIREMENTS FOR BOLTS, THEY SHALL BE TIGHTENED BY THE TURN-OF-NUT METHOD, 1/3 TURN FROM SNUG TIGHT CONDITION.
4. CALTRANS STANDARD DRAWING ES-7M, DETAIL "F", FATIGUE RESISTANT WELD, IS REQUIRED AT IISNS ARM PLATE AND POLE BASE PLATE.

SECTION B-B SCALE 1"=6"  
HANGER TAB



LOWER SIGN MOUNT ASSEMBLY NOT TO SCALE  
SEE CALTRANS STANDARD ES-70 FOR TYPE "A" SIGN DETAILS

- 1 LOWER MOUNTING ASSEMBLY, WITH GASKET.
- 2 UPPER MOUNTING ASSEMBLY (HANGER TAB).
- 3 BOLT, 1/2", STAINLESS STEEL, WITH SELF-LOCKING NUT.
- 4 FLAT WASHER, STAINLESS STEEL.
- 5 BUSHING, BRONZE.
- 6 MOUNTING BOLT, 1/4" MINIMUM, WITH NUT AND LOCKWASHER, OR SELF-LOCKING NUT, AND COTTER KEY.



SIGN MAST ARM MOUNTING PLATE SCALE 1"=6"

SEE SHEET 2 FOR POLE MOUNTING BRACKET DETAILS  
NEW POLES USE WELDED MOUNTING BRACKETS  
EXISTING POLES ARE RETROFIT WITH CLAMP-ON MOUNTING BRACKETS

SPECIFICATIONS

DESIGN: AASHTO SPECIFICATIONS FOR THE DESIGN AND CONSTRUCTION OF STRUCTURAL SUPPORTS AND HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNALS, DATED 2004 (4TH EDITION)

WIND LOADINGS: 129 KM/H (100MPH) AASHTO

UNIT STRESSES: STRUCTURAL STEEL

Fy = 331 MPa (TAPERED SHEET STEEL)  
Fy = 248 MPa UNLESS NOTED OTHERWISE

CONSTRUCTION: STANDARD SPECIFICATIONS AND THE SPECIAL PROVISIONS, OR AS SHOWN HERE

PAINT: (SHOP-APPLIED, AFTER GALVANIZING)

EXTERIOR: 2.5MIL DFT N69 HI-BUILD EPOXOLINE, THEN TWO COATS INEMEC 1075 ACRYLIC POLYURETHANE ENAMEL (INEMEC 84BR WEATHERED BARK) AT 2.5MIL MINIMUM DFT ON EACH COAT.

CITY OF RANCHO MIRAGE

STANDARD  
DETAIL

601B

SHEET 1 OF 2

REVISIONS

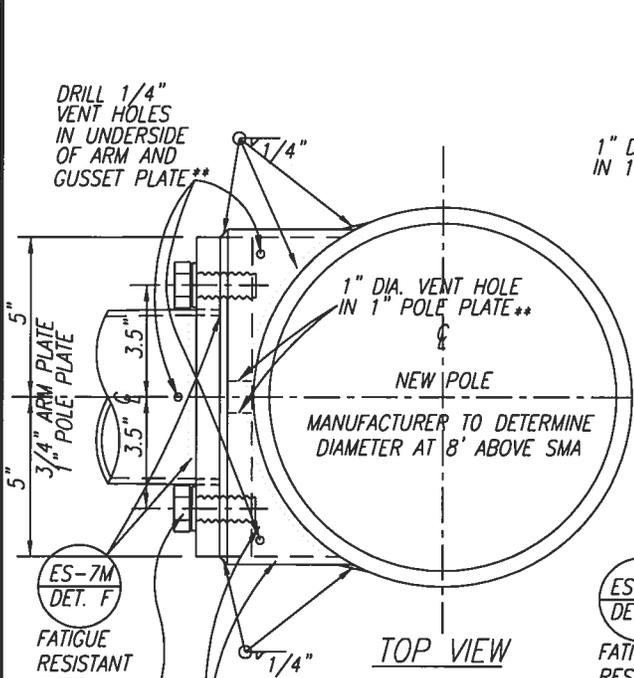
INTERNALLY ILLUMINATED  
STREET NAME SIGN (IISNS)

