

**PROPOSAL, SPECIFICATIONS, BOND
AND AFFIDAVIT
FOR THE CONSTRUCTION OF**

RESIDENTIAL STREETREHABILITATION, I-94 (AREA C)

B2013-49



**CRAIG BILIZERIAN
City Engineer**

September 2013

ENGINEER'S CERTIFICATION

**RESIDENTIAL STREET REHABILITATION, I-94 (AREA C)
B2013-49**

I hereby certify that this specification was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of California.

Print Name: STEVEN J. HOSFORD

Signature: 

Date: Oct 3, 2013

License #: 42280

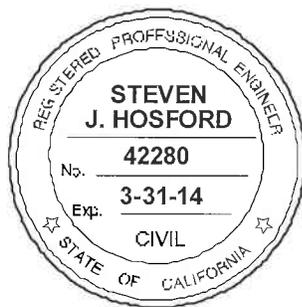


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SECTION A

NOTICE INVITING BIDS

CITY OF TORRANCE, CALIFORNIA

NOTICE INVITING BIDS

Notice is hereby given that sealed bids for performing the following described work will be received at the Office of the City Clerk of the City of Torrance, California, **until 3:00 p.m. on Wednesday, November 13, 2013**, after which time they will be publicly opened and read at 3:15 p.m. in the Council Chambers of said City:

**CONSTRUCTION OF
RESIDENTIAL STREET REHABILITATION PROJECT, I-94 (AREA C)
B2013-49**

Plans, Bid Schedule and Specifications are available for viewing and printing by prospective bidders and subcontractors on the City's website at <http://www.torranceca.gov/23009.htm>

Those who only view and/or print the Plans, Bid Schedule and Specifications from the City's website will not be added to the City's Plan Holder list for this project.

The official and required form of Proposal must be obtained at the Office of the City Clerk (310) 618-2870, City Hall, 3031 Torrance Boulevard, Torrance, California. There is no cost if picked up at City Hall. A payment of \$5 is required if requested by mail. The amount includes tax and is not refundable. A prospective bidder must provide to the City Clerk the firm's name, address, telephone and fax numbers, a contact person and a valid email address. This will ensure that your firm is listed as a "Plan Holder" and that you will be informed of any and all information issued subsequent to obtaining the official form of Proposal. Addenda will be issued only by email and only to those that provide the required information to the City Clerk. Receipt of any Addendum must be acknowledged by a bidder in its submitted form of Proposal.

Full-size 24" x 36" Plans and a bound Specifications booklet may also be obtained at the Office of the City Clerk (310) 618-2870, City Hall, 3031 Torrance Boulevard, Torrance, California upon payment of \$100 if picked up at City Hall, or payment of \$120 if requested by mail. Both amounts include tax. Neither amount is refundable. The \$120 includes a copy of the official form of Proposal.

If requesting any item(s) by mail, please send check to the following:

**CITY OF TORRANCE
OFFICE OF THE CITY CLERK
3031 TORRANCE BLVD
TORRANCE, CA 90509
ATTN: B2013-49**

The Engineer's estimate of the contract total is between \$2,045,000 and \$2,300,000. All work shall be completed within 150 (one hundred and fifty) working days from the date of the Notice to Proceed (NTP).

Per Division 2, Chapter 2 of the Torrance Municipal Code, the Torrance City Council may reject any and all bids, waive any informality or irregularity in such bids, and determine the lowest responsible bidder. No facsimile bids shall be accepted by the City.

Substitution of securities for withheld funds is permitted per Section 22300 of the Public Contract Code.

The City has determined that a Class A Contractor's license is necessary to bid this project, but reserves the right to accept another Class at the sole discretion of either the Public Works Director or Engineer.

Pursuant to Section 1770 et seq. of the California Labor Code, the minimum prevailing rate of per diem wages for each craft, classification, or type of workman needed to execute the Contract shall be those determined by the Director of Industrial Relations of the State of California. These wages are set forth in the General Prevailing Wage Rates for this project, available from the California Department of Industrial Relations' Internet web site at <http://www.dir.ca.gov/DLSR/PWD>.

The U.S. Department of Transportation (DOT) provides a toll-free "hotline" service to report bid rigging activities. Bid rigging activities can be reported Mondays through Fridays, between 8:00 a.m. and 5:00 p.m., Eastern Time, Telephone No. 1-800-424-9071. Anyone with knowledge of possible bid rigging, bidder collusion, or other fraudulent activities should use the "hotline" to report these activities. The "hotline" is part of the DOT's continuing effort to identify and investigate highway construction contract fraud and abuse and is operated under the direction of the DOT Inspector General. All information will be treated confidentially and caller anonymity will be respected.

By order of the City Council of the City of Torrance, California.

For further information, please contact Lauren Sablan, Associate Civil Engineer in the Public Works Department at (310) 618-6259 or LSablan@torranceca.gov or Beth Overstreet, Engineering Manager in the Public Works Department at (310) 618-3074 or EOverstreet@TorranceCA.gov.

SECTION B

INSTRUCTIONS TO BIDDERS

CITY OF TORRANCE, CALIFORNIA

INSTRUCTIONS TO BIDDERS

A. QUALIFICATION OF BIDDERS

1. Competency of Bidders

The Bidder shall be thoroughly competent and capable of satisfactorily performing the Work covered by the Bid. As specified in the Bid Documents, the Bidder shall furnish statements of previous experience on similar work. When requested, the Bidder shall also furnish the plan of procedure proposed; the organization, machinery, plant and other equipment available for the Work; evidence of its financial condition and resources; and any other such documentation as may be required by the City to determine if the Bidder is responsible.

2. Contractor's License

At the time of submitting the Bid, the Bidder shall be licensed as a contractor in accordance with the provisions of Chapter 9, Division 3, of the California Business and Professions Code. The required prime contractor license class for the Work is shown in the project Notice Inviting Bids. However, the City reserves the right to award the Contract to a contractor with another class if the City determines that the license is proper for the work.

B. BIDDER RESPONSIBILITY

A responsible Bidder is a Bidder who has demonstrated the attribute of trustworthiness, as well as ability, fitness, capacity and experience to satisfactorily perform the work.

Bidders are notified that, in accordance with Division 2, Chapter 2 of the Torrance Municipal Code, the City Council may determine whether the Bidder is responsible based on a review of the Bidder's performance on other contracts.

If, based on the provision and criteria in Division 2, Chapter 2 of the Torrance Municipal Code, the Public Works Director proposes not to recommend the award of contract to the apparent low bidder, the Director shall notify the Bidder in writing of its intention to recommend to the City Council that the Council award the contract to the 2nd lowest responsible bidder. If the Bidder presents evidence in rebuttal to the recommendation, the Director shall evaluate the merits of such evidence, and based on that evaluation, make a recommendation to the City Council.

C. ADDENDA TO THE CONTRACT DOCUMENTS

The City may issue Addenda to the Contract Documents during the period of advertising for any reason. The Bidder shall acknowledge the receipt of the Addenda in their Bid. Failure of the Bidder to do so may result in the rejection of the Bid as non-responsive.

D. PREPARATION OF THE BID

1. Examination of Site, Plans and Specifications

Prior to submitting a Bid, the Bidder shall examine the Plans and the Work site, carefully read the Specifications, and satisfy itself that it has the abilities and resources to complete the Work. The Bidder agrees that if it is awarded the Contract, no claim will be made against the City based on ignorance or misunderstanding of the provisions of the Contract Documents, the nature and amount of the work, and the physical and climatic conditions of the work site.

2. Estimated Quantities

The quantities shown in the Bid are approximate only. The Contractor will be paid for the actual quantities of work based on field measurements as provided for in these Specifications. The City reserves the right to increase or decrease the amount of any item or portion of work to be performed or materials furnished, or to delete any item, in accordance with the Specifications.

3. Bid Instructions and Submissions

The Bid shall be submitted on the Bid Proposal forms included with the Specifications. All Bid Documents listed below must be completed, executed and submitted with the Bid by the Bidder.

Required eight (8) Bid Proposal Documents:

- 1) Bidder's Proposal
- 2) Addenda Acknowledgment Of Addenda Received
- 3) Contractor's Affidavit
- 4) Bid Bond (10%)
- 5) List of Subcontractors
- 6) References (2 pages)
- 7) Violations of Federal or State Law
- 8) Disqualification or Debarment

All prices submitted will be considered as including any and all sales or use taxes.

For any individual bid item, in the case of a discrepancy between its unit price and total bid, the unit price shall always prevail.

4. Disadvantaged Business Enterprise (DBE) Requirements

This project has no DBE requirements, but a Bidder is encouraged to include DBE firms in its solicitation of any needed subcontractors.

E. BID BOND

The Bid must be accompanied by either cash, a certified or cashier's check or a surety bond (bid bond) payable to the City of Torrance. Bids must be submitted on the proposal forms furnished by the Public Works Department. The Bid Guaranty shall be in an amount equivalent to at least 10% of the Total Contract Bid Price.

F. NONRESPONSIVE BIDS AND BID REJECTION

1. A Bid in which any one (1) of the required eight (8) Bid proposal documents are not completed, executed and submitted may be considered non-responsive and be rejected.
2. A Bid in which the Contract Unit Prices are unbalanced, which is incomplete or which shows alteration of form or irregularities of any kind, or which contains any additions or conditional or alternate Bids that are not called for, may be considered non-responsive and be rejected.

G. AWARD OF CONTRACT

In accordance with Division 2, Chapter 2 of the Torrance Municipal Code, the City Council reserves the right to reject any and all bids received, to take all bids under advisement for a period not-to-exceed one hundred (100) days after date of opening thereof, to waive any informality or irregularity in the Bid, and to be the sole judge of the merits of material included in the respective bids received.

H. EXECUTION OF CONTRACT

After the Contract is awarded, the awardee shall execute the following eight (8) documents:

- 1) Performance Bond (100% of Bid)
- 2) Labor and Material Bond (100% of Bid)
- 3) Contract - Public Works Agreement
- 4) Verification of Insurance Coverage (Certificates and Endorsements)
- 5) Construction or Service Contract Endorsement
- 6) Workers' Compensation Insurance Certificate
- 7) Construction Permit Application Form
- 8) Business License Application Form

I. APPRENTICESHIP EMPLOYMENT STANDARDS

The Contractor is directed to the provisions in Sections 1776, 1777.5 and 1777.6 of the California Labor Code concerning the employment of apprentices by the contractor or any subcontractor under them.

J. PERMITS, LICENSES AND PUBLIC WORKS AGREEMENT

The Contractor shall procure and execute all permits, licenses, pay all charges and fees, and give all notices necessary and incidental to the completion of the Work. The Contractor shall execute a Public Works Agreement. No fee is charged for a Construction-Excavation Permit issued by the City of Torrance for a public works project. The Contractor shall obtain a City of Torrance Business License.

K. INSURANCE

The Contractor shall maintain Automobile Liability, General Liability and Workers' Compensation Insurance as specified in the Public Works Agreement included in the Project Specifications.

L. PRE-BID INQUIRIES

A Bidder with a Pre-Bid Inquiry must submit their question(s) in writing to the Torrance Public Works Department. You may email it to Lauren Sablan, Associate Civil Engineer, at LSablan@TorranceCA.gov or Beth Overstreet, Engineering Manager at EOverstreet@TorranceCA.gov. Please list "RESIDENTIAL STREET REHABILITATION (ARE C), I-94RFI" in the subject line of the email.

All questions must be received no later than 5:00 p.m. on the Wednesday one week prior to the date for opening the bids. Questions received after this date may not be considered.

For questions of a general nature, a bidder may call Lauren Sablan directly at (310) 618-6259 or Beth Overstreet at (310) 618-3074.

SECTION C
BID DOCUMENTS

BIDDER'S SUBMITTAL

Company: _____ Total Bid: _____

PROPOSAL, SPECIFICATIONS, BOND AND AFFIDAVIT FOR THE CONSTRUCTION OF RESIDENTIAL STREET REHABILITATION PROJECT, I-94 (AREA C)

B2013-49

Honorable Mayor and Members
of the Torrance City Council
Torrance, California

Members of the Council:

In accordance with the Notice Inviting Bids pertaining to the receiving of sealed proposals by the City Clerk of the City of Torrance for the above titled improvement, the undersigned hereby proposes to furnish all Work to be performed in accordance with the Plans, Specifications, Standard Drawings, and the Contract Documents, for the unit price or lump sum set forth in the following schedule.

BID SCHEDULE

ITEM NO.	APPROX. QTY	UNIT OF MEASURE	ITEM DESCRIPTION	SECTION	UNIT PRICE	TOTAL BID
1	9	EA	CONSTRUCTION SCHEDULE	6-1	\$	\$
2	1	L.S.	Preparation of SWPPP	7-8.6.5	\$	\$
3	1	L.S.	Implementation of SWPPP	7-8.6.5	\$	\$
4	1	L. S.	Mobilization (5% Max of Total Bid)	9-3.4	\$	\$
5	1	L. S.	Traffic Control	7-10	\$	\$
6	1	L.S.	Survey (By CA Registered Land Surveyor)	2-9	\$	\$
7	1	LS	Topographic Survey for Additional Gutter Improvement at 2120 W.234 th ST (By CA Registered Land Surveyor)	2-9	\$	\$

ITEM NO.	APPROX. QTY	UNIT OF MEASURE	ITEM DESCRIPTION	SECTION	UNIT PRICE	TOTAL BID
8	95	Each	Survey Monuments (By CA Registered Land Surveyor)	309-4	\$	\$
STREET IMPROVEMENTS						
9	330,000	S. F.	Cold Mill 2 Inches & Crack Seal	302-5.2	\$	\$
10	39,000	S. F.	Cold Mill Roadway Variable Depth 0" - 1.5" & Crack Seal	302-5.2	\$	\$
11	730	C.Y.	Unclassified Excavation	300-2.9	\$	\$
12	700	Ton	Asphalt Concrete Base Course (B-PG-64-10)	203-6.1, 302-5.9	\$	\$
13	5000	Ton	Asphalt Concrete Surface Course (C2-PG 64-10)	203-6.1, 302-5.9	\$	\$
14	760	Ton	Roadway Patching Crushed Base Course (4")	301-2.4	\$	\$
15	65	Ln. Ft.	Remove and Reconstruct Variable Height Curb per SPPWC Std Plan No. 120-2	303-5.5.2, 303-5.9	\$	\$
16	18,000	Ln. Ft.	Remove Curb and Reconstruct Variable Height Curb with 1 ft Gutter per SPPWC Std Plan No. 120-2	303-5.5.2, 303-5.9	\$	\$
17	550	Ln. Ft.	Remove Curb and Gutter and Reconstruct Variable Height Curb with 1 ft Gutter per SPPWC Std Plan No. 120-2	303-5.5.2, 303-5.9	\$	\$
18	35	Ln. Ft.	Remove Curb and Gutter and Reconstruct 8" Curb with 2 ft Gutter per SPPWC Std Plan No. 120-2	303-5.5.2, 303-5.9	\$	\$
19	270	Ln. Ft.	Construct 3 ft PCC Type E Curb per Caltrans Std Plan A87A	303-5.9	\$	\$
20	150	Ln. Ft.	Remove and Construct 10 ft PCC Curb Transition	303-5.5.2, 303-5.9	\$	\$
21	4,300	S. F.	Remove and Reconstruct 3.5" PCC Sidewalk per SPPWC Std No. 113-2	303-5.9	\$	\$

ITEM NO.	APPROX. QTY	UNIT OF MEASURE	ITEM DESCRIPTION	SECTION	UNIT PRICE	TOTAL BID
22	106	Each	Remove Ramp and Reconstruct PCC ADA Ramp Per SPPWC Std Plan 111-4, Case and Type Per Plan	303-5.9	\$	\$
23	132	S.Y.	Border Avenue - Remove Existing Landscaping, Grade per Typical Section, Adjust Irrigation to Grade, & Replace Turf	308-4.8.3	\$	\$
24	1,120	S. F.	Remove and Reconstruct PCC Driveway Approach per SPPWC Std Plan 110-2	303-5.9	\$	\$
25	4,100	S. F.	Remove and Reconstruct PCC Alley Approach per SPPWC Std No. 130-2 and Detail on Sheet 3	303-5.9	\$	\$
26	17,000	S. F.	Remove and Construct PCC Cross Gutter and Spandrel per SPPWC Std 122-2	303-5.9	\$	\$
27	2,100	Ln. Ft.	Remove and Reconstruct AC Berm per Caltrans Std Plan No. A87B, Type A	302-5.9	\$	\$
28	1,800	Ln. Ft.	Construct New AC Berm per Caltrans Std Plan No. A87B, Type A	302-5.9	\$	\$
29	25	Ln. Ft.	Construct New 8-Inch AC Berm with 4-Foot Paint per Detail E	302-5.9	\$	\$
30	8	Each	Furnish and Install Detectable Warning Device onto Existing ADA Ramp per SPPWC Std 111-4	303-5.5.5 303-5.9	\$	\$
31	1	Each	Retrofit 1 ft Wide Groove Border on Existing Curb Ramp per SPPWC Std Plan No 111-4	303-5.9	\$	\$
32	520	S. F.	Remove Existing and Install Monolithic PCC Curb and Sidewalk per Detail "D" on sheet 31	303-5.9	\$	\$
33	4,800	Ln. Ft.	Remove and Reconstruct Depressed PCC Curb at Driveway Approach and Curb Ramps	303-5.9	\$	\$
34	155	S. F.	Remove and Reconstruct 3.5" PCC Walkway	303-5.9	\$	\$
35	12	Each	Furnish and Install multiple Pipe Curb Drain Per SPPWC Std Plan 150-3	306-7	\$	\$

