

CITY OF MANHATTAN BEACH

BID DOCUMENTS

PROJECT NO. P-911

MARINE AVENUE IMPROVEMENT PROJECT
Marine Ave.: Sepulveda Blvd. to N. Aviation Blvd.
SEPTEMBER 2018



CITY OF MANHATTAN BEACH
PUBLIC WORKS DEPARTMENT
MAMERTO (MO) ESTEPA JR., PE
1400 HIGHLAND AVENUE
MANHATTAN BEACH, CA 90266

City Engineer Approval
PREMI KUMAR
C52463

Engineer/Architect of Record Approval

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**NOTICE INVITING BIDS
FOR**

MARINE AVENUE IMPROVEMENT PROJECT

Project number: P-911 Bid number: 1184-19

NOTICE IS HEREBY GIVEN that the City of Manhattan Beach, California (“City”) invites sealed Bids for the Project. The City will receive such Bids at the City Clerk’s office, City Hall, 1400 Highland Avenue, Manhattan Beach, California 90266 up to 11:00 a.m. on Thursday, October 25, 2018, at which time they will be publicly opened and read aloud.

All Bids must be made on the form furnished by the City. Each Bid must be submitted in a sealed envelope addressed to the City Clerk with the Project name and identification number typed or clearly printed on the lower left corner of the envelope. Bids must remain valid and shall not be subject to withdrawal for 90 calendar Days after the Bid opening date.

SCOPE OF WORK. The Project includes, without limitation, furnishing all necessary labor, materials, equipment and other incidental and appurtenant Work necessary to satisfactorily complete the Project, as more specifically described in the Contract Documents. This Work will be performed in strict conformance with the Contract Documents, permits from regulatory agencies with jurisdiction, and applicable regulations. The quantity of Work to be performed and materials to be furnished are approximations only, being given as a basis for the comparison of Bids. Actual quantities of Work to be performed may vary at the discretion of the City Engineer. Time for completion of the Work is 50 total Working Days from the date specified in the Notice to Proceed.

OBTAINING BID DOCUMENTS. Bidders may obtain free copies of the Plans, Specifications and other Contract Documents online by visiting <https://www.bidsync.com>. The City does not provide hard copies of Plans and Specifications for projects.

OPTIONAL PRE-BID MEETING AND SITE VISIT. An optional pre-bid meeting will be held on Tuesday, September 25, 2018 at 2:30 p.m. at the parking lot for Marine Avenue Park, 1625 Marine Avenue, Manhattan Beach, CA 90266, followed by an optional site visit. No allowances for cost adjustments will be made if a Bidder fails to adequately examine the Project site before submitting a Bid.

REGISTRATION WITH THE DEPARTMENT OF INDUSTRIAL RELATIONS. In accordance with Labor Code Sections 1725.5 and 1771.1, no contractor or subcontractor shall be qualified to bid on, be listed in a bid proposal, subject to the requirements of Section 4104 of the Public Contract Code, or engage in the performance of any contract for public work, unless currently registered and qualified to perform public work pursuant to Section 1725.5 [with limited exceptions for bid purposes only under Labor Code Section 1771.1(a)].

PREVAILING WAGES. In accordance with Labor Code Section 1770 *et seq.*, the Project is a “public work.” The selected Bidder (Contractor) and any Subcontractors shall pay wages in accordance with the determination of the Director of the Department of Industrial Relations (“DIR”) regarding the prevailing rate of per diem wages. Copies of those rates are on file with the Director of Public Works and are available to any interested party upon request. The Contractor shall post a copy of the DIR’s determination of the prevailing rate of per diem wages at each job site. This Project is subject to compliance monitoring and enforcement by the DIR.

BONDS. Each Bid must be accompanied by a cash deposit, cashier's check, certified check or Bidder's Bond issued by a Surety insurer, made payable to the City and in an amount not less than ten percent of the total Bid submitted. Personal or company checks are not acceptable. Upon Contract award, the Contractor shall provide faithful performance and payment Bonds, each in a sum equal to the Contract Price, as well as a warranty or maintenance Bond that is valid for one year from Project acceptance in the amount of ten percent of the Contract Price. All Bonds must be issued by a California admitted Surety insurer using the forms set forth in the Contract Documents, or in any other form approved by the City Attorney. Failure to enter into the Contract with the City, including the submission of all required Bonds and insurance coverages, within ten calendar days after the date of the mailing of written notice of contract award to the Bidder, shall subject the Bid security to forfeiture to the extent provided by law.

LICENSES. Each Bidder shall possess a valid Class A Contractor's license issued by the California State Contractors License Board at the time of the Bid submission, unless this Project has any federal funding, in which case the successful Bidder must possess such a license at the time of Contract award. The successful Contractor must also possess a current City business license.

RETENTION SUBSTITUTION. Five percent of any progress payment will be withheld as retention. In accordance with Public Contract Code Section 22300 and at the request and expense of the Contractor, securities equivalent to the amount withheld may be deposited with the City or with a State or federally chartered bank as escrow agent, which shall then pay such moneys to the Contractor. Upon satisfactory completion of the Project, the securities shall be returned to the Contractor. Alternatively, the Contractor may request that the City make payments of earned retentions directly to an escrow agent at the Contractor's expense. No such substitutions shall be accepted until all related documents are approved by the City Attorney.

BIDDING PROCESS. The City reserves the right to reject any Bid or all Bids, and to waive any irregularities or informalities in any Bid or in the bidding, as deemed to be in its best interest.

By: 

Prem Kumar, City Engineer

Date 9/7/18

INSTRUCTIONS TO BIDDERS

FORM OF BID. Bids shall be made on the Bid forms found herein. Bidders shall include all forms and fill in all blank spaces, including inserting "N/A" (for not applicable) where necessary. The Bid shall be enclosed in a sealed envelope bearing the Bidder's name and the Project name and identification number as described in the Notice Inviting Bids.

Any Bid not accompanied by a Contractor's Statement completed with all information required and bearing the signature of the Bidder's duly authorized representative under penalty of perjury may be deemed non-responsive and rejected. If the City determines that any information provided by a Bidder in the Contractor's Statement is false or misleading, or is so incomplete as to be false or misleading, the City may reject the Bid submitted by such Bidder as being non-responsive.

DELIVERY OF BIDS. The Bid shall be delivered by the time and date and to the place specified in the Notice Inviting Bids. No oral, faxed, emailed, or telephonic Bids or alternatives will be considered. Bidders are solely responsible for ensuring that their Bids are received in proper time, and Bidders assume all risks arising out of their chosen means of delivery. Any Bid received after the Bid submission deadline shall be returned unopened. Bidders are invited to be present for Bid opening. Accepted Bids shall become the property of the City.

AMENDED BIDS. Unauthorized conditions, limitations or provisos attached to a Bid may cause the Bid to be deemed incomplete and non-responsive.

WITHDRAWAL OF BID. A Bid may be withdrawn without prejudice upon written request by the Bidder filed with the City Clerk before the Bid submission deadline. Bids must remain valid and shall not be subject to withdrawal for 90 Days after the Bid opening date.

BIDDER'S SECURITY. Each Bid shall be accompanied by cash, a certified or cashier's check payable to the City, or a satisfactory Bid Bond in favor of the City executed by the Bidder as principal and an admitted surety insurer as Surety, in an amount not less than ten percent of the amount set forth in the Bid. The cash, check or Bid Bond shall be given as a guarantee that, if selected, the Bidder will execute the Contract in conformity with the Contract Documents, and will provide the evidence of insurance and furnish the specified Bonds, within ten calendar days after the date of delivery of the Contract Documents to the Bidder. In case of the Bidder's refusal or failure to do so, the City may award the Contract to the next lowest responsible bidder, and the cash, check, or Bond (as applicable) of the lowest Bidder shall be forfeited to the City to the extent permitted by law. No Bid Bond will be accepted unless it conforms substantially to the form provided in these Contract Documents.

QUANTITIES APPROXIMATE. Any quantities shown in the Bid form or elsewhere herein shall be considered as approximations listed to serve as a general indication of the amount of Work or materials to be performed or furnished, and as basis for the Bid comparison. The City does not guarantee that the actual amounts required will correspond with those shown. As deemed necessary or convenient, the City may increase or decrease the amount of any item or portion of Work or material to be performed or furnished or omit any such item or portion, in accordance with the Contract Documents.

ADDENDA. The City Engineer may, from time to time, issue Addenda to the Contract Documents. The City shall also post all documents to the City's website at <http://www.citymb.info> Bidders are responsible for ensuring that they have received any and all Addenda. It is the

Bidder's responsibility to actively check the City's website for Addenda or bulletin updates. Each Bidder is responsible for verifying that it has received all Addenda issued. Bidders must acknowledge receipt of all Addenda, if any, using the Addenda Acknowledgement Form included in these Bid Documents. Failure to acknowledge receipt of all Addenda may cause a Bid to be deemed incomplete and non-responsive.

EMAIL ADDRESS. Bidders shall supply the City Engineer with an email address to facilitate transmission of Addenda and other information related to these Contract Documents. Failure to provide such email address may result in late notification. The City does not guarantee that it will provide any information by email, U.S. Mail, or both. A Bidder shall be responsible for all Addenda regardless of whether Bidder received any such email or U.S. Mail, and a Bidder shall have no recourse due to not receiving such email, U.S. Mail, or both.

DISCREPANCIES IN BIDS. Each Bidder shall set forth as to each item of Work, in clearly legible words and figures, a unit or line item Bid amount for the item in the respective spaces provided for this purpose.

In case of discrepancy between the unit price and the extended amount set forth for the item, the unit price shall prevail. However, if the amount set forth as a unit price is ambiguous, unintelligible or uncertain for any cause, or is omitted, or if the unit price is the same amount as the entry in the "extended amount" column, then the amount set forth in the "extended amount" column for the item shall prevail in accordance with the following:

- (1) As to lump sum items, the amount set forth in the "extended amount" column shall be the unit price.
- (2) As to unit price items, the amount set forth in the "extended amount" column shall be divided by the estimated quantity for the item set forth in the Bid documents, and the price thus obtained shall be the unit price.

In case of discrepancy between words and figures, the words shall prevail.

COMPETENCY OF BIDDERS. In evaluating Bidder responsibility, consideration will be given not only to the financial standing, but also to the general competency of the Bidder for the performance of the Project. Each Bidder shall set forth in the designated area of the Bid form a statement of its experience. No Contract will be executed with a Bidder that is not licensed and registered with the DIR in accordance with State law, and with any applicable specific licensing requirements specified in these Contract Documents. These licensing and registration requirements for Contractors shall also apply to all Subcontractors.

BIDDER'S EXAMINATION OF SITE AND CONTRACT DOCUMENTS. The Bidder, at its sole cost and expense, is required to carefully examine the Contract Documents and the Project site to become fully acquainted with the conditions affecting the Work. The failure of a Bidder to receive or examine any of the Contract Documents or to inspect the site shall not relieve such Bidder from any obligation relating to the Bid, the Contract, or the Work required under the Contract Documents. The City assumes no responsibility or liability to any Bidder for, nor shall the City be bound by, any understandings, oral representations or oral agreements of the City's agents, employees or officers concerning the Contract Documents or the Work made prior to execution of the Contract. By submitting a Bid, Bidder represents: (1) that Bidder has read and understands the Contract Documents; (2) the Bid is made in compliance with the Contract Documents and is based upon the labor, materials, equipment, and systems required by the

Contract Documents; (3) that Bidder understands that all labor, materials, equipment, and systems to be furnished for the Work shall be furnished for the prices bid; (4) that it has visited the Project site, familiarized itself with the local conditions under which the Work is to be performed; (5) that it is fully experienced, qualified and competent to perform the Work set forth in the Contract Documents; (6) that it shall not damage or endanger and shall preserve and protect adjacent properties; (7) that it is properly equipped, organized, and financed to perform the Work; (8) that it is properly permitted and licensed by the California Contractors State Licensing Board to perform the Work; (9) that it has familiarized itself with all conditions bearing upon transportation, disposal, handling, and storage of materials; (10) that it has familiarized itself with the availability of labor, water, electric power, and roads; (11) that it has familiarized itself with uncertainties of weather, or similar physical conditions at the Project site; (12) that it has familiarized itself with the character of equipment and facilities needed preliminary to and during performance of the Work; (13) that it has familiarized itself with the staging and material storage constraints of the Project site and surrounding buildings and will confine its staging and storage operations to approved areas; and (14) that it will coordinate its construction activities with the other contractors performing work on the Project site, if any, including, but not limited to, any separate contractor retained by the City.

No information derived from an inspection of records or investigation will in any way relieve the Contractor from its obligations under the Contract Documents nor entitle the Contractor to any additional compensation. The Contractor shall not make any claim against the City based upon ignorance or misunderstanding of any condition of the Project site or of the requirements set forth in the Contract Documents. No claim for additional compensation will be allowed which is based on a lack of knowledge of the above items. Bidders assume all risks in connection with performance of the Work in accordance with the Contract Documents, regardless of actual conditions encountered, and waive and release the City with respect to any and all claims and liabilities in connection therewith, to the extent permitted by law.

The omission of any portion or item of Work from the Bid that is reasonably inferable from the Contract Documents is not a basis for adjustment of the Contract Price or the Contract Time.

DISQUALIFICATION OF BIDDERS. No Person shall be allowed to make, file or be interested in more than one Bid for the Project. A Person that has submitted a sub-bid to a Bidder, or that has quoted prices of materials to a Bidder, is not thereby disqualified from submitting a sub-proposal or quoting prices to other Bidders or from making a prime Bid. If there is a reason to believe that collusion exists among the Bidders, all affected Bids will be rejected.

RETURN OF BID SECURITY. The successful Bidder's Bid security shall be held until the Contract is executed. Bid security shall be returned to the unsuccessful Bidders within a reasonable time, which in any case shall not exceed 60 Days after the successful Bidder has signed the Contract.

AWARD OF CONTRACT. The City reserves the right to reject any or all Bids or any parts thereof or to waive any irregularities or informalities in any Bid or in the bidding. The Contract award, if made, will be to the lowest responsible, responsive Bidder and is anticipated to occur within 90 calendar Days after the Bid opening. The Contract award may be made after that period if the selected Bidder has not given the City written notice of the withdrawal of its Bid.

ADDITIVE OR DEDUCTIVE ITEMS. In accordance with Public Contract Code Section 20103.8, the lowest Bid shall be determined by comparing the total Bid price of all Base Bid Items and Additive Alternate Bid Items, using the Engineer's estimate of quantities for the Work as set forth

in the Bidder's Proposal. The amount of the contract award will be based on the available budget for the project. It may be only for the Base Bid or if the budget allows, include Additive Bid Items. In the event that any or all of the Alternate Bid Items are not awarded as part of the Contract, the City reserves the right to add any or all of the Alternate Bid Items by Change Order or Construction Change Directive at the prices set forth in the Bid.

TRENCHING. If the Project involves the construction of a pipeline, sewer, sewage disposal system, boring and jacking pits, or similar trenches or open excavations, which are five feet deep or more, then each Bidder must submit, as a Bid item, adequate sheeting, shoring, and bracing, or an equivalent method, for the protection of life or limb, which shall conform to applicable safety orders. This final submission must be accepted by the City in advance of excavation and must include a detailed plan showing the design of shoring, bracing, sloping, or other provisions to be made for worker protection from caving ground during the excavation Work. If such plan varies from the shoring system standards, the plan shall be prepared by a registered civil or structural engineer.

LISTING SUBCONTRACTORS. Each Bidder shall submit a list of the proposed Subcontractors on the Project, as required by the Subletting and Subcontracting Fair Practices Act (Public Contract Code Section 4100, *et seq.*). The Contractor shall self-perform not less than 50% of the Work, as determined by the percentage of Work to be performed by listed Subcontractors.

WORK OF SUBCONTRACTORS. All Bidders are encouraged to disseminate all of the Specifications, Drawings, and other Contract Documents to all persons or entities submitting sub-bids to the Bidder.

INELIGIBLE SUBCONTRACTORS. The successful Bidder is prohibited from performing Work on the Project with any Subcontractor who is ineligible to perform work on a public works project pursuant to Sections 1777.1 or 1777.7 of the California Labor Code. By submitting a Bid, each Bidder certifies that it has investigated the eligibility of each and every listed Subcontractor and has determined that none is ineligible to perform Work pursuant to the Labor Code.

EXECUTION OF CONTRACT. The selected Bidder shall execute the Contract in the form included in these Contract Documents within ten calendar days from the date of delivery of the Contract Documents to the Bidder. Additionally, the selected Bidder shall also secure all insurance and Bonds as herein specified, and provide copies to the City, within ten calendar days from the date of delivery of the Contract Documents to the Bidder. Failure or refusal to execute the Contract or to conform to any of the stipulated requirements shall be just cause for the annulment of the award and forfeiture of the Bidder's security. In such event, the City may declare the Bidder's security forfeited to the extent permitted by law, and the City may award the Contract to the next lowest responsible Bidder or may reject all bids.

SIGNATURES. The Bidder shall execute all documents requiring signatures, and shall cause to be notarized all documents that indicate such a requirement. The Bidder shall provide evidence satisfactory to the City, such as an authenticated resolution of its board of directors or a power of attorney, indicating the capacity of the person(s) signing the Bid to bind the Bidder to the Bid and any Contract arising therefrom.

INSURANCE AND BONDS. The Contractor shall not begin Work until it has given the City evidence of all required insurance coverage (including all additional insured endorsements), a Bond guaranteeing the Contractor's faithful performance of the Contract, and a Bond securing the payment of claims for labor and materials.

TELEPHONES. Bidders are hereby notified that the City will not provide telephones for their use at the time of Bid submission.

INTERPRETATION OF CONTRACT DOCUMENTS. Any Bidder that is in doubt as to the intended meaning of any part of the Contract Documents, or that finds discrepancies in or omissions from the Contract Documents, may submit to the City Engineer a written request for an interpretation or correction not later than five Working Days before the Bid submission deadline. Requests for clarification received after this date will be disregarded. Please indicate the Project and identification number in the request for clarification. Telephonic requests will not be taken. Any interpretation or correction of the Contract Documents will be made only by a written Addendum. No oral interpretation of any provision in the Contract Documents shall be binding.

TRADE NAMES OR EQUALS. Requests to substitute an equivalent item for a brand or trade name item must be made by written request submitted no later than 14 calendar days before the Bid submission deadline. Requests received after this time shall not be considered. Requests shall clearly describe the product for which approval is requested, including all data necessary to demonstrate acceptability.

TAXES. Except as may be otherwise specifically provided herein, all sales and/or use taxes assessed by federal, State or local authorities on materials used or furnished by the Contractor in performing the Work shall be paid by the Contractor. The Bidder shall calculate payment for all sales, unemployment, pension and other taxes imposed by federal, State, and local law and shall include these payments in computing the Bid.

CHECKLIST FOR BIDDERS

The following information is required of all Bidders at the time of Bid submission:

- _____ Completed and Signed Bid Schedule, and a Bid Cover Form (Sheet B-1)
- _____ Completed and Signed Contractor's Statement
- _____ Completed References Form
- _____ Completed Subcontractor Designation Form
- _____ Completed, Signed and Notarized Bid Bond or Other Security Form
- _____ Signed and Notarized Noncollusion Declaration Form
- _____ Completed and Signed Addenda Acknowledgement Form
- _____ Evidence satisfactory to the City indicating the capacity of the person(s) signing the Bid to bind the Bidder

Failure of the Bidder to provide all required information in a complete and accurate manner may cause the Bid to be considered non-responsive.

BID
CITY OF MANHATTAN BEACH
MARINE AVENUE IMPROVEMENT PROJECT

TO THE HONORABLE MAYOR AND CITY COUNCIL OF THE CITY OF MANHATTAN BEACH:

The undersigned, as Bidder, declares that: (1) this Bid is made without collusion with any other person and that the only persons or parties interested as principals are those named herein; (2) the undersigned has carefully examined the Contract Documents (including all Addenda) and the Project site; and (3) the undersigned has investigated and is satisfied as to the conditions to be encountered, the character, quality and quantities of Work to be performed, and the materials to be furnished. Furthermore, the undersigned agrees that submission of this Bid shall be conclusive evidence that such examination and investigation have been made and agrees, in the event the Contract be awarded to it, to execute the Contract with the City of Manhattan Beach to perform the Project in accordance with the Contract Documents in the time and manner therein prescribed, and to furnish or provide all materials, labor, tools, equipment, apparatus and other means necessary so to do, except as may otherwise be furnished or provided under the terms of the Contract Documents, for the following stated unit prices or lump-sum price as submitted on the Bid herein.

This Bid is made with the full knowledge of the kind, quantity, and quality of the materials and Work required and, if it is accepted by the City, the Bidder shall enter into a Contract and furnish the bonds, insurance, and other documents as required by the Contract Documents within ten calendar days after award of the Contract. The Bidder agrees that failure to execute and return the Contract or the required faithful performance bond, labor and materials payment bond, warranty bond, and insurance certificates to the City within the ten calendar day period shall be sufficient cause for the rescission of the award and forfeiture of the Bid Security to the City to the extent permitted by law.

Accompanying this Bid is cash, a cashier's check, a certified check or a Bid Bond in an amount equal to at least ten percent of the total aggregate Bid price based on the quantities shown and the unit prices quoted. The undersigned further agrees that, should it be awarded the Contract and thereafter fail or refuse to execute the Contract and provide the required evidence of insurance and Bonds within ten calendar days after delivery of the Contract to the undersigned, then the cash, check or Bid Bond shall be forfeited to the City to the extent permitted by law.

CITY OF MANHATTAN BEACH

BID SCHEDULE FOR

MARINE AVENUE IMPROVEMENT PROJECT

Bidder's Name: _____

Bidder's Address: _____

To the Honorable Mayor and Members of the City Council:

In compliance with the Notice Inviting Bids, the undersigned hereby agrees to execute the Contract to furnish all labor, materials, equipment and supplies for the Project in accordance with the Contract Documents to the satisfaction and under the direction of the City Engineer, at the following prices:

Base Bid Items as Follows:

BASE BID AMOUNT:

ITEM NO.	CODE	DESCRIPTION	ESTIMATED QUANTITY	UNIT	UNIT PRICES	AMOUNT
1		Mobilization (maximum 10% of Total Bid Price)	%	LS	\$	\$
2	S	Traffic Control (including construction signs, CMS and Encroachment Permit with Caltrans District 7)	%	LS	\$	\$
3	S	Stomwater Control, BMPs, NPDES Compliance and Permit	%	LS	\$	\$
4	S	Monument Preservation, Restoration and Survey	%	LS	\$	\$
6		Remove Existing Curb Ramps	7	EA	\$	\$
7		Construct Curb Ramps (cases as shown on Plans)	7	EA	\$	\$

ITEM NO.	CODE	DESCRIPTION	ESTIMATED QUANTITY	UNIT	UNIT PRICES	AMOUNT
8		Construct 4 in PCC Sidewalk	500	SF	\$	\$
9		1-1/2 in Cold Mill of Existing Asphalt Concrete	302,700	SF	\$	\$
10		Construct 1-1/2 in AC Rubber Hot Mix Overlay (ARHM)	2,960	TN	\$	\$
11		Cold-in-Place Recycling (CIPR), 3 in depth	302,700	SF	\$	\$
12		Emulsified Recycling Agent (CIPR)	150	TN	\$	\$
13		Additive (CIPR)	25	TN	\$	\$
14	F,S	Profilograph AC Pavement	%	LS	\$	\$
15	S	Double Adjust Manholes w/ False Floors on Sewer Manholes	10	EA	\$	\$
16	S	Double Adjust Valve Boxes or Meters to Grade	15	EA	\$	\$
17	S	Signing and Striping	%	LS	\$	\$
18	S	Traffic Detection Loops	60	EA	\$	\$
19	S	Separate, Independent Laboratory Testing	%	LS	\$	\$
TOTAL BID ITEMS AMOUNT						\$ _____

NOTE: Estimated quantities are for the purpose of Bid comparison only; payments will be made on the basis of actual measurement of Work completed, except for lump sum (LS) and final pay (F) quantities. (S) denotes a specialty item. (F) and (S) will be specified in the "Code" Column. The Bid Price shall include, but not limited to, sales tax and all other applicable taxes and fees. See also Section 9-2 of the General Provisions.

ADDITIVE BID SCHEDULE A:

ITEM NO.	CODE	DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT PRICES	EXTENDED AMOUNT
20		Remove Existing Curb Ramps (identified with asterisk)	14	EA	\$	\$
TOTAL ADDITIVE BID ITEMS A:					\$	_____

ADDITIVE BID SCHEDULE B:

ITEM NO.	CODE	DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT PRICES	EXTENDED AMOUNT
21		Construct Curb Ramps (Cases as shown on Plans with asterisk)	14	EA	\$	\$
TOTAL ADDITIVE BID ITEMS 1:					\$	_____

ADDITIVE BID SCHEDULE C:

ITEM NO.	CODE	DESCRIPTION	UNIT	ESTIMATED QUANTITY	UNIT PRICES	EXTENDED AMOUNT
22		Remove and Reconstruct cross-gutters	6,000	SF	\$	\$
TOTAL ADDITIVE BID ITEMS 1:					\$	_____

NOTE: Items may be adjusted or deleted. Any changes to the quantities for these items shall not constitute a substantial change as referenced in Section 3-2.2.1 of the Standard Specifications. Therefore, regardless of total actual volume (percentage) compared to estimated quantities, the unit prices provided above by the Bidder shall be applied to the final quantity when payment is calculated for these items. No adjustment in the unit prices will be allowed. The City reserves the right to not use any of the estimated quantities; and if this right is exercised, the Contractor will not be entitled to any additional compensation. Cost of all export of material shall be included in the above unit costs; no additional compensation will be granted for such expenses.

Total Bid Price = Base Bid Items Amount Plus (+) All Additive Bid Schedule Items

TOTAL BID PRICE IN DIGITS: \$ _____

TOTAL BID PRICE IN WORDS: _____

The undersigned certifies to have a minimum of three consecutive years of current experience in the type of Work related to the Project and that this experience is in actual operation of the firm with permanent employees performing a part of the Work as distinct from a firm operating entirely by subcontracting all phases of the Work. The undersigned also certifies to be properly licensed by the State as a contractor to perform this type of Work. The undersigned possesses California Contractor's License

Number _____, Class _____, which expires on _____.

Signature: _____ Title: _____ Date: _____

Signature: _____ Title: _____ Date: _____

BIDDER'S PROPOSAL – CONTRACTOR'S STATEMENT

MARINE AVENUE IMPROVEMENT PROJECT

Fill out all of the following information. Attach additional sheets if necessary.

- (1) Bidder's Name: _____
- (2) If the Bidder's name is a fictitious name, who or what is the full name of the registered owner? If the Bidder's name is not a fictitious name, write "N/A" in the response to this question. If you are doing business under a fictitious name, provide a copy of the filed valid Fictitious Business Name Statement.

- (3) Business Address: _____
- (4) Telephone: _____ Email: _____
- (5) Type of Firm – Individual, Partnership, LLC or Corporation: _____
- (6) Corporation organized under the laws of the State of: _____
- (7) California State Contractor's License Number and Class: _____
Original Date Issued: _____ Expiration Date: _____
- (8) DIR Contractor Registration Number: _____
- (9) List the name and title of the person(s) who inspected the Project site for your firm:

- (10) Number of years experience the company has as a contractor in construction work: _____
- (11) List the names, titles, addresses and telephone numbers of all individuals, firm members, partners, joint venturers, and company or corporate officers having a principal interest in this Bid:

- (12) List all current and prior D.B.A.'s, aliases, and fictitious business names for any principal having interest in this Bid:

(13) List the dates of any voluntary or involuntary bankruptcy judgments against any principal having an interest in this Bid:

(14) For all arbitrations, lawsuits, settlements and the like (in or out of court) that the company or any principal having an interest in this Bid has been involved with in the past five years:

a. List the names, addresses and telephone numbers of contact persons for the parties:

b. Briefly summarize the parties' claims and defenses:

c. State the tribunal (e.g., Superior Court, American Arbitration Association, etc.), the matter number, and the outcome:

(15) Has the company or any principal having an interest in this Bid ever had a contract terminated by the owner or agency? If yes, explain.

(16) Has the company or any principal having an interest in this Bid ever failed to complete a project? If yes, explain.

(17) Has the company or any principal having an interest in this Bid ever been terminated for cause, even if it was converted to a "termination of convenience"? If yes, explain.

(18) For projects that the company or any principal having an interest in this Bid has been involved with in the last five years, did you have any claims or actions:

- a. By you against the owner? Circle one: Yes No
- b. By the owner against you? Circle one: Yes No
- c. By any outside agency or individual for labor compliance?
Circle one: Yes No
- d. By Subcontractors? Circle one: Yes No
- e. Are any of these claims or actions unresolved or outstanding?
Circle one: Yes No

If your answer is "yes" to any part or parts of this question, explain.

(19) Has the company or any of its principals ever been debarred by any agencies? Is yes, please explain.

(21) For all public agency projects in excess of \$15,000.00 that you are currently working on or have worked on in the past two years, provide the following information:

Project 1 Name/Number _____

Project Description _____

Approximate Construction Dates From: _____ To: _____

Agency Name: _____

Contact Person: _____ Telephone: _____

Address: _____

Original Contract Amount: \$_____ Final Contract Amount: \$_____

If final amount is different from original amount, please explain (change orders, extra work, etc.).

Did you or any Subcontractor, file any claims against the Agency?

Circle one: Yes No

Did the Agency file any claims against you? Circle one: Yes No

If you answered yes to either of the above two questions, please explain and indicate outcome of claims.

Project 2 Name/Number _____

Project Description _____

Approximate Construction Date From: _____ To: _____

Agency Name: _____

Contact Person: _____ Telephone: _____

Address: _____

Original Contract Amount: \$_____ Final Contract Amount: \$_____

If final amount is different from original amount, please explain (change orders, extra work, etc.).

Did you or any Subcontractor, file any claims against the Agency?
Circle one: Yes No

Did the Agency file any claims against you? Circle one: Yes No

If you answered yes to either of the above two questions, please explain and indicate outcome of claims.

Project 3 Name/Number _____

Project Description _____

Approximate Construction Dates From: _____ To: _____

Agency Name: _____

Contact Person: _____ Telephone: _____

Address: _____

Original Contract Amount: \$_____ Final Contract Amount: \$_____

If final amount is different from original amount, please explain (change orders, extra work, etc.).

Did you or any Subcontractor, file any claims against the Agency?
Circle one: Yes No

Did the Agency file any claims against you? Circle one: Yes No

If you answered yes to either of the above two questions, please explain and indicate outcome of claims.

Project 4 Name/Number _____

Project Description _____

Approximate Construction Dates From: _____ To _____

Agency Name: _____

Contact Person: _____ Telephone: _____

Address: _____

Original Contract Amount: \$ _____ Final Contract Amount: \$ _____

If final amount is different from original amount, please explain (change orders, extra work, etc.).

Did you or any Subcontractor, file any claims against the Agency?

Circle one: Yes No

Did the Agency file any claims against you? Circle one: Yes No

If you answered yes to either of the above two questions, please explain and indicate outcome of claims.

Project 5 Name/Number _____

Project Description _____

Approximate Construction Dates From: _____ To: _____

Agency Name: _____

Contact Person: _____ Telephone: _____

Address: _____

Original Contract Amount: \$ _____ Final Contract Amount: \$ _____

If final amount is different from original amount, please explain (change orders, extra work, etc.).

Did you or any Subcontractor, file any claims against the Agency?

Circle one: Yes No

Did the Agency file any claims against you? Circle one: Yes No

If you answered yes to either of the above two questions, please explain and indicate outcome of claims.

Project 6 Name/Number _____

Project Description _____

Approximate Construction Dates From: _____ To: _____

Agency Name: _____

Contact Person: _____ Telephone: _____

Address: _____

Original Contract Amount: \$ _____ Final Contract Amount: \$ _____

If final amount is different from original amount, please explain (change orders, extra work, etc.).

Did you or any Subcontractor, file any claims against the Agency?

Circle one: Yes No

Did the Agency file any claims against you? Circle one: Yes No

If you answered yes to either of the above two questions, please explain and indicate outcome of claims.

[Continue to Next Page]

Upon request of the City, the Bidder shall furnish evidence showing a notarized financial statement, financial data, construction experience, or other additional information.

Failure to provide truthful answers to the questions above or in the following References Form may result in the Bid being deemed non-responsive.

Urban Runoff Certification. The Bidder certifies to the City that he/she has trained his/her employees and Subcontractors, if any, for Urban Runoff management and has included sufficient sums in the Bid Price to cover such costs of training as stipulated in the most current Regional Water Quality Control Board requirements, including the Municipal Separate Storm Sewer System NPDES Permit. The Contractor is responsible for all clean up and payment of all fines levied as a result of any illegal discharge (as defined in NPDES permit) occurring as a result of the Contractor's Work and/or operations.

I, the undersigned, certify and declare that I have read all the foregoing answers to the Bidder's Proposal – Contractor's Statement and know their contents. The matters stated in the Bidder's Proposal – Contractor's Statement answers are true of my own knowledge and belief, except as to those matters stated on information and belief, and as to those matters I believe them to be true. I declare under penalty of perjury under the laws of the State of California that the foregoing is correct.

Company

Signature: _____

Name: _____

Title: _____

Date: _____

Signature: _____

Name: _____

Title: _____

Date: _____

**DESIGNATION OF SUBCONTRACTORS
[Public Contract Code Section 4104]**

MARINE AVENUE IMPROVEMENT PROJECT

List all Subcontractors who will perform Work or labor or render service to the Contractor in or about the construction of the Work or improvement, or a Subcontractor licensed by the State of California who, under subcontract to the Contractor, specially fabricates and installs a portion of the Work or improvement according to detailed drawings contained in the Plans and Specifications, in an amount in excess of one-half percent of the Contractor's total Bid or, in the case of bids or offers for the construction of streets or highways, including bridges, in excess of one-half percent of the Contractor's total Bid or \$10,000.00, whichever is greater. If all Subcontractors do not fit on this page, attach another page listing all information for all other Subcontractors.

Name under which Subcontractor is Licensed and Registered	CSLB License Number(s) and Class(es)	DIR Contractor Registration Number	Address and Phone Number	Type of Work (e.g., Electrical)	Percentage of Total Bid (e.g., 10%)*

*The percentage of the total Bid shall represent the "portion of the work" for the purposes of Public Contract Code Section 4104(b).

Bond No. _____

BID BOND

MARINE AVENUE IMPROVEMENT PROJECT

KNOW ALL PERSONS BY THESE PRESENTS that:

WHEREAS the City of Manhattan Beach ("Public Agency"), has issued an invitation for Bids for the Work described as follows: _____

WHEREAS _____
(Name and address of Bidder)

("Principal"), desires to submit a Bid to Public Agency for the Work.

WHEREAS, Bidders are required to furnish a form of Bidder's security with their Bids.

NOW, THEREFORE, we, the undersigned Principal, and _____

(Name and address of Surety)

("Surety"), a duly admitted surety insurer under the laws of the State of California, as Surety, are held and firmly bound unto the Public Agency in the penal sum of _____ Dollars (\$ _____), being not less than ten percent of the total Bid price, in lawful money of the United States of America, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH THAT, if the hereby bounded Principal is awarded the Contract for the Work by the Public Agency and, within the time and in the manner required by the bidding specifications, enters into the written form of Contract included with the bidding specifications, furnishes the required Bonds (one to guarantee faithful performance and the other to guarantee payment for labor and materials), and furnishes the required insurance coverage, then this obligation shall become null and void; otherwise, it shall be and remain in full force and effect.