05/13/2010

\* 08/18/2010

\*\* 11/16/2010

*William...* 11/16/10  
APPROVED BY: CITY ENGINEER DATE



NEW POLE  
 MANUFACTURER TO DETERMINE DIAMETER AT 8' ABOVE SMA

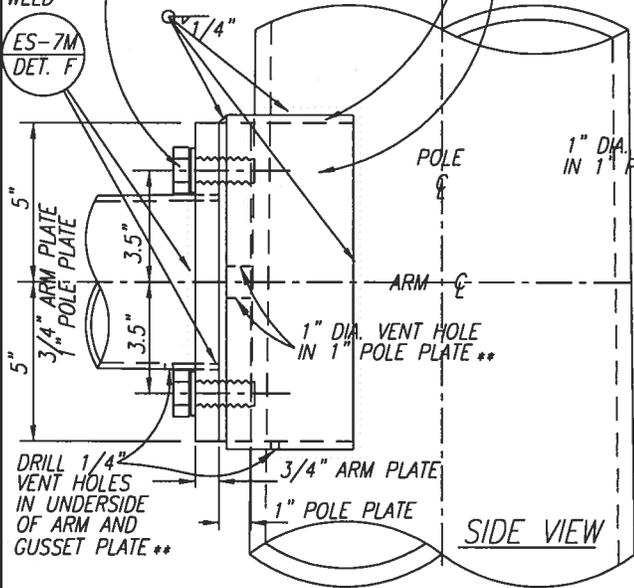
1" DIA. VENT HOLE IN 1" POLE PLATE\*\*

3/4" ARM PLATE  
 1" POLE PLATE

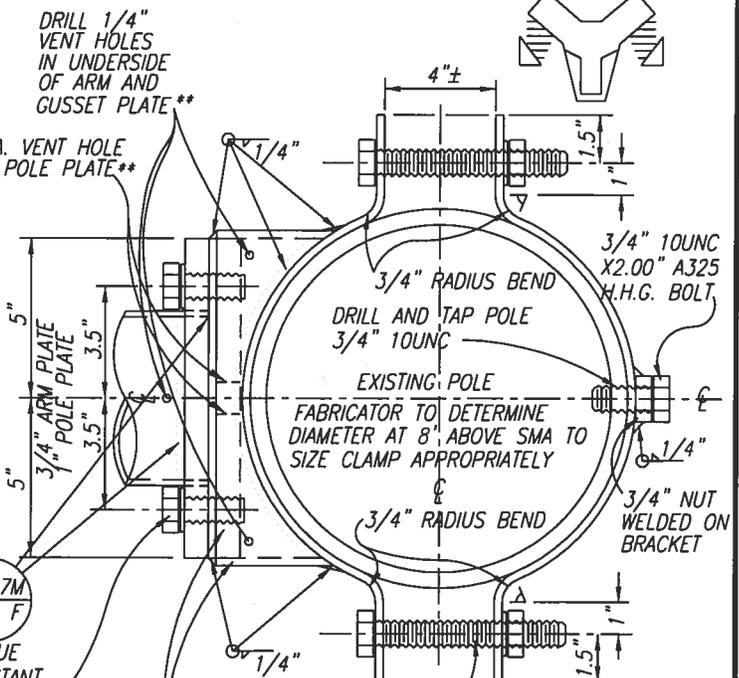
ES-7M DET. F  
 FATIGUE RESISTANT WELD

1/4" GUSSET PLATES, TOP, BOTTOM, AND SIDES

3/4" 10UNC X 2.00" LONG, A325 HEAVY HEX GALV. BOLT, W/LOCK WASHER, TOTAL 4, DRILL ARM PLATE 13/16" TAP 1" POLE PLATE 3/4" 10UNC



WELDED MOUNTING BRACKET SCALE 1"=6"



EXISTING POLE  
 FABRICATOR TO DETERMINE DIAMETER AT 8' ABOVE SMA TO SIZE CLAMP APPROPRIATELY

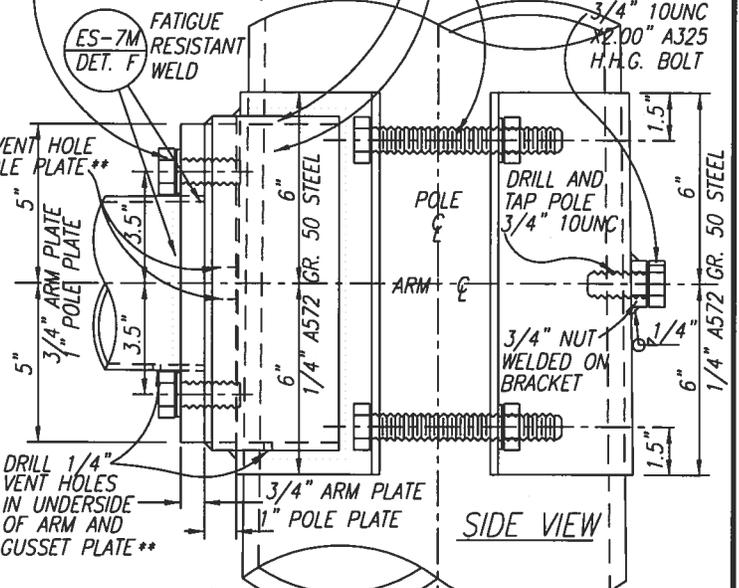
3/4" 10UNC X 2.00" A325 H.H.G. BOLT

3/4" RADIUS BEND  
 DRILL AND TAP POLE 3/4" 10UNC

ES-7M DET. F  
 FATIGUE RESISTANT WELD

1/4" GUSSET PLATES, TOP, BOTTOM, AND SIDES

3/4" 10UNC X 2.00" LONG, A325 HEAVY HEX GALV. BOLT, W/LOCK WASHER, TOTAL 4, DRILL ARM PLATE 13/16" TAP 1" POLE PLATE 3/4" 10UNC



CLAMP-ON MOUNTING BRACKET SCALE 1"=6"