ITEM NO.	APPROX. QTY	UNIT OF MEASURE	ITEM DESCRIPTION	SECTION	UNIT PRICE	TOTAL BID
36	13	Each	Adjust Sewer, Electrical, or Storm Drain Manhole Frame and Cover to Grade	302-5.8.1	\$	\$
37	26	Each	Adjust Existing Water or Gas Valve Can & Lid to Grade (See Plan for Type).	302-5.8.1	\$	\$
38	6	Each	Remove Existing Tree	300-1.4	\$	\$
SIGNING, STRIPING AND PAVEMENT MARKINGS						
39	2	Each	Remove and Relocate Existing Traffic Sign	315, 56-2.06	\$	\$
40	1	L. S.	Paint Pavement Legends per Caltrans Std. Plan No. A24E, and per Plan Notations.	210, 310, 84-2.06	\$	\$
41	1	L. S.	Paint Crosswalk & Limit Line per Caltrans Std. Plan No. A24E, Color and Type per Plan.	210, 310, 84-2.06	\$	\$
42	1	L. S.	Paint/Install Pavement Markings per Caltrans Std. Plan No. A20A thru A20D, Type/Detail per Plan.	210, 310, 84-2.06	\$	\$
43	1	L. S.	Paint/Install Pavement Markings per Caltrans Std. Plan No. A24A, Type/Detail per Plan.	210, 310, 84-2.06	\$	\$
44	1	L.S.	Paint/Install Curb Markings - Red Curb (Top & Face) and House Numbers	310, 84-2.06		
45	6	Each	Remove and Reset Existing W1-8R Warning signs	315, 56-2.06	\$	\$
46	1	L. S.	Remove and Replace Traffic Signal Loops Per Traffic Signal in Kind	307, 86-8.01	\$	\$
IMPROVEMENTS ON CRENSHAW BLVD.						
47	1	L.S.	Traffic Control for Work on Crenshaw Blvd	7-10	\$	\$
48	4	Each	Portable Changeable Message Signs for Work on Crenshaw Blvd	7-15	\$	\$

ITEM NO.	APPROX. QTY	UNIT OF MEASURE	ITEM DESCRIPTION	SECTION	UNIT PRICE	TOTAL BID
49	2	C.Y.	Unclassified Excavation on Crenshaw Blvd	300-2.9	\$	\$
50	6,400	S. F.	Cold Mill 2 Inches on Crenshaw Blvd	302-5.2	\$	\$
51	77	Ton	Asphalt Rubber Hot Mix (ARHM) on Crenshaw Blvd	302-9	\$	\$
52	36	SF	Cement Slurry (100-E-100) 8" Thick on Crenshaw Blvd	203-6.1, 302-5.9	\$	\$
53	1	Each	Adjust Sewer Manhole Frame and Cover to Grade on Crenshaw Blvd	302-5.8.1	\$	\$
54	5	Each	Adjust Existing Water or Gas Valve Can & Lid to Grade (See Plan for Type) On Crenshaw Blvd	302-5.8.1	\$	\$
55	1	L.S.	Paint/Install Thermoplastic Pavement Markings per Caltrans Std. Plan No. A20A thru A20D, Type/Detail per Plan on Crenshaw Blvd.	210, 310, 84-2.06	\$	\$

TOTAL BID PRICE \$ _____

(Figures)*

TOTAL BID PRICE: _____

(Words)*

***BID MAY BE REJECTED IF TOTAL IS NOT SHOWN IN FIGURES AND WORDS.**

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BIDDER'S PROPOSAL (Continued)

B2013-49

The undersigned furthermore agrees to enter into and execute a contract, with necessary bonds, at the unit prices set forth herein and in case of default in executing such contract, with necessary bonds, the check or bond accompanying this bid and the money payable thereon shall be forfeited thereby to and remain the property of the City of Torrance.

The above unit prices include all work appurtenant to the various items as outlined in the Specifications and all work or expense required for the satisfactory completion of said items. In case of discrepancies between unit prices and totals, the unit prices shall govern.

The undersigned declares that it has carefully examined the Plans, Specifications, and Contract Documents, and has investigated the site of the work and is familiar with the conditions thereon.

Contractor: _____

Date: _____ By: _____

Contractor's State License No. _____ Class _____

Address: _____

Phone: _____

Fax: _____

ACKNOWLEDGMENT OF ADDENDA RECEIVED – B2013-49

The Bidder shall acknowledge the receipt of addenda by placing an "X" by each addendum received.

Addendum No. 1 _____

Addendum No. 2 _____

Addendum No. 3 _____

Addendum No. 4 _____

Addendum No. 5 _____

Addendum No. 6 _____

Addendum No. 7 _____

Addendum No. 8 _____

If an addendum or addenda have been issued by the City and not noted above as being received by the Bidder, the Bid Proposal may be rejected.

Bidder's Signature

Date

CONTRACTOR'S AFFIDAVIT

STATE OF CALIFORNIA }
 }
COUNTY OF _____}

B2013-49

_____, being first duly sworn, deposes and says:

1. That he is the

Title

of _____
(Name of Partnership, Corporation, or Sole Proprietorship)

hereinafter called "Contractor," who has submitted to the City of Torrance a proposal for the Construction of Residential Street Rehabilitation, Area C, I-94 , B2013-49;

2. That said proposal is genuine; that the same is not sham; that all statement of facts therein are true;
3. That such proposal was not made in the interest or behalf of any person, partnership, company, association, organization or corporation not named or disclosed;
4. That the Contractor did not, directly or indirectly, induce, solicit or agree with anyone else to submit a false or sham bid, to refrain from bidding, or to withdraw the bid, to raise or fix the bid price of the Contractor or anyone else, or to raise or fix any overhead, profit or cost element of the Contractor's price or the price of anyone else; and did not attempt to induce action prejudicial to the interest of the City of Torrance, or of any other bidder, or anyone else interested in the proposed contract;
5. That the Contractor has not in any manner sought by collusion to secure for itself an advantage over any other bidder or to induce action prejudicial to the interests of the City of Torrance, or of any other bidder or of anyone else interested in the proposed contract;
6. That the Contractor has not accepted any bid from any subcontractor or materialman through any bid depository, the bylaws, rules or regulations of which prohibit or prevent the Contractor from considering any bid from any subcontractor or materialman, which is not processed through said bid depository, or which prevent any subcontractor or materialman from bidding to any contractor who does not use the facilities of or accept bids from or through such bid depository;

CONTRACTOR'S AFFIDAVIT (CONTINUED)

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7. That the Contractor did not, directly or indirectly, submit the Contractor's bid price or any breakdown thereof, or the contents thereof, or divulge information or data relative thereto, to any corporation, partnership, company, association, organization, bid depository, or to any member or agent thereof, or to any individual or group of Individuals, except to the City of Torrance, or to any person or persons who have a partnership or other financial interest with said Contractor in its business.

Dated this _____ day of _____, 20__.

Subscribed and Sworn to
before me this _____ day
of _____, 20__.

(Contractor)

(Title)

Notary Public in and for said
County and State.
(Seal)

BID BOND (10%)

B2013-49

KNOW ALL MEN BY THESE PRESENTS: That we, _____

as principal, and _____

as sureties, are held and firmly bound unto the City of Torrance, State of California, in the penal sum of _____ dollars (\$_____), for the payment whereof we hereby bind ourselves, our successors, heirs, executors or administrators jointly and severally, firmly by these presents.

The condition of this obligation is such that, whereas the above bounded principal is about to file with and submit to the City of Torrance a bid or proposal for the performance of certain work as required in the City of Torrance, Project No. B2013-49, said work being: the Residential Street Rehabilitation, AREA C, I-94 , and in compliance with the Specifications therefor under an invitation of said City contained in a notice or advertisement for bids or proposals; now if the bid or proposal of the said principal shall be accepted and if the said work be thereupon awarded to the principal by said City and if the said principal shall enter into a contract with the said City in accordance with said bid or proposal, or if the bid or proposal of the said principal is rejected, then this bond shall be void and of no effect and otherwise in full force and effect.

WITNESS our hands this _____ day of _____, 20____.

Principal

Surety/Attorney-in-Fact

Signature

Name: _____
Local Address: _____

Phone No.: _____
Fax No.: _____

LIST OF SUBCONTRACTORS: B2013-49

The Bidder is required to fill in the following blanks in accordance with the provisions of the California Public Contract Code Sections 4100-4114, CHAPTER 4. SUBLETTING AND SUBCONTRACTING. The contractor, sub recipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of Title 49 CFR (Code of Federal Regulations) part 26 in the award and administration of US DOT assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy, as the recipient deems appropriate. Each subcontract signed by the bidder must include this assurance.

Failure of the bidder to fulfill the requirements of the Special Provisions for submittals required to be furnished after bid opening, including but not limited to escrowed bid documents, where applicable, may subject the bidder to a determination of the bidder's responsibility in the event it is the apparent low bidder on a future public works contracts.

Name Under Which Subcontractor is Licensed: _____

Subcontractor's Address: _____

Specific Description of Sub-Contract: _____

License Number: _____ CA License Classification/Type: _____

Name Under Which Subcontractor is Licensed: _____

Subcontractor's Address: _____

Specific Description of Sub-Contract: _____

License Number: _____ CA License Classification/Type: _____

Name Under Which Subcontractor is Licensed: _____

Subcontractor's Address: _____

Specific Description of Sub-Contract: _____

License Number: _____ CA License Classification/Type: _____

Subcontractors listed must be properly licensed under the laws of the State of California for the type of work which they are to perform. Do not list alternate subcontractors for the same work.

The Bidding Contractor must include each subcontractor's contract license number (AB 44). An inadvertent error in listing the subcontractor's license number shall not be grounds for filing a bid protest, or grounds for considering the bid nonresponsive, if the corrected contractor's license number is submitted to the public entity by the prime contractor within 24 hours after the bid opening – provided that the corrected license number corresponds to the submitted name and location of the subcontractor.

REFERENCES (Page 1 of 2)
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List work similar in magnitude and degree of difficulty completed by the Contractor within the past three (3) years.

1. Name (Firm/Agency): _____
Address: _____
Contact Person: _____ Telephone No.: _____
Title of Project: _____
Project Location: _____
Date of Completion: _____ Contract Amount: \$ _____

2. Name (Firm/Agency): _____
Address: _____
Contact Person: _____ Telephone No.: _____
Title of Project: _____
Project Location: _____
Date of Completion: _____ Contract Amount: \$ _____

3. Name (Firm/Agency): _____
Address: _____
Contact Person: _____ Telephone No.: _____
Title of Project: _____
Project Location: _____
Date of Completion: _____ Contract Amount: \$ _____

4. Name (Firm/Agency): _____
Address: _____
Contact Person: _____ Telephone No.: _____
Title of Project: _____
Project Location: _____
Date of Completion: _____ Contract Amount: \$ _____

REFERENCES (PAGE 2 OF 2)
B2013-49

If Contractor has not performed work for the City of Torrance within the last five (5) years, list all work done within said five years (attach additional sheets if necessary). Note if work was done as subcontractor [include only subcontract amount]:

Work Description & Contract Amount	Agency	Date Completed

Contractor's License No.: _____ Class: _____

a. Date first obtained: _____ Expiration: _____

b. Has License ever been suspended or revoked? _____

If yes, describe when and why: _____

c. Any current claims against License or Bond? _____

If yes, describe claims: _____

Principals in Company (List all – attach additional sheets if necessary):

NAME	TITLE (If Applicable)	LICENSE NO.
_____	_____	_____
_____	_____	_____
_____	_____	_____

**VIOLATIONS OF FEDERAL, STATE OR LOCAL LAWS
B2013-49**

1. Has your firm or its officers been assessed any penalties by an agency for noncompliance or violations of Federal, State or Local labor laws and/or business or licensing regulations within the past five (5) years relating to your construction projects?

Yes/No: _____ Federal/State: _____

If "yes," identify and describe, (including agency and status): _____

Have the penalties been paid? Yes/No: _____

2. Does your firm or its officers have any ongoing investigations by any public agency regarding violations of the State Labor Code, California Business and Professions Code or State Licensing Laws?

Yes/No: _____ Code/Laws: _____ Section/Article: _____

If "yes," identify and describe, (including agency and status): _____

DISQUALIFICATION OR DEBARMENT

Has your firm, any officer of your firm, or any employee who has a proprietary interest in your firm ever been disqualified, removed, or otherwise prevented from bidding on, performing work on, or completing a federal, state or local project because of a violation of law or a safety regulation? Yes/No: _____. If yes, provide the following information (if more than once, use separate sheets):

Date: _____ Entity: _____

Location: _____

Reason: _____

Provide Status and any Supplemental Statement: _____

Has your firm been reinstated by this entity? Yes/No: _____

SECTION D

**DOCUMENTS TO BE COMPLETED
AND DELIVERED TO CITY PRIOR
TO AWARD OF CONTRACT**

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS:

That we, _____ as Principal(s) and _____ a corporation, incorporated, organized, and existing under the laws of the State of _____, and authorized to execute bonds and undertakings and to do a general surety business in the State of California, as Surety, are jointly and severally held and firmly bound unto the City of Torrance, a municipal corporation, located in the County of Los Angeles, State of California, in the full and just sum of: _____ Dollars (\$ _____), lawful money of the United States of America, for the payment of which sum, well and truly to be made, we bind ourselves and our respective heirs, executors, administrators, representative, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that: **WHEREAS,** said Principal(s) have/has entered into, or are/is about to enter into, a certain written contract or agreement, dated as of the _____ day of _____, 20____, with the said City of Torrance for the Construction of **RESIDENTIAL STREET REHABILITATION PROJECT (AREAC), I-94, B2013-49,** all as is more specifically set forth in said contract or agreement, a full, true and correct copy of which is hereunto attached, and hereby referred to and by this reference incorporated herein and made a part hereof;

NOW, THEREFORE, if the said Principal(s) shall faithfully and well and truly do, perform and complete, or cause to be done, performed and complete, each and all of the covenants, terms, conditions, requirements, obligations, acts and things, to be met, done or performed by said Principal(s), including any guarantee period as set forth in, or required by, said contract or agreement, all at and within the time or times, and in the manner as therein specified and contemplated, then this bond and obligation shall be null and void; otherwise it shall be and remain in full force, virtue and effect.

The said Surety, for value received, hereby stipulates and agrees that no amendment, change, extension of time, alteration or addition to said contract or agreement, or of any feature or item or items of performance required therein or thereunder, shall in any manner affect its obligations on or under this bond; and said Surety does hereby waive notice of any such amendment, change, extension of time, alteration, or addition to said contract or agreement, and of any feature or item or items of performance required therein or thereunder.

PERFORMANCE BOND (CONTINUED)

In the event any suit, action or proceedings is instituted to recover on this bond or obligation, said Surety will pay, and does hereby agree to pay, as attorney's fees for said City, such sum as the Court in any such suit, action or proceeding may adjudge reasonable.

EXECUTED, SEALED AND DATED this _____ day of _____,
20____.

CORPORATE SEAL

PRINCIPAL(S):

BY _____

BY _____

CORPORATE SEAL

SURETY:

BY _____

LABOR AND MATERIAL BOND

KNOW ALL MEN BY THESE PRESENTS:

That we, _____
As Principal(s) and _____ a
corporation, incorporated, organized, and existing under the laws of the State of
_____, and authorized to execute bonds and undertakings and to do a general surety
business in the State of California, as Surety, are jointly and severally held and firmly bound unto:

- (a) The State of California for the use and benefit of the State Treasurer, as ex-officio Treasurer and custodian of the Unemployment Fund of said State; and
- (b) The City of Torrance, California; and
- (c) Any and all persons who do or perform or who did or performed work or labor upon or in connection with the work or improvement referred to in the contract or agreement hereinafter mentioned; and
- (d) Any and all materialmen, persons, companies, firms, association, or corporations, supplying or furnishing any materials, provisions, provender, transportation, appliances or power, or other supplies used in, upon, for or about or in connection with the performance of the work or improvement contracted to be executed, done, made or performed under said contract or agreement; and
- (e) Any and all persons, companies, firms, associations, or corporations furnishing, renting, or hiring teams, equipment, implements or machinery for, in connection with, or contributing to, said work to be done or improvement to be made under said contract or agreement; and
- (f) Any and all persons, companies, firms, associations, or corporations who supply both work and materials;

and whose claim has not been paid by said Principal(s), in full and just sum of _____ Dollars (\$_____), lawful money of the United States of America, for the payment of which will and truly to be made, said Principal(s) and said Surety do hereby bind themselves and their respective heirs, executors, administrators, representatives, successors and assigns, jointly and severally, firmly by these presents.

LABOR AND MATERIAL BOND (CONTINUED)

THE CONDITION OF THE FOREGOING OBLIGATION IS SUCH, THAT: WHEREAS, said Principal(s) have/has entered into or are/is about to enter into a certain written contract or agreement, dated as of the _____ day of _____ 20 ____, with the City of Torrance for the Construction of **RESIDENTIAL STREET REHABILITATION PROJECT (AREA C), I-94, B2013-49** all as is more specifically set forth in said contract or agreement, a full, true and correct copy of which is hereunto attached, and hereby referred to and by this reference incorporated herein and made a part hereof;

NOW, THEREFORE, if the said Principal(s) (or any of his/her, its, or their subcontractors) under said contract or agreement fails or fail to pay:

- (1) For any materials, provisions, provender, transportation, appliances, or power, or other supplies; or
- (2) For the hire of any teams, equipment, implements, or machinery; or
- (3) For any work or labor; supplies, furnished, provided, used, done or performed in, upon, for or about or in connection with the said work or improvement; or
- (4) For amounts due under the Unemployment Insurance Act of the State of California with respect to such work or improvement;

the Surety on this bond will pay the same in an amount not exceeding the sum hereinabove specified in this bond; and, also, in case suit is brought upon this bond, said Surety will (and does hereby agree to) pay a reasonable attorney's fee, to be fixed and taxed as costs, and included in the judgment therein rendered.