In case suit is brought upon this instrument, Surety further agrees to pay all court costs incurred by the Public Agency in the suit and reasonable attorneys' fees in an amount fixed by the court. Surety hereby waives the provisions of Civil Code Section 2845.

IN WITNESS WHEREOF, this instrument has been duly executed by Principal and Surety, on the date set forth below, the name of each corporate party being hereto affixed and these presents duly signed by its undersigned representative(s) pursuant to authority of its governing body.

Dated: _____

“Principal”

Name: _____

Address: _____

Telephone No.: _____

Signature:

Print Name: _____

Title: _____

Date: _____

Signature:

Print Name: _____

Title: _____

Date: _____

“Surety”

Company Name: _____

Address: _____

Telephone No.: _____

Signature:

Print Name: _____

Title: _____

Date: _____

NOTE: *This Bond must be dated, all signatures must be notarized, and evidence of the authority of any person signing as attorney-in-fact must be attached.*

**NONCOLLUSION DECLARATION FORM
TO BE EXECUTED BY BIDDER AND SUBMITTED WITH BID
[Public Contract Code Section 7106]**

MARINE AVENUE IMPROVEMENT PROJECT

The undersigned declares:

I am the _____ of _____, the party making the foregoing Bid.

The Bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation. The Bid is genuine and not collusive or sham. The Bidder has not directly or indirectly induced or solicited any other Bidder to put in a false or sham Bid. The Bidder has not directly or indirectly colluded, conspired, connived, or agreed with any Bidder or anyone else to put in a sham Bid, or to refrain from bidding. The Bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the Bid price of the Bidder or any other Bidder, or to fix any overhead, profit, or cost element of the Bid price, or of that of any other Bidder. All statements contained in the Bid are true. The Bidder has not, directly or indirectly, submitted his or her Bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, to any corporation, partnership, company, association, organization, Bid depository, or to any member or agent thereof, to effectuate a collusive or sham Bid, and has not paid, and will not pay, any Person or entity for such purpose.

Any person executing this declaration on behalf of a Bidder that is a corporation, partnership, joint venture, limited liability company, limited liability partnership, or any other entity, hereby represents that he or she has full power to execute, and does execute, this declaration on behalf of the Bidder.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct and that this declaration is executed on _____ [date], at _____ [city], _____ [state].

Signature: _____

Signature: _____

Printed Name: _____

Printed Name: _____

Date: _____

Date: _____

This form must be notarized.

ADDENDA ACKNOWLEDGMENT FORM
MARINE AVENUE IMPROVEMENT PROJECT

Bidder's Name: _____

The Bidder shall signify receipt of all Addenda here, if any:

Addendum Number	Date Received	Signature

If there are more Addenda than there is room in the chart above, attach another page acknowledging receipt of the Addenda.

CONTRACT

CITY OF MANHATTAN BEACH CONTRACT FOR MARINE AVENUE IMPROVEMENT PROJECT

THIS CONTRACT ("Contract") is made and entered this _____ day of _____, 20____ ("Effective Date"), by and between the CITY OF MANHATTAN BEACH, a California municipal corporation ("City") and _____, a _____ [Legal Form of Entity and state of formation, e.g., California corporation, limited partnership, limited liability company] ("Contractor"). The Contractor's California State Contractor's license number is _____.

In consideration of the mutual covenants hereinafter set forth, the parties hereto agree as follows:

1. Contract Documents. The Contract Documents consist of this Contract, the Notice Inviting Bids, Instructions to Bidders, Bid (including documentation accompanying the Bid and any post-Bid documentation submitted before the Notice of Award), the Bonds, permits from regulatory agencies with jurisdiction, General Provisions, Special Provisions, Plans, Standard Plans, Standard Specifications, Reference Specifications, Addenda, Change Orders, and Supplemental Agreements. The Contract Documents are attached hereto and incorporated herein by reference.

2. Scope of Services. The Contractor shall perform and provide all materials, tools, equipment, labor, and services necessary to complete the Work in a good and workmanlike manner for the project identified as **Marine Avenue Improvement Project** ("Project"), as described in the Contract Documents.

3. Compensation.

3.1 Contract Price and Basis for Payment. In consideration for the Contractor's full, complete, and timely performance of the Work required by the Contract Documents, the City shall pay the Contractor for the actual quantity of Work required under the Bid Items awarded by the City performed in accordance with the lump sum prices and unit prices for Bid Items, set forth in the Bidder's Proposal submitted with the Bid. The sum of the unit prices and lump sum prices for the Bid Items, awarded by the City is \$_____ ("Contract Price"). It is understood and agreed that the quantities set forth in the Bidder's Proposal for which unit prices are fixed are estimates only and that the City will pay and the Contractor will accept, as full payment for these items of work, the unit prices set forth in the Bidder's Proposal multiplied by the actual number of units performed, constructed, or completed as directed by the Engineer.

3.2 Payment Procedures. Based upon applications for payment submitted by the Contractor to the City, the City shall make payments to the Contractor in accordance with Section 9 of the Standard Specifications, as modified by Section 9 of the General Provisions.

4. Contract Time.

4.1 Initial Notice to Proceed. The City shall issue the "Notice to Proceed to Fulfill Preconstruction Requirements and Order Materials." The date specified in the Notice to Proceed to Fulfill Preconstruction Requirements and Order Materials constitutes the date of commencement of the Contract Time of 50 **Working Days**. The Contract Time includes the time necessary to fulfill preconstruction requirements, place the order for materials, and to complete construction of the Project (except as adjusted by subsequent Change Orders).

The Notice to Proceed to Fulfill Preconstruction Requirements and Order Materials shall further specify that the Contractor must complete the preconstruction requirements and order materials within 10 **Working Days** after the date of commencement of the Contract Time; this duration is part of the Contract Time.

Preconstruction requirements include, but are not limited to, the following:

- Submitting and obtaining approval of Temporary Traffic Control Plans, including the filing and processing of encroachment permits from Caltrans District 7 and City of Hawthorne, as required.
- Submitting and obtaining approval of the Stormwater Pollution Prevention Plan (SWPPP)/Water Pollution Control Plan (WPCP)
- Submitting and obtaining approval of critical required submittals
- Installation of the approved Project Identification Signs
- Obtaining an approved no fee Encroachment Permit
- Obtaining a Temporary Use Permit for a construction yard
- Notifying all agencies, utilities, residents, etc., as outlined in the Contract Documents

4.2 Notice to Proceed with Construction. After all preconstruction requirements are met and materials have been ordered in accordance with the Notice to Proceed to Fulfill Preconstruction Requirements and Order Materials, the City shall issue the “Notice to Proceed with Construction,” at which time the Contractor shall diligently prosecute the Work, including corrective items of Work, day to day thereafter, within the remaining Contract Time.

5. Liquidated Damages for Delay and Control of Work.

5.1 Liquidated Damages. The Contractor and the City have agreed to liquidate damages pursuant to Section 6-9 of the General Provisions.

6. Early Completion. Not used.

7. Work after Stop Work Notice. Any work completed by the Contractor after the issuance of a Stop Work Notice by the City shall be rejected and/or removed and replaced as specified in the applicable Section of the Special Provisions.

8. Antitrust Claims. In entering into this Contract, the Contractor 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 (Business and Professions Code Section 16700 *et seq.*) arising from purchases of goods, services, or materials pursuant to the Contract. This assignment shall be made and become effective at the time the City tenders final payment to the Contractor without further acknowledgment by the parties.

9. Prevailing Wages. The City and the Contractor acknowledge that the Project is a public work to which prevailing wages apply.

10. Workers' Compensation. Labor Code Sections 1860 and 3700 provide that every contractor will be required to secure the payment of compensation to its employees. In accordance with the provisions of Labor Code Section 1861, by signing this Contract, the Contractor certifies as follows:

“I am aware of the provisions of Section 3700 of the Labor Code which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that Code, and I will comply with such provisions before commencing the performance of the Work of this Contract.”

11. Titles. The titles used in this Contract are for convenience only and shall in no way define, limit or describe the scope or intent of this Contract or any part of it.

12. Authority. Any person executing this Contract on behalf of the Contractor warrants and represents that he or she has the authority to execute this Contract on behalf of the Contractor and has the authority to bind the Contractor to the performance of its obligations hereunder.

13. Entire Agreement. This Contract, including the Contract Documents and any other documents incorporated herein by specific reference, represents the entire and integrated Contract between the City and the Contractor. This Contract supersedes all prior oral or written negotiations, representations or agreements. This Contract may not be modified or amended, nor any provision or breach waived, except in a writing signed by both parties that expressly refers to this Contract.

14. Counterparts. This Contract may be executed in counterpart originals, duplicate originals, or both, each of which is deemed to be an original for all purposes.

IN WITNESS WHEREOF, the parties hereto have executed this Contract the day and year first above written.

CITY OF MANHATTAN BEACH

By: _____
City Manager

APPROVED AS TO FORM:

By: _____
City Attorney

ATTEST:

By: _____
City Clerk

Dated: _____

("CONTRACTOR")

By: _____
NAME TITLE

By: _____
NAME TITLE

PROOF OF AUTHORITY TO BIND
CONTRACTING PARTY REQUIRED

The Surety hereby stipulates and agrees that no change, extension of time, alteration, or addition to the terms of the Contract or the Specifications accompanying the same shall in any manner affect its obligations on this Bond, and it does hereby waive notice of any such change, extension, alteration, or addition.

IN WITNESS WHEREOF, two identical counterparts of this instrument, each of which shall for all purposes be deemed an original hereof, have been duly executed by Principal and Surety, on the date set forth below, the name of each corporate party being hereto affixed and these presents duly signed by its undersigned representative(s) pursuant to authority of its governing body.

Dated: _____

“Principal”

“Surety”

Signature:

Signature:

Print Name: _____

Print Name: _____

Title: _____

Title: _____

Date: _____

Date: _____

Signature:

Print Name: _____

(Seal)

Title: _____

Date: _____

(Seal)

NOTE: *This Bond must be executed in duplicate and dated, all signatures must be notarized, and evidence of the authority of any person signing as attorney-in-fact must be attached. DATE OF BOND MUST NOT BE BEFORE DATE OF CONTRACT.* Surety companies executing Bonds must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the State where the project is located.

IN WITNESS WHEREOF, two identical counterparts of this instrument, each of which shall for all purposes be deemed an original hereof, have been duly executed by Principal and Surety, on the date set forth below, the name of each corporate party being hereto affixed and these presents duly signed by its undersigned representative(s) pursuant to authority of its governing body.

Dated: _____

“Principal”

“Surety”

Signature:

Signature:

Print Name: _____

Print Name: _____

Title: _____

Title: _____

Date: _____

Date: _____

Signature:

Print Name: _____

Title: _____

Date: _____

(Seal)

(Seal)

NOTE: *This Bond must be executed in duplicate and dated, all signatures must be notarized, and evidence of the authority of any person signing as attorney-in-fact must be attached. DATE OF BOND MUST NOT BE BEFORE DATE OF CONTRACT.* Surety companies executing Bonds must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the State where the project is located.

accompanying the same shall in anywise affect its obligations on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Contract or to the work or to the specifications.

IN WITNESS WHEREOF, two identical counterparts of this instrument, each of which shall for all purposes be deemed an original hereof, have been duly executed by Principal and Surety, on the date set forth below, the name of each corporate party being hereto affixed and these presents duly signed by its undersigned representative(s) pursuant to authority of its governing body.

Dated: _____

“Principal”

“Surety”

Signature:

Signature:

Print Name: _____

Print Name: _____

Title: _____

Title: _____

Date: _____

Date: _____

Signature:

Print Name: _____

(Seal)

Title: _____

Date: _____

(Seal)

NOTE: *This Bond must be executed in duplicate and dated, all signatures must be notarized, and evidence of the authority of any person signing as attorney-in-fact must be attached. DATE OF BOND MUST NOT BE BEFORE DATE OF CONTRACT.* Surety companies executing Bonds must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the State where the project is located.

**WORKERS' COMPENSATION
CERTIFICATE OF INSURANCE**

MARINE AVENUE IMPROVEMENT PROJECT

WHEREAS, the City of Manhattan Beach ("City") has required certain insurance to be provided by:

NOW THEREFORE, the undersigned insurance company does hereby certify that it has issued the policy or policies described below to the following named insureds and that the same are in force at this time:

1. This certificate is issued to:

City of Manhattan Beach
City Hall
1400 Highland Avenue
Manhattan Beach, California 90266

The insureds under such policy or policies are:

2. Workers' Compensation Policy or Policies in a form approved by the Insurance Commissioner of California covering all operations of the named insureds as follows:

<u>Policy Number</u>	<u>Effective Date</u>	<u>Expiration Date</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____

By: _____
Its Authorized Representative

CHECKLIST FOR EXECUTION OF CONTRACT

TO BE SUBMITTED BY SUCCESSFUL BIDDER:

- _____ Two executed and notarized copies of the Contract
- _____ Payment Bond in amount of the Contract
- _____ Performance Bond in amount of the Contract
- _____ Warranty Bond
- _____ Workers' Compensation Certificate
- _____ Liability insurance certificate naming the City as a co-insured
- _____ Automobile insurance naming the City as a co-insured
- _____ General aggregate insurance certificate naming the City as a co-insured
- _____ Copy of City business license
- _____ Additional insured endorsement – comprehensive general liability
- _____ Additional insured endorsement – automobile liability
- _____ Additional insured endorsement – excess liability

GENERAL PROVISIONS

SECTION 0. GENERAL PROVISIONS DEFINED

0-1 STANDARD SPECIFICATIONS

The 2015 edition of “Standard Specifications for Public Works Construction”, including the 2016 Supplement (“Standard Specifications”), as amended by the Contract Documents, is incorporated into the Contract Documents by this reference. The Work described herein shall be done in accordance with the provisions of the Standard Specifications, as amended by the Contract Documents.

0-2 NUMBERING OF SECTIONS

The number of sections and subsections in these General Provisions are compatible with the numbering in the Standard Specifications. Subsections of architectural and/or other work may be numbered according to the Construction Specifications Institute (CSI) format.

0-3 SUPPLEMENTATION OF STANDARD SPECIFICATIONS

The Sections that follow supplement, but do not replace, the Standard Specifications, except as otherwise indicated herein. In the event of any conflict between the Standard Specifications and these General Provisions, these General Provisions shall control.

SECTION 1. TERMS, DEFINITIONS, ABBREVIATIONS, UNITS OF MEASURE, AND SYMBOLS

The provisions below shall supplement, but not replace, those provisions in Section 1 of the Standard Specifications.

1-2 TERMS AND DEFINITIONS

Whenever in the Standard Specifications or in the Contract Documents the following terms are used, they shall be understood to mean the following:

Agency – The City of Manhattan Beach.

Applicable Law – All State, federal, and local laws, statutes, ordinances, codes, rules, and regulations governing the Work.

Bid Item – An item of Work listed on the Bid Schedule.

Board – The City Council of the City of Manhattan Beach.

City – The City of Manhattan Beach

City Council – The City Council of the City of Manhattan Beach

Contract Documents – As defined in Section 1 of the Contract.

Contract Time – The number of Working Days stated in the Contract for the completion of the Work.

County – County of Los Angeles, California

Detour – A temporary route for traffic (vehicular or pedestrian) around a closed portion of a road or travelway.

Engineer – The City Engineer, acting either directly or through properly authorized agents. Such agents shall act within the scope of the particular duties entrusted to them.

Estimated Quantities – The quantities of Work anticipated to be performed, as set forth in the Bid Schedule, designated as units or a lump sum.

Excavation – Any operation in which earth, rock, or other material in the ground is moved, removed, or otherwise displaced by means of tools, equipment, or explosives in any of the following ways: grading, trenching, digging, ditching, drilling, augering, tunneling, scraping, cable or pipe plowing and driving, or any other way (Cal. Gov. Code § 4216).

Inspector – An authorized representative of the City, assigned by the City to make inspections of Work performed by or materials supplied by the Contractor.

Notice of Completion – The notice authorized by Civil Code Section 9204.

Notice to Proceed or Notice to Proceed with Construction – A written notice issued by the City to the Contractor that authorizes the Contractor to perform the Work.

Notice to Proceed to Fulfill Preconstruction Requirements and Order Materials – A written notice issued by the City to the Contractor that authorizes the Contractor to proceed with preconstruction requirements and the acquisition or purchase of materials that are to be incorporated into the Work and establishes the date of commencement of the Contract Time.

Project – See Work.

Punch List – A list of items of Work to be completed or corrected by the Contractor in order to complete the Work as specified in the Contract Documents.

Shop Drawings – All drawings, diagrams, illustrations, brochures, schedules and other data which are prepared by the Contractor, a Subcontractor, manufacturer, supplier, or distributor, which illustrate how specific portions of the Work shall be fabricated or installed.

State – The State of California.

State Standard Specifications – Standard Specifications, State of California, Department of Transportation, 2010 Edition

Submittal – Any drawing, calculation, specification, product data, samples, manuals, requests for substitutes, spare parts, photographs, survey data, traffic control plans, record drawings, Bonds or similar items required to be submitted to the City under the terms of the Contract.

Traffic Engineer – The representative of the Engineer who is assigned traffic-related matters.

Work – The construction and services required by the Contract Documents, whether completed or partially completed, and includes all other labor, materials, equipment, services provided or to be provided by the Contractor to fulfill the Contractor's obligations.

Working Day – See Subsection 6-7.2 of the General Provisions.

Work Directive – A unilateral written order issued by the City directing the Contractor to continue performance of the Work or a disputed item of Work pending resolution of a claim or dispute concerning the scope of Work.

1-3.3 Institutions

The institutions listed in Section 1-3.3 of the Standard Specifications shall be supplemented by the list below:

<u>Abbreviation</u>	<u>Word or Words</u>
AAN	American Association of Nurserymen
ACI	American Concrete Institute
AGCA	Associated General Contractors of America
APWA	American Public Works Association
ASME	American Society of Mechanical Engineers
CRSI	Concrete Reinforcing Steel Institute
CSI	Construction Specifications Institute
IEEE	Institute of Electric and Electronic Engineers
NEC	National Electric Code
NEMA	National Electrical Manufacturers Association
NFPA	National Fire Protection Association
SSS	State of California Standard Specifications, Latest edition, Department of Transportation
SSP	State of California Standard Plans, Latest edition, Department of Transportation

SECTION 2. SCOPE AND CONTROL OF THE WORK

The provisions below shall supplement but not replace those provisions in Section 2 of the Standard Specifications, unless specifically noted below.

2-2 ASSIGNMENT

Any purported assignment without written consent of the City shall be null, void, and of no effect, and the Contractor shall hold harmless, defend and indemnify the City and its officers, officials, employees, agents and representatives with respect to any claim, demand or action arising from or relating to any unauthorized assignment.

If the City opts to consent to assignment, the City's consent shall be contingent upon: (1) a letter from the Surety agreeing to the assignment and assigning all of the Bonds to the assignee without any reduction, or the assignee supplying all new Bonds in the amounts originally required under

the Contract Documents; and (2) the assignee supplying all of the required insurance in the amounts required in the Contract Documents. Until the Surety assigns all of the Bonds or the assignee supplies all of the new Bonds, and until the assignee supplies all of the required insurance, an assignment otherwise consented to in writing by the City shall not be effective. Even if the City consents to assignment, no assignment shall relieve the Contractor of liability under the Contract.

2-3.1.1 Subcontractors. Add the following sections:

Subcontractors shall be listed by the Bidder in accordance with these specifications and must be properly licensed under the laws of the State of California for the type of work which they are to perform. Copies of all Subcontracts shall be made available to the Engineer, upon request.

2-3.1.2A Subcontractor whose prosecution of the work is not satisfactory shall be terminated immediately by the Contractor upon the receipt of a written notice by the Engineer. Subcontractors whose work was determined to be unsatisfactory shall not be allowed to perform any work on the job site.

2-4 *CONTRACT BONDS*

The Faithful Performance Bond shall remain in force until the date of recordation of the Notice of Completion. The Labor and Materails Bond shall remain in force until expiration of the time within which the California Labor Commissioner may serve a civil wage and penalty assessment against the principal, any of its Subcontractors, or both the principal and its Subcontractors pursuant to Labor Code Section 1741, and until the expiration of the time within which a joint labor management committee may commence an action against the principal, any of its Subcontractors, or both the principal and its Subcontractors pursuant to Labor Code Section 1771.2.

The warranty or maintenance Bond shall be valid for one year from the date of recordation of Notice of Completion by the County Recorder, in the amount of ten percent of the Contract Price. Other than the details listed herein, the warranty or maintenance Bond shall adhere to the requirements for Bonds in Section 2-4 of the Standard Specifications. Nothing herein shall abridge or amend Section 6-8.3 of the Standard Specifications or the related provisions in these Contract Documents.

All Bonds must be submitted using the required forms, which are in the Contract Documents, or on any other form approved by the City Attorney.

2-5 *PLANS AND SPECIFICATIONS*

2-5.1 General

In addition to the requirements under Section 2-5.1 in the Standard Specifications, 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 the control set to show the as-built conditions. This control set of Plans shall also be edited for all Addenda, Requests for Information, Change Orders, field changes not involving cost, and any other variation that occurred during construction. Upon completion of all Work, the Contractor shall return the control set to the Engineer. Final payment will not be made until this requirement is met.

Where a work feature is shown on the drawings or identified in the Specifications but is not specifically indicated as an item in the Bid Schedule, and there is no ambiguity regarding the requirement to construct, install, or construct and install that work feature, the Contractor is required to complete the work feature. All costs to the Contractor for constructing, installing, or both constructing and installing such a work feature shall be included in the Bid.

2-5.2 Precedence of the Contract Documents

The following shall replace Section 2-5.2:

With regard to Section 2-5.2 in the Standard Specifications, the General Provisions shall control over the Special Provisions, and the Notice Inviting Bids and Instructions to Bidders (in that order) shall control over the Bid, such that the order of precedence shall be as follows:

1. Requirements of law.
2. Permits issued by regulatory agencies with jurisdiction.
3. Change Orders and Supplemental Agreements, whichever occurs last.
4. Contract.
5. Addenda.
6. Notice Inviting Bids.
7. Instructions to Bidders.
8. Bid/Proposal.
9. General Provisions.
10. Special Provisions.
11. Plans.
12. Standard Plans.
13. Standard Specifications.
14. Reference Specifications.

2-5.2.1 Traffic Signal Work

Except as otherwise specified in the General Provisions or on the Plans, all Work relating to traffic signals and incidental illuminated street name signs and safety lighting, including all equipment, materials, components, and the installation thereof, shall be in accordance with the City's Technical Provisions for traffic signals, latest edition of the State Standard Plans (SSP) in effect and published at the Bid Deadline and Section 86 "Signals, Lighting and Electrical Systems" of the latest edition of the State Standard Specifications (SSS) in effect and published at the Bid Deadline, unless otherwise indicated in the Technical Provisions. With respect to traffic signal Work, the order of precedence, from highest to lowest, shall be: City Technical Provisions, Plans, Section 86 of the State Standard Specifications, State Standard Plans, Standard Plans, and Standard Specifications.

2-5.3 Submittals

2-5.3.1 General

The following paragraphs shall be added following the third paragraph:

The Contractor shall, at its own expense, transmit to the Engineer for review and acceptance, working drawings, shop drawings, supporting information, and/or other available instructive and descriptive information from the manufacturer, when and as required by the Plans or General

Provisions or requested by the Engineer. Shop drawings will not be required for standard items in common use for which adequate manufacturers' literature is available unless otherwise required by the Engineer.

The Contractor shall consecutively number, thoroughly check, approve and sign each submittal and transmit the submittals to the Engineer for review. In the event that certain submittals are submitted without the Contractor's approval signature or are unacceptable to the City, they shall be rejected by the Engineer. The Contractor shall thereafter correct the submittals and resubmit.

In the event that in the process of development of the submittals it is discovered that there are defects and/or errors on the Plans that result in conflict between the Plans and the submittals, or if the submittals show variation from the Plans or other Contract Documents, the Contractor shall thoroughly describe and explain any defects and/or conflicts in its transmittal letter to the Engineer.

The Engineer's review of the submittals will be for general design and arrangement only, and shall not relieve the Contractor from responsibility for errors of any sort in the submittals or of the responsibility for executing the work in accordance with the Contract Documents. The Contractor shall be solely responsible for the correctness of the submittals, for shop fits and field connections, and for the results obtained by use of such submittals. The Contractor shall verify and be fully responsible for all dimensions and job-site conditions affecting the Work and shall be responsible for furnishing and installing the proper materials required by the Contract Documents.

The Contract Time will not be extended due to the failure of the Contractor to provide submittals as required by the Contract Documents in a timely manner.

2-6 WORK TO BE DONE

The following paragraphs shall be added following paragraph one:

All work which is defective in its construction or deficient in any of the requirements of the Plans and Specifications shall be remedied or removed and replaced by the Contractor in an acceptable manner at his own expense. No compensation will be allowed for any work done beyond the lines and grades shown on the Plans or established by the Engineer. Upon failure on the part of the Contractor to comply with any order of the Engineer made under the provisions of this article, the Engineer and the City may cause the defective work to be remedied or removed and replaced at the expense of the Contractor.

Any unauthorized or defective work, defective material or workmanship or any unfaithful or imperfect work that may be discovered before final acceptance of work by the Board shall be corrected immediately with no extra charge even though it may have been overlooked in previous inspections and estimates or may have been caused due to failure to inspect the work.

2-7 SUBSURFACE DATA

If the City or its consultants have made investigations of subsurface conditions in areas where the Work is to be performed, such investigations shall be deemed made only for the purpose of study and design. If a geotechnical or other report has been prepared for the Project, the Contractor may inspect the records pertaining to such investigations subject to and upon the conditions hereinafter set forth. The inspection of the records shall be made in the office of the Engineer. It is the Contractor's sole responsibility to determine whether such investigations exist,

and the City makes no affirmative or negative representation concerning the existence of such investigations.

The records of any such investigations are made available solely for the convenience of the Contractor. It is expressly understood and agreed that the City, the Engineer, their agents, consultants or employees assume no responsibility whatsoever with respect to the sufficiency or accuracy of any investigations, the records thereof, and the interpretations set forth therein. No warranty or guarantee is expressed or implied that the conditions indicated by any such investigations or records are representative of those existing in the Project area. The Contractor agrees to make such independent investigations and examination as necessary to be satisfied of the conditions to be encountered in the performance of the Work.

The Contractor represents that it has studied the Plans, Specifications and other Contract Documents, and all surveys and investigation reports of subsurface and latent physical conditions, has made such additional surveys and investigations as necessary for the performance of the Work at the Contract Price in accordance with the requirements of the Contract Documents, and that it has correlated the results of all such data with the requirements of the Contract Documents. No claim of any kind shall be made or allowed for any error, omission or claimed error or omission, in whole or in part, of any geotechnical exploration or any other report or data furnished or not furnished by the City.

2-9 SURVEYING

The Contractor shall verify all dimensions on the drawings and shall report to the City any discrepancies before proceeding with related Work. The Contractor shall perform all survey and layout Work per the benchmark information on the Project Plans. All surveying Work must conform to the Professional Land Surveyors' Act (Business and Professions Code Section 8700 *et seq*). All Project surveying notes and "cut-sheets" are to be provided to the City after the completion of each surveying activity and all final surveying notes shall be provided before final payment to the Contractor.

Construction stakes shall be set and stationed by the Contractor at its expense. Unless otherwise indicated in the Special Provisions, surveying costs shall be included in the price of items bid. No separate payment will be made. Re-staking and replacement of construction survey markers damaged as a result of the Work, vandalism, or accident shall be at the Contractor's expense.

2-11 INSPECTION

The Contractor shall arrange and pay for all off-site inspection of the Work required by any ordinance or governing authorities. The Contractor shall also arrange and pay for other inspections, including tests in connection therewith, as may be assigned or required.

Add the following paragraphs:

2-11.1 Inspection

An inspector shall in no case act as foreman or perform other duties for the Contractor, nor interfere with the Contractor's management of the Work. Any advice which an inspector may give the Contractor shall not be binding to the Engineer or to the City, or release the Contractor from fulfilling all the terms of the Contract.

No partial payment, inspection, taking possession of, or other act made or done by the Engineer or the City with respect to the work prior to final completion and acceptance thereof shall affect or prejudice the right of the Engineer or the City to reject any defective work or material or to require the complete fulfillment of all the provisions of the Contract.

If the Engineer deems it expedient and not in the best interest of the City to correct work injured or done not in accordance with the Contract, the defective work may be accepted subject to an equitable deduction from the Contract Price which may be made therefor by the City upon certification from the Engineer.

Reexamination of any work may be ordered by the Engineer at any time prior to final acceptance and, if so ordered, the work must be uncovered by the Contractor. If such work be found in accordance with the Contract, the City will pay the cost of reexamination and replacement. If such work be found defective or not in accordance with the Contract, the Contractor shall pay such costs.

SECTION 3. CHANGES IN WORK

3-1 CHANGES REQUESTED BY THE CONTRACTOR

3-1.1 General

Add the following paragraph to the end of Subsection 3-1.1:

If the Contractor alleges that instructions issued after the date of the Contract will result in increases to the Contract Price or Contract Time, if latent or unforeseen conditions require modification of the Contract Documents, or the Contractor otherwise becomes aware of the need for or desirability of a change in the Work, a Change Order Proposal ("COP") may be submitted to the City in writing, using the forms provided herein in Subsection 3-6.2 of the General Provisions, and must specify the reasons for such change, including relevant circumstances and impacts on the construction schedule. The Contractor may request additional compensation and/or time through a COP but not for instances that occurred more than ten calendar days prior to the COP. The Contractor's failure to initiate a COP within such period shall be deemed a waiver of the right to adjustment of the Contract Price or the Contract Time for the alleged change, unless such waiver is prohibited under state law. Any COP that is approved by the City will be incorporated in a Change Order or Construction Change Directive. If the City determines that the Work in question is not a change, the City shall issue a Work Directive, ordering the Contractor to proceed with the Work without delay. If the COP is denied but the Contractor believes that it does have merit, the Contractor may submit a claim to the City.

3-2 CHANGES INITIATED BY THE AGENCY

The City reserves the right, without notice to the Surety, to increase or decrease the quantity of any item or portion of the Work described in the Contract Documents or to alter or omit portions of the Work so described, as may be deemed necessary or expedient by the Engineer, without in any way making the Contract void. Such increases, alterations or decreases of Work shall be considered and treated as though originally contracted for, and shall be subject to all the terms, conditions and provisions of the original Contract. The Contractor shall not claim or bring suit for damages, whether for loss of profits or otherwise, on account of any decrease, alteration or omission of any kind of Work to be done.

3-2.1 General

Add the following paragraphs at the end of Subsection 3-2.1:

The City reserves the right to make changes in the Work, including the elimination of any Bid Item, after execution of the Contract and without invalidating the Contract by:

A. Change Order approved by the City Council, City Manager, Public Works Director, or City Engineer (dollar value of approval authority for each as per City policy); or

B. Construction Change Directive approved by the City Council, City Manager, Public Works Director, or City Engineer (dollar value of approval authority for each as per City policy);

A change that causes the total value of all changes to exceed the Contract contingency amount established at the time of award of the Contract must be approved by the City Council. No payments in excess of the original Contract Price will be made until a Change Order is approved in the normal course of business. The City may, at any time, without notice to the Contractor's surety(ies), order changes in the Work within the general scope of the Contract. Such changes in the Work shall not relieve or release the surety(ies) of its(their) obligations under the Performance and Payment Bonds issued for the Project. Changes in the Work made pursuant to this Article 3 shall in no way release any guarantee or warranty provided by the Contractor.

The City may issue a Change Order Proposal Request ("COPR"), in writing, to the Contractor, describing a proposed change to the Work and requesting that the Contractor submit an itemized Change Order Proposal ("COP") to the City, using the forms provided herein in Subsection 3-6.2 of the General Provisions, within ten calendar days after the City's issuance of the COPR. If the Contractor fails to submit a COP within such period of time, it shall be presumed that the change described in the City's COPR will not result in an increase to the Contract Price or Contract Time and the change shall be performed by the Contractor without such increases. A COPR does not authorize the Contractor to commence performance of the changed work. The Contractor shall not perform any change until receipt of the City's written approval. If the City approves the Contractor's COP, City shall issue a Change Order.

Whenever a change is pending, the Contractor shall notify the City if it is necessary to halt other Work in the area of the change that would be affected thereby, until such time as the change is authorized.

Any change to the Contract Price shall be in a sum mutually agreed to by the Contractor and the City. When the cost for Extra Work cannot be agreed upon, the City will pay for Extra Work based on the accumulation of costs as provided for in Subsection 3-3, "Extra Work," of the Standard Specifications and the General Provisions.

3-2.1.1 Change Order

A Change Order is a written instrument prepared by the City and signed by the City and the Contractor, stating their agreement upon all of the following:

A. The scope of the change in the Work;

B. The amount of the adjustment, if any, in the Contract Price; and

- C. The extent of the adjustment, if any, in the Contract Time.

3-2.1.1.1 Accord and Satisfaction

The Contractor's agreement on any Change Order shall be a full compromise and settlement of all adjustments to the Contract Time and Contract Price, and compensation for any and all delay, extended or additional field and home office overhead, disruption, acceleration, inefficiencies, lost labor or equipment productivity, differing site conditions, construction interferences, and other extraordinary or consequential damages (hereinafter called "Impacts"), including any ripple or cumulative effect of the Impacts on the overall Work under the Contract arising directly or indirectly from the performance of Work described in the Change Order. By execution of any Change Order, the Contractor agrees that the Change Order constitutes a complete accord and satisfaction with respect to all claims for schedule extension, Impacts, or any costs of whatsoever nature, character or kind arising out of or incidental to the Change Order. No action, conduct, omission, product failure, or course of dealing by the City shall act to waive, modify, change, or alter the requirement that Change Orders must be in writing, signed by the City and the Contractor, and that such written Change Orders are the exclusive method for effectuating any change to the Contract Sum and/or Contract Time.

3-2.1.2 Construction Change Directive

A Construction Change Directive is a written order prepared and signed by the City, directing a change in the Work prior to the Contractor's agreement on adjustment, if any, in the Contract Price or Contract Time, or both. The City may, by Construction Change Directive, without invalidating the Contract, order changes in the Work within the general scope of the Contract consisting of additions, deletions or other revisions, the Contract Price and Contract Time being adjusted accordingly. Upon receipt of a Construction Change Directive, the Contractor shall promptly proceed with the change in the Work involved. A Construction Change Directive shall be used in the absence of total agreement on the terms of a Change Order. The City's form of Construction Change directive is provided in Subsection 3-6.2 of the General Provisions.

3-2.2.2 Increases of More than 25 Percent

Delete Subsection 3-2.2.2 in its entirety and substitute the following:

Should the actual quantity of a Major Item of Work covered by a Contract Unit Price and constructed in conformance with the Plans and Specifications exceed the Bid quantity by more than 25%, a Change Order will be issued and payment for the quantity in excess of 25% of the Bid quantity will be made on the basis of an adjustment to the Contract Unit price mutually agreed to by the City and the Contractor or pursuant to Subsection 3-2.4 "Agreed Prices."

For Minor Items of Work, the Contractor will be paid using the Contract Unit Price, regardless of whether the actual quantity of the Minor Item of Work covered by a Contract Unit Price exceeds the bid quantity by more than 25%.