CITY OF RANCHO MIRAGE

STANDARD  
 DETAIL

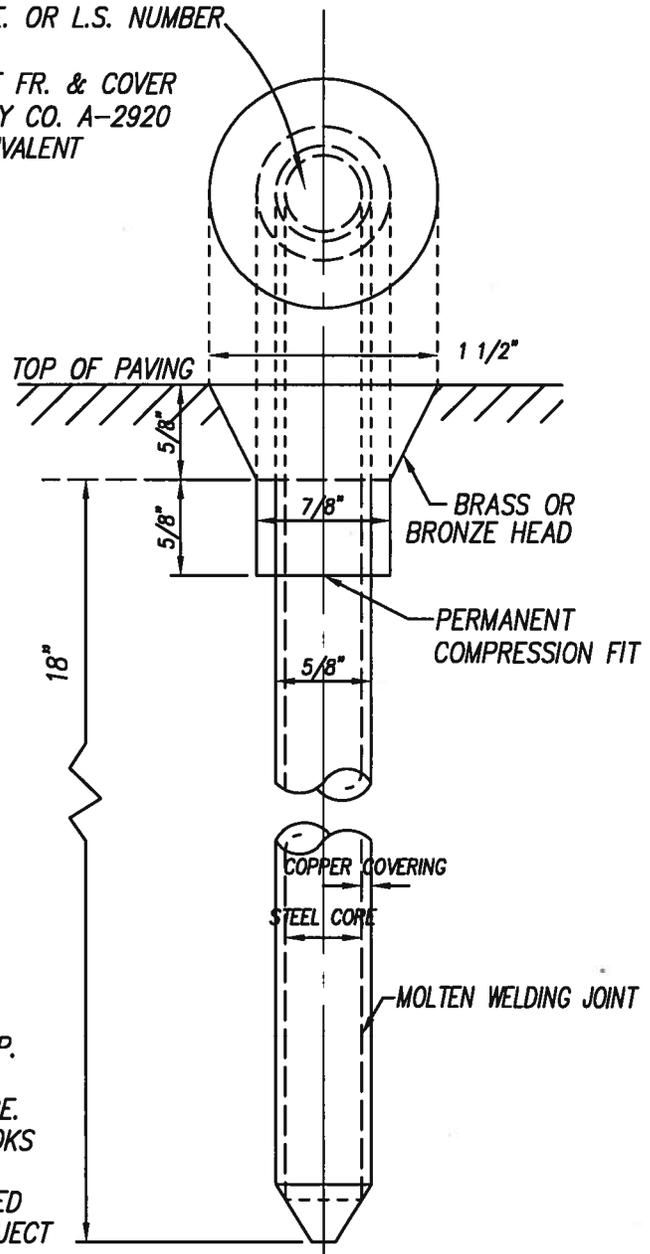
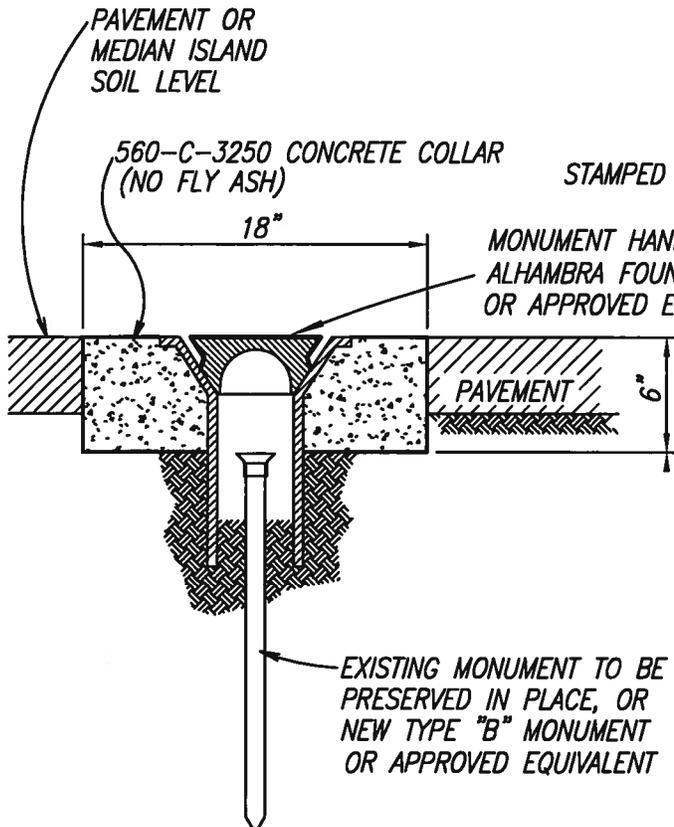
601B

SHEET 2 OF 2

REVISIONS
** 11/16/2010

INTERNALLY ILLUMINATED  
 STREET NAME SIGN (IISNS)

APPROVED BY: *[Signature]* DATE: 11/16/10  
 CITY ENGINEER



**TYPE "A" MONUMENT HANDWELL**

TO BE USED ON ARTERIAL STREET CENTERLINES, IN MEDIAN ISLANDS, OR WHEREVER THE FINISHED SURFACE MAY BE SUBJECT TO FUTURE OVERLAY OR ADJUSTMENT.

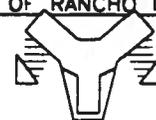
**\* ACCEPTABLE MONUMENT SUBSTITUTIONS**

AN ACCEPTABLE SUBSTITUTE FOR EITHER OF THESE MONUMENTS IS A 23.6" BERNTSEN "FENO" MONUMENT WITH A 2" STAMPED BRASS OR ALUMINUM DISK ON TOP. IN MEDIAN ISLANDS, MOUNT THE "FENO" IN A RED BERNTSEN "POLYROC" BLOCK, SET FLUSH WITH SURFACE. AFTER HORIZONTAL LOCATION, THE "FENO" ANCHOR HOOKS SHALL BE EXTENDED PER MANUFACTURER'S DIRECTIONS. ANY OTHER MONUMENT SUBSTITUTIONS MUST BE CLEARED WITH THE CITY ENGINEER PRIOR TO USAGE, OR BE SUBJECT TO REMOVAL AND REPLACEMENT AT SURVEYOR EXPENSE. SEE MONUMENT CRITERIA LIST ON SHEET 2.

**TYPE "B" MONUMENT**

**NOTE: SEE SHEET 2 OF 2 FOR MONUMENT DESCRIPTION AND SCHEDULE**

<b>CITY OF RANCHO MIRAGE</b>		<b>STANDARD DETAIL 611 SHEET 1 OF 2</b>
<b>REVISIONS</b>	<b>MONUMENT DETAILS AND STANDARDS</b>	
* 7/5/2012		
	<i>William Gibson</i> 7/12/12	
	APPROVED BY: CITY ENGINEER DATE	



**MONUMENT DESCRIPTION AND SCHEDULE**

TYPE "A": TYPE "A" MONUMENTS SHALL BE OF THE TYPE SHOWN ON SHEET 1 OF 2. TYPE "A" MONUMENTS SHALL BE USED AS CENTERLINE POINTS ON ARTERIAL STREETS, SECTION CORNERS, QUARTER SECTION POINTS, AND MONUMENTS IN MEDIAN ISLANDS.

TYPE "B": TYPE "B" MONUMENTS SHALL BE OF THE TYPE SHOWN ON SHEET 1 OF 2. TYPE "B" MONUMENTS SHALL BE USED FOR STREET INTERSECTIONS, CENTERLINE CONTROL INCLUDING ANGLE POINTS AND BEGINNINGS AND ENDINGS OF CURVES, OR ANY OTHER LOCATION WHERE PERMANENT SURVEY POINTS ARE IN PAVED SURFACES.

TYPE "C": TYPE "C" MONUMENTS ARE TO BE TWO INCH (INSIDE DIAMETER) IRON PIPE THIRTY INCHES (30") LONG. A METAL DISC OR BRASS CAP BEARING THE REGISTERED CIVIL ENGINEER OR LAND SURVEYOR NUMBER SHALL BE SECURELY AFFIXED TO THE TOP OF THE PIPE. THE TOP SURFACE OF THE MONUMENT SHALL BE SET AT OR WITHIN 12 INCHES OF THE FINISH SURFACE. TYPE "C" MONUMENTS SHALL BE USED FOR MAP BOUNDARY CONTROL UNLESS TYPE "A", "B", WOULD BE MORE APPROPRIATE.