This bond shall (and it is hereby made to) insure to the benefit of any and all persons entitled to file claims under Section 1192.1 of the Code of Civil Procedure of the State of California, so as to give a right of action to them or their assigns in any suit brought upon this bond, all as contemplated under the provisions of Section 4205 of the Government Code, and of Chapter 1 of Title 4 of Part 3 of the Code of Civil Procedure, of the State of California.

This bond is executed and filed in connection with said contract or agreement hereunto attached to comply with each and all of the provisions of the laws of the State of California above mentioned or referred to, and of all amendments thereto, and the obligors so intend and do hereby bind themselves accordingly.

LABOR AND MATERIAL BOND (CONTINUED)

The said Surety, for value received, hereby stipulates and agrees that no amendment, change, extension of time, alteration, or addition to said contract or agreement, or of any feature or item or items of performance required therein or thereunder, shall in any manner affect its obligations on or under this bond; and said Surety does hereby waive notice of any such amendment, change, extension of time, alteration, or addition to said contract or agreement, and of any feature or item or items of performance required therein or thereunder.

EXECUTED, SEALED AND DATED this _____ day of _____, 20_____

CORPORATE SEAL

PRINCIPAL:

BY _____

CORPORATE SEAL

SURETY:

BY _____

PUBLIC WORKS AGREEMENT

PUBLIC WORKS AGREEMENT

This PUBLIC WORKS AGREEMENT ("Agreement") is made and entered into as of DATE (the "Effective Date"), by and between the CITY OF TORRANCE, a municipal corporation ("CITY"), and CONTRACTOR NAME, TYPE OF ENTITY ("CONTRACTOR").

RECITALS:

- A. The CITY wishes to retain the services of an experienced and qualified CONTRACTOR to construct the **RESIDENTIAL STREET REHABILITATION (AREA C), I-94, B2013-49**;
- B. In order to obtain the desired services, The CITY has circulated a Notice Inviting Bids for the construction of the **RESIDENTIAL STREET REHABILITATION (AREA C), I-94, B2013-49** (the "NIB"); and
- C. CONTRACTOR has submitted a Bid (the "Bid") in response to the NIB. CONTRACTOR represents that it is qualified to perform those services requested in the Plans and Specifications. Based upon its review of all Bids submitted in response to the NIB, The CITY is willing to award the contract to CONTRACTOR.

AGREEMENT:

1. SERVICES TO BE PERFORMED BY CONTRACTOR

CONTRACTOR will provide the services and install those materials listed in the Plans and Specifications, which are on file in the Public Works Department. The NIB and the Plans and Specifications are made a part of this Agreement. A copy of the Bid is attached as Exhibit A.

2. TERM

Unless earlier terminated in accordance with Paragraph 4 below, this Agreement will continue in full force and effect for two years from the Effective Date.

3. COMPENSATION

A. CONTRACTOR's Fee.

For services rendered pursuant to this Agreement, CONTRACTOR will be paid in accordance with CONTRACTOR's Bid; provided, however, that in no event will the total amount of money paid the CONTRACTOR, for services initially contemplated by this Agreement, exceed the sum of \$INSERT DOLLAR AMOUNT ("Agreement Sum"), unless otherwise first approved in writing by the CITY.

B. Schedule of Payment.

Provided that the CONTRACTOR is not in default under the terms of this Agreement, upon presentation of an invoice, CONTRACTOR will be paid monthly, within 30 days after the date of the monthly invoice.

4. TERMINATION OF AGREEMENT

A. Termination by CITY for Convenience.

1. CITY may, at any time, terminate the Agreement for CITY's convenience and without cause.
2. Upon receipt of written notice from CITY of such termination for CITY's convenience, CONTRACTOR will:
 - a) cease operations as directed by CITY in the notice;
 - b) take actions necessary, or that CITY may direct, for the protection and preservation of the work; and
 - c) except for work directed to be performed prior to the effective date of termination stated in the notice, terminate all existing subcontracts and purchase orders and enter into no further subcontracts and purchase orders.
3. In case of such termination for CITY's convenience, CONTRACTOR will be entitled to receive payment for work executed; and costs incurred by reason of such termination, along with reasonable overhead and profit on the work not executed.

B. Termination for Cause.

1. If either party fails to perform any term, covenant or condition in this Agreement and that failure continues for 15 calendar days after the nondefaulting party gives the defaulting party notice of the failure to perform, this Agreement may be terminated for cause; provided, however, that if during the notice period the defaulting party has promptly commenced and continues diligent efforts to remedy the default, the defaulting party will have such additional time as is reasonably necessary to remedy the default.
2. In the event this Agreement is terminated for cause by the default of the CONTRACTOR, the CITY may, at the expense of the CONTRACTOR and its surety, complete this Agreement or cause it to be completed. Any check or bond delivered to the CITY in connection with this Agreement, and the money payable thereon, will be forfeited to and remain the property of the CITY. All moneys due the CONTRACTOR under the terms of this Agreement will be retained by the CITY, but the retention will not release the CONTRACTOR and its surety from liability for the default. Under these circumstances, however, the CONTRACTOR and its surety will be credited with the amount of money retained, toward any amount by which the cost of completion exceeds the Agreement Sum and any amount authorized for extra services.
3. Termination for cause will not affect or terminate any of the rights of the CITY as against the CONTRACTOR or its surety then existing, or which may thereafter accrue because of the default; this provision is in

addition to all other rights and remedies available to the CITY under law.

C. Termination for Breach of Law.

In the event the CONTRACTOR or any of its officers, directors, shareholders, employees, agents, subsidiaries or affiliates is convicted (i) of a criminal offense as an incident to obtaining or attempting to obtain a public or private contract or subcontract, or in the performance of a contract or subcontract; (ii) under state or federal statutes of embezzlement, theft, forgery, bribery, falsification or destruction of records, receiving stolen property, or any other offense indicating a lack of business integrity or business honesty which currently, seriously, and directly affects responsibility as a public consultant or contractor; (iii) under state or federal antitrust statutes arising out of the submission of bids or proposals; or (iv) of violation of Paragraph 19 of this Agreement; or for any other cause the CITY determines to be so serious and compelling as to affect CONTRACTOR's responsibility as a public consultant or contractor, including but not limited to, debarment by another governmental agency, then the CITY reserves the unilateral right to terminate this Agreement or to impose such other sanctions (which may include financial sanctions, temporary suspensions or any other condition deemed appropriate short of termination) as it deems proper. The CITY will not take action until CONTRACTOR has been given notice and an opportunity to present evidence in mitigation.

5. FORCE MAJEURE

If any party fails to perform its obligations because of strikes, lockouts, labor disputes, embargoes, acts of God, inability to obtain labor or materials or reasonable substitutes for labor or materials, governmental restrictions, governmental regulations, governmental controls, judicial orders, enemy or hostile governmental action, civil commotion, fire or other casualty, or other causes beyond the reasonable control of the party obligated to perform, then that party's performance shall be excused for a period equal to the period of such cause for failure to perform.

6. RETENTION OF FUNDS

CONTRACTOR authorizes the CITY to deduct from any amount payable to CONTRACTOR (whether or not arising out of this Agreement) any amounts the payment of which may be in dispute or that are necessary to compensate the CITY for any losses, costs, liabilities, or damages suffered by the CITY, and all amounts for which the CITY may be liable to third parties, by reason of CONTRACTOR's negligent acts or omissions or willful misconduct in performing or failing to perform CONTRACTOR's obligations under this Agreement. In the event that any claim is made by a third party, the amount or validity of which is disputed by CONTRACTOR, or any indebtedness exists that appears to be the basis for a claim of lien, the CITY may withhold from any payment due, without liability for interest because of the withholding, an amount sufficient to cover the claim. The failure of the CITY to exercise the right to deduct or to withhold will

not, however, affect the obligations of CONTRACTOR to insure, indemnify, and protect the CITY as elsewhere provided in this Agreement.

7. THE CITY'S REPRESENTATIVE

The Public Works Director is designated as the "City Representative," authorized to act in its behalf with respect to the work and services specified in this Agreement and to make all decisions in connection with this Agreement. Whenever approval, directions, or other actions are required by the CITY under this Agreement, those actions will be taken by the City Representative, unless otherwise stated. The City Manager has the right to designate another City Representative at any time, by providing notice to CONTRACTOR.

8. CONTRACTOR REPRESENTATIVE(S)

The following principal(s) of CONTRACTOR are designated as being the principal(s) and representative(s) of CONTRACTOR authorized to act in its behalf with respect to the work specified in this Agreement and make all decisions in connection with this Agreement:

REPRESENTATIVE 1
REPRESENTATIVE 2

9. INDEPENDENT CONTRACTOR

The CONTRACTOR is, and at all times will remain as to the CITY, a wholly independent contractor. Neither the CITY nor any of its agents will have control over the conduct of the CONTRACTOR or any of the CONTRACTOR's employees, except as otherwise set forth in this Agreement. The CONTRACTOR may not, at any time or in any manner, represent that it or any of its agents or employees are in any manner agents or employees of the CITY. CITY has no duty, obligation, or responsibility to CONTRACTOR's agents or employees under the Affordable Care Act. CONTRACTOR is solely responsible for any tax penalties associated with the failure to offer affordable coverage to its agents and employees under the Affordable Care Act and any other liabilities, claims and obligations regarding compliance with the Affordable Care Act with respect to CONTRACTOR's agents and employees. CITY is not responsible and shall not be held liable for CONTRACTOR's failure to comply with CONTRACTOR's duties, obligations, and responsibilities under the Affordable Care Act. CONTRACTOR agrees to defend, indemnify and hold CITY harmless for any and all taxes and penalties that may be assessed against CITY as a result of CONTRACTOR's obligations under the Affordable Care Act relating to CONTRACTOR's agents and employees.

10. BUSINESS LICENSE

The CONTRACTOR must obtain a City business license prior to the start of work under this Agreement, unless CONTRACTOR is qualified for an exemption.

11. OTHER LICENSES AND PERMITS

CONTRACTOR warrants that it has all professional, contracting and other permits and licenses required to undertake the work contemplated by this Agreement.

12. FAMILIARITY WITH WORK

By executing this Agreement, CONTRACTOR warrants that CONTRACTOR (a) has thoroughly investigated and considered the scope of services to be performed, (b) has carefully considered how the services should be performed, and (c) fully understands the facilities, difficulties and restrictions attending performance of the services under this Agreement. If the services involve work upon any site, CONTRACTOR warrants that CONTRACTOR has or will investigate the site and is or will be fully acquainted with the conditions there existing, prior to commencement of services set forth in this Agreement. Should CONTRACTOR discover any latent or unknown conditions that will materially affect the performance of the services set forth in this Agreement, CONTRACTOR must immediately inform the CITY of that fact and may not proceed except at CONTRACTOR's risk until written instructions are received from the CITY.

13. CARE OF WORK

CONTRACTOR must adopt reasonable methods during the life of the Agreement to furnish continuous protection to the work, and the equipment, materials, papers, documents, plans, studies and other components to prevent losses or damages, and will be responsible for all damages, to persons or property, until acceptance of the work by the CITY, except those losses or damages as may be caused by the CITY's own negligence.

14. CONTRACTOR'S ACCOUNTING RECORDS; OTHER PROJECT RECORDS

Records of the CONTRACTOR's time pertaining to the project, and records of accounts between the CITY and the CONTRACTOR, will be kept on a generally recognized accounting basis. CONTRACTOR will also maintain all other records, including without limitation specifications, drawings, progress reports and the like, relating to the project. All records will be available to the CITY during normal working hours. CONTRACTOR will maintain these records for three years after final payment.

15. INDEMNIFICATION

CONTRACTOR will indemnify, defend, and hold harmless CITY, the Successor Agency to the Former Redevelopment Agency of the City of Torrance, the City Council, each member thereof, present and future, its officers, agents and employees from and against any and all liability, expenses, including defense costs and legal fees, and claims for damages whatsoever, including, but not limited to, those arising from breach of contract, bodily injury, death, personal injury, property damage, loss of use, or property loss however the same may be

caused and regardless of the responsibility for negligence. The obligation to indemnify, defend and hold harmless includes, but is not limited to, any liability or expense, including defense costs and legal fees, arising from the negligent acts or omissions, or willful misconduct of CONTRACTOR, its officers, employees, agents, subcontractors or vendors. It is further agreed, CONTRACTOR's obligations to indemnify, defend and hold harmless will apply even in the event of concurrent negligence on the part of CITY, the City Council, each member thereof, present and future, or its officers, agents and employees, except for liability resulting solely from the negligence or willful misconduct of CITY, its officers, employees or agents. Payment by CITY is not a condition precedent to enforcement of this indemnity. In the event of any dispute between CONTRACTOR and CITY, as to whether liability arises from the sole negligence of the CITY or its officers, employees, agents, subcontractors or vendors, CONTRACTOR will be obligated to pay for CITY's defense until such time as a final judgment has been entered adjudicating the CITY as solely negligent. CONTRACTOR will not be entitled in the event of such a determination to any reimbursement of defense costs including but not limited to attorney's fees, expert fees and costs of litigation.

16. NON-LIABILITY OF THE CITY'S OFFICERS AND EMPLOYEES

No officer or employee of the CITY will be personally liable to CONTRACTOR, in the event of any default or breach by the CITY or for any amount that may become due to CONTRACTOR.

17. INSURANCE

- A. CONTRACTOR must maintain at its sole expense the following insurance, which will be full coverage not subject to self insurance provisions:
1. Automobile Liability, including owned, non-owned and hired vehicles, with at least the following limits of liability:
 - a. Combined single limits of \$2,000,000 per occurrence.
 2. General Liability including coverage for premises, products and completed operations, independent contractors, personal injury and contractual obligations with combined single limits of coverage of at least \$3,000,000 per occurrence, with an annual aggregate of no less than \$5,000,000.
 3. Workers' Compensation with limits as required by the State of California and Employers Liability with limits of at least \$1,000,000.
- B. The insurance provided by CONTRACTOR will be primary and non-contributory.
- C. CITY, the Successor Agency to the Former Redevelopment Agency of the City of Torrance, the City Council and each member thereof,

members of boards and commissions, every officer, agent, official, employee and volunteer must be named as additional insureds under the automobile and general liability policies.

- D. CONTRACTOR must provide certificates of insurance and/or endorsements to the City Clerk of the City of Torrance before the commencement of work.
- E. Each insurance policy required by this Paragraph must contain a provision that no termination, cancellation or change of coverage can be made without thirty days notice to the CITY.
- F. CONTRACTOR must include all subcontractors as insureds under its policies or must furnish separate certificates and endorsements for each subcontractor. All coverage for subcontractors will be subject to all of the requirements of this Paragraph 17.

18. SUFFICIENCY OF INSURERS

Insurance required by this Agreement will be satisfactory only if issued by companies admitted to do business in California, rated "B+" or better in the most recent edition of Best's Key Rating Guide, and only if they are of a financial category Class VII or better, unless these requirements are waived by the Risk Manager of the CITY ("Risk Manager") due to unique circumstances. In the event the Risk Manager determines that the work or services to be performed under this Agreement creates an increased or decreased risk of loss to the CITY, the CONTRACTOR agrees that the minimum limits of any insurance policies and/or the performance bond required by this Agreement may be changed accordingly upon receipt of written notice from the Risk Manager; provided that CONTRACTOR will have the right to appeal a determination of increased coverage by the Risk Manager to the City Council of the CITY within 10 days of receipt of notice from the Risk Manager.

19. CONFLICT OF INTEREST

- A. No officer or employee of the CITY may have any financial interest, direct or indirect, in this Agreement, nor may any officer or employee participate in any decision relating to the Agreement that effects the officer or employee's financial interest or the financial interest of any corporation, partnership or association in which the officer or employee is, directly or indirectly interested, in violation of any law, rule or regulation.
- B. No person may offer, give, or agree to give any officer or employee or former officer or employee, nor may any officer or employee solicit, demand, accept, or agree to accept from another person, a gratuity or an offer of employment in connection with any decision, approval, disapproval, recommendation, preparation or any part of a program requirement or a purchase request, influencing the content of any specification or procurement standard, rendering of advice, investigation, auditing, or in any other advisory capacity in any way pertaining to any

program requirement, contract or subcontract, or to any solicitation or proposal.

20. NOTICE

- A. All notices, requests, demands, or other communications under this Agreement will be in writing. Notice will be sufficiently given for all purposes as follows:
1. Personal delivery. When personally delivered to the recipient: notice is effective on delivery.
 2. First Class mail. When mailed first class to the last address of the recipient known to the party giving notice: notice is effective three mail delivery days after deposit in an United States Postal Service office or mailbox.
 3. Certified mail. When mailed certified mail, return receipt requested: notice is effective on receipt, if delivery is confirmed by a return receipt.
 4. Overnight delivery. When delivered by an overnight delivery service, charges prepaid or charged to the sender's account: notice is effective on delivery, if delivery is confirmed by the delivery service.
 5. Facsimile transmission. When sent by fax to the last fax number of the recipient known to the party giving notice: notice is effective on receipt. Any notice given by fax will be deemed received on the next business day if it is received after 5:00 p.m. (recipient's time) or on a non-business day.

7. Addresses for purpose of giving notice are as follows:

CONTRACTOR: CONTRACTOR'S NAME AND ADDRESS

Fax: INSERT FAX NUMBER

CITY: City Clerk
City of Torrance
3031 Torrance Boulevard
Torrance, CA 90509-2970
Fax: (310) 618-2931

with a copy to: Attn: ELIZABETH OVERSTREET
Public Works Department
City of Torrance
20500 Madrona Aveune
Torrance, CA 90503
Fax: (310)781-6902

- B. Any correctly addressed notice that is refused, unclaimed, or undeliverable because of an act or omission of the party to be notified, will be deemed effective as of the first date the notice was refused, unclaimed or deemed undeliverable by the postal authorities, messenger or overnight delivery service.
- C. Either party may change its address or fax number by giving the other party notice of the change in any manner permitted by this Agreement.