3-2.2.3 Decreases of More than 25 Percent

Delete Subsection 3-2.2.3 in its entirety and substitute the following:

Should the actual quantity of a Major Item of Work covered by a Contract Unit Price and constructed in conformance with the Plans and Specifications be less than 75% of the Bid

quantity, an adjustment in payment will not be made unless so requested in writing by the Contractor. If the Contractor so requests, a Change Order shall be issued and payment shall be made on the basis of an adjustment to the Contract Unit Price mutually agreed to by the City and the Contractor, or pursuant to Subsection 3-2.4 "Agreed Prices"; however, in no case will payment be less than would be made for the actual quantity at the Contract Unit Price.

For Minor Items of Work, the Contractor will be paid using the Contract Unit Price, regardless of whether the actual quantity of the Minor Item of Work covered by a Contract Unit Price is less than 75% of the Bid quantity.

3-2.2.4 Changes for Items Not Covered by Unit Prices

Payment for any change for an Item of Work not covered by a Contract Unit Price shall be made pursuant to Subsection 3-3 "Extra Work."

3-3 *EXTRA WORK*

New and unforeseen work will be classified as Extra Work only when the Work is not covered and cannot be paid for under any of the various items or combination of items for which a Bid price appears on the Bid. The Contractor shall not do any Extra Work except upon written order from the Engineer.

3-3.1 General

Add the following at the end of Subsection 3-3.1:

All Extra Work shall conform to the Plans and Specifications.

The Contractor shall furnish to the Engineer each Subcontractor's signed and detailed estimate of the cost for labor, materials, and equipment, including the markup by such Subcontractor for overhead and profit for Work added or deducted to a Subcontractor's scope of Work. The Contractor shall furnish to the Engineer the sub-Subcontractor's signed detailed estimate of the cost for labor, materials, and equipment, including the markup by such sub-Subcontractor for overhead and profit for Work added or deducted to a sub-Subcontractor's scope of Work. The Contractor shall furnish to the Engineer the vendor or supplier's signed detailed estimate or quotation of the cost to the Contractor for Work added or deducted from a vendor or suppliers scope of Work.

3-3.2.1 General

Add the following at the end of Subsection 3-3.2.1

Any change in the Work for an Item of Work not covered by a Contract Unit Price that involves both added and deleted Work shall be paid on the basis of the net total cost. The cost of deleted Work not covered by a Contract Unit Price shall be determined by the Engineer based on the schedule of lump sum prices submitted by the Contractor in accordance with Subsection 9-2, "Lump Sum Work," of the Standard Specifications and the General Provisions.

3-3.2.2.1 Labor

Delete Subsection 3-3.2.2.1 in its entirety and substitute the following:

The cost of labor will be the actual cost for wages prevailing locally for each craft or type of worker (including foreman when authorized by the Engineer) performing the Extra Work at the time the Extra Work is done, plus liability insurance, health and welfare, pension, vacation, apprenticeship funds, and other direct costs, as well as assessments or benefits required by lawful collective bargaining agreements.

To the actual wages, as defined above, will be added a labor surcharge set forth in the California Department of Transportation publication entitled "Labor Surcharge and Equipment Rental Rates" that is in effect on the date upon which the Extra Work is performed. The labor surcharge shall constitute full compensation for all payments imposed by State and federal laws and for all other payments made to, or on behalf of, the workers, other than actual wages, subsistence and travel paid to the workers. The labor surcharge includes Workers' Compensation, Social Security, Medicare, Federal Unemployment, State Unemployment, and State Training taxes.

Except when direct supervision is provided by working foremen whose time is included in accordance with Subsection 3-2.2.2, the cost of direct supervision of Extra Work, when such direct supervision is provided exclusively for the Extra Work and not in conjunction with or at the same time as supervision for other Work, and when approved in advance in writing by the Engineer, may be charged to the Extra Work. Such cost includes only the actual cost of supervision labor, plus payroll taxes, insurance, and pension costs. The cost of transportation, use of vehicle, and other costs incurred by supervision will not be allowed.

3-3.2.2.2 Materials

Add the following to Subsection 3-3.2.2.2:

If the Contractor does not furnish satisfactory evidence of the cost of the materials from the actual supplier thereof within **3 days** following delivery of materials to the Work site, the Engineer reserves the right to establish the cost of the materials at the lowest current wholesale prices at which the materials were available, in the quantities concerned, delivered to the location of the Work site, less any discounts.

3-3.2.2.3 Tool and Equipment Rental

Delete Subsection 3-3.2.2.3 in its entirety and substitute the following:

No payment will be made for individual pieces of equipment or tools not listed in the California Department of Transportation publication entitled "Labor Surcharge and Equipment Rental Rates" that is in effect on the date upon which the Extra Work is performed and that have a replacement value of \$200.00 or less, whether or not consumed by use. Such equipment or tools shall be considered to be small tools.

The Contractor will be paid for the use of equipment at the rental rates listed for such equipment in the Labor Surcharge and Equipment Rental Rates publication that is in effect on the date upon which the Extra Work is performed.

Move in and out, or minimum charges other than the hourly rate, shall not apply to equipment available from the force already on the Project site.

For equipment that is rented from a local equipment agency, the Contractor will be paid at the hourly rate shown on the rental agency invoice or agreement for the time the equipment is used on Extra Work. If a minimum equipment rental amount is required by the local equipment rental agency, the actual amount charged will be paid to the Contractor.

If it is deemed necessary by the Engineer to use equipment not listed in the Labor Surcharge and Equipment Rental Rates publication, a suitable rental rate for that equipment will be established by the Engineer. The Contractor may furnish any cost data that might assist the Engineer in the establishment of the rental rate. If the rental rate established by the Engineer is \$10.00 per hour or less, the provisions above concerning rental of equipment from a local equipment agency shall apply.

Rental time will not be allowed while equipment is inoperative due to breakdowns.

When owner operated equipment is used to perform Extra Work to be paid on a force account basis, the Contractor will be paid for the equipment and operator as follows:

1. Payment for the equipment will be made at the rental rates listed for such equipment in the Labor Surcharge and Equipment Rental Rates publication that is in effect on the date upon which the Extra Work is performed.

2. Payment for the cost of labor will be made in conformance with the provisions in Subsection 3-3.2.2.1 "Labor" of the General Provisions.

3-3.2.3 Markup

Delete Subsection 3-3.2.3 in its entirety and substitute the following:

The markup for overhead and profit on Extra Work shall be in accordance with the following schedule.

3-3.2.3.1 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	20
2) Materials	15
3) Equipment Rental	15
4) Other Items and Expenditures.....	15

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

3-3.2.3.2 Work by Subcontractor.

For Extra Work performed by a Subcontractor, the markup established in Subsection 3-3.2.3.1 of the General Provisions shall be applied to the Subcontractor's costs. An additional five percent shall be added to the Subcontractor's final cost, which shall reimburse the Contractor for administrative costs, including overhead and profit.

3-3.2.3.3 Work by Sub-Subcontractor.

For Extra Work performed by a sub-Subcontractor, the markup established in Subsection 3-3.2.3.1 of the General Provisions shall be applied to the sub-Subcontractor's costs. An additional ten percent shall be added to the sub-Subcontractor's final cost, five percent of which shall reimburse the Contractor for administrative costs, including overhead and profit, and five percent of which shall reimburse the Subcontractor for administrative costs, including overhead and profit.

3-3.2.3.4 Work by Specialist.

If the Engineer and the Contractor agree that a service or an item of Extra Work cannot be performed by the forces of the Contractor or those of any of its Subcontractors or sub-Subcontractors, such service or Extra Work item may be performed by a specialist. Invoices for such services or items of Extra Work calculated on the basis of current market prices may be accepted without complete itemization of labor, material, and equipment rental costs when it is impracticable and not in accordance with the established practice of the special service industry to provide such complete itemization.

If the Contractor is required to perform Extra Work that requires a fabrication or matching process in a fabrication or machine shop facilities away from the Project site, the charges for that portion of the Extra Work performed in such facility may, by agreement between the Contractor and Engineer, be accepted as a specialist billing.

For Extra Work performed by a specialist, 15% shall be added to the specialist's invoice price less a credit to the City for any cash or trade discount offered or available, whether or not such discount may have been taken; such percentage shall reimburse the Contractor for administrative costs, including overhead and profit.

3-3.2.3.5 Work not Covered by Unit Prices.

Markup for overhead and profit on any change in the Work for an Item of Work not covered by a Contract Unit Price that involves both added and deleted Work shall be paid, in accordance with this Subsection 3-3.2.3 of the General Provisions, only if the net cost increases the Contract Price (i.e., if the cost for added Work exceeds the cost for deleted Work).

3-3.3 Daily Reports by Contractor

Delete the first sentence of Subsection 3-3.3 and substitute the following:

The Contractor shall submit daily reports for Extra Work showing all labor, material, and equipment costs incurred.

Add the following at the end of Subsection 3-3.3:

The daily reports shall describe in detail the Extra Work that was performed and the location (station, etc.). Separate daily reports shall be submitted for Extra Work that is performed for more than one location and for different tasks that are performed on the same day. Material charges shall be substantiated by valid copies of vendor's invoices. Such invoices shall be submitted with the daily reports, or if not available, they shall be submitted with subsequent daily reports. The Contractor shall maintain the Contractor's records in such a manner as to provide a clear accounting of the costs.

Upon completion of the Extra Work, the Contractor shall submit a summary of costs, including markup for overhead and profit. All costs shall be in accordance with Subsection 3-3.2, "Payment," of the Standard Specifications and the General Provisions. The signature of the City's Inspector on a daily report shall indicate agreement with the information reflected therein, not that the Contractor is entitled to payment of the costs in the report. The Engineer shall review the daily reports. The Engineer shall compare the Inspector's records with the completed daily reports furnished by the Contractor and make any necessary adjustments. When the daily reports are agreed upon and signed by both parties, these reports shall become the basis of payment for the Extra Work performed.

3-3.4 Extension of Time

Add the following as Subsection 3-3.4:

If the Contractor is delayed in completing the Extra Work due to a change ordered by the City, the time for completion of Work will be extended in accordance with Subsection 6-6.1 of these General Provisions.

3-5 *DISPUTED WORK*

Delete Subsection 3-5 in its entirety and substitute the following:

In the event of disputed Work, the City shall have the right to unilaterally issue a written Work Directive; and the Contractor shall continue performance pending resolution of the dispute and shall maintain cost data described in Subsection 3-3 of the Standard Specifications and the General Provisions. The City's form of Work Directive is provided in Subsection 3-6 of the General Provisions. Payment shall be made for such disputed Work as is later determined by negotiation between the parties or as is fixed by a court of law.

3-6 *FORMS*

Add Section 3-6 to incorporate the following forms, which appear in the succeeding pages.

3-6.1 Change Order Form

3-6.2 Change Order Proposal Forms

- (a) Change Order Proposal Summary Report
- (b) Labor Cost Report
- (c) Labor Rates Report

- (d) Material Cost Report
- (e) Equipment Cost Report
- (f) Special Forces/Services Cost Report

3-6.3 Construction Change Directive Form

3-6.4 Work Directive Form



**CITY OF MANHATTAN BEACH
PUBLIC WORKS DEPARTMENT
Engineering Division**

CONTRACT CHANGE ORDER NO. 1 (Final)

PROJECT NO.:

DESCRIPTION:

TO: Construction Company, Inc.

You are hereby instructed to comply with the following changes from the Contract Plans and Specifications:

SUMMARY OF CHANGES		
Description (Detailed Explanation Attached)	Change in Contract Price¹	Change in Work Days
1.	\$0.00	
2. Adjustment in Final Bid Quantities	\$0.00	
Net Change in Contract Price and Work Days	\$0.00	

¹Deduction or decrease in Contract Price is denoted in parentheses.

The following change is hereby made a part of the Contract Documents and shall be performed under the same terms and conditions as required by the original Contract Documents. Except as modified herein, the original Contract Documents and all prior amendments shall remain in full force and effect and all of the terms of the Contract Documents are hereby incorporated in this Change Order.

SUMMARY OF ALL CHANGE ORDERS

ORIGINAL CONTRACT AMOUNT.....\$000,000.00
 CCO1 (FINAL)\$0.00
 TOTAL.....\$000,000.00

SUMMARY OF WORKING DAYS

FIRST DAY OF WORK: Date
 CONTRACT WORKING DAYS: X
 TIME EXTENSION: CCO 1 (Final)..... Y
 NEW TOTAL WORKING DAYS:X+Y
 LAST DAY OF WORK:..... New Date



CHANGE ORDER DETAIL

Change Order No.: 1 (Final)

Project No.: Description:

The changes or interpretations described and noted herein are hereby authorized. The signed original of this order is on file in the Department of Public Works. Shown as separate paragraphs: (A) Reason for Change; (B) Description of Change; (C) Change in Contract Costs; and (D) Change in Completion Date.

Item No. 1:

A. Reason for Change:

B. Description of Change:

ITEM	DESCRIPTION	UNIT	UNIT PRICE	BID OR CURRENT APPROVED QTY	FINAL QTY	CHANGE	CHANGE IN COST ¹
New Item				0	0	0	0.00

¹Deduction or decrease in Contract Price is denoted in parentheses.

C. Change in Contract Cost:
Add \$0.00

D. Change in Completion Date:
Add Y Working Days

Item No. 2: Adjustment in Final Bid Quantities:

A. Reason for Change:
Due to conditions encountered during construction, modifications to the amount of Work were determined to be appropriate, and the changes were addressed by means of adjusting applicable contract quantities, as outlined below.



B. Description of Change:

ITEM	DESCRIPTION	UNIT	UNIT PRICE	BID OR CURRENT APPROVED QTY	FINAL QTY	CHANGE	CHANGE IN COST ¹
New Item				0	0	0	0.00

¹Deduction or decrease in Contract Price is denoted in parentheses.

C. Change in Contract Cost:
 Add \$0.00

D. Change in Completion Date:
 No Change.

SIGNATURE PAGE TO FOLLOW:



The original Contract Price was (\$0.00). Contract Change Order No. 1 (Final) increased the Contract Price by (\$0.00). The new Contract Price will be \$00/100, resulting in an increase of approximately 0.00% to the original Contract.

The original Contract Time of X Working Days was extended by Y Working Days per Change Order No. 1 (Final). The last contract Working Day is new Date.

Ordered: _____ Date: _____
Public Works Director

Concurred by: _____ Date: _____
City Engineer

Concurred by: _____
Project Manager

Acceptance by the Contractor:

This Change Order is in full compromise and settlement of all adjustments to Contract Time and Contract Price, and compensation for any and all delay, extended or additional field and home office overhead, disruption, acceleration, inefficiencies, lost labor or equipment productivity, differing site conditions, construction interferences and other extraordinary or consequential damages (hereinafter called "Impacts"), including any ripple or cumulative effect of these Impacts on the overall Work under the Contract arising directly or indirectly from the performance of Work described in this Change Order. By execution of this Change Order, the Contractor agrees that this Change Order constitutes a complete accord and satisfaction with respect to all claims for schedule extension, Impacts, or any costs of any nature, character or kind arising out of or incidental to this Change Order.

Name: _____ Date: _____

Title: _____



CHANGE ORDER PROPOSAL FORM

3-6.2(a) CONTRACT CHANGE ORDER PROPOSAL SUMMARY REPORT

Date _____

CCO Proposal No. _____ Contractor _____

Item No. _____ Location _____

AMOUNT

General Contractor

1. Labor Cost:.....\$ _____

2. Material Cost:\$ _____

3. Equipment Cost:.....\$ _____

4. Special Forces/Services:\$ _____

Subtotal Contractor Cost•.....\$ _____

5. Subcontractor/Sub-Subcontractor Name _____

Labor Cost.....\$ _____

Material Cost\$ _____

Equipment Cost.....\$ _____

Subtotal Subcontractor/Sub-Subcontractor Cost

6. Subcontractor/Sub-Subcontractor Name

Labor Cost.....\$ _____

Material Cost\$ _____

Equipment Cost.....\$ _____

Subtotal Subcontractor/Sub-Subcontractor Cost.....\$ _____

TOTAL CONTRACT CHANGE ORDER COSTS.....\$ _____



CHANGE ORDER PROPOSAL FORM

3-6.2(b) LABOR COST REPORT Date

Date _____

CCO Proposal No. _____ Contractor or Subcontractor _____

Item No. _____ Location _____

CLASSIFICATION AND NAME	HOURS	HOURLY RATE	EXTENDED AMOUNTS
Classification:	OT	\$	\$
Name:	REG	\$	\$
Classification:	OT	\$	\$
Name:	REG	\$	\$
Classification:	OT	\$	\$
Name:	REG	\$	\$
Classification:	OT	\$	\$
Name:	REG	\$	\$
Classification:	OT	\$	\$
Name:	REG	\$	\$
TOTAL LABOR			\$

Overhead/profit 20% \$ _____

Total labor/overhead/profit \$ _____

Subcontractor's mark-up of total Sub-Subcontractor labor/overhead/profit (if applicable) 5% \$ _____

General contractor's mark-up of total Subcontractor or Sub-Subcontractor labor/overhead/profit (if applicable) 5%..... \$ _____

Total..... \$ _____



CHANGE ORDER PROPOSAL FORM

3-6.2(c) LABOR RATES REPORT Date

Date _____

CCO Proposal No. _____ Contractor or Subcontractor _____

Item No. _____ Location _____

CLASSIFICATION:		
TAXABLE BASE:		AMOUNT
Base Hourly Pay		\$
Vacation		\$
TOTAL TAXABLE BASE		\$
TAXES & INSURANCE		
	PERCENT	AMOUNT
Social Security Tax		\$
State Unemployment Tax		\$
Federal Unemployment Tax		\$
Workmen's Compensation		\$
Liability & Umbrella Insurance		\$
TOTAL TAXES & INSURANCE		\$
FRINGE BENEFITS		
	AMOUNT	
Pension	\$	
Health & Welfare	\$	
Training	\$	
Other Fringe Benefits	\$	
TOTAL FRINGE BENEFITS		\$
AMOUNT		\$



CHANGE ORDER PROPOSAL FORM

3-6.2(d) MATERIAL COST REPORT

Date _____

CCO Proposal No. _____ Contractor or Subcontractor _____

Item No. _____ Location _____

INVOICE NO.	DESCRIPTION	AMOUNT
1.	Material	\$ _____
	Sales Tax (Prevailing Tax Rate) 7.75%	\$ _____
	Subtotal	\$ _____
2.	Material	\$ _____
	Sales Tax (Prevailing Tax Rate) 7.75%	\$ _____
	Subtotal	\$ _____
3.	Material	\$ _____
	Sales Tax (Prevailing Tax Rate) 7.75%	\$ _____
	Subtotal	\$ _____
SUBTOTAL MATERIAL COST		\$ _____

NOTE: An itemized list of materials, manufacturers, serial numbers, invoices, and other pertinent data shall be submitted along with the material cost report.

Overhead/profit 15% \$ _____

Total material/overhead/profit..... \$ _____

Subcontractor's mark-up of total Sub-Subcontractor material/overhead/profit (if applicable) 5% \$ _____

General contractor's mark-up of total Subcontractor or Sub-Subcontractor labor/overhead/profit (if applicable) 5%..... \$ _____

Total..... \$ _____



CHANGE ORDER PROPOSAL FORM

3-6.2(e) EQUIPMENT COST REPORT

Date _____

CCO Proposal No. _____ Contractor or Subcontractor _____

Item No. _____ Location _____

EQUIPMENT NO. (Description, Type, Size)	HOURS	HOURLY RATE	EXTENDED AMOUNTS
SUBTOTAL EQUIPMENT COST			\$

Overhead/profit 15% \$ _____

Total equipment/overhead/profit..... \$ _____

Subcontractor's mark-up of total Sub-Subcontractor
equipment/overhead/profit (if applicable) 5% \$ _____

General contractor's mark-up of total Subcontractor
or Sub-Subcontractor equipment/overhead/profit (if applicable) 5% \$ _____

Total..... \$ _____



CHANGE ORDER PROPOSAL FORM

3-6.2 (f) SPECIAL FORCES/SERVICES COST REPORT

Date _____

CCO Proposal No. _____ Contractor or Subcontractor _____

Item No. _____ Location _____

INVOICE NO.	DESCRIPTION	AMOUNT
1.		\$
		\$
	Subtotal	\$
2.		\$
		\$
	Subtotal	\$
3.		\$
		\$
	Subtotal	\$
SUBTOTAL MATERIAL COST		\$

NOTE: An itemized list of materials, manufacturers, serial numbers, invoices, and other pertinent date shall be submitted along with the special forces/services cost report.

Overhead/profit 15% \$ _____

Total Special Forces/Services/Overhead/Profit \$ _____



3-6.3 CONSTRUCTION CHANGE DIRECTIVE

Distribution to: CITY CONTRACTOR OTHER PROJECT MANAGER

PROJECT:	DIRECTIVE NO.:
	DATE:
	CONTRACT DATE:
TO CONTRACTOR:	CONTRACT FOR:

You are hereby directed to make the following change(s) to this Contract:

PROPOSED ADJUSTMENTS

- The proposed basis of adjustment to the Contract Price is:
 - Lump Sum (increase) (decrease) of \$ _____
 - Unit Price of \$ _____ per _____
 - Daily time and materials records of actual costs plus a overhead and profit, as provided in Subsection 3-3, "Extra Work," the Standard Specifications and the General Provisions, [subject to a Not-To-Exceed Amount of \$ _____].\
 - as follows:
- The Contract Time is proposed to (be adjusted) (remain unchanged). The proposed adjustment, if any, is (an increase of ____ days) (a decrease of ____ days).

If the Contractor disagrees with the proposed adjustments, it must submit its own proposal within ten days of the date of this Construction Change Directive pursuant to Contract Documents or the proposed adjustment will become final and binding on the Contractor.

When signed by the City and received by the Contractor, this document becomes effective IMMEDIATELY as a Construction Change Directive (CCD), and the Contractor shall proceed with the change(s) described above.

Ordered: _____ Date: _____
Public Works Director

Concurred by: _____ Date: _____
City Engineer

Concurred by: _____ Date: _____
Project Manager



3-6.4 WORK DIRECTIVE

Distribution to: CITY CONTRACTOR FIELD OTHER PROJECT MANAGER

PROJECT:	WORK DIRECTIVE NO.:
	DATE:
	CONTRACT DATE:
TO CONTRACTOR:	CONTRACT FOR:

You are hereby directed to continue performance of the following Work, without delay, pending resolution of the dispute concerning such Work and maintain the cost data described in Subsection 3-3, "Extra Work," of the Standard Specifications and the **General Provisions** to the Contract for the performance of such Work:

Neither the issuance of this Work Directive nor the requirement for the Contractor to maintain cost data constitutes approval by the City of a change in the Work or modification of the Contract Documents.

Ordered: _____ Date: _____
Public Works Director

Concurred by: _____ Date: _____
City Engineer

Concurred by: _____ Date: _____
Project Manager

SECTION 4. CONTROL OF MATERIALS

4-1 MATERIALS AND WORKMANSHIP

The provisions below shall supplement but not replace those provisions in Section 4-1 of the Standard Specifications, except that Subsection 4-1.4 shall be replaced in its entirety.

The first paragraph of Section 4-1 is replaced with the following:

Wherever applicable, materials shall conform to the latest Standards of the American Society for Testing Materials. All workmanship in the fabrication, assembly and construction of materials and equipment shall be neat and workmanlike in every respect. All equipment offered shall be of the manufacturer's latest design.

The Contractor and all Subcontractors, suppliers, and vendors shall guarantee that the Work will meet all requirements of this Contract as to the quality of materials, equipment, and workmanship.

4.1.1.1 Property Rights in Materials

Nothing in the Contract shall be construed as vesting in the Contractor any right, title, or interest in material used in the Work after it has been attached or affixed to the Work or the soil. All such material shall become the property of the City upon being so attached or affixed.

4-1.2 Protection of Work and Materials

Add the following at the end of Subsection 4-1.2:

Materials shall not be stored in the right-of-way unless written permission is given by the Engineer.

4-1.4 Test of Materials

Delete Subsection 4-1.4 in its entirety and substitute the following:

Unless otherwise called for in these General Provisions, all testing of materials will be performed by the City in such number and at such locations as deemed necessary by the Engineer to ensure compliance with the Contract Documents. The cost of all testing that can be performed within 50 miles of the Project will be borne by the City; the cost of all testing that must be performed 50 miles or more from the Project will be borne by the Contractor; the cost of all re-testing will be borne by the Contractor, and the amount due the City for the re-testing will be deducted from the Contract Price via Change Order.

The cost of rework material testing, overtime, travel and other related costs incurred by the City will be deducted from the Contract Price via Change Order.

4-1.6 Trade Names or Equals

If the Contractor requests to substitute an equivalent item for a brand or trade name item, the burden of proof as to the comparative quality and suitability of alternative equipment or articles or materials shall be upon the Contractor, and the Contractor shall furnish, at its own expense, all information necessary or related thereto as required by the Engineer. All requests for substitution shall be submitted, together with all documentation necessary for the Engineer to determine

equivalence, no later than ten calendar days after the award of the Contract, unless a different deadline is listed in the Special Provisions.

SECTION 5 UTILITIES

The provisions below shall supplement but not replace those provisions in Section 5 of the Standard Specifications.

5-1 LOCATION

The location and existence of any underground Utility or substructure has not been obtained. The methods used and costs involved to locate existing elements, points of connection and all construction methods are the Contractor's sole responsibility. Accuracy of information furnished, as to existing conditions, is not guaranteed by the City. The Contractor, at its sole expense, must make all investigations necessary to determine locations of existing elements, which may include contacting Underground Service Alert and other private underground locating firm(s), utilizing specialized locating equipment, hand trenching, or both. For every Dig Alert Identification Number issued by Underground Service Alert during the course of the Project, the Contractor must submit to the City the following form. The Contractor shall be responsible for preserving the integrity of the existing underground utilities at the site.

UNDERGROUND SERVICE ALERT IDENTIFICATION NUMBER FORM

MARINE AVENUE IMPROVEMENT PROJECT

No excavation will be permitted until this form is completed and returned to the City.

Government Code Section 4216 *et seq.* requires a Dig Alert Identification Number to be issued before a permit to excavate will be valid.

To obtain a Dig Alert Identification Number, call Underground Service Alert at **811** a minimum of three Working Days before scheduled excavation. For best response, provide as much notice as possible up to ten Working Days.

Dig Alert Identification Number: _____

Dated: _____

("CONTRACTOR")

By: _____

Printed Name: _____

Title: _____

By: _____

Printed Name: _____

Title: _____

NOTE: This form is required for every Dig Alert Identification Number issued by Underground Service during the course of the Work. Additional forms may be obtained from the City upon request.

5-1.3 Entry by Utility Owners

The right is reserved to the owners of public Utilities or franchises to enter the Project site for the purpose of making repairs or changes in their property that may be necessary as a result of the Work as well as any other reason authorized by the City. When the Contract Documents provide for the Utility owners to alter, relocate or reconstruct a Utility, or when the Contract Documents are silent in this regard and it is determined by the Engineer that the Utility owners must alter, relocate or reconstruct a Utility, the Contractor shall schedule and allow adequate time for those alterations, relocations or reconstructions by the respective Utility owners. City employees and agents shall likewise have the right to enter upon the Project site at any time and for any reason or no reason at all.

5-2 PROTECTION

If Contractor damages or breaks the Utilities, it will be the Contractor's responsibility to repair the Utility at no cost to the utility company or the City. If not fixed in a timely manner as deemed by the City Engineer, the utility company has the right to complete the repairs and assess the Contractor for all applicable costs.

Add the following paragraphs at the end of Subsection 5-2:

At least two Working Days prior to commencing work within the area, the Contractor shall request the utility owners to identify or otherwise indicate the location of their subsurface facilities. It shall be the Contractor's responsibility to determine the location and depth of all utilities including service connections which have been marked by the representative owners and which he believes may affect or be affected by the work. Full compensation for the ascertainment of utility locations and depths shall be considered included in the prices bid for the other items of work.

All utilities shall be notified by the Contractor in advance, according to their respective advance notice requirements, prior to excavating adjacent to, altering, or in any way modifying their facilities. The Contractor, at his expense, shall maintain in service all existing utilities. Should interruption of such utilities become necessary, the property owners and residents affected shall be notified 48 hours before the interruption.

The Contractor shall protect, support, or perform any other work necessary in order to maintain the operation of utilities in the proximity of the work area. The Contractor shall inform the Engineer in writing of all utilities omitted from or shown incorrectly on the contract plans. The Contractor shall not be entitled to damages or additional payment for delays attributable to utility relocations or alterations not shown or incorrectly delineated on the contract plans. The Contractor shall conduct his operations so as to permit access to the work site by any affected utility necessary for the relocation or modification to the utility system at no cost to the City.

Any interference by the Contractor with City-owned facilities such as, but not limited to, sewer, water, or storm drain that, in the opinion of the Engineer, creates a safety or health hazard and is not quickly repaired, the damaged facilities may be repaired by City forces and all costs of repairs will be deducted from contract payments.

5-3 REMOVAL

Facilities encountered during the prosecution of the Work that are determined to be abandoned shall be removed by the Contractor as required for the Work, unless directed otherwise by the

Engineer. The remaining portion of the existing Utility which is left in place shall be accurately recorded, in elevation and plan, on the control set of Contract drawings.

5-4 RELOCATION

The Contractor shall cooperate fully with all Utility forces of the City or forces of other public or private agencies engaged in the relocation, altering, or otherwise rearranging of any facilities that interfere with the progress of the Work. The Contractor shall schedule the Work so as to minimize interference with the relocation, altering, or other rearranging of facilities.

5-6 COOPERATION

The Contractor's attention is directed to the fact that Work may be conducted at or adjacent to the site by other contractors during the performance of the Work under the Contract. The Contractor shall conduct its operations so as to cause a minimum of interference with the work of such other contractors, and shall cooperate fully with such contractors to provide continued safe access to their respective portions of the site, as required to perform work under their respective contracts. Compensation for compliance shall be included in the various items of the Work, and no additional compensation shall be allowed therefor.

5-7 NOTIFICATION

The Contractor shall notify the Engineer and the owners of all Utilities and substructures not less than 48 hours before starting construction. The following list of names and telephone numbers is intended for the convenience of the Contractor and is not guaranteed to be complete or accurate:

Agency: _____
Phone Number: _____
Contact Person: _____

Agency: _____
Phone Number: _____
Contact Person: _____

Agency: _____
Phone Number: _____
Contact Person: _____

SECTION 6. PROSECUTION, PROGRESS AND ACCEPTANCE OF THE WORK

The provisions below shall supplement but not replace those provisions in Section 6 of the Standard Specifications.

6-1 CONSTRUCTION SCHEDULE AND COMMENCEMENT OF THE WORK

6-1.1 Construction Schedule

In addition to the construction schedule required pursuant to Section 6-1.1 of the Standard Specifications after notification of the Contract award and before any start of the Project, as well as the revised construction schedule in advance of beginning revised operations, the Contractor

shall submit an updated construction schedule with its monthly invoice every month. Progress payments shall be contingent upon the receipt of monthly updated construction schedules.

One week before the scheduled pre-construction meeting, the Contractor must submit a construction schedule to the Engineer for review and approval. The Contractor shall make revisions as required by the Engineer. The schedule must account for all subcontract work, as well as the work of the Contractor, submittals, coordination with the other contractors performing concurrent work and the Traffic Control Plan. The Contractor shall update this Construction Schedule when directed by the Engineer, or when:

a. A Change Order significantly affects the Contract completion date or the sequence of construction approach or activities; or

b. The actual sequence of the Work, or the planned sequence of the Work, is changed and does not conform to the Contractor's current accepted Project construction schedule.

6-1.1.1 Pre-Construction Conference

Approximately five Days before the commencement of Work at the site, a pre-construction conference will be held at the City and shall be attended by the Contractor's Project manager, its on-site field superintendent, and any Subcontractors that the Contractor deems appropriate. Attendance by the Contractor and any Subcontractors designated is mandatory.

Contractor shall submit its 24-hour emergency telephone numbers to the Engineer for approval a minimum of two Working Days before the pre-construction conference. Unless previously submitted to the Engineer, the Contractor shall bring to the pre-construction conference copies of each of the following:

- 1) Construction Schedule.
- 2) Procurement schedule of major equipment and materials and items requiring long lead time.
- 3) Shop drawing/sample submittal schedule.
- 4) Preliminary schedule of values (lump sum price breakdown) for progress payment purposes.
- 5) Written designation of the on-site field superintendent and the Project manager. Both daytime and emergency telephone numbers shall be included in the written designation.

The purpose of the conference is to designate responsible personnel and establish a working relationship. The parties will discuss matters requiring coordination and establish procedures for handling such matters. The complete agenda will be furnished to the Contractor before the meeting date. The Contractor shall be prepared to discuss all of the items listed below.

- 1) The Contractor's construction schedule.
- 2) Notification of local residents before starting any Work and keeping them informed throughout the Project.
- 3) Procedures for transmittal, review, and distribution of the Contractor's submittals.
- 4) Processing applications for payment.
- 5) Maintaining record documents.
- 6) Critical Work sequencing.

- 7) Maintaining sewage service during construction, including proposed by-passes.
- 8) NPDES requirements, if any.
- 9) Field decisions and Change Orders.
- 10) Use of Project site, office and storage areas, security, housekeeping, and the City's needs.
- 11) Major equipment deliveries and priorities.
- 12) Traffic control.
- 13) Any other item that the City representative states is relevant to the meeting.

6-1.1.2 Weekly Progress Meetings

Progress meetings will be held each week during the course of the Project. The meeting location, day of the week and time of day will be mutually agreed to by the City and the Contractor. The Contractor shall provide a two-week "look ahead" schedule for each meeting. The construction manager will preside at these meetings and will prepare the meeting agenda, meeting minutes and will distribute minutes to all persons in attendance. As the Work progresses, if it is determined by agreement of the attendees, that weekly meetings are not necessary, the weekly progress meetings may be changed to bi-weekly progress meetings.

Add the following to section 6-2:

6-2.1 Excess Cost of City Personnel and Inspection Personnel

For any overtime or emergency work beyond a regular eight-hour day and for any work performed on Saturday, Sunday, or holidays, the charges for City personnel, including inspection, required on the job site shall be the responsibility of the Contractor and all costs therefor shall be deducted from the payments due the Contractor. The cost of City personnel shall be computed pursuant to adopted City salary schedules, overtime policies, fringe benefits, and overhead costs.

6-3.1 General

Add the following paragraph following paragraph one:

In the event a suspension of work is ordered because of failure on the part of the Contractor to carry out orders given or to perform any provisions of the Work, such suspension of work shall not relieve the Contractor of its responsibility to complete the work within the time limit set forth herein and shall not be considered cause for extension of the time for completion, and further, such suspension of work shall not entitle the Contractor to any additional compensation.

6-5 *TERMINATION OF THE CONTRACT FOR CONVENIENCE*

In addition to the reasons for termination listed in Section 6-5 of the Standard Specifications, which allow termination upon any written notice, the City may cancel the Contract for any other reason or for no reason upon 30 Days' written notice. The rest of the procedure outlined in Section 6-5 shall apply to such situation, including the Contractor's required immediate notification of Subcontractors and suppliers and the payment. In no event (including termination for impossibility or impracticability, due to conditions or events beyond the control of the City, for any other reason

or for no reason) shall the total amount of money to Contractor exceed the amount which would have been paid to the Contractor for the full performance of the services described in the Contract.

Furthermore, some of the City's projects are funded in whole or in part by funds other than the City's General Fund. If this Project is funded by such external funds in whole or in part, or if those external funds are terminated or reduced at any time and for any reason or for no reason at all, and the City determines at its discretion that no other funding is available for continuation of this Project, the City will not be obligated to continue funding for the services contained in these Contract Documents and may terminate the Project immediately. The City shall reimburse the Contractor for its work satisfactorily completed until the termination date. In no event shall the total amount of money to the Contractor exceed the amount which the City has received in funding from its external source. The Special Provisions may include further details in this regard.