TYPE "D": TYPE "D" MONUMENTS ARE TO BE ONE INCH (INSIDE DIAMETER) IRON PIPE THIRTY INCHES (30") LONG. A METAL DISC OR BRASS CAP BEARING THE REGISTERED CIVIL ENGINEER OR LAND SURVEYOR NUMBER SHALL BE SECURELY AFFIXED TO THE TOP OF THE PIPE. THE TOP SURFACE OF THE MONUMENT SHALL BE SET AT OR WITHIN 12 INCHES OF THE FINISH SURFACE. TYPE "D" MONUMENTS SHALL BE USED FOR INTERIOR SUBDIVISION LOT CORNERS.

TYPE "E": TYPE "E" MONUMENTS SHALL CONSIST OF A LEAD PLUG OR A STEEL PIN WITH A METAL I.D. DISK SET IN THE TOP OF PERMANENT CONCRETE STRUCTURES SUCH AS CURB, OR MASONRY WALL. COMMONLY CALLED "LEAD & TAG" MONUMENTS, THEY MAY BE USED IN LIEU OF THE FRONT LOT CORNERS, SET IN THE TOP OF CURB ON THE PROLONGATION OF THE SIDE LOT LINES. THEY ALSO MAY BE USED IN LIEU OF REAR PROPERTY CORNERS WHERE THERE IS A MASONRY WALL CLOSE TO THE REAR PROPERTY LINE. THE TAGS WOULD BE SET ON BOTH SIDES OF THE WALL AND NOTED ON THE SUBDIVISION MAP AS "POINTS ON LINE", UNLESS THE TRUE CORNER IS COEXISTENT WITH THE WALL AND THE TAG CAN GO ON TOP OF THE WALL.

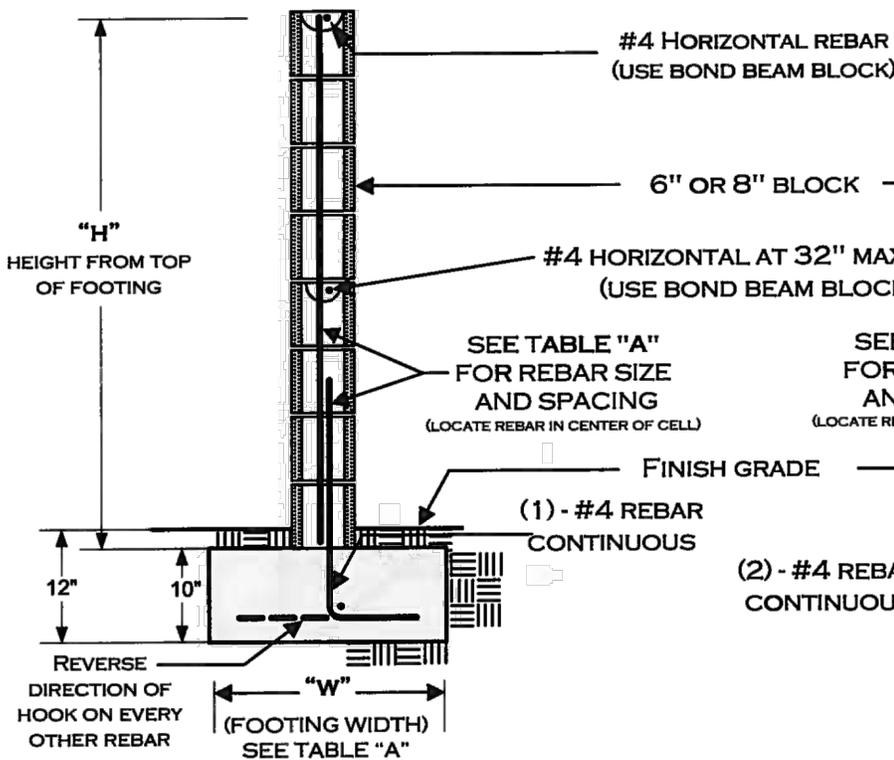
ALTERNATIVE MONUMENTS: WITH ADVANCE PERMISSION FROM THE CITY ENGINEER, SOME ALTERNATIVE MONUMENTS MAY BE ACCEPTABLE IF THEY MEET THE FOLLOWING CRITERIA:

- 1.) MONUMENT MUST BE LOCATABLE WITH A STANDARD FERROUS METAL DETECTOR
- 2.) LICENSE NUMBERS MUST BE ON AN ATTACHED BRASS DISK OR STAMPED INTO BRASS CAP (PLASTIC CAPS OR PLUGS ARE NOT ACCEPTABLE)
- 3.) MONUMENT MUST BE A DURABLE METAL, RUST RESISTANT, AND ABLE TO RESIST ANY CASUAL MOVEMENT OR WITHDRAWAL ATTEMPTS.

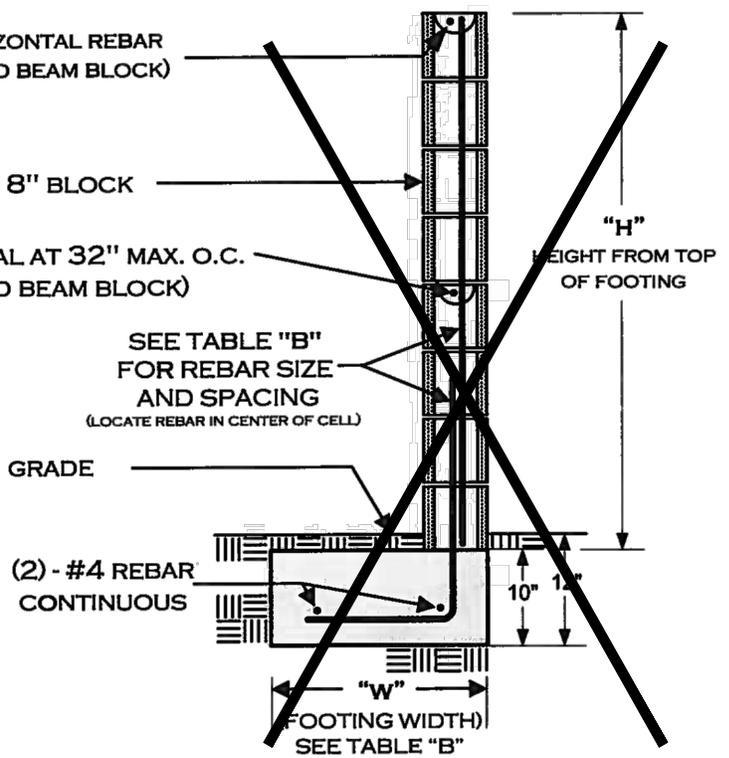
NOTE: SEE STANDARD 611, SHEET 1 OF 2 FOR MONUMENT DETAILS.  
SEE STANDARD 609 FOR TIE-OUT STANDARDS AND STANDARD 610 FOR MONUMENTATION LOCATIONS.