21. PROHIBITION AGAINST ASSIGNMENT AND SUBCONTRACTING

This Agreement and all exhibits are binding on the heirs, successors, and assigns of the parties. The Agreement may not be assigned or subcontracted by either the CITY or CONTRACTOR without the prior written consent of the other.

22. INTEGRATION; AMENDMENT

This Agreement represents the entire understanding of the CITY and CONTRACTOR as to those matters contained in it. No prior oral or written understanding will be of any force or effect with respect to the terms of this Agreement. The Agreement may not be modified or altered except in writing signed by both parties.

23. INTERPRETATION

The terms of this Agreement should be construed in accordance with the meaning of the language used and should not be construed for or against either party by reason of the authorship of this Agreement or any other rule of construction that might otherwise apply.

24. SEVERABILITY

If any part of this Agreement is found to be in conflict with applicable laws, that part will be inoperative, null and void insofar as it is in conflict with any applicable laws, but the remainder of the Agreement will remain in full force and effect.

25. TIME OF ESSENCE

Time is of the essence in the performance of this Agreement.

26. GOVERNING LAW; JURISDICTION

This Agreement will be administered and interpreted under the laws of the State of California. Jurisdiction of any litigation arising from the Agreement will be in Los Angeles County, California.

27. COMPLIANCE WITH STATUTES AND REGULATIONS

CONTRACTOR will be knowledgeable of and will comply with all applicable federal, state, county and city statutes, rules, regulations, ordinances and orders.

28. WAIVER OF BREACH

No delay or omission in the exercise of any right or remedy by a nondefaulting party on any default will impair the right or remedy or be construed as a waiver. A party's consent or approval of any act by the other party requiring the party's consent or approval will not be deemed to waive or render unnecessary the other party's consent to or approval of any subsequent act. Any waiver by either party of any default must be in writing and will not be a waiver of any other default concerning the same or any other provision of this Agreement.

29. ATTORNEY'S FEES

Except as provided for in Paragraph 15, in any dispute, litigation, arbitration, or other proceeding by which one party either seeks to enforce its rights under this Agreement (whether in contract, tort or both) or seeks a declaration of any rights or obligations under this Agreement, the prevailing party will be awarded reasonable attorney's fees, together with any costs and expenses, to resolve the dispute and to enforce any judgment.

30. EXHIBITS

All exhibits identified in this Agreement are incorporated into the Agreement by this reference.

31. CONTRACTOR'S AUTHORITY TO EXECUTE

The persons executing this Agreement on behalf of the CONTRACTOR warrant that (i) the CONTRACTOR is duly organized and existing; (ii) they are duly authorized to execute this Agreement on behalf of the CONTRACTOR; (iii) by so executing this Agreement, the CONTRACTOR is formally bound to the provisions of this Agreement; and (iv) the entering into this Agreement does not violate any provision of any other Agreement to which the CONTRACTOR is bound.

CITY OF TORRANCE,
a Municipal Corporation

BUSINESS OR INDIVIDUAL NAME
TYPE OF ENTITY

Frank Scotto, Mayor

By: _____
SIGNER, TITLE

ATTEST:

Sue Herbers, City Clerk

APPROVED AS TO FORM:

JOHN L. FELLOWS III
City Attorney

By: _____

Attachment: Exhibit A: Bid

EXHIBIT A

Bid

[52495_1]

**CITY OF TORRANCE
CONSTRUCTION OR SERVICE CONTRACT ENDORSEMENT**

To be attached to and made a part of all policies insuring the liability of any person, form or corporation performing services under contract for the City of Torrance.

Notwithstanding any inconsistent expression in the policy to which this endorsement is attached, or in any other endorsement now or hereafter attached thereto, or made a part thereof, the protection afforded by said policy shall:

1. Include the City of Torrance as an additional insured. (To include the elected officials, appointed officials, and employees.)
2. Indemnify and save harmless the City of Torrance against any and all claims resulting from the undertaking specified in the contract known as:

**PROPOSAL, SPECIFICATIONS, BOND AND AFFIDAVIT
FOR THE CONSTRUCTION OF
RESIDENTIAL STREET REHABILITATION PROJECT, I-94 (AREA C)**

B2013-49

This hold harmless assumption on the part of the underwriters shall include all costs of investigation and defense, including claims based on damage to substructures not shown, not located on the plans, or shown incorrectly.

3. Not be cancelled except by notice to the City Attorney of the City of Torrance at least thirty (30) days prior to the date of cancellation.
4. Provide single limit for Bodily Injury Liability and Property Damage Liability combined, \$1,000,000 each Occurrence, and \$1,000,000 Aggregate.
5. Limited classifications, restricting endorsements, exclusions or other special provisions contained in the policy shall not act to limit the benefits of coverage as they shall apply to the City of Torrance as enumerated in this endorsement. However, nothing herein contained shall affect any rights of the insurer against the insured.
6. It is further expressly agreed by and between the parties hereto that the following two provisions, (a) and (b), are a part of this contract:
 - (a) That the Contractor specifically agrees to comply with applicable provisions of Section 1777.5 of the Labor Code relating to the employment by contractor or subcontractor under it, of journeyman or apprentices, or workmen, in any apprenticeable craft or trade.
 - (b) By my signature hereunder, as Contractor, I certify that I am aware of the provisions of Section 3700 of the Labor Code which requires 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.

The limits of liability as stated in this endorsement apply to the insurance afforded by this endorsement notwithstanding that the policy may have lower limits of liability applying elsewhere in the policy.

Duly Authorized Agent

Attached to and forming part of
Policy No. _____
of the _____

Date: _____
Expiration Date: _____

WORKERS' COMPENSATION INSURANCE CERTIFICATION

In compliance with Section 7-4 of the Standard Specifications, the Contractor shall complete and submit the following certification with a Certificate of Insurance before execution of the contract.

I am aware of, and will comply with, Section 3700 of the Labor Code, requiring every employer to be insured against liability for Workers' Compensation or to undertake self-insurance before commencing any of the work.

CONTRACTOR

By: _____

Title: _____

SECTION E

SPECIAL PROVISIONS

The following Special Provisions supplement and amend the Standard Specifications for Public Works Construction (2006 edition) and the Standard Specifications of the State of California Department of Transportation (Caltrans), 2006, as noted herein. These Special Provisions have been arranged into a format that parallels the Standard Specifications for Public Works Construction.

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PART 1 - GENERAL PROVISIONS

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

1-2 DEFINITIONS.

Add or redefine the following:

Agency – The City of Torrance, herein referred to as CITY.

Board – The City Council of the City of Torrance, herein referred to as City Council.

Engineer –The Public Works Director and/or City Engineer of the City of Torrance, acting either directly or through properly authorized agents, such agents acting within the scope of the particular duties entrusted to them.

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

1-3 ABBREVIATIONS.

1-3.2 Common Usage:

Add the following abbreviations:

Approx	Approximate
ARHM	Asphalt rubber hot mix
Exist.	Existing
L.A.C.D.P.W.	Los Angeles County Department of Public Works
Med.	Median
M.L.	Main Line
OH	Overhead
Ped.	Pedestrian
Reconst.	Reconstruct
Temp.	Temporary
Theo.	Theoretical
WM	Wire mesh or water meter

SECTION 2 - SCOPE AND CONTROL OF THE WORK

2-1 AWARD AND EXECUTION OF CONTRACT.

Replace the entire subsection with the following:

Within ten (10) working days after the date of the CITY'S award of contract, the Contractor shall execute and return all Contract Documents required by the CITY. The CITY reserves the right to terminate the award if the above requirement is not met. Such termination will result in the forfeiture of the Proposal Guaranty.

The Contract shall not be considered binding upon the CITY until executed by the authorized CITY officials.

2-4 CONTRACT BONDS.

Revise the second sentence of the fourth paragraph to read as follows:

The "Performance Bond" shall remain in effect for one year following the date specified in the Notice of Completion or, if no Notice of Completion is recorded, for one year following the date of final acceptance by the Engineer.

2-5 PLANS AND SPECIFICATIONS.

2-5.1 General. Add the following sentence to the first paragraph to read as follows:

The Contractor shall maintain a control set of Plans and Specifications on the Work site at all times. All final locations determined in the field, and any deviations from the Plans and Specifications, shall be marked in red on this control set to show as-built conditions. Upon completion of the Work, the Contractor shall submit the control set to the Engineer for approval. Final payment will not be made until this requirement is met.

Add the following subsections:

2-5.1.1 Plans. Included as part of the Contract Documents are the following, which show the location, character, dimensions or details of the Work:

- 1) Project Plans

The existing utility information and data provided with the Contract Documents are based on existing plans and documents. The plans and data are provided for information only. The Owner does not guarantee their accuracy and correctness. If the Bidder in preparing the Bid Proposal uses this information, the Bidder assumes all risks resulting from conditions differing from the information shown. The Bidder, in consideration for the information being provided, hereby releases the Owner and Consulting Engineer from any responsibility of obligation as to the accuracy of such information or for any additional compensation for work performed due to assumptions based on the use of such information.

- 2) Standard Plans

- a. City of Torrance Standard Plans, latest edition

- b. Standard Plans for Public Works Construction, 2006 edition, promulgated by Public Works Standards, Inc.
- c. Standard Plans of the State of California Department of Transportation (Caltrans), 2006 edition

Applicable Standard Plans and information for this project are included in the Appendices of these Specifications.

2-5.1.2 Specifications. The Work shall be performed or executed in accordance with these Special Provisions and the following:

- 1) Standard Specifications for Public Works Construction, latest edition and supplements thereto, hereinafter referred to as the Standard Specifications, as written and promulgated by Public Works Standards, Inc. The Standard Specifications are published by BNi Building News, Inc., 1612 South Clementine Street, Anaheim, CA 92802, Phone: (800) 873-6397.
- 2) Sections 56-2, 84, 85, 86 and 90-10 of the State of California Department of Transportation (Caltrans) Standard Specifications, 2006 edition

2-5.2 Precedence of Contract Documents. Replace the entire subsection with the following:

If there is a conflict between any of the Contract Documents, the document highest in precedence shall control. The order of precedence shall be as follows:

- 1) Permits issued by other agencies.
- 2) Change Orders (including Plans and Specifications attached thereto).
- 3) Public Works Agreement
- 4) Addenda
- 5) Special and General Provisions
- 6) Plans
- 7) City Standard Plans
- 8) Other Standard Plans
- 9) Standard Specifications for Public Works Construction
- 10) Reference Specifications

With reference to the Plans/Drawings, the order of precedence is as follows:

- 1) Change Order plans govern over Addenda and Contract plans
- 2) Addenda plans govern over Contract plans
- 3) Contract plans govern over standard plans
- 4) Detail plans govern over general plans
- 5) Figures govern over scaled dimensions

Within the Specifications, the order of precedence is as follows:

- 1) Change Orders
- 2) Permits from other agencies/Supplemental Agreements

- 3) Special Provisions
- 4) Instruction to Bidders
- 5) Referenced Standard Plans
- 6) Referenced Standard Specifications

If the Contractor, in the course of the Work, becomes aware of any claimed errors or omissions in the Contract Documents or in the CITY's fieldwork, the Contractor shall immediately inform the Engineer. The Engineer shall promptly review the matter, and if the Engineer finds an error or omission has been made the Engineer shall determine the corrective actions and advise the Contractor accordingly. If the corrective work associated with an error or omission increases or decreases the amount of work called for in the Contract, the CITY shall issue an appropriate Change Order in accordance with 3-3. After discovery of an error or omission by the Contractor, any related work performed by the Contractor shall be done at the Contractor's risk unless authorized by the Engineer.

2-5.3 Submittals

2-5.3.4 Supporting Information. Replace the second paragraph with the following:

Submittals are required for the following:

- 9) Asphalt rubber hot mix design
- 10) Crack sealer
- 11) Detectable Warning Surface
- 12) Crushed Miscellaneous Base mix design/properties
- 13) Proposed Haul Routes (Material Disposal & Delivery)
- 14) Structural Design for Temporary Steel Plate Bridging

In addition to the above, submittals may be required for any product, manufactured item, or system not specifically listed above.

2-6 WORK TO BE DONE.

Add the following:

The Work generally consists of removal of existing asphalt pavement by means of cold milling or by excavation as shown on the plans, removal of existing concrete curb and curb and gutter, removal of portions of sidewalk, driveway approaches and concrete curb ramps, the construction of variable height PCC Curb and Gutter, new PCC driveway approaches and driveway curb depressions, cross gutters, alley approaches, and sidewalk and the reconstruction of pavement with asphalt concrete and base material and the replacement of existing traffic striping with appurtenances as shown on City of Torrance Plan Nos. ST-1052 and ST-1054 (sheets 1 through 63) and ST-1062 (Sheets 1a to 3a); and all other incidental work in this specification document.

2-9 SURVEYING.

2-9.1 Permanent Survey Markers. In the second sentence of the first paragraph, replace "The Engineer, or the owner at its cost," shall be replaced with "The Contractor, as part of this contract,"

Add the following paragraphs:

The contractor shall be responsible for obtaining all available records for intersections from the County of Los Angeles.

At intersections where no centerline survey monuments and related centerline survey monument ties exist prior to construction, the Contractor shall establish said monuments and ties after the completion of construction and in accordance with California State Law.

2-9.2 Survey Service. Replace the entire subsection with the following:

All construction surveying necessary to complete the Work shown on the Plans and provided in these Contract Documents shall be accomplished by or under the direction of a Registered Land Surveyor or Registered Civil Engineer authorized to practice land surveying in the State of California, retained or provided by the Contractor. The CITY reserves the right to direct additional construction survey work be performed at no additional cost when the City determines it is required to adequately construct the Work.

The Contractor shall notify the Engineer in writing at least 2 working days prior to the actual survey. The Contractor shall provide the traffic control necessary for construction surveying.

Stakes shall be set and stationed by the Contractor for curbs, curbs and gutters, sidewalks, access ramps, bus pads, driveways, headers, storm drains, sewers, cross gutters, spandrels, alley intersection, catch basin, rough grade, and other items as necessary. A corresponding cut or fill to finished grade (or flow line) shall be indicated on a grade sheet. A copy of each grade sheet shall be furnished to the Engineer. If any construction survey stakes are lost or disturbed and need to be replaced, such replacement shall be by the Contractor at its expense.

Construction stakes shall consist of the following:

- a. One set of paving stakes.
- b. Line and grade for new curb and gutter
- c. Line and grade of existing features shown on plans to be replaced in kind sufficient for construction.

The Contractor shall submit to the City within 2 days after completion of each respective survey, setting of each stake and heading check a copy of the survey notes and calculations certified by the licensed Land Surveyor for the following:

- a. Level and horizontal control circuit for survey control.
- b. Grade sheets for curb and gutter and replace in kind

Payment for construction surveying shall be on a lump sum basis per the Contract Unit Price for SURVEY. Payment for all costs for construction survey, including construction staking, professional services, office calculations, furnishing all labor, materials, equipment, tools and incidentals, and for doing all work involved shall be included in the unit bid price for Survey.

Contractor shall survey for Typical Survey Points for Additional Cross Gutter Improvement Locations as shown in Appendices. This survey information shall be given to the City one month prior to construction at Cross Gutter/Ramp improvement location. This work shall be included in the unit bid prices for TOPOGRAPHIC SURVEY FOR ADDITIONAL GUTTER IMPROVEMENT AT 2120 W. 234TH ST. and no additional payment shall be allowed therefore.

2-10 AUTHORITY OF BOARD AND ENGINEER.

Add the following:

Failure of the Contractor to comply with the requirements of the Contract Documents, or to follow the directions of the Engineer, and/or to immediately remedy such noncompliance or to follow directions, may, upon notice from the Engineer, result in the suspension of the Contract monthly progress payments. Any monthly progress payments so suspended may remain in suspension until the Contractor is in compliance with the Contract Documents and the directions of the Engineer, as determined by the Engineer.

2-11 INSPECTION.

Replace the entire subsection with the following:

The Work is subject to inspection and approval by the Engineer. The Contractor shall notify the Engineer a minimum of 48 hours in advance of the required inspection.

The Engineer will make, or have made, such inspections and tests as he deems necessary to see that the Work is in conformance with the Contract Documents. In the event such inspections or tests reveal noncompliance with the Contract Documents, the Contractor shall bear the cost of such corrective measures as deemed necessary by the Engineer, as well as the cost of subsequent re-inspection and re-testing.

Work done in the absence of inspection by the Engineer may be required to be removed and replaced under the inspection of the Engineer, and the entire cost of removal and replacement, including the cost of all materials which may be furnished by the CITY and used in the work thus removed, shall be borne by the Contractor, regardless of whether the work removed is found to be defective or not. Work covered without the approval of the Engineer shall, if so directed by the Engineer, be uncovered to the extent required by the Engineer, and the Contractor shall similarly bear the entire cost of performing all the work and furnishing all the materials necessary for the removal of the covering and its subsequent replacement, including all costs for additional inspection.

The Engineer and any authorized representatives shall at all times have access to the Work during its construction at shops and yards as well as the Work site. The Contractor shall provide every reasonable facility for ascertaining that the materials and workmanship are in accordance with the Contract Documents.

Inspection of the Work shall not relieve the Contractor of the obligation to fulfill all conditions of the Contract.

Add the following subsections:

2-11.1 Special Inspection Fees. If the Contractor elects to work under this Contract more than 8

hours/day or more than 40 hours/week, Saturday, Sunday, or CITY holidays, the Contractor shall arrange with the Engineer for the required inspection service and pay the Special Inspection Fees which will be charged at the following rates:

Mondays through Fridays	-	\$135.00 per hour
Saturdays, Sundays, Holidays	-	\$1,200.00 per day

Fees may be deducted from payments due to the Contractor at the discretion of the Engineer.