6-6 DELAYS AND EXTENSIONS OF TIME

Unless otherwise agreed in writing, an adjustment to the Contract time by reason of a Change Order shall be agreed to at the time the Change Order is issued and accepted by the Contractor. If the Change Order does not reserve the right of the parties, or either of them, to seek an adjustment to the Contract time, then the parties forever relinquish and waive such right and there shall be no further adjustments to the Contract time.

6-6.1 Extensions of Time

In the event it is deemed appropriate by the City to extend the time for completion of the Work, any such extension shall not release any guarantee for the Work required by the Contract Documents, nor shall any such extension of time relieve or release the Sureties on the Bonds executed. In executing such Bonds, the Sureties shall be deemed to have expressly agreed to any such extensions of time. The amount of time allowed by an extension of time shall be limited to the period of the delay giving rise to the same as determined by the City. Notwithstanding any dispute which may arise in connection with a claim for adjustment of the Contract time, the Contractor shall promptly proceed with the Work.

6-6.2 Payment for Delays

Notwithstanding any other terms and conditions of the Contract Documents, the City shall have no obligation whatsoever to increase the Contract Price or extend the time for delays.

Unless compensation and/or mark up is agreed upon by the City, the Contractor agrees that no payment of compensation of any kind shall be made to the Contractor for damages or increased overhead costs caused by any delays in the progress of the Contract, whether such delays are avoidable or unavoidable or caused by any act or omission of the City or its agents. Any accepted delay claim shall be fully compensated for by an extension of time to complete the performance of the Work.

This Section shall not apply to compensable delays caused solely by the City. If a compensable delay is caused solely by the City, the Contractor shall be entitled to a Change Order that: (1) extends the time for completion of the Contract by the amount of delay caused by the City; and (2) provides equitable adjustment, as determined by the City, to the Contractor.

Add the following as section 6-7.2:

6-7.2 Working Day

The term "Working Day" shall mean any calendar day except Saturdays, Sundays, and the following holidays:

New Year's Day.....	January 1
Martin Luther King, Jr. Day	3rd Monday in January
Presidents' Day	3rd Monday in February
Memorial Day	Last Monday in May
Independence Day	July 4
Labor Day	1st Monday in September
Columbus Day	2nd Monday in October
Veterans' Day	November 11
Thanksgiving	4th Thursday in November
Friday after Thanksgiving	4th Friday in November
Christmas Day	December 25

If a holiday falls upon a Sunday, the following Monday shall be the day the holiday is observed, and if a holiday falls upon a Saturday, the preceding Friday shall be the day the holiday is observed.

6-7.3 Contract Time Accounting

Add the following at the end of Subsection 6-7.3:

The Contract Time for completion of the Work, including corrective items of Work, shall be in accordance with Section 4 of the Contract. Contract Time extensions, when granted by the Engineer, will be in Working Days and in accordance with the Contract Documents, and will be set forth in writing via Change Order.

Add the following as section 6-7.3.1:

6-7.3.1 Hours of Work

The Contractor shall not conduct any operations or perform any Work pertaining to the Project as defined herein, between the hours of 4:30 p.m. and 7:30 a.m. on any day nor on Saturday, Sunday, or holidays at any time except as approved by the Engineer. In the event that the Contractor abuses the hours of work requirement, a written warning will follow. After each additional warning, a \$200.00 penalty will be deducted from the Contract amount. All operations or Work pertaining to the Project, shall be in conformance with Manhattan Beach Municipal Code

Section 9.44.030 "Construction Hours and Prohibited Days."

6-8 COMPLETION, ACCEPTANCE AND WARRANTY

The Contractor shall complete all Work under the Contract within the stipulated Working Days from the Notice to Proceed, as stated in the Contract. The Contractor shall not be allowed to begin any construction activity at the site before the issuance of the Notice to Proceed. Between the period of the Notice of Award and Notice to Proceed, the Contractor shall process Shop Drawings and begin procuring equipment and materials.

6-8.2 Acceptance

The Project will not be considered complete and ready for City Council direction to staff regarding recordation of the Notice of Completion until all Work required by the Contract Documents has been fully completed in compliance with the Contract Documents and all Applicable Laws including, but not limited to, correction or completion of all punch list items, the Work site is cleaned up in accordance with Section 7-8 of the Standard Specifications, the General Provisions, and the Special Provisions, and all of the following items have been received by the Engineer:

1. A form of Notice of Completion, with all information required by the California Civil Code;
2. All written guarantees, warranties, and special warranties if applicable;
3. All "as-builts" and record drawings;
4. Duly completed and executed forms of Unconditional Waiver and Release Upon Final Payment and Declaration to Procure Final Payment from the Contractor, Subcontractors of any tier, suppliers, and other person eligible to file stop notices in connection with the Work, covering the final payment period; and
5. Duplicate copies of all operating instructions and manufacturer's operating catalogs and data, together with such field instructions as necessary to fully instruct City personnel in correct operation and maintenance procedures for all equipment installed listed under the electrical, air conditioning, heating, ventilating and other trades. This data and instructions shall be furnished for all equipment requiring periodic adjustments, maintenance or other operation procedures.

The Contractor shall allow at least seven Working Days notice for final inspection. Such notice shall be submitted to the Engineer in writing.

6-8.3 Warranty

For the purposes of the calculation of the start of the warranty period, the Work shall be deemed to be completed upon the date of recordation of the Notice of Completion. If that direction is contingent on the completion of any items remaining on a punchlist, the Work shall be deemed to be completed upon the date of the Engineer's acceptance of the final item(s) on that punchlist.

The Contractor shall repair or replace defective materials and workmanship as required in Section 6-8.3 of the Standard Specification at its own expense. Additionally, the Contractor agrees to defend, indemnify and hold the City harmless from claims of any kind arising from damage, injury or death due to such defects.

The parties agree that no certificate given shall be conclusive evidence of the faithful performance of the Contract, either in whole or in part, and that no payment shall be construed to be in acceptance of any defective Work or improper materials. Further, the certificate or final payment shall not terminate the Contractor's obligations under the warranty herein. The Contractor agrees that payment of the amount due under the Contract and the adjustments and payments due for any Work done in accordance with any alterations of the same, shall release the City, the City Council and its officers and employees from any and all claims or liability on account of Work performed under the Contract or any alteration thereof.

6-9 LIQUIDATED DAMAGES

For the purposes of the calculation of the start of the liquidated damages, the Work shall be deemed to be completed when the same has been completed in accordance with the Plans and Specifications therefor and to the satisfaction of the Engineer, and the Engineer has certified such completion in accordance with Section 6-8.1 of the Standard Specifications. The liquidated damages value is hereby amended to be \$1,000 per day.

SECTION 7. RESPONSIBILITIES OF THE CONTRACTOR

The first paragraph of Section 7-3.1 of the Standard Specifications shall not be incorporated and shall instead be replaced with the following:

The Contractor shall provide and maintain insurance naming the City, its elected and appointed officials, officers, employees, attorneys, agents, designated volunteers, and independent contractors in the role of City officials as insureds or additional insureds regardless of any inconsistent statement in the policy or any subsequent endorsement whether liability is attributable to the Contractor or the City. The insurance provisions shall not be construed to limit the Contractor's indemnity obligations contained in the Contract. The City will not be liable for any accident, loss, or damage to the Work before completion, except as otherwise specified in Section 6-10.

The first sentence of Section 7-8.4.2 shall not be incorporated, and shall instead be replaced with the following:

Construction materials and equipment shall not be stored in Streets, roads, or highways unless otherwise specified in the Special Provisions or approved by the Engineer.

The first sentence of the second paragraph of Section 7-9 of the Standard Specifications shall not be incorporated, and shall instead be replaced with the following:

The Contractor shall relocate, repair, replace, or reestablish all existing improvements within the Project limits which are not designated for removal (e.g., curbs, sidewalks, driveways, signal loops, fences, walls, sprinkler systems, signs, Utility installations, pavements, structures, etc.) which are damaged or removed as a result of the Contractor's or the Subcontractors' operations or as required by the Plans and Specifications.

The last paragraph of Subsection 7-9 of the Standard Specifications shall not be incorporated, and shall instead be replaced with the following:

All costs to the Contractor for protecting, removing, restoring, relocating, repairing, replacing, or reestablishing existing improvements shall be included in the Bid.

Section 7-12 of the Standard Specifications shall not be incorporated, and shall instead be replaced with the following:

The names, addresses and specialties of the Contractor, Subcontractors, architects or engineers may not be displayed on any signage within the public right-of-way. This signage prohibition includes advertising banners hung from truck beds or other equipment.

Otherwise, the provisions below shall supplement but not replace those provisions in Section 7 of the Standard Specifications.

7-1 THE CONTRACTOR'S EQUIPMENT AND FACILITIES

The use of excessively loud equipment and warning signals shall be avoided, except in those cases required for the protection of personnel.

7-2 LABOR

7-2.2.1 Public Work

The Contractor acknowledges that the Project is a "public work" as defined in Labor Code Section 1720 *et seq.* ("Chapter 1"), and that this Project is subject to (a) Chapter 1, including without limitation Labor Code Section 1771 and (b) the rules and regulations established by the Director of Industrial Relations ("DIR") implementing such statutes. The Contractor shall perform all Work on the Project as a public work. The Contractor shall comply with and be bound by all the terms, rules and regulations described in (a) and (b) as though set forth in full herein.

7-2.2.2 Copies of Wage Rates

Pursuant to Labor Code Section 1773.2, copies of the prevailing rate of per diem wages for each craft, classification, or type of worker needed to perform the Project are on file at City Hall and will be made available to any interested party on request. By initiating any Work on this Project, the Contractor acknowledges receipt of a copy of the DIR determination of such prevailing rate of per diem wages, and the Contractor shall post such rates at each job site covered by these Contract Documents.

7-2.2.3 Failure to Pay Prevailing Rates

The Contractor shall comply with and be bound by the provisions of Labor Code Sections 1774 and 1775 concerning the payment of prevailing rates of wages to workers and the penalties for failure to pay prevailing wages. The Contractor shall, as a penalty paid to the City, forfeit \$200.00 for each calendar day, or portion thereof, for each worker paid less than the prevailing rates as determined by the DIR for the work or craft in which the worker is employed for any public work done pursuant to these Contract Documents by the Contractor or by any Subcontractor.

7-2.2.4 Apprentices

The Contractor shall comply with and be bound by the provisions of Labor Code Sections 1777.5, 1777.6 and 1777.7 and California Code of Regulations Title 8, Section 200 *et seq.* concerning the employment of apprentices on public works projects. The Contractor shall be responsible for compliance with these Sections for all apprenticeable occupations. Before commencing Work on this Project, the Contractor shall provide the City with a copy of the information submitted to any applicable apprenticeship program. Within 60 Days after concluding Work, Contractor and each of its Subcontractors shall submit to the City a verified statement of the journeyman and apprentice hours performed under this Contract.

7-2.2.5 Debarment or Suspension

The Contractor shall not perform Work with any Subcontractor that has been debarred or suspended pursuant to California Labor Code Section 1777.1 or any other federal or State law providing for the debarment of contractors from public works. The Contractor and Subcontractors shall not be debarred or suspended throughout the duration of the Contract pursuant to Labor Code Section 1777.1 or any other federal or State law providing for the debarment of contractors from public works. If the Contractor or any Subcontractor becomes debarred or suspended during the duration of the Project, the Contractor shall immediately notify the City.

7-2.3 Payroll Records

The Contractor shall comply with and be bound by the provisions of Labor Code Section 1776, which requires the Contractor and each Subcontractor to (1) keep accurate payroll records and verify such records in writing under penalty of perjury, as specified in Section 1776, (2) certify and make such payroll records available for inspection as provided by Section 1776, and (3) inform the City of the location of the records. The Contractor has ten days in which to comply subsequent to receipt of a written notice requesting these records, or as a penalty to the City, the Contractor shall forfeit \$100.00 for each Day, or portion thereof, for each worker, until strict compliance is effectuated. Upon the request of the Division of Labor Standards Enforcement, these penalties shall be withheld from progress payments then due.

7-2.4 Hours of Labor

The Contractor acknowledges that eight hours labor constitutes a legal day's work. The Contractor shall comply with and be bound by Labor Code Section 1810. The Contractor shall comply with and be bound by the provisions of Labor Code Section 1813 concerning penalties for workers who work excess hours. The Contractor shall, as a penalty paid to the City, forfeit \$25.00 for each worker employed in the performance of this Project by the Contractor or by any Subcontractor for each calendar day during which such worker is required or permitted to work more than eight hours in any one calendar day and 40 hours in any one calendar week in violation of the provisions of Division 2, Part 7, Chapter 1, Article 3 of the Labor Code. Pursuant to Labor Code Section 1815, work performed by employees of the Contractor in excess of eight hours per day, and 40 hours during any one week shall be permitted upon public work upon compensation for all hours worked in excess of eight hours per day at not less than one and one-half times the basic rate of pay.

7-2.5 Registration with the DIR

In accordance with Labor Code Sections 1725.5 and 1771.1, no contractor or Subcontractor shall be qualified to bid on, be listed in a bid proposal, subject to the requirements of Section 4104 of the Public Contract Code, or engage in the performance of any contract for public work, unless currently registered and qualified to perform public work pursuant to Section 1725.5.

7-2.6 Compliance Monitoring and Posting Job Sites

This Project is subject to compliance monitoring and enforcement by the DIR. The Contractor shall post job site notices, as prescribed by regulation.

7-2.7 Subcontractors

For every Subcontractor who will perform Work on the Project, the Contractor shall be responsible for such Subcontractor's compliance with Chapter 1 and Labor Code Sections 1860 and 3700, and the Contractor shall include in the written Contract between it and each Subcontractor a copy of the provisions in this Section 7-2 of the General Provisions and a requirement that each Subcontractor shall comply with those provisions. The Contractor shall be required to take all actions necessary to enforce such contractual provisions and ensure Subcontractor's compliance, including without limitation, conducting a periodic review of the certified payroll records of the Subcontractor and upon becoming aware of the failure of the Subcontractor to pay its workers the specified prevailing rate of wages. The Contractor shall diligently take corrective action to halt or rectify any failure.

7-2.9 Prevailing Wage Indemnity

To the maximum extent permitted by law, the Contractor shall indemnify, hold harmless and defend (at the Contractor's expense with counsel reasonably acceptable to the City) the City, its officials, officers, employees, agents and independent contractors serving in the role of City officials, and volunteers from and against any demand or claim for damages, compensation, fines, penalties or other amounts arising out of or incidental to any acts or omissions listed in Section 7-2 of the General Provisions by any Person (including the Contractor, its Subcontractors, and each of their officials, officers, employees and agents) in connection with any Work undertaken or in connection with the Contract Documents, including without limitation the payment of all consequential damages, attorneys' fees, and other related costs and expenses. All duties of the Contractor under this Section 7-2.9 shall survive expiration or termination of the Contract.

7-3 *INSURANCE*

The Contractor shall at all times during the term of the Contract carry, maintain, and keep in full force and effect the insurance referenced in Section 7-3 of the Standard Specifications, as modified below.

7-3.1.1 Acceptability of Insurers.

The insurance policies required under this Section 7-3 shall be issued by an insurer admitted to write insurance in the State of California with a rating of A:VII or better in the latest edition of the A.M. Best Insurance Rating Guide. Self insurance shall not be considered to comply with the insurance requirements under this Section 7-3.

7-3.1.2 Additional Insured.

The City, its elected and appointed officials, officers, employees, attorneys, agents, designated volunteers, and independent contractors in the role of City officials, shall be the insured or named as additional insureds covering the Work, regardless of any inconsistent statement in the policy or any subsequent endorsement, whether liability is attributable to the Contractor or the City. The commercial general and automobile liability policies shall contain an endorsement naming City, its officers, employees, agents and volunteers as additional insureds.

7-3.1.3 Primary and Non-Contributing.

The insurance policies required under this Section 7-3 shall apply on a primary non-contributing basis in relation to any other insurance or self-insurance available to the City. Any insurance or self-insurance maintained by the City, its officers, employees, agents or volunteers, shall be in excess of the Contractor's insurance and shall not contribute with it.

7-3.1.4 Contractor's Waiver of Subrogation.

The insurance policies required under this Section 7-3 shall not prohibit the Contractor and the Contractor's employees, agents or Subcontractors from waiving the right of subrogation prior to a loss. The Contractor hereby waives all rights of subrogation against the City.

7-3.1.5 Deductibles and Self-Insured Retentions.

Any deductibles or self-insured retentions must be declared to and approved by the City. At the City's option, the Contractor shall either reduce or eliminate the deductibles or self-insured retentions with respect to the City, or the Contractor shall procure a bond guaranteeing payment of losses and expenses.

7-3.1.6 Cancellations or Modifications to Coverage.

The Contractor shall not cancel, reduce or otherwise modify the insurance policies required by this Section 7-3 during the term of the Contract. The commercial general and automobile liability policies required under the Contract shall be endorsed to state that should the issuing insurer cancel the policy before the expiration date, the issuing insurer will endeavor to mail 30 days' prior written notice to the City. If any insurance policy required under this Section 7-3 is canceled or reduced in coverage or limits, the Contractor shall, within two business days of notice from the insurer, phone, fax or notify the City via certified mail, return receipt requested, of the cancellation of or changes to the policy.

7-3.1.7 City Remedy for Noncompliance.

If the Contractor does not maintain the policies of insurance required under this Section 7-3 in full force and effect during the term of the Contract, or in the event any of the Contractor's policies do not comply with the requirements under this Section 7-3, the City may either immediately terminate the Contract or, if insurance is available at a reasonable cost, the City may, but has no duty to, take out the necessary insurance and pay, at the Contractor's expense, the premium thereon. The Contractor shall promptly reimburse the City for any premium paid by the City or the City may withhold amounts sufficient to pay the premiums from payments due to the Contractor.

7-3.1.8 Evidence of Insurance.

At least two Working Days prior to the performance of Services under the Contract, the Contractor shall furnish the City's Risk Manager with a certificate or certificates of insurance and all original endorsements (both of which must reference the same Policy number), evidencing and effecting the coverages required under this Section 7-3. The endorsements are subject to approval by the City's Risk Manager. The Contractor may provide complete, certified copies of all required insurance policies to the City. The Contractor shall provide proof to the City's Risk Manager that insurance policies expiring during the term of the Contract have been renewed or replaced with other policies providing at least the same coverage. The Contractor shall furnish such proof at least two weeks prior to the expiration of the coverages.

The endorsements are to be signed by a person authorized by that insurer to bind coverage on its behalf. The endorsements must specifically name the City of Manhattan Beach and its elected and appointed officials, officers, employees, attorneys, agents, designated volunteers, and independent contractors in the role of City officials as insureds or additional insureds. The Contractor shall maintain current insurance certificates and endorsements on file with the City's Risk Manager at all times during the term of this Contract. The City reserves the right to require complete, certified copies of all required insurance policies at any time.

7-3.1.9 Indemnity Requirements not Limiting.

Procurement of insurance by the Contractor shall not be construed as a limitation of Contractor's liability or as full performance of the Contractor's duty to indemnify the City under Section 7-4 of the Contract.

7-3.1.10 Subcontractor Insurance Requirements.

The Contractor shall require each of its Subcontractors that perform Services under the Contract to maintain insurance coverage that meets all of the requirements of this Section 7-3.

7-3.1.11 Replacement Insurance

The Contractor agrees that it will not cancel, reduce or otherwise modify the insurance coverage. The Contractor agrees that if it does not keep the required insurance in full force and effect, and such insurance is available at a reasonable cost, the City may take out the necessary insurance and pay the premium thereon, and the repayment thereof shall be deemed an obligation of the Contractor and the cost of such insurance may be deducted, at the option of the City, from payments due the Contractor. This shall be in addition to all other legal options available to the City to enforce the insurance requirements.

7-3.1.12 Subcontractors

The Contractor shall ensure all Subcontractors and their employees are listed as additional insureds on all of the Contractor's insurance.

7-3.2 General Liability Insurance

Instead of the minimum limits listed in Section 7-3.2 of the Standard Specifications, the Contractor shall procure and at all times during the term of the Contract carry, maintain, and keep in full force and effect Commercial General Liability Insurance with a minimum limit of \$2,000,000.00 per

occurrence for bodily injury, personal injury and property damage and a general aggregate limit of \$2,000,000.00 per project or location. If the Contractor is a limited liability company, the commercial general liability coverage shall be amended so that the Contractor and its managers, affiliates, employees, agents and other persons necessary or incidental to its operation are insureds.

7-3.3 Workers' Compensation Insurance

Workers' Compensation Insurance as required by the State of California and Employer's Liability Insurance with a minimum limit of \$1,000,000.00 per accident for bodily injury or disease. If the Contractor has no employees while performing the Work under the Contract, a Workers' Compensation policy is not required, but the Contractor shall execute a declaration that it has no employees.

7-3.4 Automobile Insurance

Instead of the minimum limits listed in Section 7-3.4 of the Standard Specifications, the Contractor shall procure and at all times during the term of the Contract carry, maintain, and keep in full force and effect Automobile Liability Insurance for any owned, non-owned or hired vehicle used in connection with the performance of the Contract with a combined single limit of \$2,000,000.00 per accident for bodily injury and property damage. If the Contractor does not use any owned, non-owned or hired vehicles in the performance of the Work under this Contract, the Contractor shall obtain a non-owned auto endorsement to the Commercial General Liability policy required by Subsection 7-3.2.

7-4 INDEMNIFICATION

The following indemnity provisions shall supersede the indemnity in Section 7-3.1 of the Standard Specifications.

7-4.1 Indemnities for Third Party Claims.

To the fullest extent permitted by law, the Contractor shall, at its sole cost and expense, defend, hold harmless and indemnify the City and its elected officials, officers, attorneys, agents, employees, designated volunteers, successors, assigns and those City agents serving as independent contractors in the role of City officials (collectively "Indemnitees"), from and against any and all damages, costs, expenses, liabilities, claims, demands, causes of action, proceedings, expenses, judgments, penalties, liens, and losses of any nature whatsoever, including fees of accountants, attorneys, or other professionals and all costs associated therewith and the payment of all consequential damages (collectively "Liabilities"), in law or equity, whether actual, alleged or threatened, which arise out of, are claimed to arise out of, pertain to, or relate to the acts or omissions of the Contractor, its officers, agents, servants, employees, Subcontractors, materialmen, contractors or their officers, agents, servants or employees (or any entity or individual that the Contractor shall bear the legal liability thereof) in the performance of the Contract, including the Indemnitees' active or passive negligence, except for Liabilities arising from the sole negligence or willful misconduct of the Indemnitees, as determined by final arbitration or court decision or by the agreement of the Parties. The Contractor shall defend the Indemnitees in any action or actions filed in connection with any Liabilities with counsel of the Indemnitees' choice, and shall pay all costs and expenses, including all attorneys' fees and experts' costs actually incurred in connection with such defense. The Contractor shall reimburse

the Indemnitees for any and all legal expenses and costs incurred by Indemnitees in connection therewith.

7-4.1.1 Taxes and Workers' Compensation

The Contractor shall pay all required taxes on amounts paid to the Contractor under the Contract, and indemnify and hold the City harmless from any and all taxes, assessments, penalties, and interest asserted against the City by reason of the independent contractor relationship created by the Contract. The Contractor shall fully comply with the Workers' Compensation law regarding the Contractor and the Contractor's employees. The Contractor shall indemnify and hold the City harmless from any failure of the Contractor to comply with applicable Workers' Compensation laws. The City may offset against the amount of any fees due to the Contractor under the Contract any amount due to the City from the Contractor as a result of the Contractor's failure to promptly pay to the City any reimbursement or indemnification arising under this Subsection 7-4.1.1.

7-4.1.2 Subcontractor Indemnity Agreements

The Contractor shall obtain executed indemnity agreements with provisions identical to those in this Section 7-4 from each and every Subcontractor or any other person or entity involved by, for, with or on behalf of the Contractor in the performance of the Contract. If the Contractor fails to obtain such indemnity obligations, the Contractor shall be fully responsible and indemnify, hold harmless and defend the Indemnitees from and against any and all Liabilities at law or in equity, whether actual, alleged or threatened, which arise out of, are claimed to arise out of, pertain to, or relate to the acts or omissions of the Contractor's Subcontractor, its officers, agents, servants, employees, Subcontractors, materialmen, contractors or their officers, agents, servants or employees (or any entity or individual that the Contractor's Subcontractor shall bear the legal liability thereof) in the performance of the Contract, including the Indemnitees' active or passive negligence, except for Liabilities arising from the sole negligence or willful misconduct of the Indemnitees, as determined by final arbitration or court decision or by the agreement of the Parties.

7-4.2 Workers' Compensation Acts not Limiting.

The Contractor's indemnifications and obligations under this Section 7-4, or any other provision of the Contract, shall not be limited by the provisions of any Workers' Compensation act or similar act. The Contractor expressly waives its statutory immunity under such statutes or laws as to the City, its officers, agents, employees and volunteers.

7-4.3 Insurance Requirements not Limiting.

The City does not, and shall not, waive any rights that it may possess against the Contractor because of the acceptance by the City, or the deposit with the City, of any insurance policy or certificate required pursuant to the Contract. The indemnities in this Section 7-4 shall apply regardless of whether or not any insurance policies are determined to be applicable to the Liabilities, tax, assessment, penalty or interest asserted against the City.

7-4.4 Survival of Terms.

The Contractor's indemnifications and obligations under this Section 7-4 shall survive the expiration or termination of the Contract.

7-4.5 Civil Code Exception.

Nothing in this Section 7-4 shall be construed to encompass Indemnitees' sole negligence or willful misconduct to the limited extent that the underlying Contract is subject to Civil Code Section 2782(a) or the City's active negligence to the limited extent that the underlying Contract Documents are subject to Civil Code Section 2782(b), provided such sole negligence, willful misconduct or active negligence is determined by agreement between the parties or by the findings of a court of competent jurisdiction.

7-4.6 Nonwaiver of Rights.

Indemnitees do not and shall not waive any rights that they may possess against the Contractor because the acceptance by the City, or the deposit with the City, of any insurance policy or certificate required pursuant to these Contract Documents. This indemnity provision is effective regardless of any prior, concurrent, or subsequent active or passive negligence by Indemnitees and shall operate to fully indemnify Indemnitees against any such negligence.

7-4.7 Waiver of Right of Subrogation.

The Contractor, on behalf of itself and all parties claiming under or through it, hereby waives all rights of subrogation and contribution against the Indemnitees, while acting within the scope of their duties, from all Claims arising out of or incident to the activities or operations performed by or on behalf of the Contractor regardless of any prior, concurrent or subsequent active or passive negligence by Indemnitees.

7-5 *PERMITS*

Before starting any construction work, the Contractor will be required to obtain all necessary permits from the City, which may include obtaining a no fee encroachment permit for Work within the public right-of-way, as well as all other permits required from all other agencies. Should this Project require construction of trenches or excavations which are five feet or deeper and into which a person is required to descend, the Contractor shall obtain a Cal/OSHA permit and furnish the City with a copy before Work can commence on this Project. The Contractor shall bear all cost for fees for all agencies except for the City's permit fees.

The Contractor shall procure all permits and licenses (including a City of Manhattan Beach business license), pay all charges and fees, and give all notices necessary and incidental to the due and lawful prosecution of the work. All City of Manhattan Beach permits required for the performance of the Contract shall be issued on a "no fee" basis. Permits required by other agencies shall be obtained by the City for all work within the City of Manhattan Beach.

7-7 *COOPERATION AND COLLATERAL WORK*

The Contractor shall be responsible for coordinating all Work with the City's street sweeping, trash pick-up, and street maintenance contractors, emergency services departments, utility companies' crews, and others when necessary. Payment for conforming to these requirements shall be included in other items of Work, and no additional payment shall be made thereof.

7-8 WORKSITE MAINTENANCE

Clean-up shall be done as Work progresses at the end of each day and thoroughly before weekends. The Contractor shall not allow the Work site to become littered with trash and waste material, but shall maintain the same in a neat and orderly condition throughout the construction operation. Materials which need to be disposed shall not be stored at the Project site, but shall be removed by the end of each Working Day. If the job site is not cleaned to the satisfaction of the Engineer, the cleaning will be done or contracted by the City and shall be back-charged to the Contractor and deducted from the Contract Price.

The Contractor shall make arrangements for storing its equipment and materials. The Contractor shall make its own arrangements for any necessary off-site storage or shop areas necessary for the proper execution of the Work. Approved areas within Work site may be used for temporary storage; however, the Contractor shall be responsible for obtaining any necessary permits from the City. In any case, the Contractor's equipment and personal vehicles of the Contractor's employees shall not be parked on the traveled way or on any section where traffic is restricted at any time.

The Contractor shall deliver, handle, and store products in accordance with the manufacturer's written recommendations and by methods and means that will prevent damage, deterioration, and loss including theft. Delivery schedules shall be controlled to minimize long-term storage of products at the Project site and overcrowding of construction spaces. In particular, the Contractor shall provide delivery and installation coordination to ensure minimum holding or storage times for products recognized to be flammable, hazardous, easily damaged, or sensitive to deterioration, theft, and other sources of loss.

Storage shall be arranged to provide access for inspection. The Contractor shall periodically inspect to ensure products are undamaged and are maintained under required conditions.

The Contractor shall promptly remove from the vicinity of the completed Work, all rubbish, debris, unused materials, concrete forms, construction equipment, and temporary structures and facilities used during construction. Final acceptance of the Work by the City will be withheld until the Contractor has satisfactorily complied with the foregoing requirements for final clean-up of the Project site.

All costs associated with the clean-up and storage required to complete the Project shall be the sole responsibility of the Contractor.

Pursuant to the provisions of Section 7-8 and Section 7-10 of the Standard Specifications and these General Provisions, the Contractor is responsible for Project site maintenance and for public convenience and safety. Payment for compliance with these provisions is considered as included in the prices bid for other contract items.

The City, however, to maintain good public relations, may deem it necessary to require special Project site maintenance and public convenience and safety actions and work to be performed by the Contractor that are over and above those required by the provisions of Section 7-8 and Section 7-10 of the Standard Specifications and these General Provisions.

These actions and work shall be as directed by the Engineer in writing and payment for compliance therewith shall be on a cost plus basis for extra work per Section 3-3 of the Standard

Specifications and applied against the not-to-exceed bid item for "Special Project Site Maintenance and Public Convenience and Safety."

7-10 SAFETY

The provisions below shall supplement but not replace those provisions in Subsection 7-10 of the Standard Specifications.

7-10.2 Haul Routes

Subsection 7-10.3 of the Standard Specifications shall be deleted and replaced as follows:

The Contractor must obtain the Engineer's approval before using any haul routes. Further detail requirements for haul traffic are delineated in the Special Provisions.

7-10.5.3 Steel Plate Covers

The Contractor shall cover all openings, trenches and excavations at the end of each Work Day with steel plate covers.

7-15 RECYCLING OF MATERIALS

Subsection 7-15 is hereby added to the Standard Specifications as follows:

7-15.1 Recycling of Asphalt Concrete, Portland Cement Concrete, Aggregate Base, and Green Waste are Required

The records of disposal, including scale tonnages, shall be furnished to the City on a monthly basis. Failure to comply with the requirements of this Section will result in delay of progress payment.

7-15.2 Contractor's Obligation

The City is committed to a recycling program. If available, it is the obligation of the Contractor, under the Contract, to recycle the waste material through an approved recycling plant. Records and reports of waste recycle will be submitted to the City on a regular monthly basis.

SECTION 8. FACILITIES FOR AGENCY PERSONNEL

The provisions of Section 8 of the Standard Specifications shall apply except as modified herein. No field offices for City personnel shall be required; however, City personnel shall have the right to enter upon the Project at all times and shall be admitted to the offices of the Contractor to use the telephone, desk and sanitary facilities provided by the Contractor for its own personnel.

SECTION 9. MEASUREMENT AND PAYMENT

The provisions below shall supplement but not replace those provisions in Section 9 of the Standard Specifications.

9-1.1 General

Add the following at the end of Subsection 9-1.1:

All items of Work which are not designated on the Bid Schedule by the letters "F" or "LS" or words "Final" or "Lump Sum" shall have final pay quantities measured and paid for in accordance with the Standard Specifications and these General Provisions.

9-1.2 Methods of Measurement

The Contract Price shall constitute full compensation for all labor, equipment, materials, tools and incidentals required to complete the Project as outlined in these Contract Documents and as directed by the Engineer.

9-2 LUMP SUM WORK

Delete the first sentence of Subsection 9-2 and substitute the following:

Items of Work which are designated by the letters "LS" or the words "Lump Sum" in the Estimated Quantities column of the Bid Schedule shall be paid for at the price indicated in the Bid, unless the dimensions of the Work, as shown on the Plans, are revised by the Engineer. If such dimensions are revised and such revisions result in an increase or decrease in the quantity of such Work, the final payment for the lump sum item will be revised in proportion to the change in dimensions authorized by Change Order.

Add the following at the end of Subsection 9-2:

The Contractor shall submit a Work item breakdown of the Bid, described in the second paragraph of Subsection 9-2, "Lump Sum Work," of the Standard Specifications, within ten Working Days after award of the Contract and/or at any other time as required by the Engineer.

No guarantee is made regarding the amount of Work required to complete a lump sum item of Work.

9-2.1 Progress Payments for Lump Sum Items of Work

The word "Complete" in the Estimated Quantities column of the Bid Schedule for a lump sum item of Work shall mean that payment for that item will only be made after all Work for that item has been completed. The "%" symbol in the Estimated Quantities column of the Bid Schedule for a lump sum item of Work shall mean that progress payments for that item will be allowed based on the percentage of completion as determined by the Engineer in each pay period, typically every 30 days. (See Subsection 9-3.2 of the Standard Specifications and these General Provisions.)

9-3 PAYMENT

9-3.1 General

In accordance with Public Contract Code Section 7107, if no claims have been filed and are still pending, the amount deducted from the final estimate and retained by the City will be paid to the

Contractor except such amounts as are required by law to be withheld by properly executed and filed notices to stop payment, or as may be withheld for any other lawful purposes.

Whenever the Contractor is required to perform work or furnish equipment, labor, tools, and materials of any class for which no price is fixed in the proposal, it shall be understood that such work, equipment, labor, tools, and materials shall be provided without extra charge, allowance, or direct payment of any kind. The cost of performing such work or furnishing such equipment, labor, tools, and materials shall be included in the unit bid prices in the proposal most closely related to the work and no additional compensation will be made thereof.

If any portion of the work done or materials furnished under the Contract shall prove defective or not in accordance with the Specifications and Contract drawings, and if the imperfection in the same is not of sufficient magnitude or importance to make the work dangerous or undesirable, the Engineer shall have the right and authority to retain the work instead of requiring it to be removed and reconstructed, but he shall make such deductions therefor in the payment due the Contractor as may be just and reasonable.

Delete the tenth paragraph of Subsection 9-3.1 and substitute the following:

Not later than 60 days from the date of Final Acceptance, the five percent deducted and retained from each progress estimate (see Subsection 9-3.2 of the Standard Specifications and these General Provisions) by the City will be paid to the Contractor except such amounts as are required by law to be withheld by properly executed and filed notices to stop payment, or as may be authorized by the Contract to be further retained.