<b>CITY OF RANCHO MIRAGE</b>		<b>STANDARD DETAIL 611 SHEET 2 OF 2</b>
<b>REVISIONS</b>	<b>MONUMENT DETAILS AND STANDARDS</b>	
 <span style="float: right;">5/31/01</span> APPROVED BY: CITY ENGINEER      DATE		

## FOOTING OPTION "A"

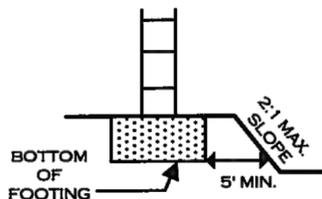


## FOOTING OPTION "B"



"H"	"W"	VERTICAL REINFORCEMENT
3'	17"	#4 @ 48" O.C.
4'	20"	#4 @ 48" O.C.
5'	23"	#4 @ 48" O.C.
6'	29"	#4 @ 24" O.C.

ALL FOOTINGS ADJACENT TO SLOPES TO BE AT LEAST 5' TO DAYLIGHT AS SHOWN BELOW.



"H"	"W"	VERTICAL REINFORCEMENT
3'	19"	#4 @ 48" O.C.
4'	22"	#4 @ 48" O.C.
5'	29"	#4 @ 48" O.C.
6'	34"	#4 @ 24" O.C.

### NOTES:

- 1) THIS DESIGN DOES **NOT** ALLOW GRADE DIFFERENTIALS OF MORE THAN 6" ON OPPOSING SIDES OF THE WALL. THIS IS **NOT** A RETAINING WALL.
- 2) FENCE HEIGHTS ARE REGULATED — CONSULT ZONING REGULATIONS BEFORE BEGINNING CONSTRUCTION.
- 3) NO WATER COURSE OR NATURAL DRAINAGE SHALL BE OBSTRUCTED.
- 4) GROUT **ONLY** THE CELLS CONTAINING REBAR. THIS WALL IS **NOT** DESIGNED FOR ALL CELLS TO BE GROUTED.
- 5) ALL REBAR TO BE ASTM SPEC. A615, GRADE 40 MINIMUM.
- 6) ALL REBAR LAP SPLICES TO BE 24" MINIMUM.
- 7) ALL MASONRY UNITS TO BE ASTM C-90 GRADE N.
- 8) REBAR TO BE CENTERED IN MASONRY CELLS.

\*SEE PAGE 2 FOR ADDITIONAL INFORMATION\*

### DISCLAIMER:

ALTERNATE DESIGNS MAY BE POSSIBLE WHEN PROVIDED WITH AN ENGINEERED ANALYSIS. USE OF THIS STANDARD DESIGN IS AT THE USER'S RISK AND CARRIES NO IMPLIED OR INFERRED GUARANTEE AGAINST FAILURE OR DEFECTS.

**CHECK WITH THE BUILDING DEPARTMENT TO VERIFY IF A BUILDING PERMIT IS REQUIRED.**

WHEN A PERMIT IS REQUIRED, THE FOLLOWING INSPECTIONS ARE REQUIRED:

- 1) **FOOTING**; EXCAVATION TRENCH CLEAN WITH STEEL IN PLACE AND SUPPORTED 3" ABOVE AND AWAY FROM THE SURROUNDING EARTH/DIRT.
- 2) **REBAR/PRE-GROUT**; BOND BEAM REBAR AND VERTICAL REBAR IN PLACE - INSPECTION PRIOR TO PLACING GROUT.
- 3) **FINAL**; AFTER GROUT IS PLACED - PRIOR TO ANY DECORATIVE CAP PLACEMENT.