If the Contractor works under this contract at times other than within the allowed working hours without permission from or prior arrangement with the Engineer, the Contractor will be charged a lump sum amount of \$500.00 for each occurrence, in addition to the above fees. The amount will be deducted from a Progress Payment.

The Saturday and Sunday Special Inspection fees do not apply to the work performed on Crenshaw Boulevard as shown on the Plans.

2-11.4 Material Inspection/Testing and other City Expenses.

- (a) If a City subcontractor hired to perform material inspection and/or testing is required to work additional time to perform inspection and testing as a result of an action or delay caused by the Contractor, except for specific work allowed by the Engineer, the City subcontractor may charge the City an additional fee. The Engineer may deduct the additional fee for said inspection and testing from a Progress Payment to the Contractor. The Engineer also may deduct the cost to perform additional testing when an initial test fails to meet the requirements of this Contract. The typical rates for material testing and inspection are available upon request from the Public Works Department.
- (b) If the Contractor does not comply with a requirement of these Special Provisions or if it does not immediately respond, after being informed, to a request by the Engineer to amend a site condition that jeopardizes the public health, safety or welfare, the Engineer may direct City staff to perform the work. For each occurrence, the City will charge the Contractor a base charge in the amount of \$750 in addition to all costs incurred by the City for administration, labor, equipment and materials. The standard rates for City staff are available upon request from the Public Works Department.
- (c) For each sign, drum, delineator, cone, barricade, warning device, or other type of required traffic control device that is not provided by the Contractor when required by the Traffic Control Plans, the Engineer may deduct \$75 per day for each missing device from a Progress Payment. The Engineer, a City designate, or Public Works Inspector will inform the Contractor. The deduction does not apply to a device that is fraudulently removed by non-construction personnel.
- (d) Temporary lane closures maintained prior to 8:30 A.M. and/or after 4:30 P.M. may have a negative economic effect on the local residential, commercial or industrial community. Unless a temporary lane closure is otherwise authorized, the Engineer may deduct a fee from a Progress Payment for each temporary lane closure maintained prior to 8:30 A.M. or after 4:30 P.M. The fee will be assessed at a rate of \$700 per each travel lane per each thirty (30) minute interval, or fraction thereof.

SECTION 3 – CHANGES IN WORK

3-2 CHANGES INITIATED BY THE AGENCY

Section 3-2.2.1 General. Delete this subsection in its entirety. Add the following:

The City reserves the right to increase or decrease any bid item quantity, as necessary, to meet the City's needs and/or the project and/or budget requirements. If the City increases or decreases any bid item quantity by more than 25% of the original contract quantity, either the City or the Contractor may initiate discussions and/or negotiations regarding a potential adjustment to the contract unit bid price.

Section 3-2.2.2. Increases of More Than 25%. Delete this subsection in its entirety.

Section 3-2.2.3. Decreases of More Than 25%. Delete this subsection in its entirety.

3-3 EXTRA WORK

3-3.1 General. Add the following:

Payment for additional work and all expenditures in excess of the Contract Price must be authorized in writing by the Engineer. Such authorization shall be obtained by the Contractor prior to engaging in additional work. It shall be the Contractor's sole responsibility to obtain written approval from the Engineer for any change(s) in material or in the work proposed by suppliers or subcontractors. No payment shall be made to the Contractor for additional work which has not been approved in writing, and the Contractor hereby agrees that it shall have no right to additional compensation for any work not so authorized.

The Contractor shall be responsible to provide all data and to obtain all approvals required by the Specifications, including submittal of Daily Extra Work Reports. No claims or extras shall be approved by the Engineer unless all work was done under the direction of and subject to the approval of the Engineer. Disputed work claims shall comply with 3-3 as modified herein.

3-3.2.2 Basis for Establishing Costs. Replace the second paragraph of part (c) with the following:

The Contractor will be paid for the use of equipment at the lower of the actual rental rates paid by the Contractor or the rental rates listed for such equipment in either the "Rental Rate Blue Book" published by Dataquest, Inc., 1290 Ridder Park Drive, San Jose, California 95131; telephone (408) 971-9000 or the California Department of Transportation publication entitled "Labor Surcharge and Equipment Rates" available at the Caltrans web site, www.dot.ca.gov/hq/eqsc/inforesources.htm, which is in effect on the date upon which the work is accomplished, and that hereby is made a part of the Contract, regardless of ownership or any rental or other agreement, if such may exist, for the use of such equipment entered into by the Contractor. If it is deemed necessary by the Engineer to use equipment not listed in the said publication, a suitable rental rate will be established by the Engineer. The Contractor may furnish any cost data that might assist the Engineer in the establishment of such rental rate.

3-3.2.3 Markup. Replace the entire subsection with the following:

The markups mentioned hereinafter shall include, but are not limited to, all costs for the services of superintendents, project managers, timekeepers and other personnel not working directly on the change order, and pickup or yard trucks used by the above personnel. These costs shall not be reported as labor or equipment elsewhere except when actually performing work directly on the change order and then shall only be reported at the labor classification of the work performed.

(a) Work by Contractor. The following percentages shall be added to the Contractor's costs and shall constitute the mark-up for all overhead and profit, which shall be deemed to include all items of expense not specifically designated as cost or equipment rental in Subsections 3-3.2.2(a), 3-3.2.2(b), and 3-3.2.2(c).

Labor	20
Materials	15
Equipment Rental	15
Other Expenditures	15

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

(b) Work by Subcontractor. When any part of the extra work is performed by a subcontractor, the markup established in 3-3.2.3(a) shall be applied to the subcontractor's actual cost of such work. A markup of ten (10) percent on the first \$5,000 of the subcontracted portion of the extra work and a mark-up of 5 percent on work added in excess of \$5,000 of the subcontracted portion of the extra work may be added by the Contractor.

The markups specified in parts (a) and (b) above shall be considered as including, but not limited to, the Contractor's labor costs for personnel not working directly on the extra work, including the cost of any tools and equipment that they may use. Such costs shall not be reported as labor or equipment costs elsewhere except when they are actually used in the performance of the extra work. Labor costs shall in that case be reported for the labor classification corresponding to the type and nature of extra work performed.

3-4 CHANGED CONDITIONS.

Add the following:

This subsection does not apply to utilities.

SECTION 4 – CONTROL OF MATERIALS

4-1 MATERIAL AND WORKMANSHIP.

4-1.1 General.

Add the following paragraph after the second paragraph:

If the work, or any portion thereof, shall be damaged in any way, or if any defective materials or faulty workmanship shall be discovered at any time prior to the final payment, the Contractor shall forthwith, at its own cost and expense, repair said damage, or replace such defective materials, or remedy such faulty workmanship in a manner satisfactory to the Engineer.

4-1.2 Protection of Work and Materials.

Add the following:

The Contractor shall assume all risks and expense of interference and delay in his operations, and the protection from or the repair of damage to improvements being built under the contract, as may be caused by water of whatever quantity from floods, storms, industrial waste, irrigation, underground or other sources. However, the Contractor shall be entitled to an extension of time in accordance with the provisions of Subsection 6-6. The Contractor shall also assume full responsibility and expense of protecting, or removing and returning to the site of Work, all equipment or materials under his care endangered by any action of the elements.

Furthermore, the Contractor shall indemnify and hold the City harmless from all claims or suits for damages arising from his operations in dewatering the Work and control of water.

SECTION 5 – UTILITIES

5-1 LOCATION.

Add the following:

The Contractor shall provide coordination with all the utility companies involved and shall provide protection from damage to their facilities. The Contractor shall be responsible for repair or replacement to said facilities made necessary by its failure to provide required protection. The Contractor is required to include utility requirements in the Construction Schedule per Section 6-1.

The Contractor shall utilize the services of "Underground Service Alert-Southern California" for utility locating in all public right-of-ways by calling 1-800-227-2600 at least 48 hours prior to any excavation.

Underground lines that are potentially hazardous such as oil company lines, natural gas mains, and electrical conduits will be carefully located by the owner as provided in the Standard Specifications. The Contractor shall take special precautions in determining the precise location and depth of these structures to insure that they will not be damaged by its operations.

Substitute the following for the last paragraph:

Prior to starting construction, the Contractor shall be responsible to determine the location and depth of all utilities which have been marked by the respective owners and which may affect or be affected by its operations. The Contractor also shall determine the location and depth of each service connection, whether or not marked.

Full compensation for such work shall be considered as included in the prices bid for other items or work. If a utility which was marked or a service connection is found to interfere with the work after construction has commenced, the Contractor shall be solely responsible for all costs of any delay and for any costs which could have been avoided if the Contractor had located the utility prior to start of construction.

5-2 PROTECTION.

Add the following:

If, in the course of construction, the Contractor damages a sewer lateral or water lateral, the Contractor shall be responsible to completely expose said lateral from the main line to the point of connection at private property to verify integrity of all joints to the satisfaction of the Engineer. This shall not be considered to be extra work and no extra costs shall be allowed therefore.

Sewers, including lateral repairs, shall be constructed of Vitrified Clay Pipe, unless otherwise approved in writing by the Engineer.

Add the following after the final paragraph:

As noted in subsections 5-2.1, 5-2.2 and 5-2.3 utilities are classified and are to be handled in one of three ways by the Contractor in the course of performing the contract.

5-2.1 Noninterfering Utilities

Utilities that are not abandoned by the owner and do not physically interfere with the permanent work in its final location shall be supported, protected and maintained in place by the Contractor, and the Contractor shall be solely responsible for any damage, loss or injury, or death resulting from his/her failure to do so and the Contractor shall indemnify and hold harmless the City from any and all such consequences. Noninterfering utilities may, with the permission of the owner and the Public Works Director, be relocated still farther from the permanent work in its final locations, but the Contractor shall not so consider, in submitting his bid, unless the relocation is shown on the plans.

5-2.2 Abandoned Utilities

Abandoned utilities are those portions of any utility which are no longer needed or desired by the owner and whose destruction is consented to by the owner and/or is permitted by notation on the plans. Abandoned utilities which physically interfere with the permanent work or with the construction thereof shall be removed by the Contractor and the Contractor shall be solely responsible for any damage, loss or injury, or death resulting from the removal and the Contractor shall indemnify and hold harmless the City from any and all such consequences.

5-2.3 Interfering Utilities

Any utility shall be deemed an interfering utility (1) which physically occupies any part of the space to be occupied by the permanent work in its final locations, or (2) whose length within the theoretical width of excavation for the permanent work exceeds five times the width of said theoretical excavation whether or not the utility physically interferes with the permanent work. Interfering utilities that are not abandoned by the owner shall be relocated so as not to interfere with the permanent work in its final location. Such relocation will be performed by the owner or the City unless otherwise shown on the plans.

The Contractor shall exercise caution to prevent damage to or movement of the utilities while constructing the permanent work along and adjacent to the utilities.

Should any manhole extend within a trench excavation, the Contractor shall choose one of the following methods of construction and shall assume all responsibilities thereof:

- (1) Support and maintain the manholes in place during the construction of the permanent work in open cut.
- (2) Remove the shaft and maintain the base of the manhole in place until the backfill is placed and compacted; then reconstruct the manhole shaft.
- (3) Use another method of construction which has been submitted to and approved by the Engineer. All costs for the work pertaining to the manholes that might be found to extend partially within the excavation limits or any protective measures required due to the proximity of the manholes and the permanent work at these locations shall be absorbed in the prices bid for the various items of work.

5-2.4 Protection of Underground Hazardous Utilities.

This Subsection shall apply to projects where there are underground utilities within the Work area which may be potentially hazardous if damaged. A hazardous substance shall be defined as one having the potential for an immediate disaster such as, but not limited to, gasoline, electricity, fuel oil, butane, propane, natural gas, chlorine or other chemicals.

Abandoned or inoperative utilities designed to carry hazardous substances and unidentified or unknown utilities shall be considered hazardous until determined otherwise. Whenever the Contractor is directed by the Engineer to tap these lines, the Contractor shall provide personnel specialized in this work and payment therefore will be considered as extra work per 3-3 of these Special Provisions.

The Contractor shall comply with the following requirements when working around underground hazardous utilities:

- 1) The Contractor shall not trench or excavate within the area where a utility known to carry a hazardous substance exists until its location has been determined by excavation or other proven methods acceptable to the Engineer. The intervals between exploratory excavations or location points shall be sufficient to determine the exact location of the line. Unless otherwise directed by the Engineer, excavation for underground hazardous utilities shall be performed by the Contractor and paid for as specified per 5-1 of these Special Provisions.
- 2) If it is determined that the horizontal or vertical clearance between the utility known to carry hazardous substances and the construction limit is less than 300 mm (12 inches) (450mm (18 inches) if scarifying), the Contractor shall confer with its owner. Unless the owner elects to relocate the line or take it out of service, the Contractor shall not excavate until the line has been completely exposed within the limits of construction.
- 3) Once the physical location of the utility known to carry hazardous substances has been determined, the Contractor, in cooperation with and with the concurrence of the utility owner, shall determine how to protect and/or support the utility from damage before proceeding with the Work.
- 4) During all excavation and trenching operations, the Contractor shall exercise extreme caution and protect the utilities from damage.
- 5) The Contractor shall notify the Engineer, the public agency maintaining records for the

jurisdiction in which the Project is located and the owner, if known, whenever previously unidentified or unknown underground utilities are encountered so that the location can be accurately established and made a part of permanent substructure records.

Full compensation for protecting underground hazardous utilities as specified or noted on the Plans shall be considered as included in the prices bid for the various items of work.

5-3 REMOVAL.

Add the following:

It shall be the Contractor's responsibility irrespective of the notations on the plans to confirm or determine that a utility is to be abandoned before treating the same as an abandoned utility and shall assume all risks in so determining.

5-5 DELAYS.

Substitute the following:

If the contractor while performing the contract discovers utility facilities not identified by the public agency in the contract plans or specifications, he shall immediately notify the City and utility in writing. The Contractor shall not be entitled to damage or additional payment, nor shall it be entitled to standby time for labor if a delay does occur. The Contractor also shall not be entitled to damage or additional payment for equipment not on the project during the occurrence of the event that caused the related delay. The Engineer will determine the extent of the delay attributable to such interferences, the affect of the delay on the project as a whole, and any commensurate extension of time.

Any failure of the City and/or utility company to accomplish relocations in a reasonable manner in light of the Contractor's operations (to the extent such operations would otherwise be feasible and in accordance with the contract and as disclosed to the City prior to the Contractor encountering any such utility) shall entitle the Contractor to an extension of contract time to the extent that, in the judgment of the Engineer, the Contractor's completion of the overall contract work has been delayed; however, the Contractor shall be entitled to no other remedy and, in submitting its bid, thereby waives such other remedies, if any, unless the relocation delay is the result of arbitrary, capricious or malicious conduct by the City.

SECTION 6 - PROSECUTION, PROGRESS AND ACCEPTANCE OF THE WORK

6-1 CONSTRUCTION SCHEDULE AND COMMENCEMENT OF WORK.

Replace the entire subsection with the following:

6-1.1 General. Within ten (10) working days after the date of the CITY's execution of the Contract, the Contractor shall submit a proposed construction schedule to the Engineer for approval. The schedule shall be in accordance with 6-1.2 and 6-1.3 and shall be in sufficient detail to show chronological relationship of all activities of the Work. These include, but are not limited

to: estimated starting and completion dates of various activities, submittal of shop drawings to the Engineer for approval, procurement of materials and scheduling of equipment.

Prior to issuing the Notice to Proceed, the Engineer will schedule a Pre-Construction Meeting with the Contractor to review the proposed construction schedule and delivery dates, arrange utility coordination and clarify inspection procedures.

Prior to starting any Work, the Contractor shall attend a Community Meeting to be scheduled by the Engineer. The meeting, to be held in the evening, will address the residents' questions and concerns regarding the Work, what can be expected during construction and vehicular and pedestrian access that may be temporarily restricted during construction.

Notwithstanding any other provisions of the Contract, the Contractor shall not be obligated to perform any work and the CITY shall not be obligated to accept or pay for any work performed by the Contractor prior to delivery of a Notice to Proceed. The CITY's knowledge of work being performed prior to delivery of the Notice to Proceed shall not obligate the CITY to accept or pay for such work. The Contractor shall provide all required Contract bonds and evidences of insurance prior to commencing work at the site.

6-1.2 Criteria. The construction schedule shall conform to the following criteria:

- 1) The schedule shall be prepared using the latest version of Primavera, Microsoft Project or approved equal.
- 2) Work activities shall be based on the items of work per 2-6, and the following:
 - a) Contract Unit Price items shall be subdivided into those portions to be constructed during each stage or phase of construction.
 - b) Lump sum items shall be subdivided into those portions to be constructed during each stage or phase of construction.
- 3) Required submittals, working and shop drawings shall be included as activities.
- 4) The procurement of construction materials and equipment with long lead times for deliveries shall be included as activities.
- 5) Work to be performed by subcontractors shall be identified and shown as work activities.
- 6) Start and completion dates of each activity shall be illustrated.
- 7) Completion of all Work under the Contract shall be within the time specified in 6-7 of these Special Provisions and in accordance with the Plans and Specifications.