9-3.2 Partial and Final Payment

9-3.2.1 Monthly Closure Date and Invoice Date

In accordance with these Specifications, the monthly payment date is hereby set as the second Wednesday following the first Tuesday of each month. If the above date falls on a holiday, the payment date shall be the first subsequent working day.

The Contractor shall prepare and submit the form attached herewith (see Appendix I), or its own form in an identical format, to the Engineer for all requests for progress payments for the work performed in accordance with the provisions of the Contract during the preceding month. The progress payment request shall be submitted no later than 13 Working Days prior to the monthly payment dates established above. Late submittals shall be held for consideration by the City Council at the next regularly scheduled meeting.

9-3.2.2 Payments

The City shall make payments within 30 Days after receipt of the Contractor's undisputed and properly submitted payment request, including an updated construction schedule pursuant to Section 6-1.1 of the General Provisions. The City shall return to the Contractor any payment request determined not to be a proper payment request as soon as practicable, but not later than seven Days after receipt, and shall explain in writing the reasons why the payment request is not proper. Acceptance by the Contractor of the payment made in accordance with the final estimate shall be a release to the City, its officers, agents, and employees excepting only claims against the City for any amount withheld by it at the time of such payment.

9-3.2.3 Retention

The City shall withhold not less than five percent from each progress payment. The City shall withhold not less than five percent of the Contract Price from the Final Payment Amount (defined in Section 9-3.2.4) until at least 35 days after recordation of the Notice of Completion, or recordation of a notice of cessation, but not longer than the period permitted by Public Contract Code Section 7107.

In addition to retained percentage and liquidated damages, the City may withhold payments to the Contractor including for defective work not remedied and other valid claims against the Contractor.

9-3.2.4 Final Invoice and Payment

Whenever the Contractor shall have completely performed the Contract in the opinion of the Engineer, the Contractor shall submit to the Engineer a written statement of the final quantities of Contract items for inclusion in the final invoice. Upon receipt of such statement, the Engineer shall check the quantities included therein and shall authorize a payment amount, which in the Engineer's opinion shall be just and fair, covering the value of the total amount of Work done by the Contractor, less all previous payments and all amounts to be retained under the provisions of the Contract Documents ("Final Payment Amount"). The Engineer shall then request that the City accept the Work and that the City Clerk be authorized to file, on behalf of the City in the office of the County Recorder, a Notice of Completion of the Work herein agreed to be done by the Contractor. In addition, the final payment will not be released until the Contractor returns the control set of Plans and Specifications showing the redlined as-built conditions.

9-3.2.5 Substitute Security

In accordance with Public Contract Code Section 22300, the Contractor may request that it be permitted to substitute securities in lieu of having retention withheld by the City from progress payments when such payments become due or, in the alternative, the Contractor may request that the City make payments of earned retentions directly to an agreed upon designated escrow agent at the Contractor's expense. If the Contractor selects either one of these alternatives, the following shall control.

9-3.2.5.1 Substitution of Securities for Performance Retention

At some reasonable time before any progress payment would otherwise be due and payable to the Contractor in the performance of Work under these Contract Documents, the Contractor may submit a request to the City in writing to permit the substitution of retentions with securities equivalent to the amount estimated by the City ("estimated amount of retention") to be withheld. The Contractor shall deposit such securities with the City or may, in the alternative, deposit such securities in escrow with a State or federally chartered bank in California, as the escrow agent, at the Contractor's expense. Such securities will be the equivalent or greater in value of the estimated amount of retention. If the Contract is modified by written Modifications or Change Orders or the Contractor otherwise becomes entitled to receive an amount more than the Contract Price at the time the securities are deposited, the Contractor shall, at the request of the City, deposit with the City or escrow agent, whichever is applicable, additional securities within a reasonable time so that the amount of securities on deposit with the City or escrow agent is equivalent or greater in value than the amount of retention the City would otherwise be entitled to withhold from progress payments due or to become due to the Contractor as the Work progresses.

The City shall withhold any retention amount that exceeds the security amount until the additional securities are deposited and, if the deposit is with an escrow agent, the City has confirmation from that escrow agent of the new total value of securities. Upon satisfactory completion of the Contract, which shall mean, among other things, that the City is not otherwise entitled to retain proceeds from progress payments as elsewhere provided in the Contract or under applicable law, the securities shall be returned to the Contractor. The City shall, within its sole discretion, determine whether the amount of the securities on deposit with the City or escrow agent is equal to or greater than the amount of estimated retention of progress payments that could otherwise be held by the City if the Contractor had not elected to substitute same with securities.

9-3.2.5.2 Deposit of Retention Proceeds with an Escrow Agent

As an alternative to the substitution of securities, as provided above, or the City otherwise retaining and holding retention proceeds from progress payments, the Contractor may request the City to make payments of retentions earned directly to an escrow agent with the same qualifications as required in Section 9-3.2.5.1 above and at the expense of the Contractor. At its sole expense, the Contractor may direct the investment of such retention payments into only such securities as mentioned in Section 9-3.2.5.3 below and shall be entitled to interest earned on such investments on the same terms provided for securities deposited by the Contractor. Upon satisfactory completion of the Contract, which shall mean when the City would not otherwise be entitled to withhold retention proceeds from progress payments had the Contractor not elected to have such proceeds deposited into escrow, the Contractor shall be allowed to receive from the escrow agent all securities, interest and payments deposited into escrow pursuant to the terms of this Section. The Contractor shall pay to each Subcontractor, not later than ten Days of receipt of payment, the respective amount of interest earned, net of costs attributed to retention withheld from each Subcontractor, on the amount withheld to ensure performance of the Contractor.

9-3.2.5.3 Subcontractor Entitlement to Interest

If the Contractor elects to receive interest on any moneys withheld in retention by the City, then the Subcontractor shall receive the identical rate of interest received by the Contractor on any retention moneys withheld from the Subcontractor by the Contractor, less any actual pro rata costs associated with administering and calculating that interest. In the event that the interest rate is a fluctuating rate, the rate for the Subcontractor shall be determined by calculating the interest rate paid during the time that retentions were withheld from the Subcontractor. If the Contractor elects to substitute securities in lieu of retention, then, by mutual consent of the Contractor and the Subcontractor, the Subcontractor may substitute securities in exchange for the release of moneys held in retention by the Contractor. The Contractor shall pay each Subcontractor, not later than ten Days after receipt of escrow moneys, the amount owed to each Subcontractor from the moneys plus the respective amount of interest earned, net of costs attributed to the retention held from each Subcontractor, on the amount of retention withheld to ensure performance of the Subcontractor.

9-3.2.5.4 Securities Eligible for Investment

Securities eligible for investment shall include those listed in Government Code Section 16430, bank or savings and loan certificates of deposit, interest-bearing demand deposit accounts, standby letters of credit, or any other security mutually agreed upon between the Contractor and the City. The Contractor shall be the beneficial owner of any securities substituted for any monies withheld and shall receive any interest thereon.

9-3.2.5.5 Escrow Agreement for Security Deposits in Lieu of Retention

The escrow agreement that shall be used for the deposit of securities in lieu of retention shall substantially conform to the form prescribed in Public Contract Code Section 22300(f).

9-3.2.5.6 Inconsistencies with Prevailing Statutory Requirements

If there is any inconsistency between or differences in Public Contract Code Section 22300 and the terms of this provision, or any future amendments thereto, Section 22300 shall control.

9-4 AUDIT

The City or its representative shall have the option of inspecting and/or auditing all records and other written materials used by the Contractor in preparing its billings to the City as a condition precedent to any payment to the Contractor or in response to a construction claim or a Public Records Act (Government Code Section 6250 *et seq.*) request. The Contractor will promptly furnish documents requested by the City at no cost. Additionally, the Contractor shall be subject to State Auditor examination and audit at the request of the City or as part of any audit of the City, for a period of three and one-half years after Final Acceptance under the Contract. The Contractor shall include a copy of this Section 9-4 in all contracts with its Subcontractors, and the Contractor shall be responsible for immediately obtaining those records or other written material from its Subcontractors upon a request by the State Auditor or the City. If the Project includes other auditing requirements, those additional requirements will be listed in the Special Provisions.

SECTION 10. CONSTRUCTION AND DEMOLITION WASTE MANAGEMENT PLAN

10.1 GENERAL

To ensure that solid waste generated in the City is reduced, reused or recycled, the Contractor shall submit a "Waste Management Plan" (WMP) to the Engineer for review and approval, using the form found at the end of this Section 10. After the WMP has been reviewed by the Engineer, it will be returned to the Contractor in one of the following four status conditions:

- "Approved"
- "Further Explanation Required": The Engineer will return the WMP to the Contractor with questions about the WMP. The Contractor shall resubmit plan with each of the City's questions answered thoroughly.
- "Denied": The Engineer will indicate the reasons for denial. The Contractor shall then re-submit a new WMP that complies with the requirements of this Section or request an Infeasibility Exemption.
- "Infeasibility Exemption Approved"

The Contractor shall follow the WMP and document results during demolition and construction. Final documentation shall be submitted at the end of the project to the Engineer for review of compliance with the original WMP. The amount deducted from the final estimate and retained by the City in accordance with Section 9.3.1 and 9.3.2 shall be withheld until final WMP is submitted to the City and approved by the City.

10-2 DEFINITIONS

- a) “Construction” means the building of any facility or structure or any portion thereof including any tenant improvements to an existing facility or structure.
- b) “Construction and Demolition Debris” means used or discarded materials removed from premises during construction of the Project.
- c) “Conversion Rate” means the rate set forth in the standardized Conversion Rate Table approved by the City Council pursuant to this Section for use in estimating the volume or weight of materials identified in a Construction and Demolition Waste Reduction and Recycling Plan.
- d) “Divert” means to use material for any purpose other than disposal in a landfill. Diversion credit is given for source reduction (waste reduction), recycling, and composting.
- e) “Diversion Requirement” means the diversion of at least 50% of the total Construction and Demolition Debris generated by a Project via reduction (source reduction), reuse or recycling, unless the Contractor has been granted an Infeasibility Exemption, in which case the Diversion Requirement shall be the maximum feasible diversion rate established by the Engineer.
- f) “Recycling” means the process of collecting, sorting, cleansing, treating, and reconstituting materials that would otherwise become solid waste, and returning them to the economic mainstream in the form of raw material for new, reused, or reconstituted products which meet the quality standards necessary to be used in the marketplace.
- g) “Renovation” means any change, addition, or modification in an existing structure.
- h) “Reuse” means further or repeated use of Construction or Demolition Debris. An example is the reuse of crushed concrete as road base or as aggregate on the construction site.
- i) “Salvage” means the controlled removal of Construction or Demolition Debris from project for the purpose of recycling, reuse, or storage for later recycling or reuse.
- j) “Construction and Demolition Waste Management Plan” means a completed form, approved by the Engineer for the purpose of compliance with this Section, submitted by the Contractor/Contractor for any Covered or Noncovered Project that indicates the estimated diversion that the Contractor/Contractor anticipates in diverting from disposal.
- k) “Construction and Demolition Waste Management Report” means a completed form, approved by the Engineer for the purpose of compliance with this Section, submitted by the Contractor for any Project that documents the disposal and diversion tonnages and destinations.

10-3 INFEASIBILITY EXEMPTION

- a) Application. If the Contractor experiences unique circumstances that the Contractor believes make it infeasible to comply with the Diversion Requirement, the Contractor shall apply for an exemption at the time that it submits the WMP. The Contractor shall indicate on the WMP the maximum rate of diversion the Contractor believes is feasible for each material and the

specific circumstances that the Contractor believes make it infeasible to comply with the Diversion Requirement.

b) The Engineer shall review the information supplied by the Contractor and may meet with the Contractor to discuss possible ways of meeting the Diversion Requirement. Based on the information supplied by the Contractor, the Engineer shall determine whether it is possible for the Contractor to meet the Diversion Requirement.

c) If the Engineer determines that it is infeasible for the Contractor to meet the Diversion Requirement due to unique circumstances, the Engineer shall determine the maximum feasible diversion rate for each material and shall indicate this rate on the WMP submitted by the Contractor. The Engineer shall return a copy of the WMP to the Contractor marked "Infeasibility Exemption Approved."

d) Denial of Exemption. If the Engineer determines that it is possible for the Contractor to meet the Diversion Requirement, the Engineer shall so inform the Contractor in writing. The Contractor will have 15 days to resubmit a new WMP. If the Contractor fails to resubmit a new WMP, or if the resubmitted WMP does not comply with the requirements of the plan, the Engineer shall deny the WMP.

10-4 DIVERSION PROGRAM

The methodology used to calculate diversion is based on the Title 14, California Code of Regulations, Article 6.1 Solid Waste Generation Study, Section 18722 et seq, and is consistent with California Integrated Waste Management Board measurement protocols. The following equation defines the "Generation-Based Diversion Quantification Methodology":

$$\begin{aligned} \text{Generation} &= \text{Disposal} + \text{Diversion} \\ \text{Diversion Rate (\%)} &= \frac{\text{Diversion Tons}}{\text{Generation Tons}} \end{aligned}$$

10-5 ADDITIONAL INFORMATION

Other materials to assist the Contractor in completing the WMP can be found on the City's website at www.citymb.info.

- Construction and Demolition Debris Recycling Guide
- Construction and Demolition Recycling Brochure

The California Integrated Waste Management Board has also developed Technical Assistance Literature regarding construction and demolition waste reduction and recycling, which is available on-line at <http://www.ciwmb.ca.gov/ConDemo/>.

CITY OF MANHATTAN BEACH
Construction & Demolition Waste Management Plan

The Contractor shall list all materials that will be reused, recycled or disposed from the Project.

The required goal is to reuse or recycle at least 50% of project waste.

Use **tons** to quantify total estimated waste and percentages of materials (see conversion table below). Ask your hauler, recycler or site cleanup vendor to assist you with the WMP.

A COPY OF THIS WMP AND RECEIPTS OF ALL RECYCLING AND DISPOSAL SHALL BE SUBMITTED BEFORE FINAL PAYMENT WILL BE MADE BY THE CITY.

Project Name: _____

Location: _____

Type of Project: Street Improvement Water Main Sewer Main
 Storm Drain Other

Total Bid Price: \$ _____

Requesting Infeasibility Exemption: Yes No

Contractor Name: _____ **Contract Name:** _____

Address: _____ **Contact Phone:** _____

Recycler: _____ **Recycler Contact:** _____

Recycler Address: _____ **Recycler Contact Phone:** _____

CITY USE ONLY	
Application (Date)	Final (Date)
Approved	_____
Further explanation needed (see attached)	_____
Denied	_____
Infeasibility Exemption Approved	_____
Reviewed By	_____

Submit this form and the attached Waste Management Plan Table to:

**Engineering Division
 City of Manhattan Beach
 3621 Bell Avenue
 Manhattan Beach, CA 90266**

CITY OF MANHATTAN BEACH

Construction & Demolition Waste Management Plan Table

Project Name: _____

Total Estimated Waste Generated by Project: _____ (in Tons).
 (Ask your hauler, recycler or site cleanup vendor to assist you. Use receipts from your previous jobs for estimates.)

Complete and return with Building Permit Application			Complete and return with receipts prior to final building approval		
Material Type	Estimated Reused/ Recycled	Estimated Disposed/ Landfilled	Actual Reused/ Recycled	Actual Disposed/ Landfilled	Vendor or Facility Used (Destination)
Asphalt & Concrete					
Bricks/Masonry/Tiles					
Building Materials (doors, windows, fixtures, etc.)					
Cardboard					
Concrete Pavement and Grindings					
Drywall (new, unpainted)					
Asphalt Pavement Grindings					
Landscape Debris (Plant & Tree Trimmings)					
Scrap Metal					
Unpainted Wood & Pallets					
Other (painted wood & drywall, roofing, etc.)					
Mixed C&D*					
Trash/Garbage					
TOTAL					

If you are requesting an infeasibility exemption and the estimated amount reused/recycled is less than 50%, please explain why (attach additional sheets if necessary):

If the actual amount reused/recycled is less than 50%, please explain why:

Prepared by (please print): _____ Date: _____

Contractor Signature: _____ Phone Number: _____

*Mixed C&D is defined as a mixture of three or more materials (e.g., wood, drywall, roofing, etc.) from construction or demolition sites that will be taken to a "qualified" facility for recycling. (See C&D Debris Recycling Guide.)

Conversion Rates

The following conversion rates are estimates. The ranges vary widely, depending on how the materials are handled (compacted, loose, chipped, etc.). Use the conversion factors and receipts from any previous projects to help you estimate that potential amount of materials and diversion. Take into consideration the type and load of vehicles that will be used to haul the materials. Ask your hauler or recycler to assist you in estimated these numbers.

Material	Lbs/cy	Tons/cy
Asphalt	1,400 lbs/cy	0.7 tons/cy
Brick	2,430 lbs/cy	1.21 tons/cy
Cardboard	100 lbs/cy	0.05 tons/cy
Concrete	2,600 lbs/cy (Sources range from 1,000 to 4,000)	1.3 tons/cy
Dirt/Soils	2,660 lbs/cy	1.33 tons/cy
Drywall	700 lbs/cy	0.35 tons/cy
Wood (chipped)	300 – 650 lbs/cy	0.15 – 0.3 tons/cy
Mixed C&D Debris	900 lbs/cy	0.45 tons/cy
Mixed Waste/Trash	100 – 350 lbs/cy	0.5 – 0.175 tons/cy

SECTION 11. ADDITIONAL TERMS

11-1 NONDISCRIMINATORY EMPLOYMENT

The Contractor shall not unlawfully discriminate against any individual based on race, religious creed, color, national origin, ancestry, physical disability, mental disability, medical condition, genetic information, marital status, sex, gender, gender identity, gender expression, age, sexual orientation or military and veteran status. The Contractor understands and agrees that it is bound by and will comply with the nondiscrimination mandates of all statutes and local ordinances and regulations.

11-2 NOTICE TO PROCEED

Upon award of the Contract and signing the Contract Documents, the City shall issue the Contractor a Notice to Proceed. The City will not authorize any Work to be done under these Contract Documents before the Contract has been fully executed. Any Work that is done by the Contractor in advance of such time shall be considered as being done at the Contractor's own risk and responsibility, and as a consequence will be subject to rejection.

11-3 CONTRACTOR'S RESPONSIBILITY FOR WORK

Until the final acceptance of the Work by the City as defined in Section 6-8.2 of the General Provisions, by written action of the Engineer, the Contractor shall have the charge and care thereof and shall bear the risk of injury or damage to any part of the Work by the action of the elements, criminal acts, or any other cause. The Contractor shall rebuild, repair, restore and make good all injuries or damages to any portion of the Work occasioned by any cause before its completion and acceptance and shall bear the expense thereof, except for such injuries or damages arising from the sole negligence or willful misconduct of the City, its officers, agents or employees. In the case of suspension of Work from any cause whatever, the Contractor shall be responsible for all materials and the protection of Work already completed, shall properly store and protect them if necessary, and shall provide suitable drainage and erect temporary structures where necessary.

11-4 PROCEDURE IN CASE OF DAMAGE TO PUBLIC PROPERTY

Any portions of curb, gutter, sidewalk or any other City improvement damaged by the Contractor during the course of construction shall be replaced by the Contractor at its own cost. The cost of additional replacement of curb, gutter or sidewalk in excess of the estimated quantities shown in the Bid form and Specifications, and found necessary during the process of construction (but not due to damage resulting from carelessness on the part of the Contractor during its operation), shall be paid to the Contractor at the unit prices submitted in its Bid.

11-5 REMOVAL OF INTERFERING OBSTRUCTIONS

The Contractor shall remove and dispose of all debris, abandoned structures, tree roots and obstructions of any character encountered during the process of excavation. It is understood that the cost of any such removals are made a part of the unit price bid by the Contractor under the item for excavation or removal of existing Work.

11-6 SOILS ENGINEERING AND TESTING

A certified materials testing firm may be retained by the City to perform materials tests during the Contractor's entire operation to ascertain compliance with the Contract requirements. The City shall be responsible for the first series of tests. If the initial tests do not meet the Contract requirements, the Contractor shall bear the cost of all subsequent tests.

If the City requires other tests or more specific requirements for testing regarding this Project, those details will be included in the Special Provisions.

11-7 ACCESS TO PRIVATE PROPERTY

Unless otherwise stated in the Special Provisions, the Contractor shall be responsible for all fees and costs associated with securing permission to access private property for any portion of the Project.

11-8 WORKING DAYS AND HOURS

The Contractor shall do all Work between the hours of 7:30 a.m. to 4:30 p.m., Monday through Friday. No Work will be allowed on Saturday, Sunday or City holidays listed on the City's website unless specifically mentioned in the Contract Documents or authorized by the City Engineer.

In addition, no Work will be allowed on any special election Day that may be declared. Should a special election Day be declared, a time extension of one Working Day will be granted for each such Day.

A permit may have other hours or Days for the Contractor to do the Work, and those hours and Days shall supersede any hours and Days written in this Section.

Whenever the Contractor is permitted or directed to perform night Work or to vary the period during which Work is performed during the Working Day, the Contractor shall give 24 hours' notice to the Engineer so that inspection may be provided. Also, a charge may be made to the Contractor for approved overtime or weekend inspections requested by the Contractor.

11-9 CLAIM DISPUTE RESOLUTION

In the event of any dispute or controversy with the City over any matter whatsoever, the Contractor shall not cause any delay or cessation in or of Work, but shall proceed with the performance of the Work in dispute. The Contractor shall retain any and all rights provided that pertain to the resolution of disputes and protests between the parties. The Disputed Work will be categorized as an "unresolved dispute" and payment, if any, shall be as later determined by mutual agreement or a court of law. The Contractor shall keep accurate, detailed records of all Disputed Work, claims and other disputed matters.

All claims arising out of or related to the Contract Documents or the Project, and the consideration and payment of such claims, are subject to the Government Claims Act (Government Code Section 810 *et seq.*) with regard to filing claims. All such claims are also subject to Public Contract Code Section 9204 and Public Contract Code Section 20104 *et seq.* (Article 1.5), where applicable. The Contract hereby incorporates those provisions as though fully set forth herein. Thus, the Contractor or any Subcontractor must file a claim in accordance with the Government Claims Act as a prerequisite to filing a construction claim in compliance with Section 9204 and

Article 1.5 (if applicable), and must then adhere to Article 1.5 and Section 9204, as applicable, pursuant to the definition of “claim” as individually defined therein.

11-10 THIRD PARTY CLAIMS

The City shall have full authority to compromise or otherwise settle any claim relating to the Project at any time. The City shall timely notify the Contractor of the receipt of any third-party claim relating to the Project. The City shall be entitled to recover its reasonable costs incurred in providing this notice.

11-11 COMPLIANCE WITH LAWS

The Contractor shall comply with all applicable federal, State and local laws, ordinances, codes and regulations in force at the time the Contractor performs pursuant to the Contract Documents.

11-12 CONTRACTOR’S REPRESENTATIONS

By signing the Contract, the Contractor represents, covenants, agrees, and declares under penalty of perjury under the laws of the State of California that: (a) the Contractor is licensed, qualified, and capable of furnishing the labor, materials, and expertise necessary to perform the services in accordance with the terms and conditions set forth in the Contract Documents; (b) there are no obligations, commitments, or impediments of any kind that will limit or prevent its full performance under the Contract Documents; (c) there is no litigation pending against the Contractor that could adversely affect its performance of the Contract, and the Contractor is not the subject of any criminal investigation or proceeding; and (d) to the Contractor’s actual knowledge, neither the Contractor nor its personnel have been convicted of a felony.

11-13 CONFLICTS OF INTEREST

The Contractor agrees not to accept any employment or representation during the term of the Contract or within 12 months after acceptance as defined in Section 6-8.2 of the General Provisions that is or may likely make the Contractor “financially interested,” as provided in Government Code Sections 1090 and 87100, in any decisions made by the City on any matter in connection with which the Contractor has been retained pursuant to the Contract Documents.

11-14 APPLICABLE LAW

The validity, interpretation, and performance of these Contract Documents shall be controlled by and construed under the laws of the State of California, excluding California’s choice of law rules. Venue for any such action relating to the Contract shall be in the Los Angeles County Superior Court.

11-15 TIME

Time is of the essence in these Contract Documents.

11-16 INDEPENDENT CONTRACTOR

The Contractor and Subcontractors shall at all times remain, as to the City, wholly independent contractors. Neither the City nor any of its officials, officers, employees or agents shall have control over the conduct of the Contractor, Subcontractors, or any of their officers, employees, or

agents, except as herein set forth, and the Contractor and Subcontractors are free to dispose of all portions of their time and activities that they are not obligated to devote to the City in such a manner and to such Persons that the Contractor or Subcontractors wish except as expressly provided in these Contract Documents. The Contractor and Subcontractors shall have no power to incur any debt, obligation, or liability on behalf of the City, bind the City in any manner, or otherwise act on behalf of the City as agents. The Contractor and Subcontractors shall not, at any time or in any manner, represent that they or any of their agents, servants or employees, are in any manner agents, servants or employees of the City. The Contractor and Subcontractors agree to pay all required taxes on amounts paid to them under the Contract, and to indemnify and hold the City harmless from any and all taxes, assessments, penalties, and interest asserted against the City by reason of the independent contractor relationship created by the Contract Documents. The Contractor shall include this provision in all contracts with all Subcontractors.

11-17 CONSTRUCTION

In the event of any asserted ambiguity in, or dispute regarding the interpretation of any matter herein, the interpretation of these Contract Documents shall not be resolved by any rules of interpretation providing for interpretation against the party who causes the uncertainty to exist or against the party who drafted the Contract Documents or who drafted that portion of the Contract Documents.

11-18 NON-WAIVER OF TERMS, RIGHTS AND REMEDIES

Waiver by either party of any one or more of the conditions of performance under these Contract Documents shall not be a waiver of any other condition of performance under these Contract Documents. In no event shall the making by the City of any payment to the Contractor constitute or be construed as a waiver by the City of any breach of covenant, or any default that may then exist on the part of the Contractor, and the making of any such payment by the City shall in no way impair or prejudice any right or remedy available to the City with regard to such breach or default.

11-19 TERM

The Contract is effective as of the Effective Date listed, and shall remain in full force and effect until the Contractor has fully rendered the services required by the Contract Documents or the Contract has been otherwise terminated by the City. However, some provisions may survive the term listed within this Section, as stated in those provisions.

11-20 NOTICE

Except as otherwise required by law, any notice or other communication authorized or required by these Contract Documents shall be in writing and shall be deemed received on (a) the day of delivery if delivered by hand or overnight courier service during the City's regular business hours or (b) on the third business day following deposit in the United States mail, postage prepaid, to the addresses listed on the Contractor's Bid and City Hall, or at such other address as one party may notify the other.

11-21 SEVERABILITY

If any term or portion of these Contract Documents is held to be invalid, illegal, or otherwise unenforceable by a court of competent jurisdiction, the remaining provisions of these Contract Documents shall continue in full force and effect.

SPECIAL PROVISIONS

PART I: SPECIAL INSTRUCTIONS

I. CONSTRUCTION SCHEDULE

The Contractor shall coordinate construction activities with the City's refuse company and street sweeping company. Refuse pick-up is performed by Waste Management (310-830-7100) and street sweeping is performed by Athens Services (888-336-6100).

II. STORAGE OF EQUIPMENT AND MATERIALS

Spoils from excavation shall be immediately removed from the project site. Overnight storage of materials removed or equipment shall not be permitted on the traveled roadway surface.

Full compensation for compliance with these requirements shall be considered as included in the appropriate bid items.

III. CONSTRUCTION STAGING AREAS

Contractor shall be responsible securing a construction staging area for this project.

The cost of securing a staging area shall be considered as included in the Contract prices paid for the various items of work involved and no additional compensation will be allowed therefor.

IV. TEMPORARY TRAFFIC CONTROL / NOTIFICATION OF MANHATTAN BEACH MIDDLE SCHOOL

Temporary traffic control and/or the queuing of construction vehicles (including delivery trucks) will be prohibited on North Redondo Avenue for the one (1) hour before the start of the school day and for the one (1) hour before the end of the school day for Manhattan Beach Middle School.

Contractor shall notify the principal of Manhattan Beach Middle School of the start of paving operations at least five (5) working days before paving begins.

PART II: STANDARD AND SPECIAL TECHNICAL PROVISIONS

STANDARD & SPECIAL TECHNICAL PROVISIONS

PROJECT NO. P-911 **MARINE AVENUE IMPROVEMENT PROJECT**

PROJECT SPECIFIC SCOPE OF WORK

The scope of work includes, but is not limited to:

- Reconstruction of PCC curb access ramps to ADA standards at designated locations;
- Cold Mill, Cold-In-Place Recycling (CIPR), and Asphalt Rubber Hot Mix (ARHM) overlay as shown per plan and described herein;
- Reconfiguration of crosswalk and curb ramp access on the south sides of the Peck Avenue and Herrin Avenue intersections;
- Re-establishment of disturbed and impacted traffic striping, traffic signal detector loops, hand-holes, pavement markings, signs, utility covers (manholes, vaults, meters), etc.

Order or Staging of Work

The Contractor shall construct the project in the following four (4) phases for the project streets. One phase must be completed for all streets before subsequent phases can commence:

- Phase 1: All demolition, clearing, grubbing, removals, and other preparations.
- Phase 2: Reconstruction of curb ramps and utility cover adjustments.
- Phase 3: Cold Mill, CIPR, ARHM overlay and other pavement works
- Phase 4: Re-adjustment of utility covers, installation of striping, markers, markings, signage, detector loops and clean- up.

MOBILIZATION

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 offices, buildings, construction yards, sanitary facilities, and any other facilities necessary for work on the project; and for all other work and operations which must be performed or costs incurred prior to beginning work on the various contract items on the project site, as well as the related demobilization costs anticipated at the completion of the project. The cost of all bonds and insurance policies, including premiums and incidentals, shall be included in Mobilization.

No additional compensation will be allowed for additional mobilizations required, including but not limited to, delays caused by the relocation of existing utility facilities shown on the plans or discovered during construction operations.

The amount credited for Mobilization on each monthly progress payment shall be based upon the percentage of the total of the amounts credited for work on all the other contract items for that monthly progress payment, up to a cumulative limit of eighty (80) percent of the contract item price for Mobilization. The remaining twenty (20) percent of the contract item price for Mobilization shall be paid with the final progress payment.

The deletion of work or the addition of extra work as provided for herein shall not affect the price paid for Mobilization.

The contract lump sum price paid for mobilization shall include full compensation for furnishing all labor, materials, tool, equipment, the cost of all bonds and insurance policies, and incidentals, and for doing the work involved in mobilization as specified herein.

SURVEYING

The Contractor is responsible for hiring an independent surveyor to tie-out all monuments before construction work begins and re-establish those monuments after work is done. Work shall include the filing of corner records at the County Surveyor's Office with copies sent to the City.

Full compensation for compliance with the preceding requirements shall be considered as being included in the various Contract items in the bid schedule and no additional compensation will be allowed therefor.

NOTIFICATION OF RESIDENTS AND BUSINESSES

The Contractor shall notify in person and with printed notification, at least ten (10) working days prior to commencing work, to all agencies, businesses, institutions, postal service, residents, hospital, transit agencies, schools, churches, stores, utilities, and waste disposal service fronting or affected by the work. Additional printed notification shall be given not less than forty-eight (48) hours prior to performing any work which will restrict property access, close or partially close the street, or which will restrict or disallow street parking. All schools, churches, hospitals, and businesses shall receive seven (7) working days notification prior to performing any work that will restrict property access.

The Contractor shall coordinate with the school district for pick-up and drop-off of school children, waste disposal collection, the postal service to ensure delivery of mail, and churches for weekly or special activities.

The printed notices shall contain a general description of the work to be done and the date that the work is to be done. The notices shall also include a statement that parking will be restricted as called for on the "NO PARKING" signs to be posted along the street. All public notices must be reviewed and approved by the Engineer prior to its distribution.

The Contractor shall also post printed "NO PARKING-TOW AWAY" signs at one-hundred-foot (100') maximum spacing along each side of the affected streets for forty-eight (48) hours prior to the commencement of the street improvement work. The Contractor shall document the day, date and time the "NO PARKING" signs were posted. Posting of signs on trees and utility poles will not be allowed.

The signs shall contain the day, date, hours and municipal code that parking will be prohibited on that particular street, and shall meet the requirements of City of Manhattan Beach Standard Plan MBSI-NP-1. The signs shall be removed immediately upon completion of work that will prohibit parking.

The printed notices and the "NO PARKING" signs shall be furnished by the Contractor.

Full compensation for compliance with the preceding requirements shall be considered as being included in the various Contract items in the bid schedule and no additional compensation will be allowed therefor.

STORMWATER POLLUTION CONTROL/BEST MANAGEMENT PRACTICES (BMP)

NPDES General Permit, Notice of Intent (NOI) and Notice of Termination (NOT).

Construction activities including clearing, grading and excavating that result in land disturbances of equal to or greater than one acre are covered by the National Pollutant Discharge Elimination System General Construction Permit, State Water Board Order No. 2012-0006-DWQ and any amendments thereto. A copy can be downloaded at:

http://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/wqo12.shtml

Dischargers obtaining coverage will file electronically for coverage under Order No. 2012-0006-DWQ. Order No. 2012-0006-DWQ is a Risk Based permitting approach. The Contractor is required to review the State Water Resources Control Board website and determine this project's risk level.

Order No. 2012-0006-DWQ includes, in Attachment A, requirements for all Linear Underground/Overhead Projects (LUPs) that are covered under the Small LUP General Permit 2003-007-DWQ. LUPs will be broken into project segments designated as LUP Type 1, Type 2, and Type 3. These LUP Types are analogous to the risks levels for traditional construction projects.

This General Construction Permit regulates pollutants in discharges of storm water associated with construction activity. To obtain authorization for proposed storm water discharges, pursuant to this General Construction Permit, the CITY must submit to the Storm Water Multiple Application and Reporting Tracking System (SMARTS) a Notice of Intent (NOI), compliance and monitoring data and Annual Reports, when required, and a Notice of Termination (NOT). The Contractor shall provide to the CITY, at the required time, all required information necessary for the CITY to comply with these requirements.

The Contractor shall provide to the CITY its Storm Water Pollution Prevention Plan (SWPPP) both in hardcopy and pdf format, so the City may submit the SWPPP to the SMARTS online.

Following Construction and the Contractor's installation of any post-construction storm water Best Management Practices BMPs (for CITY approval), the Contractor shall notify the CITY in writing to request for consideration to terminate coverage under the General Construction Permit for a complete project and to submit a NOT via the SMARTS.

Full compensation for preparation, administration and all other work related of the NOI, NOT, required fees, construction, and post construction BMPs, sampling, analysis and reporting as required by Order No. 2012-0006-DWQ and all other related costs shall be considered as included in the bid for STORMWATER CONTROL, BMPs, NPDES COMPLIANCE AND PERMIT.

Best Management Practices (BMPs). Replace Subsection 708.6.2 Best Management Practices (BMPs) of the Standard Specifications with the following:

Best Management Practices shall be defined as any program, technology, process, siting criteria, operating method, measure, or device which controls, prevents, removes, or reduces pollution. The Contractor shall obtain and refer to the California Stormwater Quality Association's: Stormwater Best Management Practice Handbook Portal: Construction. The publication is available from CASQA.