WESTERN RIVERSIDE COUNTY CODE UNIFORMITY PROGRAM



**CITY OF RANCHO MIRAGE  
BUILDING & SAFETY**

**FREESTANDING BLOCK WALL**

PHONE (760) 202-9253

69-825 HIGHWAY 111, RANCHO MIRAGE, CA 92270

FAX (760) 324-8169

1/1/2008

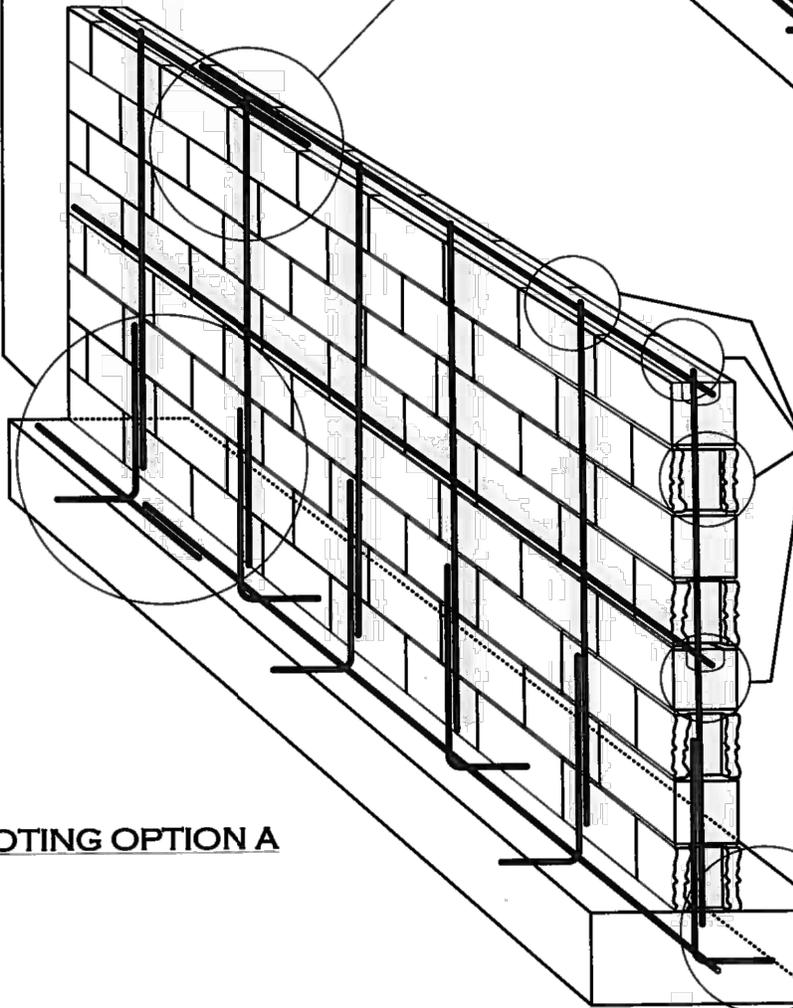
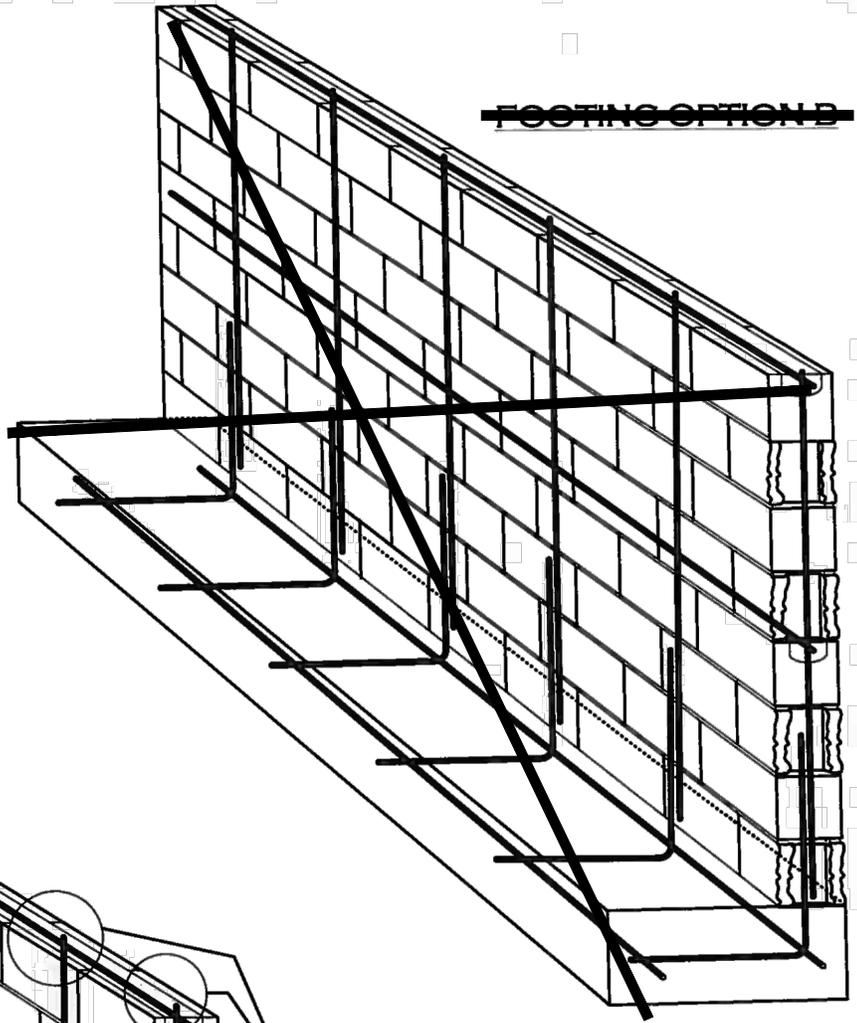
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PAGE 1 OF 2

# REBAR PLACEMENT ILLUSTRATION

~~FOOTING OPTION B~~

(TYPICAL)  
ALL REBAR SPLICES  
24" MIN. OVERLAP



(TYPICAL)  
ONLY CELLS AND BOND BEAM  
COURSES WITH REBAR TO BE  
GROUTED  
(DO NOT SOLID GROUT ENTIRE WALL - USE  
GROUT STOP MESH AS APPROPRIATE)

FOOTING OPTION A

(TYPICAL)  
ALL REBAR SHALL HAVE A  
MINIMUM OF 3" CONCRETE  
COVER AT FOOTINGS

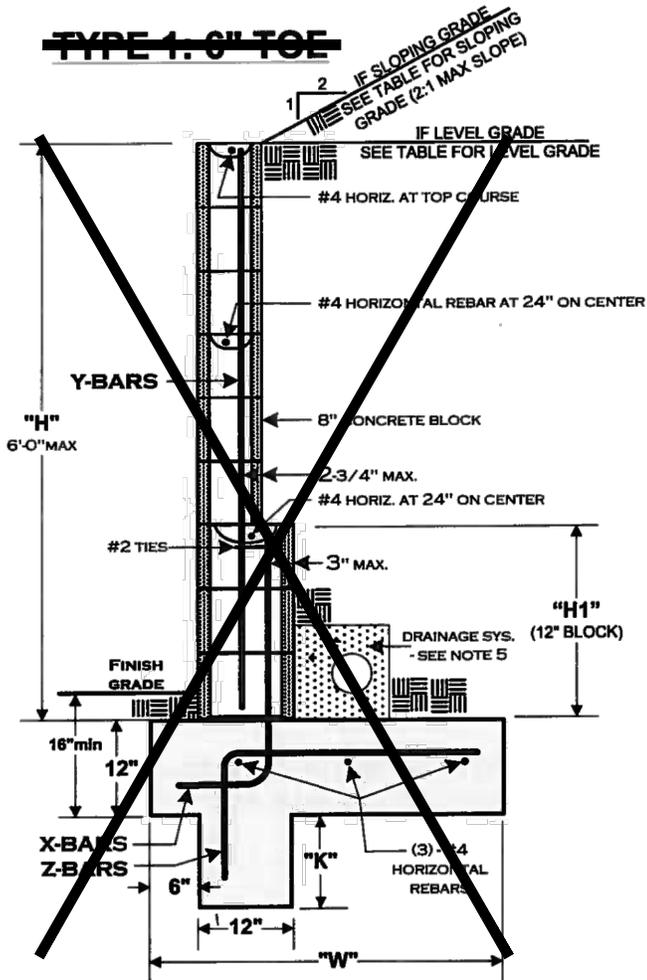
## DESIGN PARAMETERS:

- ACTIVE SOIL PRESSURE (PSF) = 30
- PASSIVE SOIL BEARING (PSF) = 150
- COEFFICIENT OF FRICTION = 0.25
- ALLOWABLE SOIL BEARING (PSF) = 1500
- WIND = 85 MPH, EXPOSURE C
- SEISMIC DESIGN CATEGORY 'E', SITE CLASS 'D'

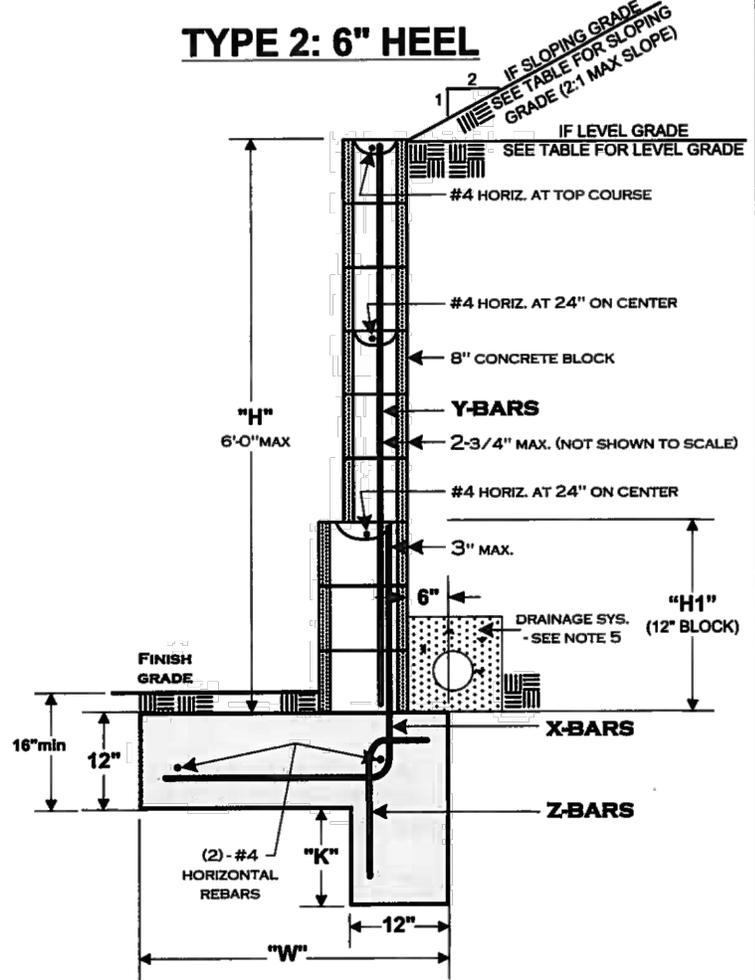


WESTERN RIVERSIDE COUNTY CODE UNIFORMITY PROGRAM	
	<b>CITY OF RANCHO MIRAGE</b> <b>BUILDING &amp; SAFETY</b>
	<b>FREESTANDING BLOCK WALL</b>
PHONE (760) 202-9253	69-825 HIGHWAY 111, RANCHO MIRAGE, CA 92270
FAX (760) 324-8169	1/1/2008
GARDENWALLFINAL2008RANCH O MIRAGE.VSD	PAGE 2 OF 2

### TYPE 1: 6" TOE



### TYPE 2: 6" HEEL



#### TYPE 1: 6" TOE

GRADE CONDITION	"H" (WALL HEIGHT)	"H1" (12" BLOCK)	"W" (FOOTING WIDTH)	X BARS	Y BARS	ZBARS	"K" (KEY DEPTH)
SLOPING GRADE AT TOP OF WALL (2:1 MAX)	5'-1" to 6'-0"	24"	69"	#4 @ 16"	#4 @ 32"	#4 @ 11"	30"
	4'-1" to 5'-0"	N/R	48"	#4 @ 16"	#4 @ 16"	#4 @ 12"	25"
	3'-1" to 4'-0"	N/R	24"	#4 @ 32"	#4 @ 32"	#4 @ 32"	15"
	Up to 3'-0"	N/R	18"	#4 @ 32"	#4 @ 32"	#4 @ 32"	8"
LEVEL GRADE AT TOP OF WALL	5'-1" to 6'-0"	24"	45"	#4 @ 24"	#4 @ 32"	#4 @ 24"	8"
	4'-1" to 5'-0"	N/R	36"	#4 @ 24"	#4 @ 24"	#4 @ 24"	7"
	3'-1" to 4'-0"	N/R	24"	#4 @ 32"	#4 @ 32"	#4 @ 32"	5"
	Up to 3'-0"	N/R	21"	#4 @ 32"	#4 @ 32"	#4 @ 32"	N/R