6-1.3 Requirements. In preparing the construction schedule, the following items shall be considered:

Sequence of Construction - The Contractor shall sequence the Work in a manner to expeditiously complete the project with a minimum of inconvenience to the adjacent owners and to conform to the following:

1. **The Contractor may not begin any pavement reconstruction activities until it has completed the installation of all new PCC improvements (i.e. curb/gutter, cross gutters, sidewalk, driveways, alley intersections, curb ramps, etc. for the entire project.**
2. Concrete removal - All concrete removed shall be hauled off the Work site (including the Contractor's storage yard) no later than the calendar day following the day that the removal is performed. If the calendar day following the removal is a non-working day (Saturday, etc.) the concrete shall be hauled off the Work site on the same day it was removed. Unless otherwise authorized by the Engineer, failure by the Contractor to haul concrete from the Work site and/or Contractor's storage yard(s) in a timely manner may result in a liquidated damage assessed upon the Contractor. Such liquidated damage shall be determined by the Engineer and will be deducted, accordingly, from a Progress Payment due to the Contractor.
3. PCC construction - Construction of PCC sidewalks, driveways, alley approaches, access ramps, curbs, gutters and cross gutters shall be formed and poured within 5 working days following removal of the existing material at any location. Any adjacent trench (i.e. 1-foot to 2-foot wide slot trench), required to remove and construct said PCC construction shall be restored per these Specifications and no later than 2 calendar days following the PCC construction. Failure by the Contractor to comply with these requirements in a timely manner may result in a liquidated damage assessed upon the Contractor. Such liquidated damage shall be determined by the Engineer and will be deducted, accordingly, from a Progress Payment due to the Contractor.
4. However, when approved by the Engineer, the Contractor may begin pavement reconstruction in a subsequent phase, prior to the application of permanent thermoplastic striping in the completed phase. Accordingly, the Contractor is required to provide and maintain temporary striping and/or reflectorized yellow and white tabbing in the completed phase until such permanent thermoplastic paint is applied.
5. Pavement removal - All pavement removed as a result of trenching shall be hauled off the Work site no later than the same day that the removal is performed.
6. Within 4 working days following the installation of the final ARHM surface course on Crenshaw Boulevard, the Contractor shall complete the adjustment of all manholes, valves and any other required surface facilities.
7. Within 5 working days following the installation of the final Asphalt Concrete surface course, the Contractor shall complete the "cat-tracking" of all proposed pavement markings shown on the Plans. The City will inspect all "cat-tracking" within 2 working days and notify the Contractor of any needed corrections or adjustments. Upon approval of the "cat-tracking" by the Engineer, the Contractor shall then complete the installation of all pavement markings no earlier than 7 calendar days following the installation of the final Asphalt Concrete surface course in any Phase, but under no circumstances no later than 10 calendar days following the installation of the final Asphalt Concrete surface course in any Phase.
8. Pruning of existing Tree Roots and Tree Removals per 300-1.3.2(d)&(e) are to be performed before concrete removals.

9. Irrigation systems - Irrigation systems disrupted by the Contractor shall not be left inoperable for more than three (3) working days.

12. The proposed sequence of pavement construction. The Contractor may proceed with the pavement construction work after the completion of the concrete work as listed above.

13. All Work shall only be performed between the hours of 8:00 a.m. and 4:00 p.m. on weekdays unless otherwise approved by the Engineer. The cold mill and digout on Crenshaw Blvd shall be performed between the hours of 9:00 a.m. and 3:00p.m. on a Wednesday and paved on Friday between the hours of 9:00 a.m. and 3:00 p.m.

14. A move-in period of 10 calendar days will be allowed starting on the date in the Notice to Proceed.

15. Holiday Moratorium per 7-10.1.6. of these Special Provisions.

16. Refuse collection. Refuse collection days are established and will not be changed (see Appendices for Refuse and Recycling Collection Day Map). If a street or streets are scheduled for rehabilitation on a pick-up day, the Contractor shall wait until the refuse and recycling vehicles have completed their runs on that street. Further, the City requires a 24-hour cure period prior to a refuse pick-up day. (For example, if Thursday is the collection day for the streets in this contract, pouring of PCC construction at intersections in this area is allowed on Wednesdays until 9:30 a.m. PCC removals at intersections are also allowed on Thursday after the refuse and recycling trucks have passed at approximately 9:30am.)

The City utilizes automated refuse and recycling vehicles. After refuse collection, the City will attempt to place the refuse containers on parkways and driveways and off of the roadway areas. In some cases, however, this may not be possible, and the contractor will be responsible for moving the receptacles out of the way.

Should work conflict with refuse collection routes, the contractor shall be responsible to move the receptacles so refuse trucks are able to get to them.

17. Stockpile area. Schedule shall indicate date for cleanup of stockpile area.

Should the Contractor fail to meet the above Requirements the Engineer reserves the right to prohibit the Contractor from making further removals until the clean up, construction, or rehabilitation of sprinklers is in conformance with the aforementioned requirements. Furthermore, if after notice is given to the Contractor to perform work to meet these requirements, and the Contractor refuses or for any reason fails to perform sufficiently to meet these schedules, CITY may perform said work and charge the Contractor for all costs incurred.

6-1.4 Updates. The Contractor shall submit 2 paper copies of the updated construction schedule to the Engineer on the first working day of each month.

If the Contractor decides to make a major change in the method of operations after commencing construction, or if the schedule fails to reflect the actual progress, the Contractor shall submit to the Engineer a revised construction schedule in advance of beginning revised operations.

Full compensation for complying with all requirements of Section 6-1.4 Updates shall be per the Contract Unit Price for Construction Schedule. If the Contractor fails to submit an updated Construction Schedule to the Engineer on the first working day of each month, the CITY will deduct one-fifth the amount of the Contract Unit Price for each work day after the due date, up to maximum of \$300, that each monthly schedule update is not submitted.

6-7 TIME OF COMPLETION.

6-7.1 General. Replace the first sentence with the following:

Time shall be of the essence in the Contract. The Contractor shall begin Work after the mailing by the Engineer to the Contractor, first class mail, postage prepaid, a Notice to Proceed and shall diligently prosecute the same to completion within the number of working days, as stated in the Notice of Inviting Bids for this project, from the start date specified in the Notice to Proceed.

6-8 COMPLETION, ACCEPTANCE AND WARRANTY.

Replace the second paragraph with the following:

If, in the Engineer's judgment, the Work has been completed and is ready for acceptance, the Engineer will so certify and will determine the date when the Work was completed. This will be the date when the Contractor is relieved from responsibility to protect the Work. The Engineer may cause a Notice of Completion to be filed and recorded with the Los Angeles County Recorder's Office. At the Engineer's option, the Engineer may certify acceptance to the City Council who may then cause a Notice of Completion to be filed and recorded with the Los Angeles County Recorder's Office.

Add the following subsection:

6-8.1 Manufacturer's Warranties. Manufacturer's warranties shall not relieve the Contractor of liability under these Specifications. Such warranties only shall supplement the Contractor's responsibility.

The Engineer may, at his option, require a manufacturer's warranty on any product offered for use.

6-9 LIQUIDATED DAMAGES.

In each of the two paragraphs, substitute "\$1,000" in place of "\$250" as the amount of the liquidated damages per each consecutive calendar day.

6-11 SEQUENCE OF CONSTRUCTION

6-11.1 Multiple Operations. In order to meet the contract schedule, the Contractor will be allowed to initiate and maintain two or more construction operations. However, the Contractor will not be allowed to have multiple operations of work occurring that have the corresponding traffic control devices in conflict with each other.

SECTION 7 - RESPONSIBILITIES OF THE CONTRACTOR

7-2 LABOR

Add the following subsections:

7-2.3 Payrolls and Payroll Records

Any payroll and payroll records required for this project shall be submitted, for each week in which any contract work is performed, to the Engineer. A retention of \$5,000 per report per pay period will be withheld from a progress payment for a late or missing report. A report shall be deemed as late or missing when not submitted to the Engineer within 10 calendar days from the close of the pay period for which the report applies. In addition, a non-refundable deduction of \$100 per report per day will be deducted from payments due the Contractor for each late or missing report. The \$100 non-refundable deduction per day will be incurred beginning on the first day the report is late or missing.

7-3 LIABILITY INSURANCE.

Replace the second sentence of the second paragraph with the following:

The Contractor must maintain at its sole expense the following insurance, which will be full coverage not subject to self-insurance provisions:

- 1) Automobile Liability, including owned, non-owned and hired vehicles, with at least the following limits of liability:
 - a). Combined single limits of \$2,000,000 per occurrence.
- 2) General Liability including coverage for premises, products and completed operations, independent contractors, personal injury and contractual obligations with combined single limits of coverage of at least \$3,000,000 per occurrence, with an annual aggregate of no less than \$5,000,000.

Add the following:

The Contractor must include all subcontractors as insureds under its policies or must furnish separate certificates and endorsements for each subcontractor.

7-4 WORKER'S COMPENSATION INSURANCE.

Add the following after the first sentence of the second paragraph:

Worker's Compensation Insurance shall be with limits as required by the State of California and Employer's Liability with limits of \$1,000,000 per accident.

7-5 PERMITS.

Replace the second paragraph with the following:

The Contractor shall obtain a City of Torrance Business License and a no-fee Construction Excavation Permit before commencing construction.

Full compensation for complying with the above requirements shall be considered as included in the prices bid for the appropriate items of work.

7-6 THE CONTRACTOR'S REPRESENTATIVE

Add a third paragraph to the section stating the following:

The Contractor's Representative shall be approved by the CITY prior to the start of the Work. If the designated representative is rejected, the Contractor shall immediately designate another representative in writing and submit to the City for consideration. The CITY shall have the authority to require the Contractor to remove its representative and/or alternate representative at any time and at no cost to the CITY.

7-8 PROJECT SITE MAINTENANCE.

7-8.1 Cleanup and Dust Control. The second paragraph is amended to read:

Unless directed otherwise by the Engineer, the Contractor shall furnish and operate a self-loading motor sweeper with spray nozzles at least once each working day to keep paved areas acceptably clean to the City whenever construction, including restoration, is incomplete.

7-8.5 Temporary Light, Power, and Water. Add the following:

The Contractor shall obtain a construction water meter from the CITY by calling Torrance Customer Service Operations ("CSO") at (310) 921-6449. A \$1,000 deposit is required and refundable upon return of the meter in good working condition. The Contractor shall pay for the water used, at the CITY's current water rates.

Some water mains in Torrance are owned/operated by California Water Service. For rental of a hydrant meter the contractor shall call California Water Service at (310) 257-1400.

7-8.6 Water Pollution Control.

Add the following subsections:

7-8.6.1 NPDES General Permit

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. Construction activities including clearing, grading and excavating that result in land disturbances of equal to or greater than one acre shall be covered by the National Pollutant Discharge Elimination System General Construction Permit, State Water Board Order No. 2009-0009-DWQ as amended by 2010-0014-DWQ.

7-8.6.2 Storm Water Pollution Prevention Plan (SWPPP). 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 and 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 that is prepared by a certified Qualified SWPPP Developer (QSD). 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 Contractor shall prepare, submit to the CITY for review and approval, and implement a SWPPP for this Contract in compliance with these regulations.

The SWPPP shall be prepared, certified and amended by a QSD who meets the requirements of State Water Resources Control Board (SWRCB) Order No. 2009-0009-DWQ as amended by 2010-0014-DWQ.

The Contractor shall submit one (1) printed paper copy of the NOI and SWPPP to the City for initial review prior to certification. The SWPPP shall be submitted to the CITY for review and approval a minimum of fifteen (15) working days prior to the commencement of construction operations in accordance with 6-1 of these Special Provisions.

The City will review and certify the submitted SWPPP. The City may require corrections and/or revisions (comments) to the SWPPP and require one or more re-submittals prior to certification.

Once certified by the City, the printed paper SWPPP certification will be returned to the Contractor. The Contractor shall submit the City-certified SWPPP to the Office Engineer specified in 2-5.3. In addition, the Contractor shall submit one electronic copy of the City-certified SWPPP in portable document format (pdf) on a read/write (R/W) capable compact disk (CD). The pdf-format SWPPP shall not exceed a file size of 70MB.

The City will submit the certified SWPPP to the SWRCB. The SWRCB and Regional Water Quality Control Board (RWQCB) may require revisions to the certified SWPPP. Should such revisions be required, the Contractor shall perform such revisions and re-submit the SWPPP to the City within 5 working days of being notified in writing by the Engineer. The SWRCB has not established a time frame for SWPPP review and issuance of the WDID. Should this process result in delays, the Contractor will be entitled to an extension of time in accordance with 6-6.2.

Review and certification by the City and acceptance by the SWRCB will not relieve the Contractor of the responsibility for the adequacy of the SWPPP nor for full compliance with all applicable Federal, State, and local laws and regulations governing water quality.

The Contractor shall keep (1) one printed paper copy of the City-certified SWPPP with the WDID and City-certified SWPPP amendments at the Project site. The SWPPP shall be made available to a representative of the RWQCB, SWRCB, United States Environmental Protection Agency or the City upon request. Any requests by the public shall be directed to the Engineer.

7-8.6.3 SWPPP Amendments. The Contractor's QSD shall prepare and certify an amendment to the SWPPP when there is a change in construction activities or operations which may affect the discharge of pollutants to surface waters, ground waters, municipal storm drain systems, or when the Contractor's activities or operations violate any condition of the Permits or when so directed by the Engineer. Amendments shall describe additional water pollution control practices or revised operations, including those areas or operations not shown in the City-certified SWPPP. Amendments to the SWPPP shall be prepared and submitted for review and certification within 14 days of direction by the Engineer. The QSD and QSP, once identified in the City-certified SWPPP, shall not change without prior written approval by the Engineer. Such a change shall be considered as a SWPPP amendment and shall conform to the aforementioned provisions.

7-8.6.4 Implementation.

- a) **General.** The Contractor shall be responsible year-round throughout the duration of the Project for implementation of the City-certified SWPPP and all certified SWPPP amendments. Unless otherwise notified by the Engineer, the Contractor's responsibility for implementation of the SWPPP shall continue throughout any temporary suspension of the Work or designated construction moratorium.
- b) **Qualified SWPPP Practitioner (QSP).** The Contractor shall designate a QSP who meets the requirements of State Water Resources Control Board (SWRCB) Order No. 2009-0009-DWQ.

The QSP shall have the authority and responsibility to fully implement the City certified SWPPP in accordance with the Contract Documents and shall be present full-time on the Project site at all times.

- c) **Rain Event Action Plan (REAP).** The Contractor shall monitor the National Weather Service Forecast Office (www.noaa.gov) on a daily basis. The Contractor shall ensure that the QSP prepares a REAP 48 hours prior to any likely precipitation event. A likely precipitation event is any weather pattern that is forecast to have a 50 percent or greater probability of producing precipitation in the Project area. Each REAP shall be prepared using the REAP template in the SWPPP Preparation Manual. The Contractor shall assume there will be 20 likely rain events throughout the duration of the Contract.

The actions required by the REAP for each phase of construction shall be implemented 24 hours prior to the forecasted start of the likely precipitation event.

- d) The Contractor's QSP shall submit a copy of the REAP to the Engineer 24 hours prior to each likely rain event. The Contractor's QSP shall maintain documentation of the actions implemented as part of the REAP. Completed REAPs shall be filed with the City-certified SWPPP. **Accumulated Precipitation Procedure (APP).** The Contractor shall implement the APP in the City-certified SWPPP whenever a discharge of accumulated precipitation is necessary. No discharge of accumulated precipitation shall take place without an APP. The Contractor shall notify the Engineer 24 hours prior to the discharge of accumulated precipitation water in accordance with the APP.

- e) **Construction Site Monitoring Program (CSMP).** The Contractor's QSP shall implement the CSMP included in the City-certified SWPPP for visual monitoring (inspections) and sampling and analysis. A daily printed paper copy of the National Weather Forecast Office forecast chance of rain and forecast precipitation amount shall be submitted by the Contractor's QSP to the Engineer within 24-hours of the forecast. The Contractor's QSP shall monitor the Project site for full compliance with the SWPPP. The Contractor's QSP shall conduct inspections and collect water quality samples in accordance with these Special Provisions. The Contractor shall plan for 10 qualifying rain events (producing precipitation of 1/2 inch or more at the time of discharge) and 3 samples per rain event (total 30 samples). CSMP implementation shall include the following:

- i) **Visual Monitoring.** The Contractor's QSP shall inspect (visually monitor) the Project site and record the findings on the BMP Checklist in the SWPPP Preparation

Manual during working hours. Visual monitoring inspections shall be performed only by the QSP as follows:

- A. Routinely, a minimum of once every week.
- B. Within 48 hours prior to a qualifying rain event
- C. Within 48 hours after a qualifying rain event.
- D. At least every 24 hours during extended storm events (any measurable amount of precipitation (0.01 inch or more)).

The Contractor's QSP shall:

- ✓ Observe all BMPs to identify whether they have been properly implemented in accordance with the SWPPP/REAP. If needed, corrective actions shall be implemented by the Contractor.
- ✓ Inspect each drainage area for the presence of (or indications of prior) unauthorized and authorized non-storm water discharges and their sources.
- ✓ Monitor and report run-on from surrounding areas if there is reason to believe run-on to the Project site may contribute to the numeric action levels (NALs) being exceeded.
- ✓ Observe the discharge or likely discharge after working hours of stored, contained, trapped or otherwise accumulated storm water. Inspect for compliance with the APP.
- ✓ Complete the BMP Checklist provided in the SWPPP Preparation Manual to document inspection observations.
- ✓ Record the time, date, and rain gauge reading of all rain events. The rain gauge reading shall be either from a rain gauge on the job-site provided by the contractor with the location approved by the Engineer or from the Los Angeles County Department of Public Works' real-time rainfall data precipitation map, http://ladpw.org/wrd/precip/alert_rain/, unless otherwise approved by the Engineer.
- ✓ Print a daily paper copy of the rain gauge data for the previous 24 hours for the Project site and submit to the Engineer on the same day.
- ✓ Sign and submit one copy of the completed BMP Checklist to the Engineer within 24 hours of completing the inspection. One completed and signed copy of each BMP Checklist shall be kept with the on-site SWPPP.
- ✓ Identify and record BMPs that require maintenance to operate effectively, that have failed, or that could fail to operate as intended.
- ✓ Upon identifying BMP failures or other shortcomings, the Contractor's QSP shall implement repairs or design changes to BMPs within 24 hours. Correct unauthorized discharges immediately. This may require temporarily suspending certain work activities until work can continue, as approved by the Engineer, without an unauthorized discharge.

ii) **Sampling and Analysis Plan (SAP).** The Contractor's QSP shall implement the SAP included in the City-certified SWPPP for storm water sampling, non-storm water sampling and non-visible pollutant storm water sampling.