The Contractor shall have a minimum of two (2) readily accessible copies of each publication on the Work site at all times. The Contractor shall implement BMPs in conjunction with the following construction operation and activities:

CONSTRUCTION PRACTICES	Clearing, Grading and Excavating
	Water Conservation Practices
	Dewatering
	Paving Operations
	Structure Construction and Painting
MATERIAL MANAGEMENT	Material Delivery and Storage
	Material Use
	Spill Prevention and Control
WASTE MANAGEMENT	Solid Waste Management
	Hazardous Waste Management
	Contaminated Soil Management
	Concrete Waste Management
	Sanitary/Septic Waste Management
VEHICLE AND EQUIPMENT MANAGEMENT	Vehicle and Equipment Cleaning
	Vehicle and Equipment Fueling
	Vehicle and Equipment Maintenance

The Contractor shall implement the following BMPs in conjunction with the previously listed construction operation activities:

VEGETATIVE STABILIZATION	Scheduling of Planting
	Preservation of Existing Vegetation
	Temporary Seeding and Planting
	Mulching
PHYSICAL STABILIZATION	Geotextiles and Mats
	Soil Stabilizer/Dust Control
	Temporary Stream Crossing
	Stabilized Construction Roadway
	Stabilized Construction Entrance
RUNOFF DIVERSION	Sodding, Grass Plugging, and Vegetative Buffer strips
	Earth Dikes, Drainage Swales, and Lined Ditches
	Top and Toe of Slope Diversion Ditches/Berms
	Slope Drains and Subsurface Drains
VELOCITY REDUCTION	Flared Culvert End Sections
	Outlet Protection/Velocity Dissipation Devices
	Check Dams
	Slope Roughening/Terracing/Rounding

SEDIMENT TRAPPING	Silt Fences
	Straw Bale Barrier
	Sand Bag Barrier
	Brush or Rock Filter
	Storm Drain Inlet Protection
	Sediment Traps
	Sediment Basin

Additional BMPs may be required as a result of a change in actual field conditions, contractor activities, or construction operations. When more than one BMP is listed under each specific BMP category, the Contractor shall select the appropriate and necessary number of BMPs within each category in order to achieve the BMP objective.

BMPs for contractor activities shall be continuously implemented throughout the year. BMPs for erosion control and sedimentation shall be implemented during the period from October 15 to April 15, and whenever the National Weather Service predicts rain within 24 hours. BMPs for erosion control and sedimentation shall also be implemented prior to the commencement of any contractor activity or construction operation that may produce run-off, and whenever run-off from other sources may occur.

The Contractor shall employ or subcontract with a Qualified SWPPP Practitioner (QSP), who must be responsible for the implementation of all elements of the SWPPP, including non-stormwater and stormwater visual observations, sampling and analysis, preparation and timely submittal of periodic inspection reports, Rain Event Action Plans and/or other documentation or actions prescribed by the SWPPP. The Qualifications, certifications and experience of the Contractor's proposed QSP shall be included in the SWPPP submittal.

The CITY, as a permittee, is subject to enforcement actions by the State Water Resources Control Board, the Environmental Protection Agency and private citizens. The CITY may assess the Contractor a penalty of \$1,000 for each calendar day that the Contractor has not fully implemented the appropriate BMPs and/or is otherwise in noncompliance with these provisions. In addition, the CITY will deduct, from the final payment due the Contractor, the total amount of any fines levied on the CITY, plus legal and staff costs, as a result of the Contractor's lack of compliance with these provisions and/or less than complete implementation of the appropriate BMPs.

Full compensation for the implementation of BMPs, including the construction, removal, and the furnishing of all necessary labor, equipment, and materials, shall be considered as included in the price bid for NPDES COMPLIANCE AND PERMIT.

Storm Water Pollution Prevention Plan (SWPPP). Replace Subsection 7-8.6.3 Storm Water Pollution Prevention Plan (SWPPP) of the Standard Specifications with the following:

Construction activities covered by the General Permit require submittal by the Contractor of a Storm Water Pollution Prevention Plan (SWPPP) prior to the start of any clearing, demolition, grading or excavation. A Storm Water Pollution Prevention Plan (SWPPP) shall be defined as a report that includes site map(s), identification of construction and contractor activities that could pollute storm water, and a description of measures and practices to control the potential pollutants. The preparation and implementation of the SWPPP is intended to ensure that the Contractor will make every reasonable effort to prevent the pollution of water resources during the period of construction. The size and nature of this Contract place it under the regulations of

the National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharge Associated with Construction Activity. In the State of California, these regulations are adopted by the State Water Resources Control Board. These regulations require a SWPPP for any work where clearing, grading, and excavation result in a land disturbance of one or more acres. As a result, the Contractor shall prepare, submit to the CITY for review and approval, and implement a SWPPP for this Contract in compliance with these regulations.

The Contractor must employ or subcontract with a Qualified SWPPP Developer (QSP) to prepare and administer the SWPPP, NOI, Annual reports and the NOT. The Qualifications, certifications and experience of the Contractor's QSD shall be included in the SWPPP submittal.

The Contractor must submit the initial SWPPP document (2 hard copies and one pdf copy) to the CITY no later than fifteen (15) working days following the approval by the City Council of the Contract. The City will review the SWPPP within seven (7) calendar days. Should revisions be required, the Contractor shall again submit 2 hard copies and one pdf copy of the revised SWPPP. The City may take up to three (3) working days to re-review each revision. After the City determines the SWPPP is acceptable and has no exceptions, the CONTRACTOR'S QSP will submit (upload) the SWPPP document to the online SMARTS system, and pay the required fees.

The Contractor will notify the City when the NOI has been uploaded and the City's LRP will then certify the SWPPP on the SMARTS system. The Contractor must allow for up to 7 calendar days for issuance of the WDID number, following upload of the document. No work may commence and no Notice to Proceed will be issued prior to the issuance of the WDID number. The Contractor shall consider this in its schedule in accordance with Section 6-1 of these Special Provisions. The SWPPP shall remain on the construction site while site is under construction, during working hours, commencing with the initial construction activity and ending with Notice of Termination.

If, during construction operations, field conditions change in a manner which, in the opinion of the Engineer, significantly deviates from how the SWPPP, as approved by the CITY, addressed the current construction operation, the Engineer may direct the Contractor to revise the current construction operation and/or the SWPPP. Such directions will be made in writing and will specify the items of work for which the SWPPP is inadequate. No further work on these items will be permitted until the Contractor revises the construction operations to the satisfaction of the Engineer and/or until the Contractor submits a revised SWPPP and receives CITY approval. The Engineer will notify the Contractor of the acceptance or rejection of the revised SWPPP within seven (7) working days from the date of submittal.

Following Construction and the Contractor's installation of any post-construction storm water Best Management Practices BMPs (for CITY approval), the Contractor must notify the CITY in writing to request for consideration to terminate coverage under the General Construction Permit for a complete project, and to submit a NOT via the SMARTS. Upon the City's approval, the Contractor shall submit the NOT via the SMARTS and notify the City when ready for certification by the City's LRP.

Full compensation for preparation of the SWPPP, all revisions to the SWPPP, and all other related costs, excluding the WDID permit fee from the State Water Resources Control Board, shall be considered as included in the bid price for STORM WATER POLLUTION CONTROL, BMPs, NPDES Compliance and Permit.

Full compensation for the WDID permit fee (Construction annual fee by acre), pursuant to the above requirements, shall be considered as included in the allowance price for STORM WATER

POLLUTION CONTROL, BMPs, NPDES Compliance and Permit. The amount that will be paid to the Contractor will be the actual permit and inspection fees paid to the State and the cost of postage and/or delivery fee (FED EX; UPS; USPS, etc.) paid to the State with no other mark-up or extra costs, except the Contractor shall be solely responsible for any fee charged to re-inspect rejected or incomplete work. Permit fee amounts can be viewed at: http://www.swrcb.ca.gov/water_issues/programs/stormwater/gen_const_faq.shtml#4

TEMPORARY TRAFFIC CONTROL

Traffic controls, including but not limited to, vehicular and pedestrian traffic controls, maintenance of vehicular and pedestrian access, detours, and street closures shall be in accordance with these Standard and Special Technical Provisions; California Manual on Uniform Traffic Control Devices MUTCD (latest edition at the time of bid); the "Work Area Traffic Control Handbook" (WATCH – latest edition at the time of bid); and Section 7-10 and Part 6 of the Standard Specifications. Nothing in the Standard and Special Technical Provisions shall be construed as relieving the Contractor from his or her responsibility to provide for the safety and convenience of traffic and the public during construction.

The contractor shall pay and obtain required **encroachment permits** from the City of Hawthorne and Caltrans District 7 for placement of traffic control devices outside of the City's jurisdiction, east and west of the project limits respectively, prior to commencing construction work.

In the event of conflict regarding traffic control, the order of precedence shall be as follows:

1. Standard and Special Technical Provisions
2. Temporary Traffic Control Plans (to be prepared by the contractor)
3. California Manual on Uniform Traffic Control Devices
4. Work Area Traffic Control Handbook
5. Standard Specifications for Public Works Construction

Traffic Control shall be in accordance with the following Special Provisions:

- a. All streets shall remain open to through traffic at all times except when street closure is approved by the Engineer. Per subsection 7-10.1, "Safety", of these special provisions, overnight and long terms street closures can only be approved by City Council, which will require a minimum 4 week lead time. The Contractor shall make provisions to allow local traffic access to the closed streets. The local traffic consists of, but is not limited to, residences, church congregations, farmers, post offices, meter readers, trash pickup, school buses, and emergency vehicles. The Contractor shall provide a smooth travel way and either a flagger and/or signing to direct traffic.
- b. The Contractor shall be responsible for the preparation of Traffic Control Plans as necessary for the work. The Traffic Control Plans shall be submitted on 24" X 36" bond paper, signed and stamped by a California Registered Traffic Engineer, and transmitted to the City for approval no later than fourteen (14) calendar days prior to the scheduled commencement of work. Comments and corrections shall be returned to the Contractor within five (5) working days. The Traffic Control Plans shall conform to the requirements listed in these Technical Provisions; California MUTCD; the Work Area Traffic Control Handbook; and the Standard Specifications.

- c. All traffic controls and safety devices, equipment and materials, including but not limited to cones, channelizers, delineators, flashing warning lights, barricades, high level warning devices (telescoping flag trees), flags, signs, markers, portable barriers, temporary railing (Type-K), temporary fencing, flashing arrow signs, changeable message sign, markings, and flagging equipment shall be provided and maintained in "like new" condition.
- d. Consistent with the City's Encroachment Permit, traffic signal actuation shall be maintained at all times. In-pavement loop detectors damaged by construction shall be repaired within 72 hours, or a suitable temporary replacement system shall be provided. Approved alternatives include microwave or video detection systems (wireless allowed). Installation shall be accomplished by the Contractor, subject to the approval of the Engineer prior to the start of construction. After completion of the roadway construction and final paving in place, the inductive loops shall be restored and operable prior to the removal of the temporary detection system, unless otherwise shown on the Plans or required by the Technical Provisions.
- e. The Contractor shall furnish and properly install, construct, erect, use and continuously inspect and maintain, twenty-four (24) hours per day, seven (7) days per week, which includes holidays, all the devices, equipment and materials and all temporary and permanent pedestrian and driving surfaces as necessary to provide for the safety and convenience of, and to properly warn, guide, control, regulate, channelize and protect the vehicular traffic, pedestrian traffic, project workers, and the public throughout the entire limits of the work activity and beyond the limits as necessary to include areas affecting or affected by the work, from the date of Notice to Proceed to the completion and acceptance of the work.
- f. High-level warning devices (telescoping flag trees) are required to be maintained in an upright position at all times for work being performed within the roadway unless otherwise specifically approved by the Engineer.
- g. All barricades shall be equipped with flashing warning lights, and all traffic cones shall be no less than 28 in. in height, except that shorter cones, 12 in. minimum height, may be permitted during striping maintenance operations where the only function of the cone is to protect the wet paint from the traffic.

The entire area of orange and white stripes for barricades shall be Type I, engineering grade, or Type II, super engineering grade, retro-reflective sheeting conforming to the requirements of ASTM Designation: D 4956-95.

- h. Type III barricades, no less than 6 ft. in length and equipped with two (2) Type "N" markers each and two (2) portable flashing beacons each, shall be used to close streets, except as otherwise specifically approved by the Engineer for minor maintenance work of no more than one (1) working day's duration, on weekdays, or on holidays only, and limited to the hours between 8:30 a.m. and 3:30 p.m. The barricades shall be placed across the full roadway at each point of closure with the distance between barricades, or between barricades and curbs, not exceeding 3 ft. except that one (1) 11 ft. wide gap between barricades shall be provided at the center of the street. Barricades to the right of the street's center, facing the inbound vehicular traffic, shall also be equipped with one (1) R11-2, "Road Closed" sign, one (1) R11-4, "Road Closed to Thru Traffic," sign, and a Type P warning sign.

- i. Channelizers shall be surface mounted type and shall be furnished, placed and maintained at the locations shown on the Plans or as approved by the Engineer, and shall conform to the provisions in Subsection 12-3.07, "Channelizers," of the State Standard Specifications and these Standard and Special Technical Provisions.

When no longer required for the work as determined by the Engineer, channelizers (except channelizers to be left in place), and underlying adhesive used to cement the channelizer bases to the pavement, shall be removed. Removed channelizers and adhesive shall become the property of the Contractor and shall be removed from the site of work.

- j. Reflectorized (both sides) temporary self-adhesive markers, 4 in. wide, shall be applied to unstriped pavement surface before opening the travel way to public traffic. Reflectorized temporary yellow markers shall be used for to delineate the centerline to separate opposing traffic. Reflectorized temporary white markers shall be used to delineate lanes of travel and placed in 24 in. intervals transverse to the road to delineate stop bars and limit lines.

The reflectorized temporary markers shall be removed the same day the first coat of striping has been placed on the pavement. The removal of the markers shall be done such a way that the pavement is not damaged.

- k. Except as otherwise approved by the Engineer, two-way vehicular traffic shall be maintained at all times within two (2) 11 ft. wide lanes on streets having an effective roadway width of 44 ft. or more with restricted parking. Other streets of lesser widths may be reduced to one (1) 12 ft. wide lane with work activity being limited to one side at a time, and the one-way vehicular traffic being maintained at all times by properly trained and experienced flaggers. All lane closures shall have flashing arrow signs to provide additional, high level, advanced warning.

No reduction of the traveled way width shall be permitted on any City street before 8:30 a.m. nor after 3:30 p.m., on weekends or holidays, or when active work is not being done, unless otherwise approved by the Engineer.

- l. Properly trained and experienced flaggers shall be provided to direct traffic when the traffic is to be interrupted, when two-way traffic is to be reduced to one-way traffic, and at other such times as is necessary to safely pass traffic through or around the work area and when so directed by the Engineer.

- m. Vehicular access to occupied residential property may be restricted on weekdays, other than holidays, between the hours of 8:30 a.m. and 3:30 p.m. while essential work activity is taking place only upon approval by the Engineer and providing the Contractor gives the property owner or resident at least forty-eight (48) hour advance written and oral notice.

Convenient and safe pedestrian access to schools, churches, occupied residential and business property shall be maintained at all times. Access to mailboxes shall be maintained at all times such that the postal delivery service is not interrupted. Trash pick-up services shall not be interrupted. Access to vacant and unused property may be restricted when approved by the Engineer. Both vehicular and pedestrian access shall be maintained at all times to all other property except as otherwise specifically authorized in writing by the Engineer.

- n. Vehicular access to business, school, and church driveways shall be maintained at all times during construction.
- o. Traffic control and safety devices and equipment being used that becomes damaged, destroyed, faded, graffitied, encrusted, soiled, misplaced, worn out, inoperative, lost, or stolen shall be promptly repaired, refurbished, or replaced. Traffic control and safety devices and equipment that are displaced or not in an upright position from any cause shall be promptly returned or restored to their proper position.
- p. An unobstructed view of all signs and warning devices including, but not limited to, stop signs, stop ahead signs, street name signs, and other regulatory, warning and construction signs, markers, and warning devices shall be maintained at all times. All speed limit signs shall be black on white with signs at either end of the project notifying the motoring public that fines are doubled in construction zones. No trucks or other equipment or materials shall be stopped, parked, or otherwise placed so as to obscure said signs, markers and devices from the view of the vehicular and pedestrian traffic to which it applies. All signs used at night shall be either retroreflective with material that has a smooth, sealed outer surface or illuminated to show the same shape and similar color both day and night. The requirement for sign illumination shall not be considered to be satisfied by street, highway, or strobe lighting. Temporary Traffic Control (TTC) zone signs used at night shall maintain retroreflectivity at or above the minimum levels in MUTCD Table 2A-3 as follows.

Shape	Signs
Octagon	* Stop
Equilateral Triangle (1 point down)	* Yield
Circle	* Highway-Rail Grade Crossing (Advance Warning)
Pennant Shape/ Isosceles Triangle (longer axis horizontal)	* No Passing
Pentagon (pointed up)	* School Advance Warning Sign * County Route Sign
Crossbuck (two rectangles in an "X" configuration)	* Highway-Rail Grade Crossing
Diamond	Warning Series
Rectangle (including square)	Regulatory Series ** Guide Series Warning Series
Trapezoid	Recreational and Cultural Interest Area Series National Forest Route Sign

* This sign shall be exclusively the shape shown

** Guide series includes general service, specific service, recreation, and emergency management signs

- q. When entering or leaving roadways carrying public traffic, the Contractor's equipment, whether empty or loaded, shall yield to the public traffic at all times, except where the traffic is being controlled by police officers, fire officers, properly trained and experienced flaggers, or at traffic signalized intersections.

- r. Stockpiling or storage of materials on any public right of way or parking area will not be allowed without the specific written permission of the Engineer. Materials spilled along or on said right-of-way or parking area shall be removed completely and promptly. All stockpile and storage areas shall be maintained in a safe, neat, clean, and orderly condition, and shall be restored to equal or better than original condition upon completion of the work.
- s. On projects involving work on, closure of, or partial closure of existing streets, and where vehicular access to the abutting property must be restricted, the work shall be so selected, arranged and scheduled that the person(s) requiring access to said abutting property and residents along said streets affected will be able to park within a reasonable distance of not more than 500 ft. from their homes or destination. In addition, no two adjoining streets shall be closed at the same time, except as otherwise approved by the Engineer. Residents must be given written notice of such restrictions a minimum of 48 hours in advance.
- t. When work has been completed on a particular street or has been suspended or rescheduled, and said street is to be opened to vehicular traffic, all equipment, "NO PARKING" signs, other obstructions, and unnecessary traffic control devices and equipment shall be promptly removed from that street, except as otherwise approved by the Engineer.
- u. Should the Contractor be neglectful, negligent, or refuse, fail, or otherwise be unavailable to promptly, satisfactorily, and fully comply with the provisions specified and referred to herein above, the City reserves the right to correct or mitigate any situation, that in the sole opinion of the Engineer, constitutes a serious deficiency or serious case of noncompliance, by any means at its disposal at the Contractor's or permittee's expense, and shall deduct the cost therefor from the Contractor's progress or final payments. Such corrective action taken by the City shall not reduce or abrogate the Contractor's legal obligations and liability for proper traffic control and safety measures and shall not serve to transfer said obligations and liabilities from the Contractor to the City or the City's agents.
- v. Violations of any of the above Provisions or provisions of the referenced publications, unless promptly and completely corrected to the satisfaction of the Engineer, shall, at the sole discretion of the City, be grounds for termination of the Contract, or shut down or partial shut down of the work, without compensation to the Contractor or permittee, or liability to the City, all as prescribed by contractual obligation or State law, whichever is applicable.

The contract lump sum price paid for Traffic Control shall include full compensation for, but not limited to, furnishing all labor (including flagging costs), materials (including construction area signs), encroachment permits, tools, equipment, traffic control plans and revisions, and incidentals, and for doing all the work involved in placing, removing, storing, maintaining, moving to new locations, replacing and disposing of the components of the traffic control including lights, loop detector repair, alternative wireless or video detection systems, channelizers (surface mounted), temporary railing (Type K) markers, delineators, temporary striping and pavement marking, barricades, portable flashing beacons, flashing arrow signs, portable changeable message signs, as shown on the Plans, as specified in the Standard Specifications and these Standard & Special Technical Provisions, and as directed by the Engineer.

Full compensation for removing and salvaging the traffic control equipment and materials that are to be reused or reset in the project shall be considered as included in the contract lump sum price paid for traffic control and no additional compensation will be allowed therefor.

Failure of the Contractor to maintain the required lane widths or failure to adhere to the work hours per the Project Specific Scope of Work and Traffic Control of the Technical Provisions will result in a permanent payment deduction of \$500 for each Incident that the Contractor fails to comply. An Incident is defined as the issuance of a written Correction Action Notice by the Engineer or his representative to the Contractor.

There will be a limit of one (1) Incident per four (4) hour time period and two (2) incidents per working day. The payment deduction is in addition to the City's right to suspend work per Section 7-10.4.7 of the General Provisions.

Partial payment for traffic control shall be based on the percentage of total value of work completed on the other items listed under each schedule as of each progress pay estimate.

COOPERATION AND COLLATERAL WORK

Cooperation shall be in accordance with Subsection 5-6, "Cooperation," and Subsection 7-7, "Cooperation and Collateral Work," of the Standard Specifications and these Standard and Special Technical Provisions.

The Contractor shall be responsible for ascertaining the nature and extent of any simultaneous, collateral, and essential work by others and coordinating with the work by others. The City, other contractors and utilities shall have the right to operate within or adjacent to the work site during the performance of such work.

Should construction be under way by other forces or by other contractors within or adjacent to the limits of the work specified or should work of any other nature be under way by other forces within or adjacent to those limits, the Contractor shall cooperate with all the other contractors or other forces to the end that any delay or hindrance to their work will be avoided. The right is reserved to perform other or additional work at or near the site (including material sources) at any time, by the use of other forces.

The Contractor is to coordinate the work with utilities who maybe performing improvements to their facilities at no separate or additional cost.

Each contractor shall be responsible to the other for all damage to work, to persons or property caused to the other by their operations, and for loss caused the other due to unnecessary delays or failure to finish the work within the time specified for completion.

The Contractor shall include in its bid all costs involved as a result of coordinating its work with others. The Contractor will not be entitled to additional compensation from the City for damages resulting from such simultaneous, collateral, and essential work. If necessary to avoid or minimize such damage or delay, the Contractor shall re-deploy its work force to other parts of the work.

Should the Contractor be delayed by the City, and such delay could not have been reasonably foreseen or prevented by the Contractor, the Engineer will determine the extent of the delay, the

effect on the project, and any extension of time. Should any agency or utility company's work result in delays to the Contractor's work schedule, the Contractor shall be entitled only to an equivalent extension of time for the completion of the contract, and shall not be entitled to damages due to downtime and idled equipment or additional payments over and above the agreed upon unit prices.

Compensation for compliance with all collateral work shall be considered, as being included in the various Contract items in the bid schedule and no additional compensation will be allowed therefor.

PROTECTION AND RESTORATION OF EXISTING IMPROVEMENTS

Protection and Restoration of Existing Improvements shall be in accordance with Subsection 7-9, "Protection and Restoration of Existing Improvements," of the Standard Specifications, and these Standard and Special Technical Provisions.

The Contractor may find it necessary to remove and replace some irrigation facilities during the process of construction. In such events, the Contractor shall make a written request to the Engineer in the field for the work and shall notify and cooperate with the resident and/or owner of the property affected. Any irrigation facilities in conflict with the proposed improvements which are removed, damaged, disturbed, or broken, shall be modified, repaired, and/or replaced to provide full irrigation coverage to the areas requiring irrigation, using new materials of equal or better quality than the original materials.

All trees, shrubbery and lawns which are deprived of normal irrigation due to a disruption of service caused by the Contractor's operations shall be regularly and thoroughly irrigated by the Contractor so that said plantings will not be damaged. If any trees, shrubbery, lawns or their plants die or suffer unacceptable damage as a result of or precipitated by the Contractor's operations, the Contractor shall replace it with the same plant species and size. Existing grass lawns within the area which must be excavated and/or re-graded, shall be cut into approximately 300 mm (12 in.) squares, removed, protected, cared for and replaced as soon as possible. Dead, dying, and unacceptably damaged grass shall be replaced with new grass sod.

The upper 150 mm (6 in.) of all backfill in areas subject to planting and/or replanting shall be topsoil, free of rocks and debris. Backfill below this depth shall consist of native soil, free of rocks, and debris, and compacted to a relative compaction of 85 percent (85%).

Damaged or injured plants shall be removed and recycled through green waste processors. At the option of the Contractor, removed trees and shrubs may be reduced to chips and removed from the project.

Replacement planting of injured or damaged trees, shrubs and other plants shall be completed not less than 20 working days prior to completion of the work. Replacement plants shall be watered as necessary to maintain the plants in a healthy condition.

Existing hardscape that is not to be removed and is damaged due to the Contractor's operations shall be restored or replaced in as nearly the original condition and location as is reasonably possible.

Full compensation for compliance with the preceding requirements shall be considered as being

included in the various Contract items in the bid schedule and no additional compensation will be allowed therefor.

PROTECTION AND RESTORATION OF UNDERGROUND UTILITIES AND FACILITIES

All existing underground utilities and facilities such as electric utilities, gas utilities, telephone utilities, television utilities, water utilities, street lighting facilities, traffic signal facilities, sanitary sewers, storm drains, and irrigation systems may not have been shown on the Plans for this project. The Contractor shall assume that any of these underground utilities and/or facilities may be encountered during the removal and reconstruction work and shall protect and restore same in place in accordance with Section 5 of the Standard Specifications, Subsection 7-9 of the Standard Specifications, and the following requirements and provisions:

The Contractor shall pothole utilities in any areas of excavation, including but not limited to, street widening, utility pole installation or relocation, light pole installation or relocation, pipe installation, catch basin installation, pavement reconstruction, and traffic signal equipment foundation installation. The Contractor shall submit pothole locations to the City five (5) working days ahead of USA notification for review and comment. The Contractor retains sole responsibility for utilities. The Contractor shall pot hole a minimum of two (2) working days ahead of the construction or installation for the area in which the work is to be performed. The "pot holes" shall be to a depth sufficient to satisfy the Contractor that the proposed construction work will not damage any underground utilities and/or facilities. The Contractor shall be solely responsible for the cost of repair for any such damage to said underground utilities and/or facilities and shall, except for irrigation systems, make or cause to be made all repairs necessary to restore service the same day.

Full compensation for compliance with the preceding requirements shall be considered as being included in the various Contract items in the bid schedule and no additional compensation will be allowed therefor.

CLEAN UP

Throughout all phases of construction, including suspension of work and until the final acceptance, the Contractor shall keep the site clean and free from rubbish and debris.

The Contractor shall remove and dispose of all loose material and debris caused by construction operations from the construction site on a daily basis.

Materials and equipment shall be removed from the site as soon as they are no longer necessary. Before the final inspection, the site shall be cleared of all rubbish, weeds, unwanted plants/trees, excess and unused materials, falsework, temporary structures, and equipment so as to present a satisfactory clean and neat appearance. All clean up costs shall be included in the Contractor's Bid.

Care shall be taken to prevent spillage on haul routes. Any such spillage shall be removed immediately and the area cleaned.

Excess excavated material from catch basins or similar structures shall be removed from the site

immediately. Sufficient material may remain for use as backfill if permitted by the Specifications or Engineer. Forms and form lumber shall be removed from the site as soon as practicable after striping.

Failure of the Contractor to comply with the Engineer's clean up orders may result in an order to suspend work until the condition is corrected. No additional compensation will be allowed as a result of such suspension.

Before final inspection of the work, the Contractor shall clean the right of way, private property, material sites, and all ground occupied by the Contractor in connection with the work of all rubbish, weeds, unwanted plants/trees, excess and unused materials, falsework, temporary structures, and equipment. All parts of the work shall be left in a neat and presentable condition.

Full compensation for collecting and disposing of loose material and debris from the job site shall be considered as included in the contract prices paid for the various items of work involved and no additional compensation will be allowed therefor.

DUST CONTROL

Dust control shall be performed in accordance with Subsection 7-8.1, "Clean up and Dust Control," of the Standard Specifications, South Coast Air Quality Management District (SCAQMD) Rule 403, the General Provisions and the following Provision.

Dust resulting from the Contractor's performance of the work, either inside or outside the right-of-way, shall be controlled by the Contractor. Dust control includes the action necessary to prevent, reduce or control dust within the work area as required to complete the work. The Contractor shall carry out proper and efficient measures to prevent his operations from producing dust in amounts damaging to property or causing a nuisance, or harm to persons living nearby or occupying buildings in the vicinity of the work. The Contractor shall control dust 24 hours a day, seven days a week. The methods to be used for controlling dust in the construction area and along haul roads shall be approved by the Engineer prior to starting any work. The Rule 403 Implementation Handbook published by the SCAQMD, contains a detailed listing of reasonably available dust control measures.

Dust or dirt accumulations generated by the Contractor's operations shall be cleaned and removed by the Contractor from all areas as designated by the Engineer. Areas to be cleaned shall include, but not be limited to swimming pools, interiors of any structures including residences and places of business, exteriors of any structures including roofs, patios, driveways, and any other areas as required. The Contractor shall retain a professional cleaning service for the cleaning of swimming pools, and the interior and exterior of structures. The cost for cleaning and removal of dust or dirt shall be at the Contractor's expense and no additional compensation will be made therefor.

Water for use in dust control shall, at the option of the Contractor, be potable or non-potable. Non-potable water shall consist of reclaimed waste water or non-potable water developed from other sources.

If the Contractor uses reclaimed waste water in the work, the sources and discharge of reclaimed waste water shall meet the California Department of Health Services Water Reclamation Criteria

and the Regional Water Quality Control Board requirements. The Contractor shall obtain either a waste water discharge permit or a waiver from the Regional Water Quality Control Board. Copies of permits or waivers from the Regional Water Quality Control Board shall be delivered to the engineer before using reclaimed waste water in the work.

Water shall be applied in the amounts, at the locations, and for the purposes designated in the Special Provision and these Specifications, and as ordered by the Engineer.

Water for compacting embankment material, sub-base, base and surfacing material, and for laying dust, shall be applied by means of pressure-type distributors or pipe lines equipped with a spray system or hoses with nozzles that will ensure a uniform application of water.

All equipment used for the application of water shall be equipped with a positive means of shut-off.

Unless otherwise permitted by the Engineer or unless all the water is applied by means of pipe lines, at least one mobile unit with a minimum capacity of 3700 L (1,000 gallons) shall be available for applying water on the project at all times.

Chemical additives or binder may be used in water for compaction or dust palliative. If such additives are used, furnishing and applying the additives shall be at the Contractor's expense.

The right is reserved by the Engineer to prohibit the use of a particular type of additive, to designate the locations where a particular type of additive may not be used, or to limit the amount of a particular type of additive to be used at certain locations, all if the Engineer has reasonable ground for believing that such use will in any way be detrimental.

The additive or binder shall be either miscible in water or be some form of material that is directly applied to the surface without mixing with water.

Additives or binders that are miscible in water shall be either a resin emulsion, an SS1 type asphaltic emulsion, materials composed essentially of lignin sulfonate, or any other binder that is miscible in water in the proportions provided herein is non-corrosive, and is effective as a dust palliative.

Resin emulsion shall be composed of from 57 percent (57%) to 63 percent (63%) of semi-liquid petroleum resin and the remainder water to which a suitable emulsifying agent has been added. The resin emulsion shall be readily miscible with water and when diluted with any hard water in the proportions of one part of emulsion to 10 parts water shall show no signs of breakdown or separation of the petroleum resin base. Resin emulsion, which has been stored in closed containers at temperatures above freezing for a period up to 3 months, shall show no signs of separation. Any resin emulsion which has been stored for more than 3 months shall not be used until tested and approved.

SS1 type asphaltic emulsion shall conform to the provisions in Subsection 203-3, "Emulsified Asphalt."

Additives or binders that are miscible in water shall be mixed with additional water at the rate of from 4 to 19 parts of water to one part of binder, the exact rate to be determined by the Engineer. Mixing shall be accomplished by placing the binder and water in the spreading equipment simultaneously or by some other mixing method that will produce equivalent results.

The resulting mixture shall be applied with pressure type water distributor trucks equipped with a spray system or pressure type asphalt distributors at an approximate rate of from 0.9- to 3.6 L/m² (0.2 to 0.8 gallons per square yard).

Additives or binders that are directly applied to the surface without mixing with water shall be applied with equipment approved by the Engineer. The binder shall be applied at a rate of from 0.4- to 1.1 L/m² (0.10 to 0.25 gallons per square yard).

The exact rate and number of applications of binders will be determined by the Engineer.

Dust control ordered by the Engineer to be applied on Saturdays, Sundays or holidays will be included in the Contract price for dust control and no additional compensation will be allowed therefor.

No adjustment of compensation will be made for any increase or decrease in the quantity of dust control required, regardless of the reason for such increase or decrease.

Full compensation for all direct and indirect costs incurred for work performed or materials used to control dust resulting from the Contractor's performance of the work and caused by public traffic, either inside or outside the right of way shall be considered as included in the Contract prices paid for the various items of work involved and no additional compensation will be allowed therefor.

CLEARING, GRUBBING, AND REMOVALS

Clearing and grubbing shall be performed in accordance with the plans, of the provisions of Section 300-1, "Clearing and Grubbing," of the Standard Specifications and these Special Provisions, and shall include, but not be limited to, the following:

1. Removal and disposal of tree stumps, shrubs, ground cover, and other vegetative material.
2. All trees and shrubs less than 10 ft. directly above the entire sidewalk surface shall be trimmed and removed by the Contractor to allow a clear path of travel for pedestrians.
3. Removal and disposal of decorative landscape rocks, edging, brick, pavers, railroad ties, or any other decorative landscape treatments.
4. Removal and disposal of boulders, rock or Portland Cement Concrete (PCC).
5. Removal and disposal of signs, poles, and posts, including foundations. Holes resulting from removal of existing poles and posts shall be filled or patched with like materials.
6. Existing inlets, slotted drains, drainage pipes, bulkheads, drop inlet structures, and where any portion of such structure is within 3 ft. of the grading plane in the excavation areas, or within 1 ft. of original ground in embankment areas, or where shown on the plans to be removed, shall be completely removed and disposed of accordingly.

7. Removal and disposal of existing drainage inlet structure, catch basins, and PCC Local Depression or asphalt concrete (AC) apron.
8. Any and all saw cutting.
9. Removal and disposal of existing AC berms, miscellaneous AC, and PCC.
10. Removal of all curb and gutter, retaining curb, cross gutters, and spandrels shall be replaced within three (3) calendar days. The AC patch shall be placed within two (2) working days after the curb and gutter, cross gutters, and spandrels are replaced. Removal of all sidewalks shall be replaced within three (3) calendar days.
11. Removal and disposal of any abandoned utilities that may interfere with the improvements, including plugging of pipes or conduits.
12. Removal and disposal of steel vent pipe of the abandoned waterline or irrigation line, and cap three (3) feet below grade.
13. Removal and disposal of banner poles and footings.
14. Removal, relocation, and disposal of existing bus shelter benches and structures as noted on the project plans.
15. Removal and disposal of all raised pavement markers not conforming to the approved plan or conflicting with the proposed striping as shown on the plans in accordance with Subsection 312-3, "Removal," of the Standard Specifications.
16. Removal and disposal of existing striping conflicting with Stage Construction temporary striping.
17. The Contractor shall dispose of all materials not being salvaged outside of the right of way and shall pay for all costs of disposal. These materials include, but are not limited to, masonry walls, AC paving, PCC, and conflicting striping.
18. Irrigation system relocation. Any irrigation systems in conflict with the proposed improvements that are removed, damaged, disturbed, or broken shall be modified, repaired, and/or replaced to be operable and provide full irrigation coverage to the areas requiring irrigation using new materials, equal or better than the original materials, with 3/4 in Schedule 40 PVC being the minimum acceptable for underground lines and 1/2 in Schedule 80 being minimum acceptable for risers and with the systems not being out of operation for more than two (2) days.
19. Removal of abandoned street light and signal pole foundations complete and including backfill of the site with material of similar consistency as the native material.