#### TYPE 2: 6" HEEL

GRADE CONDITION	"H" (WALL HEIGHT)	"H1" (12" BLOCK)	"W" (FOOTING WIDTH)	X BARS	Y BARS	ZBARS	"K" (KEY DEPTH)
SLOPING GRADE AT TOP OF WALL (2:1 MAX)	5'-1" to 6'-0"	24"	39"	#4 @ 16"	#4 @ 32"	#4 @ 12"	28"
	4'-1" to 5'-0"	N/R	29"	#4 @ 16"	#4 @ 16"	#4 @ 12"	22"
	3'-1" to 4'-0"	N/R	24"	#4 @ 32"	#4 @ 32"	#4 @ 32"	15"
	Up to 3'-0"	N/R	18"	#4 @ 32"	#4 @ 32"	#4 @ 32"	8"
LEVEL GRADE AT TOP OF WALL	5'-1" to 6'-0"	24"	33"	#4 @ 24"	#4 @ 32"	#4 @ 24"	18"
	4'-1" to 5'-0"	N/R	26"	#4 @ 24"	#4 @ 24"	#4 @ 24"	13"
	3'-1" to 4'-0"	N/R	20"	#4 @ 32"	#4 @ 32"	#4 @ 32"	7"
	Up to 3'-0"	N/R	20"	#4 @ 32"	#4 @ 32"	#4 @ 32"	N/R

N/R = NOT REQUIRED

\*SEE PAGE 2 FOR ADDITIONAL INFORMATION\*

#### DISCLAIMER:

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#### WESTERN RIVERSIDE COUNTY CODE UNIFORMITY PROGRAM



### CITY OF RANCHO MIRAGE BUILDING & SAFETY

#### RETAINING WALLS

PHONE (760) 202-9253

69-825 HIGHWAY 111, RANCHO MIRAGE, CA 92270

FAX (760) 324-8169

12/26/2006

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PAGE 1 OF 2

**GENERAL NOTES:**

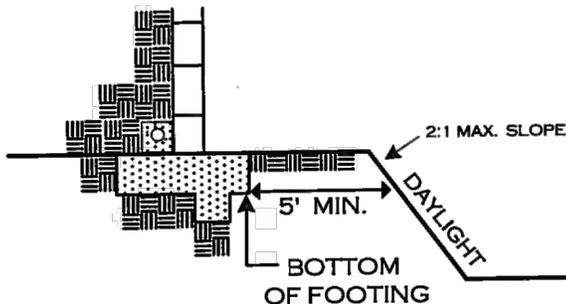
- 1) ALL WORK SHALL CONFORM TO THE ADOPTED CODES AND ZONING REGULATIONS.
- 2) CONCRETE BLOCK MASONRY SHALL COMPLY WITH THE FOLLOWING:
  - A. CONCRETE MASONRY SHALL CONFORM TO ASTM C-90, GRADE - N.
  - B. MORTAR: TYPE M OR S.
  - C. GROUT ALL CELLS W/2000 PSI PORTLAND CEMENT GROUT.
- 3) THE ULTIMATE COMPRESSIVE STRENGTH REQUIRED FOR FOUNDATION CONCRETE SHALL BE 2500 PSI.
- 4) ALL REINFORCING STEEL SHALL BE INTERMEDIATE GRADE ASTM A615-40 AND OVERLAP SPLICES SHALL BE 40 BAR DIAMETERS MINIMUM. ALL REBAR HOOKS SHALL BE A MINIMUM OF 12 TIMES THE REBAR DIAMETER (12bd) IN LENGTH.
- 5) PROVIDE RETAINING WALL DRAINAGE SYSTEM AS FOLLOWS:  
~~PROVIDE 1GF/FT OF CLEAN COARSE GRAVEL WITH 4" DIAMETER PERFORATED PVC DRAINAGE PIPE WITH 1% GRADIENT TO DRAIN OR OMIT HEAD JOINTS IN FIRST COURSE.~~
- 6) OPTIONAL: INSTALLATION OF A MOISTURE BARRIER ON THE FILL SIDE OF THE WALL WILL HELP TO PREVENT MOISTURE FROM PENETRATING THE VISIBLE SIDE OF THE WALL, RESULTING IN DISCOLORATION.
- 7) THIS RETAINING WALL STANDARD IS NOT DESIGNED TO SUPPORT SURCHARGE LOADS FROM MOTOR VEHICLES OR OTHER STRUCTURES.
- 8) CLEANOUTS SHALL BE PROVIDED FOR ALL GROUT POURS OVER 5 FEET IN HEIGHT. WHERE REQUIRED, CLEANOUTS SHALL BE PROVIDED IN THE BOTTOM COURSE AT EVERY VERTICAL BAR AND SHALL BE SEALED AFTER INSPECTION AND BEFORE GROUTING.

**REQUIRED INSPECTIONS:**

- 1) FOOTING:  
EXCAVATION TRENCH CLEAN WITH STEEL IN PLACE AND SUPPORTED 3" ABOVE AND AWAY FROM THE SURROUNDING EARTH/DIRT.
- 2) REBAR/PRE-GROUT AND DRAINAGE SYSTEM:  
BOND BEAM REBAR AND VERTICAL REBAR IN PLACE - INSPECTION PRIOR TO PLACING GROUT. DRAINAGE SYSTEM COMPLETE.
- 3) FINAL:  
AFTER GROUT IS PLACED AND BACKFILL COMPLETED - PRIOR TO ANY DECORATIVE CAP PLACEMENT.

**SETBACK FROM TOP OF SLOPE:**

ALL FOOTINGS ADJACENT TO SLOPES TO BE AT LEAST 5' TO DAYLIGHT AS SHOWN BELOW.



**DESIGN PARAMETERS:**

ACTIVE SOIL PRESSURE (PSF)	= 30
LEVEL BACKFILL	= 43
SLOPING (2:1 MAX)	= 150
PASSIVE SOIL BEARING (PSF)	= 0.25
COEFFICIENT OF FRICTION	= 1500
ALLOWABLE SOIL BEARING PRESSURE (PSF)	= 1500

(NO INCREASES TAKEN FOR DEPTH OR WIDTH OF FOOTING)

**DISCLAIMER:**

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<b>WESTERN RIVERSIDE COUNTY CODE UNIFORMITY PROGRAM</b>			
	<b>CITY OF RANCHO MIRAGE</b>		
	<b>BUILDING &amp; SAFETY</b>		
<b>RETAINING WALLS</b>			
PHONE (760) 202-9253	69-825 HIGHWAY 111, RANCHO MIRAGE, CA 92270		
FAX (760) 324-8169	12/26/2006	RETWALLFINALRANCHO MIRAGE.VSD	PAGE 2 OF 2