The Contractor's QSP shall submit rain event field water sampling and analytical data within 24 hours of the conclusion of the rain event. The Contractor's QSP shall submit non-storm water and non-visible pollutant water sampling laboratory results within 20 working days after sample collection. The Contractor's QSP shall submit the data in accordance with the SWPPP Preparation Manual.

A) **Storm Water Sampling.** The Contractor shall collect storm water samples for each

qualifying event that produces 1/2 inch or more of precipitation. The Contractor shall:

- Collect and analyze effluent samples from each discharge location per day per qualifying rain event. A minimum of 3 samples shall be collected each day per qualifying rain event.
- Collect samples during working hours only.
- Ensure effluent samples are representative of the effluent in each drainage area.
- Collect a minimum of one (1) run-on sample from each area that may contribute to exceedance of NALs (See Table 7-8.6.4 (A)).
- Collect storm water grab samples of accumulated storm water that will be discharged in accordance with the APP.

Turbidity and pH meters shall be provided by the Contractor and retained on the Project site at all times and conform to Table 7-8.6.4 (A).

Table 7-8.6.4 (A)

Parameter	Test method	Min. Detection Limit	Units	Numeric Action Level (NAL)
pH	Calibrated portable pH meter	0.2	pH units	lower NAL 6.5 upper NAL 8.5
Turbidity	Calibrated portable turbidity meter	1	NTU	250

Turbidity and pH meters must be calibrated in accordance with the manufacturer's specifications prior to use for field analysis. Calibration data shall be filed with the analytical results in the City-certified SWPPP at the Project site in accordance with the SWPPP Preparation Manual.

Field analytical results shall be submitted in writing to the Engineer using the Sampling Activity Log in the SWPPP Preparation Manual within 24 hours of analysis.

If any result exceeds NALs (Table 7-8.6.4 (A)), the Contractor's QSP shall:

- Implement immediate corrective actions to address the cause of the exceedance and to prevent further exceedance of the NALs.
- Submit a Numeric Action Level Exceedance Report to the Engineer within 5 calendar days of the date of sampling. The report shall conform to the SWPPP Preparation Manual.
- The Contractor's QSP shall sign and certify the Numeric Action Level Exceedance report.

B) Non-Storm Water Sampling. If the visual monitoring inspections of the Project site indicate any authorized or unauthorized non-storm water discharges, the Contractor's QSP shall record the findings on the BMP Checklist and immediately implement the SAP for non-storm water sampling.

The Contractor shall collect samples of non-storm water discharge effluent at all discharge points. Each non-storm water sample shall be sent only to a lab certified by the California State Department of Health Services for the selected analysis. The current and valid laboratory certification shall be included in the SWPPP.

C) Non-Visible Pollutant Monitoring. The Contractor shall collect one (1) or more samples during any breach, malfunction, leakage, or spill observed during a visual inspection which could result in the discharge of pollutants to surface waters that would not be visually detectable in storm water. Samples shall be analyzed in the field or by a laboratory following the SWPPP Preparation Manual. Analytical results shall be submitted in accordance with 7-8.6.4 f) ii) and shall be accompanied by an evaluation from the Contractor's QSP to determine if down gradient samples show elevated levels of the tested parameter relative to levels in the uncontaminated control sample. If down gradient samples show increased levels, the Contractor shall assess the BMPs, Project site conditions, and surrounding influences to determine the probable cause of the increase. As determined by the Contractor's assessment, the Contractor shall repair or modify BMPs to address the increased levels of pollutants in down gradient samples.

Where appropriate BMPs are not implemented prior to a rain event, any failure of a BMP occurs, or spilled materials or wastes are not completely removed (including contaminated soils) which could result in the discharge of non-visible pollutants to surface waters, the requirements to conduct sampling and analysis shall apply. If the Engineer determines that the Contractor has not properly deployed or maintained the appropriate BMPs necessary to significantly reduce and minimize the discharge of pollutants, the Engineer will direct the Contractor to collect and analyze water quality samples as specified in these Special Provisions at no additional cost to the City.

f) Annual Report. The Contractor shall prepare, certify and submit to the Engineer an annual report for the reporting period of July 1 to June 30 of each year. If construction occurs through June 30, the report shall be submitted no later than July 15 for the prior reporting period. If construction ends before June 30, the report shall be submitted within 15 calendar days after the date of acceptance of the Work by the Engineer.

g) Enforcement and Penalties. The Contractor will be determined Non-Compliant with these Special Provisions for the following:

- 1) Noncompliance with the certified SWPPP or certified amendments.
- 2) Failure to provide full-time QSP on project site
- 3) Failure to amend SWPPP or submit SWPPP amendments
- 4) Failure to take immediate corrective action when so directed by the Engineer or when required by these Special Provisions.
- 5) Failure to make necessary corrections after a numeric action level exceedance.
- 6) Noncompliance with the immediate corrective action specified on the City-issued "Notice of BMP Noncompliance" form.
- 7) Noncompliance with applicable local permits.
- 8) Noncompliance with Federal, State and local water pollution control regulations.
- 9) Unauthorized or noncompliant discharge.

The Contractor will be assessed \$1,000 per violation per calendar day that the Contractor does not fully implement or comply with the provisions set forth in these Special Provisions. The penalty will be assessed from Contract progress payments due to the Contractor.

The Contractor shall be responsible for the costs and for the liabilities imposed by law as a result of the Contractor's failure to comply with these Special Provisions. Costs and liabilities include, but are not limited to, fines, penalties and damages whether assessed against the City or the Contractor, including those levied under the Federal Clean Water Act and the State Porter

Cologne Water Quality Act. In addition the City will deduct, from any monies due the Contractor, the total amount of any legal fees, staff costs, and consultant fees incurred as a result of the Contractor's non-compliance with these Special Provisions.

The Contractor shall notify the Engineer immediately following receipt of a request from any jurisdictional regulatory City, to enter, inspect, sample, monitor or otherwise access the Project site or the Contractor's records pertaining to water pollution control.

7-8.6.5 Payment.

Payment for preparation of the SWPPP, revisions amendments, and all other related costs shall be considered as included in the Bid Unit Price for "PREPARATION OF THE SWPPP."

Payment for implementation of the Agency-certified SWPPP, including SWPPP amendments, QSD/QSP training and certifications, QSP present full-time on the Project site, inspections, BMP inspection and maintenance, corrective actions, daily forecast and rain gauge data printing, implementation of the CSMP, APP implementation, implementation and removal of BMPs, 20 Rain Event Action Plans, sampling and analysis for 30 water quality samples, NAL reports, Annual Reports and all other SWPPP requirements and related costs, shall be considered as included in the lump sum Bid price for "IMPLEMENTATION OF THE SWPPP."

If the BMPs selected in the certified SWPPP do not meet the performance standards of **7-8.6.4**, the Contractor shall implement additional BMPs and amend the SWPPP at no additional cost to the Agency.

If the Engineer determines that the Contractor has not properly deployed or maintained the BMPs necessary to significantly reduce and minimize the discharge of pollutants, the Engineer will direct the Contractor to collect and analyze water quality samples as specified in **7-8.6.4 f) ii)** at no additional cost to the Agency.

Payment for IMPLEMENTATION OF THE SWPPP will be prorated on a monthly basis over the duration of the Contract. The final payment will not be made until the final Annual Report is reviewed and accepted in writing by the Agency.

7-8.6.6 Best Management Practices (BMPs). 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 Storm Water Best Management Practice Handbooks, Volume 3 Construction BMP Handbook and the Los Angeles County Department of Public Works Best Management Practices Handbook for Construction Activities. These publications are available from:

Los Angeles County
Department of Public Works
Cashier's Office
900 S. Fremont Avenue
Alhambra, CA 91803
Telephone (626) 458-6959

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	Slit 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 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 the "IMPLEMENTATION OF THE SWPPP."

Add the following subsections:

7-8.8 Contractor's Storage Yard. The Contractor shall be responsible for obtaining a storage yard for the duration of the Work. If the proposed location of the yard is located within the boundaries of the CITY, the Contractor shall obtain prior approval from the Engineer.

7-8.9 Graffiti Removal. The Contractor shall maintain the Work, all of its equipment, and all traffic control devices, including signage, free of graffiti throughout the duration of the Contract. The Contractor shall respond to any request from the Engineer to remove graffiti within 4 hours of notification. Should the Contractor fail to respond to such request, the CITY reserves the right to make other arrangements for the requested graffiti removal and deduct the cost from any monies due the Contractor.

7-9 PROTECTION AND RESTORATION OF EXISTING IMPROVEMENTS.

Add the following paragraph:

The Contractor shall be responsible to protect all new concrete work from being etched, scratched or otherwise marked or having wet slough material deposited thereon. If new concrete work is marked, the Contractor shall replace it at its expense in accordance with 303-5.7 of these special provisions.

The Contractor shall perform all private lawn, hardscape, and parkway restorations, (not included in the project plans) including restoration of irrigation systems and existing curb drains within five (5) days after the adjacent improvements have been constructed at his own expense. The Contractor shall not delay restorations for tree plantings.

Add the following subsections:

7-9.1 Replacement of Lawns. When the Contract requires the removal and replacement of lawns or sod, including parkways, the Contractor shall comply with the following minimum requirements: the area to be replanted shall be regraded and covered with two inches of an approved topsoil; the grass seed or sod shall be for grass or sod of the same type as was removed, or an approved equal, and grass shall be sown at the rate recommended by the seed distributing company; Bandini steer manure or approved equal shall be applied to the planted area at the rate recommended by the vendor. The Contractor shall water and care for replaced lawns until the grass has attained a complete cover and has been given its first cutting, unless other arrangements are made with the property owners. The lawn restoration, as above described, shall be completed prior to the final payment.

Topsoil shall be in accordance with 212-1.1.

7-9.2 Replacement of Sprinkler Systems. Damaged sprinklers shall be replaced so that the area watered by the original system will be adequately watered by the reconstructed system without undue waste of water. Overspray on any area no longer planted should be avoided, and any revised shape or layout of the remaining planted area will be adequately watered. Any additional material or work required to obtain said adequate coverage shall be furnished by the Contractor, at its expense. The Contractor shall be responsible to replace any lawn or plant damaged from lack of irrigation resulting from the Contractor's operations, at its expense, to the satisfaction of the Engineer.

7-9.3 Parkway Trees. The Contractor shall exercise all necessary precautions so as not to damage or destroy any trees or shrubs and shall not trim or remove any trees unless such trees have been approved for trimming or removal by the Engineer. All existing trees and shrubs that are damaged during construction shall be trimmed or replaced by the Contractor or a certified tree company to the satisfaction of the Engineer. Tree trimming and replacement shall be accomplished in accordance with the following requirements:

- (a) Trimming. Symmetry of the tree shall be preserved; no stubs, splits torn branches or torn roots left; clean cuts to be made close to trunk or large branch. Spikes shall not be used for climbing live trees. All cuts over one and one-half inches in diameter shall be coated with a suitable tree wound paint as approved by the Engineer.

- (b) Replacement. The Contractor shall immediately notify the Engineer if any tree is damaged by its operations. If, in the opinion of the Engineer, the damage is such that replacement is necessary, the Contractor shall replace the tree at its own expense. The tree shall be of a like variety as the tree damaged, subject to the approval of the Engineer. The size of the tree shall be the size of the tree replaced or 3" in diameter, whichever is smaller.

7-9.4 Street Furniture. The Contractor shall be responsible for removal, storage and replacement of refuse receptacles, bus benches, bus enclosures, newspaper boxes, mail boxes, etc. and coordination with the Owners as required throughout construction. Replacement of the removed items shall be per the direction of the Owner or Engineer.

7-9.5 Protection of Existing Pavement Surfaces from Tack Coat and Oil. When work requires the placement of a tack coat pursuant to Subsection 302-5.4, the Contractor shall protect existing pavement surfaces outside of the work limits from the spreading of tack coat and oil adhering to truck tires exiting work area. The protected area shall extend the full width of the street and be by either of the following methods:

- 1) The Contractor shall wet the existing pavement surface to a distance of ten (10) feet away from the work limit. The wetted area shall be maintained as such until placement of asphalt concrete pavement is completed; OR
- 2) The Contractor shall provide a thin spreading of sand or rock dust material to a distance of five (5) feet away from the work limit. The sand or rock dust area shall be maintained as such until placement of asphalt concrete pavement is completed. The Contractor shall be responsible to remove the sand or rock dust immediately after the placement of asphalt concrete pavement is completed.

7-9.6 Curb Addresses. The Contractor shall be responsible to repaint addresses (4-inch high black numbers on white background) on curb faces when printed addresses have been removed due to curb construction.

7-10 PUBLIC CONVENIENCE AND SAFETY

7-10.1 Traffic and Access. Replace the fourth paragraph with the following:

Vehicular access to residential driveways shall be maintained to the property line except when necessary construction precludes such access. When the Contractor begins excavation of a residential driveway, safe access shall be provided within 4 hours and not later than the end of the same workday in which excavation began.

Add the following before the last paragraph:

The Contractor shall provide the necessary measures to prevent public access to private residences during removal and replacement of existing barrier structures, such as wood and chain link fences, during non-working hours.

The Contractor shall be responsible to provide at least 48 hours written notice to each affected property before closing or partially closing any driveway or pedestrian access.

Unless the Contractor makes other arrangements satisfactory to the owners, the Contractor shall provide and maintain safe, adequate vehicular access to places of business and public gathering as stated herein below:

- (a) For each establishment (such as, but not limited to, gas stations, markets, and other "drive-in" business) on the corner of an intersection, which has a driveway (or driveways) on each intersecting street, the Contractor shall provide vehicular access to at least one driveway on each intersecting street insofar as the access is affected by the Contractor's operations.
- (b) For each establishment (such as, but not limited to, motels, parking lots and garages) which has a one-way traffic pattern with the appropriate entrance driveway and exit driveway, the Contractor shall provide vehicular access to the entrance driveway and the exit driveway insofar as the access is affected by the Contractor's operations.
- (c) The Contractor shall provide vehicular access to all schools and parking lots including, but not limited to, apartment building parking lots.
- (d) The Contractor shall provide vehicular access to all establishments requiring such access for receiving or delivering materials or supplies.
- (e) The Contractor shall make every reasonable effort to provide maximum access to churches on their Sabbath days. In addition, the Contractor shall not park or store equipment at the site of a church on its Sabbath days.
- (f) At least three (3) days prior to starting work in any location, the Contractor shall distribute written notices to all homeowners and residents that will be impacted by the work. The City will provide the notice.
- (g) The Contractor shall provide a minimum 1-inch thick temporary asphalt surface for an access ramp or sidewalk if it is not able to install the permanent improvement within 5 working days following the removal of the existing material at any location. The offset at any transverse or longitudinal joint shall not be more than one-half (1/2) inch. On the temporary asphalt surface: the running slope shall not exceed 1:20; the cross slope shall not exceed 1:50. The Contractor shall not be allowed any additional compensation for the installation and removal of temporary asphalt.
- (h) The Contractor shall protect the work from traffic. Should the slurry seal be damaged, the Contractor shall provide satisfactory repairs at no cost to the City.

Should any change in these requirements be necessitated by extraordinary occurrences or requirements during the execution of the Work, the Contractor shall obtain prior written approval of the Engineer.

Add the following subsections:

7-10.1.1 Traffic Control Plan

Full compensation for complying with the submittal requirements, minimum requirements for maintaining traffic flow, furnishing, placing and removing traffic control, temporary pavement

markings temporary signs, temporary steel plates and/or temporary ramps, shall be on a lump sum basis per the Contract Unit Price for TRAFFIC CONTROL.

7-10.1.2 Minimum Requirements for Maintaining Traffic Flow. The Contractor shall observe the following minimum requirements:

- a) Unless otherwise shown on the Traffic Control Plans, permitted by this Contract or authorized by the Engineer, all roadways, driveways, travel and turning lanes, sidewalks and access ramps shall remain open at all times.
- b) For residential streets 30 feet wide or greater, the Contractor shall provide adequate steel plating to cover and protect a newly poured PCC cross gutter with spandrels and integral curb in order to allow traffic flow and not close a street. A minimum lane width of 14 feet shall be provided over the steel plating.

For residential streets less than 30 feet wide, the Contractor will be allowed to close street to thru traffic during working hours. For construction of new alley intersections and construction of PCC cross gutters with spandrels and integral curb on residential streets less than 30 feet wide, Contractor will be allowed to keep said street closed overnight and shall reopen said street to allow traffic flow within 5 working days. However, Contractor shall not be allowed to close any two consecutive streets and/or alleys that are parallel to each other and are located along the same side of the street. No combination of closures shall cause traffic to be routed through an alleyway for egress and ingress. A minimum of one direct access point onto an adjacent street must be provided at all times.

- c) At a minimum, the Contractor shall maintain one (1) twelve (12) foot-wide lane open in each direction between the hours of 9:00 a.m. and 3:00 p.m. for work on Crenshaw Boulevard. All travel lanes shall be kept open all other times.
- d) Any travel lane adjacent to the curb and within the work zone shall be, at a minimum, a twelve (12) foot-wide lane.
- e) Reduction in lane requirements may be afforded only with prior written approval from the Engineer.
- f) Traffic signs, flaggers, warning devices, safety traffic devices and, on select streets, electronic arrow boards for diverting and directing traffic shall be furnished, installed and maintained by the Contractor throughout the project.
- g) The Contractor must provide access through the work zone in non-working hours by means of temporary ramps. Open trenches shall either be covered by steel plates, or ramped with crushed miscellaneous base. No drop-off at either transverse or longitudinal joints shall be allowed at any time. Temporary ramps, including those for driveway access, shall be constructed with either crushed miscellaneous base or temporary asphalt, as appropriate, with a minimum of 1" to 12" slope in both longitudinal and transverse directions.