All trees, shrubbery and lawns deprived of normal irrigation watering due to a disruption of service caused by the Contractor's operations shall be regularly and thoroughly irrigated by the Contractor so that said plantings will not be damaged. If any trees, shrubbery or lawns die or suffer unacceptable damage as a result of or precipitated by the Contractor's operations, the Contractor shall replace same with the same plant species and size. Existing grass lawns within areas that must be excavated and/or re-graded shall be cut

into approximate 1 ft. squares, removed, protected, cared for, and replaced as soon as possible. Dead, dying, and unacceptably damaged grass shall be replaced with new grass sod.

Stockpiling of materials within the right of way, City parking lots, or other City improved property shall not be allowed unless otherwise approved by the Engineer.

20. Cleaning of all under-sidewalk drain pipes.

21. Self-propelled drop hammers will not be allowed for removals.

PCC, AC, trees, and green waste that have been removed shall be disposed of at a recycling plant. The Contractor shall provide the City with the weight certification of recycling and the required monthly Solid Waste Disposal and Recycling Reports.

Full compensation for all costs involved in removal and recycling of PCC and AC removed from the project site shall be considered as included in the Contract prices paid for the various items of work involved and no additional compensation will be allowed therefor.

GREEN WASTE RECYCLING

Work shall consist of removal of green waste (grass clippings, sod, leaves, shrubs, and any other vegetation) in conformance with Section 300-1 "Clearing and Grubbing," of the Standard Specifications. The Contractor shall be responsible for recycling the green waste through a green waste processor.

Subsection 300-1.3.1 "General" of the Standard Specifications shall include as follows:

The Contractor shall make all arrangements for removal and recycling of the material at offsite locations and provide the City with the weight certification in tons of recycling green waste and the required monthly Solid Waste Disposal and Recycling Reports.

Holes resulting from the removal shall be backfilled with soil from the surrounding area the same day and compacted to a minimum relative compaction of ninety percent (90%).

All removed material shall be removed from the project site the same day.

Stockpiling of materials within the right of way, City parking lots, or other City-improved property shall not be allowed unless written permission is given by the Engineer.

Full compensation for all costs involved in removing and recycling of green waste shall be considered as included in the contract prices paid for the various items of work involved and no additional compensation will be allowed therefor.

ADJUST STORM DRAIN MANHOLE RINGS AND COVERS, SEWER MANHOLE COVERS, AND WATER VALVE COVERS TO GRADE

Adjustment of storm drain/sewer manhole covers, water valve, and survey monument covers to grade shall be in accordance with the plans and Subsection 301-1.6, "Adjustment of Manhole Frame and Cover Sets to Grade," of the Standard Specifications and the agency or utility standards and policies that owns or has control of the manhole. Note that double adjustment of these facilities is required within the limits of the CIPR improvements. Double adjustment of the facilities is required to lower the facilities prior to CIPR and to raise the facilities to finish grade after completion of the Final AC Finish Course.

The Contractor shall have the option of installing American Highway Products Ltd. (or approved equal) Pivoted Turnbuckle Manhole Riser Rings and Water Gas Valve Riser Rings. Contact information: American Highway Products Ltd., 11723 Strasburg Bolivar Rd. N.W., Bolivar, OH 44612, Office: (888) 272.2397, Fax: (330) 874.3800, Web Site: www.ahpl.com, Email: sales@ahpl.com. This usage is applicable to City-owned storm drain manholes only. The contractor is responsible for obtaining timely written approval from other applicable agencies who have jurisdiction over other manhole and valve covers found within the work area for the usage of the pivoted turnbuckle manhole and valve cover riser rings.

For all new manhole rings and covers furnished by the Contractor, certification shall include the test results from test Method B as called for in Subsection 206-3 "Gray Iron Castings," of the Standard Specifications.

Raised manhole rings and covers shall have a Type II barricade with two flashing lights placed over each manhole until it is paved.

After the pavement has been completed, the necessary portions of the sub-grade, base, and pavement shall be neatly removed, the structure built-up, and the manhole frame set to be backfilled with PCC concrete and Type III-C3-PG 64-10 asphalt concrete. The asphalt concrete shall be placed and compacted in a workmanlike manner to conform to the appearance of the surrounding pavement. The asphalt concrete shall be placed within two (2) days after the manhole ring and cover has been adjusted to final grade, unless otherwise approved by the Engineer. The Contractor shall so schedule this work that adjusted manholes and rings shall not remain unpaved over holidays and weekends.

All new and existing water valve and gas valve covers shall be adjusted to grade during paving. The Contractor shall furnish all slip sleeves or cans where none exist. The Contractor shall loosen all valve covers immediately after paving. The Contractor shall paint all water valve covers blue.

Contractor is responsible for clean-up of any debris the manholes or valve covers. Contractor shall walk with the Inspector to inspect each manhole at the end of the project to ensure compliance.

All existing water valve covers, gas valve covers, survey monument covers, storm drain and sewer manhole structures within the CIPR require lowering and protection by the Contractor to accommodate the CIPR process.

The Contract unit price paid per each for double adjusting or adjusting water valve covers, gas valve covers, storm drain manhole covers, and sewer manhole covers to finished grade shall be measured in accordance with Subsection 301-1.7, "Payment," of the Standard Specifications, the

bid item listed and shall include full compensation for furnishing all labor, materials, tools, and equipment, and for doing all the work involved, including lowering these facilities prior to the CIPR operation and protecting the facilities during the CIPR operation, complete in place, and no additional compensation will be allowed therefore.

PROTECT AND ADJUST SURVEY MONUMENT FRAMES, COVERS, AND SLEEVES

Existing survey markers, monuments, and benchmarks shall be protected in place. Monument frames, covers, and sleeves shall be furnished and adjusted to finished grade.

Existing survey markers, monuments, and benchmarks not conforming to the proposed roadway finish surface shall remain accessible by means of an approved sleeve and lid per City of Manhattan Beach Standard Drawing ST-4, or by other methods approved by the Engineer.

The Contract unit price paid per each for adjusting monument frames, covers, and sleeves to finished grade shall be measured in accordance with "Monument Preservation, Restoration and Survey" Lump Sum Bid Item, per Standard Specifications, and shall include full compensation for furnishing all labor, materials, tools, and equipment, and for doing all the work involved in adjusting monument frames, covers, and sleeves to finished grade, complete in place, and no additional compensation will be allowed therefor.

PORTLAND CEMENT CONCRETE FOR STREET IMPROVEMENTS

Portland Cement Concrete (PCC) shall meet the requirements of Section 201, "Concrete, Mortar, and Related Materials," Subsection 302-6, "Portland Cement Concrete Pavement," and Section 303, "Concrete and Masonry Construction," of the Standard Specifications, and these Special Provisions:

Add to Subsection 201-1.1.1, "General", of the Standard Specifications, the following:

The Contractor shall furnish the Engineer in the field with a copy of the mix design to be used, and with a legible certified weighmasters certificate for each load of PCC delivered to the project. PCC delivered to the project site having a water content and/or slump greater than that specified in the mix design shall be rejected and removed from the project site.

Revise the table in Subsection 201-1.1.2, "Concrete Specified by Class and Alternate Class," of the Standard Specifications as follows:

Except as otherwise specified, all PCC used on this project shall be Class 560-C-3250 with a maximum slump of 4 in for all PCC and with the exact mix proportions being determined by the Contractor except for trench backfill slurry, air-placed Concrete-Method B, and as specified by the Engineer.

Replace the first sentence in Paragraph 6, Subsection 201-1.4.3, "Transit Mixers," of the Standard Specifications, with the followings:

The total elapsed time between addition of water at the batch plant and the completion of the discharge of the PCC from the mixer shall not exceed ninety (90) minutes or before 250 revolutions of the drum, whichever occurs first. All PCC remaining in the mixer after said ninety (90) minutes time limit shall be rejected and removed from the project site. When the temperature of the PCC is 30° C (86° F) or greater or any conditions contributing to quick stiffening of the PCC, it shall be removed from the project site.

Replace the last paragraph, Subsection 303-5.1.1, "General," of the Standard Specifications, with the following:

When removals of curb and/or sidewalk are located at curb return, the Contractor shall install access ramps with cast in place American Disability Act (ADA) Standards / California Code of Regulations (CCR) Title 24 – Accessibility Regulations approved detectable warning panels (truncated domes) and per the latest edition of applicable City Standard Plans.

The Contractor is to construct all sidewalks, access ramps, and gutters in accordance with ADA Standards / CCR Title 24 – Accessibility Regulations and the latest edition of applicable City Standard Plans. The Contractor shall ensure that all newly constructed PCC improvements comply with ADA Standards / CCR Title 24 – Accessibility Regulations and the latest edition of applicable City Standard Plans for cross slope and slope percentage requirements. The Contractor shall measure access ramps, sidewalks, curb and gutter, etc. for compliance using a digital level, also known as an electronic level or "smart level" of four feet (4') or less in length.

Access ramp cross slope shall be checked for the entire ramp width from back of curb to top of landing. Sidewalk cross slope shall be checked for entire sidewalk width, as well as longitudinally.

If the sidewalks, access ramps, and gutters constructed by the Contractor are found to be in non-compliance with ADA Standards / CCR Title 24 – Accessibility Regulations, the Contractor will be required to remove and replace the sidewalks, access ramps, and gutters to ADA Standards / CCR Title 24 – Accessibility Regulations at the Contractor's expense.

All removed curb and gutter, cross gutters, spandrels, driveway approaches, and sidewalks shall be replaced within three (3) calendar days, unless the contractor provides reasonable documentation to exceed the three (3) day limit five (5) working days before removal and approved in writing by the Engineer. The Asphalt Concrete patch shall be placed within five (5) working days after the curb and gutters and cross gutters and spandrels are replaced.

No PCC shall be ordered and/or placed until the forms and subgrade have been inspected and approved by the Engineer in the field.

All traffic signal pull boxes, water meter boxes, water valve covers, street light boxes, and other utility boxes shall be adjusted to proposed finish grade and approved by the Engineer in the field prior to placement of the PCC.

Integral color PCC placed for sidewalk construction shall be continuous pours from the same daily batch. No cold joint between daily pours of PCC will be allowed.

Add to the first paragraph of Subsection 303-5.1.2, "Drainage Outlets Through Curb," of the Standard Specifications, the following:

Coring shall be required for all drains through existing curbs.

Replace the last paragraph of Subsection 303-5.1.3, "Driveway Entrances," of the Standard Specifications, with the following:

Driveway approaches including walk shall be 6 in. thick for single family residential areas and 8 in thick with a minimum of 6 in. thick aggregate base.

Add to Subsection 303-5.3, "Placing Concrete," of the Standard Specifications, the following:

All temporary storage of PCC liquid residues and mixer wash out on the project site shall be deposited within a self containment area or bin. The Contractor may elect to allow the moisture to evaporate and dispose of the material as a solid or dispose of the material as a liquid. The Contractor shall notify the engineer in writing, as a preconstruction meeting submittal, what method of disposal will be utilized.

If disposal of the material in liquid form is chosen, the Contractor must provide in writing, as part of the preconstruction meeting submittal, the name, location, telephone number, and a copy of the California Regional Water Quality Control Board (RWQCB) permit for disposal of PCC liquid residue, or if the disposal site is located outside of the State of California, a copy of a permit issued by that state is required. The engineer will verify the information before the Notice to Proceed is issued.

All PCC and related work, including grading and forming, shall be suspended if the Contractor does not have a PCC liquid residue or mixer wash out containment area or bin on site one (1) working day before the scheduled placement of PCC. The Contractor will not be allowed any additional compensation or extension of time for suspended operations due to not having a containment area or bin on site. The containment area or bin shall have sufficient room for two (2) days deposit of material.

The Contractor shall provide the engineer with a copy of the landfill receipts or disposal site receipt and weight ticket showing disposal of PCC liquid residues and wash out within five working days of disposal.

Add to Subsection 303-5.4.3, "Weakened Plane Joints, (a) General," of the Standard Specifications, the following:

All weakened plane joints shall be spaced at a maximum of 10 ft. for curbs, gutters, and sidewalks. Scoring lines shall conform to those prevailing in the area and be uniform in spacing.

Revise Subsection 303-5.5.2, "Curb," of the Standard Specifications, as follows:

Delete the first sentence in Paragraph 1 and add the following:

The curb and gutter surface shall not vary more than 0.01 ft. from 10 ft. straightedge except at the grade changes. Prior to the removal of the forms, the surface shall be finished true to grade by means of a straightedge float of not less than 10 ft. in length, and operated longitudinally over the surface of the concrete. Form clamps shall be so constructed as not to interfere with the operation of the float. The form on the front of the curbs shall not be removed less than one (1) hour, or more than six (6) hours after the concrete has been placed. In no event shall forms be removed while the concrete is sufficiently plastic to slump. The top and face of the finished curb shall be true and straight and top surface of curbs shall be of uniform width, free from humps, sags, blemishes, or other irregularities.

Add to Subsection 303-5.5.2, "Curb" of the Standard Specifications, the following:

Two component construction grade structural epoxy adhesive shall be used to bond fresh PCC curb to existing asphalt concrete or PCC.

All surfaces to be bonded must be free of standing water, moisture, completely clean of dirt, curing compounds, grease, oil, paint, and unsound materials, which would prevent a solid bond. Smooth surfaces shall be sand blasted or mechanically abraded. All dust shall be vacuumed or swept.

Epoxy components shall be stored at 65° F - 85° F (18° C - 29° C) for 24 hours prior to use. The mixed epoxy shall be uniform in color, not show streaks, and not have air entrapment. The Contractor shall mix only the amount of epoxy that can be applied within the product's pot life. Pot life will decrease as the ambient temperature and/or mass size increases.

Add to Subsection 303-5.5.3, "Walk," of the Standard Specifications, the following:

The sidewalk surface shall not exceed one and one-half percent (1.5%) cross fall and not vary more than 0.01 ft. from the 10 ft. straightedge except at grade changes, and the finished surface shall be free from humps, sags, blemishes or other irregularities. All sidewalks shall be a minimum of 4 in. thick, except at driveways where the sidewalks shall be a minimum of 6 in. thick for single family residential areas and 8 in. thick for all other areas and 6 in. thick for curb return landings including access ramps.

Add to Subsection 303-5.5.4, "Gutter," of the Standard Specifications, the following:

A Water Test shall be performed for all new gutter/spandrels and at joins with existing gutter/spandrels to ensure positive flow. The test shall be performed in the presence of a City representative and within 48 hours of the gutter/spandrels being placed. Any sections of gutter/spandrel that do not exhibit positive flow (i.e. ponding, spillover onto AC Pavement, etc.) shall be removed and replaced by the Contractor prior to paving at no cost to the City, and no additional time shall be allowed.

Add to Subsection 303-5.6, "Curing," of the Standard Specifications, the following:

Curing compound shall be translucent with white pigmented fugitive dye, Type 2, in accordance with Subsection 201-4, "Concrete Curing Materials," of the Standard Specifications.

Add to Subsection 303-5.7, "Repairs and Replacements," of the Standard Specifications, the following:

In order to minimize vandalism damage to the finished PCC surfaces, the Contractor shall plan his work so that no PCC is poured after 1:00 p.m., unless otherwise authorized by the Engineer in the field.

The Contractor shall barricade and protect placed Portland Cement Concrete from all damages, marks, mars, and/or graffiti. Any Portland Cement Concrete damaged, defaced, discolored, or defective shall be replaced to the satisfaction of the Engineer at the Contractor's expense, and no additional time will be allowed.

Grading, patching, or other remedies to correct the situation will not be accepted unless in the opinion of the Engineer the vandalized area is so small that it does not warrant replacement. Concrete replacement areas shall be from score mark or control joint to score mark or control joint, and full width of the sidewalk. All replacement areas shall be saw cut.

Add to Subsection 303-5.8, "Backfilling and Cleanup," of the Standard Specifications, the following:

A minimum of 12 in. wide full depth asphalt concrete pavement repair patch is required when cross gutter, spandrel, driveways, curb, and gutter are placed adjacent to existing asphalt concrete pavement. The asphalt concrete pavement repair patch shall be placed within two (2) working days after the cross gutters, spandrels, driveways, curb and gutter are replaced. The asphalt concrete pavement shall be sawcut.

On Subsection 308-4.10.3 **Root Barrier and Pruning**. Roots shall be pruned immediately adjacent to the edge of the sidewalk and the back of curb. Cuts shall be 7.5 in. adjacent to sidewalk and 18 in. deep adjacent to curb and gutter. The cuts shall extend 6 ft. in each direction along the curb from the center of the tree trunk for a total length of 12 ft. or as directed by the Engineer.

Root pruning equipment shall be specifically designed for this purpose, sharpened adequately to sever roots in a clean manner, and equipped with padded tracks or rubber tires to prevent scraping or marking of the roadway or curbs.

Areas root pruned shall be backfilled with Class "C" topsoil either immediately upon completion of root pruning or upon completion of the adjacent work provided that adequate safety and warning devices are placed and maintained at each location.

The Contractor shall repair or replace all utility service connections and sprinkler systems within the right-of-way which are damaged or removed as a result of the root pruning operation. Repairs shall be initiated immediately upon the occurrence of damage or removal and completed by the end of each working day. Repairs and replacements shall be the equivalent of, or better than, the existing improvements in material, dimension, and function. All repairs shall be at the

Contractor's expense and to the satisfaction of the Engineer.

Root sealer shall be approved by the Engineer a minimum of two (2) working days prior to the start of root pruning operations and shall be applied to all cut root areas which are larger than 50 mm (2 in.) in diameter. The approved sealer shall be applied as soon as practical after the cuts have been made.

When constructing or replacing driveway approaches, roots shall not be cut by means of mechanical root cutting machines. If root removal is essential to driveway construction, roots shall be manually cut using hand implements with guidance from the CA.

Exposed tree roots shall be covered with mulch and watered from a period immediately following curb and gutter removal, until the area is backfilled following construction.

Concrete curb and gutter, and transitions for local depressions, shall be measured by the foot for the length in place including curb depressions and excluding commercial driveway curbs and gutter sections. "Median Nots" (center turn lane pavement), cross walk pavement, and intersection pavement shall be measured by the square foot from edge to edge and end to end. Commercial driveways shall be measured by the square foot from beginning of curb return to end of curb return from lip of gutter to the exterior edge of the driveway within the limits of the back of curb lines. Residential driveways shall be measured by the square foot measured from the back of curb or curb and gutter to the exterior edge of the driveway and from the beginning of the driveway depression (top of "X") to the end of the driveway depression (top "X"). Sidewalks shall be measured by the square foot, from edge to edge of back of curb, and end to end and shall include replacement and adjustment of No. 6 traffic signal pullbox. Curb return landings shall be measured by the square foot, from edge to edge back of curb and end to end, and shall include replacement of No. 6 traffic signal pullbox. Access ramps including detectable warning panels shall be included in the sidewalk/curb return landings measurement unless separately specified then shall be measured by the square foot from exterior score lines to the back of curb. Surface grooves, horizontal sawcutting, and textures of pattern in the concrete shall not be separately measured or paid for. Local Depressions for catch basins shall be measured by the square foot. Median hardscape and cross gutters shall be paid by square foot from edge to edge and end to end. Spandrels integral with the curb shall be measured by the square meter (foot) from the back of curb to edges and end to end. Dowel bars shall not be separately measured or paid for. Bus turnouts shall be measured by the square meter (foot) from beginning of transition to end of transition and from lip to gutter to back of curb. All measurements are to be on a horizontal plane.

For curb ramp removal and reconstruction, unless otherwise approved by the Engineer, the entire affected curb and gutter portion shall be removed by sawcutting the adjacent AC pavement one (1) foot from the edge of the PCC gutter. Where applicable, the contractor shall reconstruct this one (1) foot wide section with a 1.5-inch thick section of ARHM in conjunction with other area of improvement on a 4-inch thick section of AC base pavement (B PG 64-10) and sand slurry mix on an 8-inch thick section of untreated Base. If the affected curb and gutter is located in a spandrel, the spandrel shall be removed and reconstructed. No extra payment will be allowed for the PCC spandrel construction.

PCC Access Ramps shall be constructed at locations shown on the Plans and per the 2015 Caltrans Standard Plan A88A, PCC Access Ramps shall not be poured monolithically with concrete curb.

The contract unit price paid for the various items of PCC work shall include full

compensation for all labor, tools, materials, equipment, and incidentals including, but not limited to root pruning and barrier installation, formwork, finishing, aggregate base under commercial driveways, cast in-place and adhesive ADA / CCR Title 24 – Accessibility Regulations approved installed detectable warning panels, reinforcing steel, earthwork (excavation and backfill), Temporary AC, AC pavement patching, disposal of PCC liquid residues and mixer wash out, and for doing all the work involved for the placement of the various items of PCC. No separate or additional compensation shall be allowed therefor.

Payment for PCC shall be made as called for on the bid schedule for various PCC concrete items. Payment for the various PCC concrete items that fail to meet the cross slope and slope requirements will be withheld until compliance is met. Payment for asphalt concrete pavement repair patch which includes the sawcutting, removal and restoration of AC pavement associated with curb ramp demolition and construction shall be considered included in the bid cost for the various associated PCC items.

The contract unit price paid for Adjust Manhole Frame and Cover to Grade, Water Valve Cover to Grade, Miscellaneous Utility Covers/Boxes to Grade and Water Meter Boxes to Grade within curb return areas shall include full compensation for all labor, tools, materials, equipment, and incidentals required to perform such work as intended by design, and shall be considered included in the contract price for the various items of PCC work and no separate or additional compensation shall be allowed therefor.

ASPHALT CONCRETE PAVEMENT REMOVAL AND RECYCLING

The outline area of the asphalt concrete pavement to be removed shall be cut on a neat and straight line, to the satisfaction of the Engineer, with a power-driven saw to minimum depth of 2 in. before removing the surfacing. The Contractor will not be required to sawcut the pavement where the join line or cut line is cold milled.

The Contractor may encounter existing pavement fabric underneath existing asphalt concrete. The Contractor shall account for its removal and disposal at no additional cost.

If the Contractor chooses to remove the asphalt concrete by cold milling then the existing asphalt concrete shall be cold milled or ground in accordance with Subsection 302-1.1, "Cold Milling of Existing Pavement," of the Standard Specifications and these Specifications.

Add to Subsection 302-1.2, "Milling Machine," the following:

At least two full time flag persons shall be assigned to the milling machine for traffic control when working on streets open to traffic.

The Contractor shall take care not to contaminate the millings with non-aggregate base material, including disintegrated granite.

The asphalt concrete, including aggregate base, shall be disposed of at a recycling plant. The Contractor shall provide the City with the weight certification of recycling in tons of asphalt concrete and the required monthly Solid Waste Disposal and Recycling Reports.

Asphalt concrete removal associated with curb and gutter, cross gutter and local depression,

sidewalk and driveway work will be considered as miscellaneous removals and payment will be considered as included in the price paid for Clearing, Grubbing, and Removals.

Cold Milled Asphalt Concrete - Existing asphalt concrete pavement shall be cold milled, crushed and screened to conform to the following gradation before mixing with emulsified recycling agent:

Sieve Sizes	Percentage RAPPassing
1-inch	100

Graded millings/reclaimed asphalt pavement (RAP) shall uniformly be incorporated into the recycled pavement mixture and oversized or deleterious material shall be disposed of.

Rubberized crack filler, pavement markers, loopwires, thermoplastic markers, fabric and other like materials that may be incorporated into the RAP as it is removed from the roadway shall be removed by the screening process. A minor amount of these residual materials that cannot be completely removed from the processed RAP may be incorporated into the recycled mix if the Contractor can demonstrate that those added materials will not adversely affect the performance of the recycled asphalt pavement. Any such materials retained in the mix shall be appropriately sized and blended so as not to adversely affect the appearance or strength of the recycled pavement.

The contract unit price paid per square foot of Asphalt Concrete Pavement Removal and Recycling or Cold Mill shall include full compensation for, but not limited to, furnishing all labor, materials, tools, equipment, saw cutting, loading, hauling, recycling, providing recycling weight certification, reports, and incidentals, for doing all work involved in asphalt concrete removal and recycling, and no additional compensation will be allowed therefor. If the Contractor does not provide the weight certification of recycling and the required monthly Solid Waste Disposal and Recycling Reports, then payment will be withheld until the weight certification and reports are provided.

ASPHALT RUBBER HOT MIX (ARHM)

Asphalt Rubber Hot Mix Pavement (ARHM) shall be constructed in accordance with the provisions of this sub-section 302-9 of the Standard Specifications.

The Finish Course shall be "ARHM Type GG-C", per Standard Specifications Section 203-11 Wet Process. Twenty foot-wide header cut or transition area shall be applied as shown on plans, for a seamless termination to existing pavement.

The Contractor will provide certification that the ARHM is produced from 100% used tires, meets the conditions of the Standard Specifications and the City's Grant Agreement.

The unit price paid per ton for the overlay shall include full compensation for furnishing all labor and materials, tools, equipment and incidentals for doing all the work involved in constructing overlay complete in place, and no additional compensation will be allowed therefor.

ASPHALT TRACKING PREVENTION AND MITIGATION

The purpose of this section is to address any tracking related problems caused by the Contractor. The City requires that all streets adjacent to the project remain track free during and after construction. Contractor shall prevent and mitigate asphalt tracking on all adjacent surfaces. The use of water or any other methods approved by the Engineer may be utilized. If tracking is present at the end of the work day, the Contractor shall use steam cleaning and a vacuum truck to remove tracking from all affected areas to the satisfaction of the Engineer.

Payment and measurement for Asphalt Tracking Prevention and Mitigation shall be considered part of the contract prices paid for the various asphalt concrete and asphalt rubber hot mix items of work involved and no additional compensation will be allowed therefor. It shall include all labor, materials, equipment, tools, maintenance and incidentals for doing all the work involved.

ROADWAY EXCAVATION

Roadway Excavation shall be completed in accordance with Section 300-2, "Unclassified Excavation," of the Standard Specifications.

Where a portion of existing surfacing is to be removed, the outline of the area to be removed shall be cut on a neat line with a power-driven saw to a minimum depth of 50 mm (2 in.) before removing the surfacing. The Contractor will be required to sawcut the pavement where the joint line or cut line is cold milled, unless otherwise directed by the Engineer.

Full compensation for removal of base and asphalt concrete surfacing not cold milled, excavating, loading, hauling, depositing, spreading, and for scarifying and recompacting subgrade shall be considered as included in the contract item associated with the removal of AC pavement and base described earlier, and no additional compensation will be allowed therefor.

SUBGRADE PREPARATION

Subgrade Preparation shall conform to the requirements of Subsection 301-1, "Subgrade Preparation" and these Technical Provisions.

Replace the second and third paragraph of Subsection 301-1.2, "Preparation of Subgrade," with the following:

The site soils shall be removed to the subgrade level as shown on the plans in the areas to receive the pavement structural section. After rough grading has been completed, the exposed subgrade shall be scarified to a depth of 8 to 12 inches. The loosened material shall then be worked to a finely divided condition and all rocks larger than 75 mm (3 in) in diameter shall be removed. The moisture content shall be brought to minus 1 percent of optimum or wetter by the addition of water, by the addition and blending of dry suitable material, or by the drying of existing material. The material shall then be compacted by approved equipment to the specified relative compaction.

Replace the first paragraph of Subsection 301-1.3, "Relative Compaction," with the following:

The subgrade soils shall be compacted to 90 percent of the maximum dry density (ASTM D1557). The upper six inches of the subgrade soils shall be compacted to 95 percent relative compaction (ASTM D1557) and should be well moisture conditioned to near optimum and kept in this condition until the pavement section is constructed.

Subgrade will be certified by the City's surveyor prior to placement of aggregate base.

Payment for subgrade preparation will be considered as included in the item of work for which the subgrade is prepared and no additional compensation will be allowed therefor.

PROFILOGRAPH ASPHALT CONCRETE PAVEMENT

Profiles of asphalt concrete pavement shall be performed using a California Profilograph or equivalent in conformance with the requirements in California Test 526 "Operation of California Profilograph and Evaluation of Profiles" and as specified in these Technical Provisions. Prior to beginning profiles, the profilograph shall be calibrated in the presence of the Engineer.

The Contractor, in the presence of the Engineer, shall profilograph the surface of the base paving or existing pavement surface.

The Contractor, in the presence of the Engineer, shall also profilograph the asphalt concrete overlay or the final pavement surface.

The pavement surface shall be profilographed throughout the length of each traveled lane, turn lane, parking lane or bicycle lane, ensuring that all paved areas are profilographed. Two profiles shall be obtained for each lane, as well as two profiles for the center continuous turn lane, and one profile in the parking lane. The profiles shall be approximately 1 m (3 ft) from and parallel with the edge of the lane.

All areas that require corrective work shall be marked out by the Contractor to the satisfaction of the Engineer. A profilograph shall be done in the presence of the Engineer for all corrective work.

Profilograph operations shall be in conformance with lane closure requirements.

Areas of paved surfaces that do not meet the specified surface smoothness tolerances shall be brought within tolerance by abrasive grinding. Abrasive grinding shall conform to the Caltrans standard specifications, section 42-3.03, "Construction."

Areas of capped paved surfaces that do not meet the specified surface smoothness tolerances shall be brought within tolerance by abrasive grinding. Abrasive grinding shall conform to the Caltrans standard specifications, section 42-3.03, "Construction." These grinded areas will be immediately fog sealed as directed by the City Engineer. The City Engineer will require the Contractor to slurry seal the full lane width for a minimum length of 50 foot intervals per abrasive grinded spot, including refreshing any affected striping.

The contract lump sum price paid for profilographing existing asphalt concrete shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved in profilographing existing asphalt concrete, as specified in these Technical Provisions and as approved by the Engineer, and no additional compensation will be allowed

therefor.

COLD IN-PLACE RECYCLING (CIPR)

Submittals - At the time of bid, the Contractor shall furnish the following information regarding the Cold In-place Recycling (CIR) to the Engineer. Approval of the Contractor or Subcontractor performing the CIR is at the discretion of the Engineer.

- 1) Emulsion and emulsion supplier. Identification that the proposed recycling emulsion has been successfully used on at least five (5) other CIR asphalt projects in California over the past three (3) years, including project name, agency/owner, project engineer, and construction dates.
- 2) Description and specification of the proposed CIR recycling unit and support equipment, construction method, expected production rates, and planned sequence of construction.
- 3) The Contractor (or Subcontractor) shall have completed a minimum of five (5) CIR asphalt projects in the last three (3) years. Submit project name, agency/owner, project engineer, and construction dates.
- 4) The CIR recycling unit shall demonstrate the ability to crush and screen the RAP used in the CIR process and remove pavement reinforcing fabric during the recycling process.
- 5) Verification the CIR recycling unit meets the proportioning requirements of California Department of Transportation Material and Plant Quality Program (MPQP) and the applicable Air Quality Control district permits.

Contractor Responsibility - **The Contractor shall be responsible for the final product and shall make any quality control, adjustments and corrections necessary to obtain the final product accepted by the Engineer.** The Contractor shall perform process and quality control sampling and testing and exercise management and control the work of his/her subcontractors, technicians and workers to ensure that the milling, transporting, recycling, spreading, compaction, and finishing processes conform to these Specifications. The proficiency of testing laboratories and sampling and testing personnel shall be reviewed and approved by the Engineer prior to providing services to the project. The Engineer shall have unrestricted access to the laboratory, sampling, testing sites, and all information resulting from mix design and quality control activities. All Quality Control testing results shall be submitted to the Engineer on a daily basis

Scope - This work shall consist of milling the existing asphalt concrete pavement to the length, depth and width as shown on the plans, sizing the Reclaimed Asphalt Pavement (RAP) material to an aggregate blend with a maximum size. The properly sized RAP to be recycled shall then be blended with a bituminous recycling agent (either asphalt foam or asphalt emulsion), and other additives, such as cement, as required by the Contractor's Mix Design, to produce a recycled asphalt concrete. This material shall then be placed and compacted in accordance with the Plans and Specifications, and as directed by the Engineer.

The Contractor shall be responsible for providing Quality Control of the cold in-place recycling process and provide documentation to the Engineer demonstrating conformance to the Contractor's Quality Control Program. A Contractor's Quality Control Plan shall be submitted to the Engineer. The Quality Control Plan shall address: 1) equipment conformance with the

specifications and calibration to required tolerances, 2) Quality control parameters for recycling agent and other CIR additives, 3) Conformance to Mix Design.

The Contractor shall also hire a separate, independent laboratory testing company for material testing, and the testing company shall send reports/results directly to the City.

Just In Time Training - Attending a 2-hour minimum Just-In-Time Training (JITT) shall be mandatory, and consist of a formal joint training class on cold recycled asphalt materials, required special equipment, placement and compaction methods, and quality control. Construction operations for cold recycling shall not begin until the Contractor's and the Engineer's personnel have completed the JITT. The JITT training class shall be conducted at a project field location convenient for both the Contractor and the Engineer. The JITT class shall be completed not more than 7 days prior to the start of cold recycling operations. The class shall be held during normal working hours. The Contractor shall provide the JITT instructor. The instructor shall be experienced in the construction methods, materials, and test methods associated with construction of cold recycle asphalt projects. A copy of the course syllabus, handouts, and presentation material shall be submitted to the Engineer at least 7 days before the day of the training. The Contractor and the Engineer shall mutually agree to the course instructor, course content, and training site. Just-In-Time Training shall not relieve the Contractor of responsibility under the contract for the successful completion of the work in conformance with the requirements of the plans and specifications.

Mix Design – A mix design shall be submitted by the Contractor using representative samples of the asphalt concrete to be recycled obtained directly from the Project site. The mix design shall be certified by a licensed Civil Engineer or AASHTO Approved Laboratory experienced in cold recycled pavements. If an emulsified recycling agent is to be utilized, the mix design shall be conducted in accordance with Appendix A. If an asphalt foam recycling agent is to be utilized, the mix design shall be conducted in accordance with the California Department of Transportation LP-8-FA, "Method of Test for Determining Foamed Asphalt Application Rates for Cold In-place Recycling Operations." The job mix formula shall meet the criteria of Table 1 for Emulsified Recycling Agent and Table 2 for Foamed Asphalt Recycling Agent and be approved by the Engineer.

Table 1 – Emulsified Recycling Agent

CIR Mixture Design Requirements	Requirement
Gradation of Reclaimed Asphalt Pavement (RAP): CT 202	1-inch maximum
Asphalt Content of RAP: CT 362 or CT 379 or ASTM D 2172 Method B	Report
Bulk Specific Gravity of Compacted Samples ^{a, b} : CT 308, Method C	Report
Maximum Theoretical Specific Gravity ^b : CT 309, including provisions of Section J	Report
Air Voids of Compacted and Cured Specimens ^b : CT 367 Part B	Report
Marshall Stability, Cured Specimen ^b : AASHTO T 245 104 °F (min)	1250 lb
Marshall Retained Stability, AASHTO T 245, 104 °F based on Moisture Conditioning on Cured Specimen (min) ^{b, c}	70% ^d
Ratio of Bituminous Residue to Cement (min)	3.0
Raveling Test of Cold Mixed Bituminous Emulsion, ASTM D 7196, 50 °F (max)	7.0
RAP Coating Test, ASSHTO T59 ^e , (min)	Good

Notes

:

^a 4-inch diameter mold compaction based on either 75 blow Marshall on each side or gyratory compactor at 30 gyrations.

^b Test specimens after 140°F curing to constant weight between 16 hours and 48 hours.

^c Vacuum saturation from 55 percent to 75 percent. Water bath at 77 °F for 23 hours, with the last 30 minutes to 40 minutes in 104 °F water bath.

^d The Marshall Retained Stability ratio may be reduced to 60%, providing the saturated Marshall Stability is at least 1500 lbs.

^e Modify ASSHTO T59 using jobsite RAP, emulsified recycling agent and water application rates that have been determined in the CIR mix design and submitted in job mix formula.

Table 2 – Foamed Asphalt Recycling Agent

CIR Mixture Design Requirements	Requirement
Gradation of Reclaimed Asphalt Pavement (RAP): CT 202	1-inch maximum
Asphalt Content of RAP: ASTM D 2172 Method B	Report
Bulk Specific Gravity of Compacted Samples ^{a, b} : AASHTO T245	Report
Maximum Theoretical Specific Gravity ^b : AASHTO T209	Report
Air Voids of Compacted and Cured Specimens ^b : AASHTO T269	Report
Indirect Wet Tensile Strength, Cured Specimen ^d : CT 371, Section J	35
Indirect Dry Tensile Strength, Cured Specimen ^d : CT 371, Section J	Report
Tensile Strength Ratio (%): CT 371	Report
Ratio of Bituminous Residue to Cement (min)	2.5

Notes:

- ^a 4-inch diameter mold compaction based on either 75 blow Marshall on each side or gyratory compactor at 30 gyrations.
- ^b Test specimens after 140°F curing to constant weight between 16 hours and 48 hours.
- ^c Vacuum saturation from 55 percent to 75 percent. Water bath at 77 °F for 23 hours, with the last 30 minutes to 40 minutes in 104 °F water bath.
- ^d Fabricate 6 indirect tensile strength specimens under AASHTO T245. Fabrication of indirect tensile strength specimens must be completed within 30 minutes after materials have been mixed. Cure the specimens at 100 degrees F for 72 hours and allow the specimens to cool to room temperature. Test 3 specimens for dry tensile strength under California Test 371. Test 3 specimens for wet tensile strength under California Test 371 after moisture conditioning.

The mix design reports for a foamed asphalt recycling agent shall include the following:

- a. Percent by weight of foamed asphalt cement to be added to the mix.
- b. Optimum percent by weight of water to be added to the asphalt cement for the foaming process.
- c. Minimum Foamed Asphalt Expansion Characteristics required.
- d. Temperature of asphalt cement at the time of injection.
- e. Percent by weight of portland cement, if any, to be added to the mix.
- f. Gradation of the RAP
- g. Optimum compaction moisture content
- h. Design wet indirect splitting tensile strength
- i. Maximum dry density

The mix design report for an emulsified recycling agent shall include the following:

- a. Gradation of dry RAP
- b. RAP asphalt content
- c. Recommended mixing water content range as a percentage of dry RAP
- d. Optimum emulsion content as a percentage of dry RAP
- e. Amount of cement(s) as a percentage of dry RAP and corresponding density
- f. Air void level
- g. Marshall stability
- h. Retained stability
- i. Compaction method used to determine reported stability
- j. Raveling at recommended moisture and emulsion contents.

For the recycling agent and any cement if used include the designation, company name, location,

residue content, and Certificates of Compliance.

Materials

Foamed Asphalt Recycling Agent. Asphalt used in the cold foam in-place recycling process shall conform to the provisions in section 92, "Asphalts," of the State Standard Specifications. The grade of asphalt shall be determined by the mix design and approved by the Engineer. The asphalt shall not be heated above a temperature of 375°F. Asphalt provided to the job shall have no additives or properties which will inhibit the ability to produce asphalt foam with a minimum expansion ration (volume of foamed asphalt to residual, un-foamed asphalt) of 8 and a half-life (time for the foamed asphalt to lose half its expanded volume) of not less than 6 seconds.

A Certificate of Compliance from the asphalt manufacturer shall accompany each shipment to the Project. The Contractor shall perform an expansion ratio and half life test for each load utilized in the recycle unit. A one-quart sample of Asphalt shall be obtained from each delivery vehicle to the job and turned over to the Engineer at the end of the day, or retained by the Contractor at the direction of the Engineer. The sample shall be sealed and the container clean and dry when the sample is taken. The sample bottle shall be marked with the date and time the sample was taken, the name of the supplier, and the bill of lading number from the load delivery ticket. The asphalt shall be handled with care.

Emulsified Recycling Agent – The type of emulsified recycling agent to be used shall be determined by the mix design. An experienced and qualified technician ("Qualified Technician") shall be at the job site during mixing operations to monitor the characteristics and performance of the emulsified recycling agent. Throughout the job the Qualified Technician shall be available to monitor the mixing, placement and compaction of the recycled asphalt concrete and make adjustments to the emulsified recycling agent formulation as required to improve coating, increase or decrease moisture content to aid in compaction or adjust breaking properties of the emulsion.

The asphalt binder used to make the emulsified recycling agent shall be in compliance to the Bending Beam requirements of the Performance Graded (PG) Asphalt Binder Specification AASHTO M320. This will verify its suitability in meeting the low temperature climatic requirements of the given region where the recycled asphalt concrete will be placed.

The Certificate of Compliance (COC) shall indicate the target value for penetration and the Bending Beam results. Emulsified recycling agent shall meet the criteria of Table 3 and be approved by the Engineer.

Table 3

Emulsified Recycling Agent Requirements			
	Test Method	Requirement	
		Minimum	Maximum
Tests on emulsion:			
Sieve test, % of weight sample	AASHTO T59 ^a	---	0.1
Residue by distillation, %	AASHTO T59 ^a	60	--
Total Distillate from distillation	AASHTO T59 ^a	--	1.0
Tests on residue by distillation:			
Penetration at 25°C, 100 g / 5 sec (TV) (min)	AASHTO T49 ^{b,d}	TV +/- 25 percent ^c	
Absolute Viscosity at 60°C, pascal second (x10 ⁻¹) (TV) ^c	AASHTO T2171	Report Only	

Notes:

^a Modify AASHTO T 59 - distillation temperature of 350°F with a 20 minute hold.

^b Target value (TV) is determined for emulsified recycling agent chosen for use and submitted in job mix formula.

^c Sieve residue from distillation on No. 20 sieve before determining viscosity.

^d Modified procedure may be used: The sample shall be removed from the bath, shaken gently to remove free water from the surface of the specimen, tested in a dry surface state, and then immediately replaced in the water bath in less than 60 seconds. Repeat for determination.

The Contractor shall provide current test results and a COC for the emulsified recycling agent at the time of mix design. A COC shall also be provided for each load delivered to the jobsite. The Contractor shall perform a sieve test in accordance with ASTM D 2444 to verify the emulsion is stable prior to using each load. The Contractor shall obtain two 1-quart minimum samples of emulsified recycling agent from each load delivered to the project. One sample shall be used for the Contractor’s quality control testing. The remaining samples shall be delivered to the Engineer at the end of each working day. Emulsified recycling agent shall be sampled in plastic containers that are clean, dry, and sealed. Each sample shall be labeled with the date and time sampled and the bill of lading number from the delivery vehicle. Emulsion samples shall be retained and protected from damage or contamination by the Contractor until the project is accepted.

Reclaimed Asphalt. Reclaimed asphalt pavement from the existing pavement surface shall be processed and graded material with the resultant blend consisting of 100% of the crushed RAP passing a 1-inch sieve and shall be clean, free of contamination of dirt, base, concrete or other deleterious materials.

Rubberized crack filler, pavement markers, loop wires, thermoplastic markers, fabric and other like materials that may be incorporated into the RAP as it is removed from the roadway shall be removed by the screening process. A minor amount of these residual materials that cannot be completely removed from the processed RAP may be incorporated into the recycled mix if the Contractor can demonstrate that those added materials will not adversely affect the performance of the recycled asphalt pavement. Any such materials retained in the mix shall be appropriately sized and blended so as not to adversely affect the appearance or strength of the recycled pavement.

Cement – Cement may be added at the Contractor’s option to the recycled pavement mixture to aid in curing and early strength gain. Cement shall be a Type II Portland Cement and shall

conform to Section 90-2.01 of the Standard Specifications. The cement source and percentage used shall be described in the job mix formula submittal. Include the process for incorporating cement into the CIR mixture in the job mix formula submittal.

A Certificate of Compliance from the cement manufacturer shall accompany each shipment to the Project.

Water - Water may be added to facilitate the uniform mixing of the recycling agent and the processed RAP. Water added to the recycled asphalt concrete shall be potable, clean and free from deleterious concentrations of acids, alkalis, salts, sugar and other organic or chemical substances. The water shall not contain an amount of impurities that will cause a reduction in the strength of the recycled asphalt concrete. If the water is of questionable quality, it shall be tested in accordance with AASHTO T26.

Water used specifically in the COLD FOAM apparatus for foaming the asphalt shall be purified so that upon evaporation no deposits or residue are left behind that might clog or impede water flow to the foaming nozzles of the recycle unit.

Construction Methods

Surface Preparation - Before any recycling work begins, the Contractor shall prepare the existing roadway by:

1. Removing from the roadway dirt, vegetation, standing water, combustible materials, oils, raised roadway markings, and other objectionable materials by sweeping, blading, or another approved method.
2. Adjusting affected utilities down or accommodating for utilities prior to recycling by other means to the satisfaction of the Engineer.
3. Accurately referencing the profile and cross slope as shown on the plans for the finished surface of the recycled pavement material.

Contractor Responsibility – The Contractor may make adjustments in the field to the actual application rate of recycling agent or any cement as needed and as provided by these Standard and Special Technical Provisions. Any changes made by the Contractor shall be documented in conformance with these Standard and Special Technical Provisions and the Contractor's Quality Control Plan.

The Contractor shall perform process and quality control sampling and testing, and exercise management control to ensure that cold in-place recycling and placement conforms to these Specifications. The Contractor shall provide a Qualified Technician, testing laboratory and personnel to perform process and quality control sampling and testing during the cold in-place recycling, spreading, compaction, and finishing. The proficiency of testing laboratories and sampling and testing personnel shall be reviewed and approved by the Engineer prior to providing services to the project.

Sampling and testing shall be performed at a rate sufficient to ensure that cold in-place recycling, placement, compaction, and finishing conforms to these specifications. The Engineer shall have unrestricted access to the laboratory, sampling, testing sites, and all information resulting from mix design and quality control activities. All Quality Control testing results shall be submitted to the Engineer on a daily basis.

The project shall be divided into lots of not greater than 3,000 square yards. The contractor shall control the CIR operation as follows:

1. The Contractor shall measure and record the actual recycle depth at each end of the milling drum at least once every 350 ft. along the cut length.
2. The amount of recycling agent shall be within 0.5 percent of the job mix formula percentage established in the mix design for the cold in-place recycled asphalt concrete mixture. Recycling agent usage shall be recorded for each lot. The percent of recycling agent shall be determined based on the ratio of recycling agent used to the theoretical dry weight of the millings processed.
3. The amount of cement, if used, shall be within 2.5 percent of the job mix formula percentage established in the mix design for the cold in-place recycled asphalt concrete mixture. Cement usage shall be recorded for each lot. The percent of cement shall be determined based on the ratio of recycling agent used to the theoretical dry weight of the millings processed.
4. The Contractor shall measure and report in-place density, and relative compaction for the lot, and shall rework or reprocess any lot not meeting the requirements of these specifications.
5. Sample the recycled material behind the recycling equipment or the sized reclaimed asphalt pavement prior to the addition of the emulsified recycling agent for each lot. If the reclaimed asphalt pavement does not meet the allowable maximum particle size, the test results shall be reported immediately to the Engineer. The Contractor shall reprocess the material or take other corrective actions to attain conformance.
6. On the first sample and every fourth sample thereafter, the Contractor shall perform a wet field gradation for material passing the 1-inch to No. 4 sieves. The Contractor shall compare the sieved sample to the gradation band determined from the mix design and adjust the recycling agent as needed.

Some sections of the pavement being recycled may require field adjustment for optimum results. For any changes made by the Contractor from one lot to the next, the Contractor shall document the reason for the change and identify each lot where such changes were made.

Test Strip and Start up Procedures -The first day of operations, the Contractor shall construct within the limits to be cold in-place recycled a test strip of a single lane width and no more than 1000 feet in length. The test strip section shall:

- A. Demonstrate that the equipment, materials, and processes proposed can produce a recycled pavement material layer that conforms to the requirements of these special provisions;
- B. Determine the optimal rates for recycling agent, any cement, and water recommended for the reclaimed asphalt pavement; and
- C. Determine the sequence and manner of rolling necessary to obtain the density requirements of these special provisions.

The Contractor shall provide a sequence and manner of rolling which will define maximum compaction by establishing a rolling vs. density chart that shows the progress of densification from initial lay down through maximum obtainable density at the "break over point". The Contractor shall determine relative compaction on the quantity within the test strip by measurement with a properly calibrated nuclear density gauge. If the relative compaction of quantity within the test strip or any lot does not meet the density requirements of these Standard and Special Technical provisions, the Contractor shall construct additional test

strips to determine the maximum density obtainable for the recycled material being produced and site conditions.

CIR operations may continue through the first day, unless the Contractor's equipment and process fail to meet the requirements for successful completion of CIR operations in conformance with these special provisions. Recycling operations shall not continue beyond the first day unless a test strip conforming to the special provisions has been constructed and approved by the Engineer. Test strips that do not conform to the special provisions shall be reworked, re-compacted, or removed and replaced at the Contractor's expense.

Upon acceptance of the test strip by the Engineer, the Contractor shall use the same equipment, materials, and construction methods for the remainder of recycling operations, unless adjustments made by the Contractor are approved by the Engineer. If adjustments are made, the Contractor will produce a new test strip to define the maximum density.

Weather Limitations – Cold In-place Recycling operations shall not be performed during wet conditions or if rain is imminent or predicted to exist. “Imminent or predicted” is defined as being forecasted within a 48-hour period on the National Weather Service Web Site <http://www.wrh.noaa.gov> for the most representative and nearest location listed where recycling is to begin and end.

When using Emulsified Recycling Agent, recycling and placement operations shall not be performed unless the ambient temperature is a minimum of 45°F and unless the National Weather Service Web Site forecasts that the ambient temperature will be a minimum of 60°F within 3 hours after the start of placement operations and the ambient temperature will remain above the respective minimum temperatures throughout the recycling operation until all initial compaction and protection efforts have been completed for that day's run.

When using Foamed Asphalt Recycling Agent, recycling and placement operations shall not be performed unless the ambient temperature is a minimum of 45°F and unless the National Weather Service Web Site forecasts the ambient temperature will remain above 45°F throughout the recycling operation until all initial compaction and protection efforts have been completed for that day's run.

In the event CIR operations are initiated and weather conditions deteriorate soon after, it is then a requirement that all traffic stay off the recycled mat until weather conditions improve (temperature rises and humidity drops) and the recycled section has “cured” sufficiently for secondary compaction to take place in accordance with the **Cure and Maintenance** requirements of this specification. The Contractor will be responsible for maintaining and protecting the recycled surface. Any recycled asphalt surfacing damaged by inclement weather shall be replaced by the Contractor at the Contractor's expense as directed by the Engineer.

All CIR mixing and placement operations shall be completed a minimum of 2 hours before sunset to allow for compaction and protection operations.

Milling, Sizing and Mixing - The recycling train shall be capable of milling and crushing the existing asphalt pavement. The equipment used for mixing the RAP with the recycling agent and any cement shall be capable of producing a homogeneous and uniformly coated recycled pavement mixture. The equipment used for placement of the recycled pavement mixture shall be capable of placement to the lines, grades, and requirements specified in these special provisions

and shown on the plans. The Contractor shall have available on the site of the work all equipment and materials to be used for recycling operations.

The pavement milling machine shall be self-propelled. The primary milling equipment shall have a minimum 12.5 ft. cutter capable of removing the existing pavement to the depths shown in the plans. Milling equipment shall be equipped with automatic depth controls capable of maintaining the cutting depth to within ¼ in. of the desired depth, and shall have a positive means for controlling cross slope. The milling operation shall not disturb or damage the underlying material. The use of a heating device to soften the pavement will not be permitted. A smaller milling machine may be used to mill the shoulders and miscellaneous areas.

The RAP shall be sized using crushing and screening equipment capable of producing reclaimed asphalt pavement to the size required. After the crushing and sizing, the recycled material shall be processed in a mixing unit capable of processing the sized RAP, recycling agent, water and any cement to a homogeneous mixture to produce recycled asphalt concrete. The mixing unit shall be equipped with a belt scale for the continuous weighing of the RAP and a coupled/interlocked computer-controlled liquid metering device. The mixing unit shall be an on-board completely self-contained counter rotating twin shaft pugmill appropriately rated by the manufacturer for the production levels used by the Contractor. The liquid metering device shall be capable of automatically adjusting the flow of recycling agent to compensate for any variation in the weight of the RAP introduced into the pugmill. Recycling agent shall be metered by weight of RAP using a mass flow, coriolis effect, type meter that will accurately measure the amount of recycling agent to within 0.5 percent of the amount required by the mix design or as adjusted in the field and approved by the Engineer. The recycle train shall have an independent source of water to properly disperse the recycling agent. Automatic digital readings shall be displayed for both the flow rate and total amount of RAP, recycling agent, and cements in appropriate units of weight and time.

If an asphalt foam recycling agent is used, the system shall be equipped with an electrical heating system capable of maintaining the temperature of asphalt flow components above 300°F. The RAP belt scale shall be coupled/interlocked with two microprocessor controlled systems, complete with two independent pumping systems and spray bars, to regulate the application of foamed asphalt separate from water that is used to increase the moisture content for compaction. The two spray bars shall be fitted with self-cleaning nozzles at a maximum spacing of one nozzle for each 6 in. width of the mixing chamber. The foamed asphalt shall be produced at the spray bar in individual expansion chambers into which hot asphalt, water, and air are injected under pressure through individual and small orifices that promote atomization. The rate of addition of water into the hot asphalt shall be kept at a constant percent by mass of asphalt by the same microprocessor. An inspection or test nozzle shall be fitted at one end of the spray bar to produce a representative sample of foamed asphalt.

The recycling agent, any cement and water shall be incorporated into the graded RAP at the initial rate determined by the mix design and approved by the Engineer. Adjustments in the rate of recycling agent, cement and water shall be determined by the Qualified Technician and made as necessary based on the coating and compaction properties of the recycling agent. Sampling variations and mix design may determine the necessity of different levels of recycling agent and/or cement in various sections of the project.

When a paving fabric is encountered during the cold milling operation, the CIR Contractor shall make the necessary changes in equipment or operations so that incorporation of the shredded fabric in the recycled material does not affect the performance parameters of the recycled asphalt

concrete, or inhibit placing or compaction of the CIR pavement. No fabric piece incorporated into the recycled section shall have any dimension exceeding a length of 2 in. The Contractor shall be required to remove and properly dispose of oversized pieces of paving fabric as directed by the Engineer. Similarly, loop wires, pavement markers, rubberized crack fill materials, thermoplastic marking materials, milled concrete, and other materials that may be incorporated into the RAP through the milling process shall be removed from the recycled material unless the Contractor can demonstrate that minor amounts of residual materials that remain will not compromise the integrity of the recycled asphalt.

Mixing and Spreading of Cement - Cement slurry shall be produced at the jobsite as required by these specifications. The Contractor shall provide the Engineer with batch logs daily. Cement slurry may be added directly to the pugmill or sprayed over the cutting teeth of the milling machine.

Portland cement slurry storage and supply equipment shall have agitators or similar equipment to keep the cement or lime slurry in suspension when held in the slurry feed tank. Cement slurry shall be kept in suspension during transport using agitator equipment.

Dry cement shall be spread upon the existing asphalt concrete surface no more than 100 ft. ahead of the recycling train. If cement is spread ahead of the milling operation, the distance between the spreader and the recycling train shall be reduced appropriately during windy days. In no case shall cement be allowed to remain exposed at the end of the workday. Dust control measures shall be employed to minimize fugitive dust. No traffic other than the recycling equipment shall be allowed to pass over the spread cement until the recycling operation is complete

Placement – Recycled pavement shall be spread using a self-propelled track-paver having electronic grade and cross slope control for the screed. The equipment shall be of sufficient size and power (minimum 170 hp) to spread the recycled material in one continuous pass, without segregation, to the lines and grades established by the Engineer and according to Plans. Heating of the paver screed is not permitted. A pick-up machine shall be used for transferring the recycled material from a windrow to the receiving hopper of the paver, the pick-up machine shall be capable of removing and transferring the entire windrow of recycled mix in a single pass.

Handwork of CIR pavement shall be minimized and care shall be taken to prevent segregation. The wings of the paver shall be emptied regularly to prevent buildup and to minimize segregation.

Compaction - Compacting the recycled mix shall be completed using self-propelled rollers, complete with properly operating scrapers and water spray systems. Rollers of the vibratory-steel drum and pneumatic tired type shall be used. They shall be in good condition, capable of operating at slow speeds to avoid displacement of the mixture.

Compaction operations shall start no more than 15 minutes behind the paver, or at the direction of the Qualified Technician and/or Engineer. The number, weight and types of rollers shall be as necessary to obtain the required compaction. At a minimum the following rollers shall be used:

At least one pneumatic roller with a minimum gross operating weight of not less than 25 tons. Tires on the pneumatic rollers shall be evenly inflated and matched in size and profile so as to maximize compactive effort.

At least one double drum steel vibratory roller with a gross operating weight of not less than 10 tons with a minimum drum diameter of at least 60 in.

Rolling patterns shall be established in the field by the Contractor and verified by the Engineer to achieve a maximum density determined by nuclear density testing. A rolling pattern for compaction shall be determined such that no increase in density is shown on successive nuclear density tests (per ASTM D 2950) for any additional passes of the compaction equipment once the maximum density pattern has been identified ("break over point"). Nuclear density testing shall be repeated throughout the time compaction is being completed to continuously verify the compaction is within 5% of the maximum density established via a rolling vs. density chart that shows the progress of densification from initial breakdown compaction through maximum obtainable density at the break over point.

Care shall be taken not to over compact the mat. A Qualified Technician shall be on site and observing all compaction efforts, monitoring density gauge readings, and approving areas as they reach maximum density. The minimum rolling pattern shall be as follows:

Two complete coverages with the double drum steel vibratory roller immediately after the recycled mix is placed. The first coverage shall be made without the vibratory unit turned on and the second with the vibratory unit operating.

Two complete coverages with the pneumatic-tired roller shall be made after the initial passes of the steel roller.

Final rolling, before cure, to eliminate pneumatic tire marks and to achieve maximum density shall be done by the double drum steel roller, either operating in a static or vibratory mode.

The recycled mat shall be continuously observed during compaction efforts. If moisture cracking occurs under the vibratory compaction mode, the vibrators shall be turned off and static rolling only applied. If moisture cracking of the mat continues under static steel rolling, steel drum compaction shall cease, the mat shall be allowed to cure for a time in order for some moisture to escape, and pneumatic rolling commenced, followed by steel rolling to iron out irregularities from the rubber-tired roller(s). This procedure shall be followed until there is no longer any displacement of the mat observed by roller action on the recycled surface.

The selected rolling pattern shall be followed unless changes in the recycled mix or placement conditions occur and a new rolling pattern is established at that time. Any type of rolling that causes cracking, major displacement and/or any other type of pavement distress shall be discontinued until such time as the problem can be resolved. Discontinuation and commencement of rolling operations shall be at the discretion of the Engineer.

Extra care shall be taken to ensure that aggregate from the recycled mixture does not stick to the drums or wheels of the rollers. Water shall be uniformly applied to the wheels and drums, along with mechanical means to keep aggregate from sticking. Sufficient water shall be applied to keep rollers and tires clean, but not so much that water pools or ponds on the recycled surface.

Rollers shall not be started or stopped on uncompacted recycled material. Rolling patterns shall be established so that starting and stopping shall be on previously compacted material or the adjacent, existing surfacing.

Cure and Maintenance – After the completion of compaction of the recycled material, no traffic, including that of the Contractor, shall be permitted on the recycled material for at least two hours. This may be reduced if sufficient care is established for traffic that will not initiate raveling. A fog

seal of dilute (1:1) SS-1h emulsion, emulsified recycling agent or equivalent (0.08 to 0.12 gallon per square yard) shall be applied after initial compaction or after the secondary compaction, as outlined below, to all areas opened to significant traffic depending on curing of the CIR pavement. If necessary to prevent pickup of the fog seal, the recycled pavement surface shall be covered with sand at a rate of 1.0 to 2.0 pounds per square yard. Excess sand shall be removed from the pavement surface by careful sweeping. Sand shall be free from clay or organic material. Fog sealing and/or sanding shall be initiated at the Engineer's direction.

After opening to traffic, the surface of the recycled pavement shall be maintained in a condition suitable for the safe movement of traffic. Before placing the final surfacing, the recycled surface shall remain in-place:

- For a minimum of 2 days and until there is less than 2.0 percent moisture remaining in the recycled pavement mixture; or
- A minimum of 10 days without rainfall.

If Emulsified Recycling Agent is used, perform Secondary Compaction after cure and before placement of final surface.

Secondary Compaction - Two complete coverages (minimum), after cure and before placing any AC overlay or other surface seal shall be conducted with the pneumatic and steel drum roller. A rolling pattern shall be reestablished to determine the maximum density of final rolling. Density of the recycled pavement shall be verified behind the secondary compaction by nuclear density gauge. A rolling pattern for the secondary compaction shall be determined such that no increase in density is shown on successive nuclear density tests (per ASTM D 2950) for any additional passes of the compaction equipment once the maximum density pattern has been identified. Nuclear density testing shall be repeated throughout the time secondary compaction is being completed to continuously verify that the secondary compaction is within 5% of the maximum density established. Care shall be taken not to over compact the mat. A Qualified Technician shall be on site and observing all secondary compaction efforts, monitoring density gauge readings, and approving areas as they reach maximum density.

The Contractor shall protect and maintain the recycled surface from nuisance water, other deleterious substances, and/or any other damage. Any damage to the completed recycled material shall be repaired by the Contractor prior to the placement of new asphalt concrete or final surface sealing. Areas damaged shall be excavated to the depth directed by the Engineer and/or filled and compacted with new asphalt concrete. All loose particles that may develop on the pavement surface shall be removed prior to the final surface course. No direct payment will be made and costs shall be included elsewhere for protection and maintenance of the recycled asphalt concrete pavement.

Prior to any overlay with asphalt concrete, the recycled pavement should be carefully swept of all loose material to create a dry clean surface. A tack coat of SS-1h emulsion, emulsified recycling agent or equivalent (0.05 gallon per square yard minimum) shall be applied to all surface areas.

Smoothness – The finished surface and grade of the recycled material shall be checked regularly during placement using a level. The smoothness shall not vary more than ¼ inch from a 10-foot straight edge placed on the surface. The Contractor shall correct humps or depressions exceeding this tolerance. High points may be trimmed if approved by the Engineer in the field.

Method of Measurement

Quantities of the produced CIR pavement shall be measured by the square yards completed and accepted by the Engineer for the depths specified. Recycling agent and cement weight shall be based upon Certified delivery weight tickets, less any unused portion. Water used in this operation will not be paid for directly and shall be considered subsidiary to the bid item.

Basis of Payment

Payment for CIR shall be made at the Contract unit price per square foot. The price shall be full compensation for all labor, materials, tools, equipment, and incidentals; for doing all the work involved in cold in-place recycling, complete in-place; for milling, screening, crushing, mixing, blending, placing, and compacting the recycled pavement mixture; for protection and maintenance of the recycled layer; for performing all QC testing including mix design; for fog sealing, sanding and sweeping if necessary; for obtaining measurements and recording results of all tests as shown on the plans and as directed by the Engineer.

Recycling agent will be paid for at the contract price per ton for emulsified recycling agent. No adjustment of compensation will be made for any increase or decrease in the quantities of emulsified recycling agent required, regardless of the reason for the increase or decrease.

Cement, if necessary, will be paid for at the contract price per ton for cement. No adjustment of compensation will be made for any increase or decrease in the quantities of cement required, regardless of the reason for the increase or decrease.

SIGNING AND STRIPING

Painted traffic stripes (lane lines and speed limit markings) and applying thermoplastic pavement markings (word and symbol markings, limit lines, crosswalk, etc.) shall conform to the provisions in Section 84, "Traffic Stripes and Pavement Markings," of the State Standard Specifications and these Standard and Special Technical Provisions.

The subparagraphs of the first paragraph in Section 84-3.02, "Materials," of the State of California Standard Specifications are amended to read:

	State Specification No.
Rapid Dry Water Base, Traffic Line.—White, Yellow and Black	PTWB-01

The second and third paragraphs in Section 84-3.02, "Materials," of the State of California Standard Specifications are amended to read:

State Specifications for traffic paint and glass beads may be obtained from the Transportation Laboratory, 5900 Folsom Boulevard, Sacramento, CA 95819-4612, telephone number 916.227.7289.

Glass beads shall conform to 1-ACOT type beads or equal.

The Contractor shall layout and “cat-track” the alignment of the proposed striping at 15 ft. intervals and “spot” the proposed pavement markings as called for on the Plans. Striping shall vary no more than 2 in. in 50 ft. from the specified alignment. The Engineer may waive minor variations.

The Contractor shall not proceed with the painting of any striping or applying thermoplastic pavement markings until the Engineer has checked and approved the cat-tracking and spotting, and has authorized the Contractor to proceed.

Traffic striping shall be applied with airless equipment. All traffic striping shall be performed with a road liner type striping machine. Where the configuration or location of a traffic stripe is such that the use of a road liner type striping machine is unsuitable, traffic paint and glass beads may be applied by other methods and equipment approved by the Engineer. The Engineer shall determine if the road liner type striping machine is unsuitable for a particular use.

Temporary tape or reflective markers utilized for the purposes of interim delineation of centerline, lane lines, limit lines, and crosswalk lines shall be applied upon completion of surfacing and shall be placed to the side of the final striping pattern in such a way so that it will not interfere with the first coat of paint. The first coat of paint shall not be until seven (7) calendar days after the first coat. The second coat of paint shall not be applied until seven (7) calendar days after the first coat. Each coat of paint shall be applied at the wet film thickness of 10-12 mils for white and yellow paint and 7 mils for black paint. All paint shall be applied at a relative humidity below seventy-five percent (75%) and an ambient temperature above 13° C (55° F), unless otherwise approved by the Engineer. Thermoplastic pavement markings shall be installed no earlier than (7) calendar days following the installation of final ARHM surface course.

Except for black paint, No. 1 reflective glass beads shall be uniformly incorporated in all coats of paint concurrently with the application of the paint. The glass beads shall be embedded in the coat of traffic paint being applied to a depth of at least one-half their diameters. The reflective glass beads shall be applied to the first coat of paint at the rate of 1.5 lb. of beads per 0.26 Gal of paint, and to the second coat of paint at the rate of 2 lb. of beads per 0.26 Gal of paint.

Except as otherwise noted on the Plans or as directed by the Engineer, all angle points, as shown on the striping Plans shall be painted as a smooth, tangent curve with a radius and length as approved in the field.

All temporary tape and reflective markers applied for the purpose of interim delineation shall be removed by the Contractor at no additional cost to the City upon completion of the first coat of striping and prior to the final striping.

Stencils used for pavement markings must conform to the latest Caltrans approved Metric Stenciling Standards.

Add to Subsection 84-1.03B, “Protection from Damage,” of the State of California Standard Specifications the following:

Newly painted or existing striping or applied thermoplastic pavement markings which are damaged as a result of the construction, including wheel markings by public traffic and the construction equipment, shall be repainted or thermoplastic replaced, and any associated removals shall be performed as outlined in these Special Provisions at the sole expense of the Contractor and no separate

compensation will be allowed therefor.

Existing traffic striping and pavement markings that do not conform to the approved Plans shall be removed by wet sandblasting. Other methods may be requested by the Contractor, but shall be submitted in writing to the Engineer for approval. Blackout of existing traffic striping or pavement markings, which do not conform to the approved Plan, shall not be allowed.

Painting traffic stripes and applying of thermoplastic pavement markings shall not be separately measured.

The contract lump sum price paid for Signing and Striping shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals for doing all the work involved in painting traffic striping and applying thermoplastic pavement markings the items specified herein and no additional compensation shall be allowed therefor. Payment will be made on a basis of the percentage of work completed for this bid item.

TRAFFIC SIGNAL DETECTOR LOOPS

Subsection 86-5.01A (3), "Construction Materials", of the State Standard Specifications, the preferred choices shall be as follows:

Loop wire shall be Type "2" (THWN AWG #14).

The lead-in cable shall conform to Type "B."

The second paragraph of Subsection 86-5.01A (4) "Installation Details" of the State Standard Specifications shall be deemed revised as follows:

Type "E" inductive loop detector shall consist of four turns of loop wire of the type indicated above. Type "D" inductive loop detector shall consist of five turns of loop wire of the type indicated above.

Subsection 86-5.01A (4) shall be deemed to include the following additional requirements:

Type "D" loops shall be physically constructed by sawcutting two slots 21 in. apart, centered on a type "E" (round) loop, oriented at a 45 degree angle to the direction of travel.

Minimum conductor coverage shall be one inch.

Loop sawcut shall be backfilled using "hot melt rubberized asphalt sealant" and no other backfill material shall be used.

The Contractor shall test each Type D detector with a bicycle wheel made of ferromagnetic material, weighing not more than three pounds exclusive of tire and innertube. If a frame is used to hold the wheel upright, it shall be made of a non-ferromagnetic material such as wood. Special features, components, or vehicles designed to activate the detector will not be permitted. The Contractor shall place or hold the wheel vertically directly over each Type D detector. The loop detector must register and hold the presence of the bicycle wheel for a continuous period of time of at least two minutes in order for the engineer to

accept the detector test and installation.

The Contractor shall test each Type E detector 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 features, components or vehicles designed to activate the detector will not be permitted. The Contractor shall provide an operator licensed to drive such vehicle who shall drive the motor driven cycle through the response or detection area of the detector at not less than 3 mph nor more than 7 mph. The loop detector must detect the motor driven vehicle without the call being held in order for the engineer to accept the detector test and installation.

The Contract unit price paid per each traffic signal loop installed shall include, but not be limited to the complete installation of the loop detectors, to the termination pull box, conduits, slot cutting, lead-in cable loop wire, and application of sealant. The price shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, as directed by the Engineer, and all other appurtenant work as shown on the Plans as per the Specifications, and no additional compensation will be made therefor.

APPENDIX I
PROGRESS PAYMENT REQUEST FORM

TO: CITY OF MANHATTAN BEACH
 Engineering Division, 1400 Highland Avenue, Manhattan Beach, CA 90266
 PROJECT TITLE _____
 PROJECT NO. _____

FROM: CONTRACTOR _____ Date _____
 Address _____
 Telephone _____ Progress Estimate # _____
 Submitted by _____ Contract Award Amount \$ _____

No.	Description	Contract Quantity	Previous Quantity	Quantity This Estimate	Unit Price	Amount This Estimate	Total Quantity to Date	Total Amount to Date
1.								
2.								
3.								
4.								
5.								
6.								
7.								
8.								
9.								
10.								
11.								
12.								
13.								
14.								
	Total							
	Less Retention							
	Less Previous Billing(s)							
	Total Amount Due							

City Approval: _____

Date: _____

NOTE: An updated Project Schedule must be provided with each monthly progress payment in accordance with Section 6-1 of the General Provisions