All costs for the above requirements shall be included in the Contract Unit Price for Traffic Control.

7-10.1.3 Temporary Pavement Markings. If permanent pavement markings cannot be restored by the end of the work shift in which they were obliterated, temporary markings shall be provided by the Contractor prior to leaving the Work site on all streets except any street closed to through traffic. These temporary markings shall be as follows:

Temporary lanelines and/or centerlines shall consist of day/night reflectorized raised pavement markers, approved by the Engineer, spaced approximately twenty-four (24) feet apart. A list of approved day/night reflectorized raised pavement markers may be obtained from the CITY.

Where approved by the Engineer, the Contractor may use reflectorized lines approximately twenty-four (24) inches long and four (4) inches wide, spaced approximately twenty-four (24) feet apart.

Right edgelines shall not be simulated with dashes or pavement markers; however, portable delineators, guide markers, etc., may be used by the Contractor where it is considered desirable to enhance the edge of traveled way due to curvilinear alignment, narrowing pavement, etc., and shall be used when directed by the Engineer.

Locations where no-passing zone centerline delineation has been obliterated shall be posted by the Contractor with a sign package consisting of a **W20-1 "ROAD WORK AHEAD"** and **SC13 "DO NOT PASS"**.

All temporary pavement markings and signs shall be maintained, or replaced as necessary by the Contractor, until permanent pavement markings are restored.

All costs associated with the above requirements shall be included in the Contract Unit Price for Traffic Control.

7-10.1.4 Temporary Pavement Markers/Delineation. Temporary pavement delineation shall be furnished, placed, maintained and removed in accordance with the provisions of Section 12-3.01, of the Caltrans Standard Specifications. Nothing in these Special Provisions shall be construed as to reduce the minimum standards specified in the Manual of Traffic Controls published by Caltrans or as relieving the Contractor from responsibility as provided in 7-10 of these Special Provisions.

Whenever the work causes obliteration of pavement markers and/or delineation, the Contractor shall set in place temporary pavement markers/delineation prior to opening the traveled way to traffic. All pavement markers/delineation, including but not limited to lane lines, centerlines, directional arrows, pavement legends, etc, shall be provided at all times for traveled ways open to traffic.

All work necessary to establish temporary pavement markers/delineation shall be performed by the Contractor. Surfaces on which temporary pavement delineation is to be applied shall be cleaned of all dirt and loose material and shall be dry when the pavement delineation is applied. Temporary pavement markers/delineation shall not be applied over existing pavement delineation or other temporary pavement delineation.

Temporary pavement markers/delineation shall be maintained until replaced with permanent pavement markers/delineation. Temporary pavement delineation shall be removed when 1) it conflicts with the permanent pavement delineation; 2) a new traffic pattern is established or 3) as determined by the Engineer.

Temporary pavement delineation shall consist of temporary reflective raised pavement markers placed on lane lines and centerlines at longitudinal intervals of not more than 24 feet apart. Temporary reflective raised markers shall be the same color as the lane line or centerline the markers replace. Temporary reflective raised pavement markers shall be, at the option of the Contractor, one of the following or approved equal:

Apex Universal Product No. 2SCSM-1W or 2SCSM-2Y markers manufactured by Apex Universal, 11033 Forest Place, Santa Fe Springs, CA 90607, Telephone (562) 944 8878.

Flex-O-Lite Raised Construction Marker (RCM), manufactured by Flex-O-Lite, Lukens Company, P.O. Box 4366, St. Louis, MO 63123-0166, Telephone (800) 325-9525.

Temporary reflective raised pavement markers shall be placed as directed by the Engineer. Temporary reflective raised pavement markers shall be applied to the pavement surface with the adhesive in accordance with the manufacturer's instructions. Epoxy adhesive shall not be used to apply temporary reflective raised pavement markers in areas where the pavement will not be removed.

Temporary lane line or centerline delineation consisting of temporary reflective raised pavement markers placed on longitudinal intervals of not more than twenty-four (24) feet, shall be used on lanes opened to public traffic for a maximum of fourteen (14) days. Prior to the end of the fourteen (14) days the planned permanent pavement delineation, except permanent pavement markers, shall be placed. If the planned permanent pavement delineation, exclusive of permanent pavement markers, is not placed within fourteen (14) days, the Contractor shall provide, at its expense, additional temporary pavement delineation as directed by the Engineer. The additional temporary pavement delineation to be provided shall be equivalent to the pattern specified for the permanent traffic lines as determined by the Engineer.

Full compensation for furnishing, placing, maintaining, and removing the temporary pavement markers/delineation shall be considered as included in the Contract Unit Price for Traffic Control.

7-10.1.5 Temporary "No Parking" Signs. The Contractor is responsible to post "Temporary No Parking" signs at least forty-eight (48) hours in advance of the first date of work and the required enforcement. If work is to begin on either a Monday or Tuesday, the Contractor shall post the signs on a Friday. Each sign must include text indicating the beginning and end dates and the hours in effect. "Tow-Away" and "No Parking" must be shown on each sign face. If it is required to temporarily restrict parking 24 hours/day then "Tow-Away" and "No Parking Anytime" must be shown on each sign face. The signs shall be mounted on either 1" x 2" X 3' high wood stakes, Type II barricades, or 39-inch high delineators. Signs shall be spaced at approximately 100' intervals on the effected side(s) of the street. Signs shall not be posted on trees, traffic signal poles, utility poles, street lights, or any other street furniture.

Signs shall be professionally made of moisture-resistant, heavy duty cardboard or other approved material. All signs shall be maintained by the Contractor and kept free of graffiti. Any sign that becomes illegible or is removed shall be replaced within twenty-four (24) hours. The Contractor shall only be permitted to restrict parking for the minimum time necessary to complete on-going work. The Contractor shall be responsible to remove and repost "Temporary No Parking" signs when work will be delayed for more than five (5) consecutive days, or if the work must go beyond the end date shown on the signs, or otherwise directed by the Engineer.

The Contractor shall obtain approval for the signs and the placement thereof from the Engineer. Immediately after this approval and posting, the Contractor shall notify Torrance Police Department, Traffic Division, at (310) 618-5557 for review and enforcement. The parking restriction cannot be enforced until the signs have been in place 48 hours and the Police notified.

The Contractor shall maintain said signs through the day of work, and shall remove all of said signs on or within one (1) calendar day of the completion of work within the restricted parking area.

If, in the event a street scheduled for slurry or cape sealing was missed, the Contractor shall immediately remove all "No Parking" signs and notify all residents and others previously notified, with printed notices, that due to unforeseen circumstances, the Contractor was not able to seal the street as previously notified, that the street will be rescheduled in approximately 1 to 2 weeks, and that they will be re-notified. The Contractor shall, on the job site prior to the start of each day's work, have an adequate supply of approved letters of notification to residents for missed streets.

Full compensation for furnishing, placing, maintaining and removing temporary signs shall be considered as included in the Contract Unit Price for Traffic Control.

7-10.1.6 Holiday Moratorium. No reduction in lane widths on any major street shall be permitted during the CITY's holiday period construction moratorium, which begins on the Monday prior to Thanksgiving and ends on the Friday following New Year's Day. No traffic signal shall be out of operation for any period of time during said moratorium.

7-10.1.7 Refuse Pick-Up. Refuse pick up days are established and will not be changed. Consult the Engineer regarding refuse pick up schedule. The Contractor shall ensure streets and alleys affected by the work are accessible to the CITY's automated refuse trucks on designated pick up days. In alleys, Contractor shall be responsible to provide and maintain access to large refuse containers during the course of the work.

7-10.1.8 Protection of Permanent Pavement Markings, Manholes, Valves. The Contractor shall, in areas outside of the work zone, protect existing raised pavement markers, thermoplastic legends and markings. The Contractor shall cover and protect existing valve and manhole covers, utility caps, and similar items from damage.

The contractor shall be responsible for replacing or restoring any damaged items to the satisfaction of the Engineer.

Full compensation for the items in this subsection shall be considered as included in the Contract Unit Price for PAINT PAVEMENT LEGENDS PER CALTRANS STANDARD PLAN NO. A24D AND PER PLAN NOTATIONS, PAINT CROSSWALK & LIMIT LINE PER CALTRANS STD. PLAN NO. A24E, COLOR AND TYPE PER PLAN, PAINT/INSTALL PAVEMENT MARKINGS PER CALTRANS STD PLAN NO. A20A THRU A20D, TYPE /DETAIL PER PLAN, and PAINT/INSTALL PAVEMENT MARKINGS PER CALTRANS STANDARD PLAN NO. A24A, TYPE /DETAIL PER PLAN.

7-10.3 Street Closures, Detours, Barricades.

Add the following paragraph after the first paragraph:

In addition to the requirements of this subsection, the Contractor shall conform to the requirements for street closures, detours, and barricades as stipulated in the Special Provisions. However, deviations from the requirements stipulated in the Special Provisions may be permitted upon written approval of the Public Works Director when such deviations are in the best interest of the City.

Replace the second paragraph with the following:

The Contractor shall notify the Public Works Department at (310) 781-6900, at least ten (10) working days in advance of closing or partially closing any street or alley and comply with their requirements. In addition, the Contractor shall notify the Torrance Police Department – Traffic Division at (310) 618-5557 and Torrance Fire Department at (310) 781-7042 at least two (2) working days in advance of such closing.

It shall be the Contractor's responsibility to allow passage of the Torrance Transit System coaches through the construction area at all times. The Contractor shall notify the Torrance Transit Department at (310) 618-6266 at least 48 hours prior to construction affecting bus stop zones to allow said Transit System to temporarily abandon and relocate bus stop zones within the construction area.

The Contractor shall immediately notify the above parties upon completion of the construction work and opening or reopening of any street or alley.

Add the following:

The Contractor shall install, maintain, and remove all temporary delineators, barricades, lights, warning signs and other devices necessary to control traffic as specified in the project plans and these specifications. Materials for a temporary facility may be provided from new or used materials. If used materials are provided, they shall be sound, in good condition and otherwise meet the requirements of new materials. All traffic control devices shall be free of graffiti, and the Contractor shall be responsible to immediately clean and/or replace any device to the satisfaction of the Engineer.

Full compensation for furnishing, installing, maintaining and removing the above traffic control devices shall be considered as included in the Contract Lump Sum Price for Traffic Control.

Where streets in which improvements are being constructed are specified hereinafter to be closed to through traffic, it shall be understood that such closures shall apply only to the portions of such streets where construction is actually in progress.

Proposed street closure schedules MUST be submitted ten (10) days prior to closing the affected street to allow for a review of the Contractor's proposed traffic control by the Engineer.

Substitute the following for the first sentence of the third paragraph:

The Contractor shall submit to the Public Works Director detailed plans prepared by a Registered Civil Engineer of all temporary bridges proposed for use on this project. This includes bridges which may have been used on previous projects. The Contractor shall allow 15 days for approval by the Engineer. The drawings shall indicate specific locations where the bridge is to be used. Bridges shall not be installed until such time as written approval is obtained from, and the bridge is inspected by, the Public Works Director.

Revise the final sentence of the third paragraph to include:

Except as modified hereinafter or within the Special Provisions.

Add the following paragraph after the third paragraph:

The Contractor shall conform to Section 74.6.8 of the Torrance Municipal Code. In addition, the Contractor shall comply with directions from the Engineer to provide protection at excavations, trenches and/or other potentially hazardous construction areas. The Contractor shall be required to erect temporary railing (Type K) per Caltrans Standard Plan T3, five-foot high chain link fences, or equivalent protection, to completely enclose all open excavations over three feet (3') in depth. Fencing shall be approved by the Engineer, and provide adequate security. Fencing may be removed during working hours to the extent necessary to provide access and working room, in which case the Contractor shall provide equivalent security, to the satisfaction of the Engineer, during said periods. Any excavation not secured to the satisfaction of the Engineer shall be

completely backfilled prior to the end of each day's construction activities. The Engineer may require additional security devices, lighting or other protection in addition to said fencing. Full compensation for furnishing, placing and removing temporary protection shall be considered as included in the price for the various items of work.

7-10.3.1 Temporary Steel Plates. When backfilling operations of an excavation in the traveled way, whether transverse or longitudinal cannot be properly complete within a work day, steel plate bridging with a non-skid surface and shoring may be required to preserve unobstructed traffic flow. In such cases, the following conditions shall apply:

1. Steel plate used for bridging shall extend a minimum of 12-inches beyond the edges of the trench.
2. Steel plate bridging shall be installed to operate with minimum noise.
3. The trench shall be adequately shored to support the bridging and traffic loads
4. Temporary paving with cold asphalt concrete shall be used to feather the edges of the plates, if plate installation by Method (2) described below, is used.
5. Bridging shall be secured against displacement by using adjustable cleats, shims, or other devices.

Steel plate bridging and shoring shall be installed using either the following Method (1) or Method (2):

Method (1) (For speeds more than 45 mph)

The Pavement shall be cold planed to a depth equal to the thickness of the plate and width and length equal to the dimensions of the plate.

Method (2) (For speeds 45 mph or less)

Approach plate(s) and ending plate (if longitudinal placement) shall be attached to the roadway by a minimum of two (2) dowels pre-drilled into the corners of the plate and drilled 2-inches into the pavement. Subsequent plates are butted to each other. Fine grade asphalt concrete shall be compacted to form ramps, maximum slope of 8.5% with a minimum 12- inches taper to cover all edges of the steel plates. When steel plates are removed, the dowel holes in the pavement shall be backfilled with either graded fines of asphalt concrete mix, concrete slurry or an equivalent slurry that is satisfactory to the City and/or Caltrans.

The Contractor shall be responsible for maintenance of the steel plates, shoring and asphalt concrete ramps.

The following table shows the advisory minimal thickness of steel plate bridging required for a given trench width (A-36 grade steel, designed for HS20-44 truck loading).

<u>Trench Width</u>	<u>Minimum Plate Thickness</u>
10"	1/2"
1'-11"	3/4"
2'-7"	7/8"
3'-5"	1"

5'-3"

1 ¼"

For spans greater than 5'-3" a structural design shall be prepared by a California registered civil engineer.

All steel plates within the right-of-way whether used in or out of the travel way shall be without deformation. Steel plates shall be non-skid. Advanced signs shall be required for steel plates within traveled ways (Type P per the Watch Manual or a Rough Road sign (W33) per Caltrans requirements).

Full compensation for furnishing, installing, maintaining and removing the above traffic control devices shall be considered as included in the Contract Lump Sum Price for Traffic Control.

Add the following subsection:

7-15 PORTABLE CHANGEABLE MESSAGE SIGNS.

The Contractor shall furnish and install four (4) Portable Changeable Message signs (PCMS) on the construction site for use and relocation during construction on CRENSHAW BLVD. The City will allow only the following PCMS manufactures and models:

1. Manufactured by **Solar Tech** and be model MB2
2. Manufactured by **ADDCO** and be model DH500-ALS
3. Manufactured by **WANCO** and be model WVT3 Mini Three-Line Message

Contact BC Rentals at (714) 575-5020 or via <http://bctrffic.com/message-boards.htm> for rental or purchase information.

The Contractor shall install a locking device on each PCMS to prohibit access to the computer keyboard. The Contractor shall provide to the Engineer the key or combination to each locking device and the computer password to each PCMS OR possess any equipment, on any working day, to enter or modify a message for each PCMS as directed by the Engineer. Contractor shall relocate each PCMS as directed by Engineer at no additional cost to the City.

Full compensation for furnishing, installing, maintaining, entering/modifying message screens, relocation on the job site and removal shall be per unit per the Contract Unit Price for Portable Changeable Message Signs for Work on Crenshaw Blvd. If the Contractor does not possess the equipment or tools, or fails on any working day, to enter or modify a message for a PCMS, the Engineer may deduct \$50 per day, per each PCMS, from a Progress Payment until said message is entered or modified.

SECTION 9 - MEASUREMENT AND PAYMENT

9-1 MEASUREMENT AND PAYMENT.

Add the following sections:

9-1.2.1 Payment for Labor and Materials.

The Contractor shall pay and cause the subcontractors to pay any and all accounts for labor, including Worker's Compensation premiums, State Unemployment and Federal Social Security payments and all other wage and salary deductions required by law. The Contractor also shall pay and cause the subcontractors to pay any and all accounts for services, equipment and materials used by it and the subcontractors during the performance of work under this contract. All such accounts shall be paid as they become due and payable. If requested by the Engineer, the Contractor shall immediately furnish the City with proof of payment of such accounts.

9-1.2.2 Measurement and Payment

Payment of each item will include full compensation for furnishing all labor, materials, tools, equipment and backup equipment; transportation and technical competence for performing all work necessary to complete each item as indicated on the plans and as specified in these Contract Documents, including but not limited to obtaining all applicable certifications necessary for specialty personnel and major equipment in conformance with Subsection 7-5, and all other applicable permits; securing a storage yard to store all equipment and materials to be used on the job, disposal of waste materials, restoration of the site, etc. The storage yard may also be used as a temporary storage for excavated materials, and traffic control items. Payment for mobilization and demobilization will be made per the lump sum bid price for MOBILIZATION and shall include all items in 9-3.4.

9-2 LUMP SUM WORK.

Replace the second paragraph with the following:

The Contractor shall, within five (5) working days of receipt of a request from the Engineer, submit a complete breakdown of lump sum bid prices showing the value assigned to each part of the work, including an allowance for profit and overhead. In submitting the breakdown, the Contractor certifies that it is not unbalanced and that the value assigned to each part of the work represents its estimate of the actual cost, including profit and overhead, of performing that part of the work. The breakdown shall be sufficiently detailed to permit its use by the Engineer as one of the bases for evaluating requests for payment. No extra costs shall be allowed for providing these breakdowns.

9-3 PAYMENT.

9-3.2 Partial and Final Payment. Replace the third paragraph with the following:

For each progress estimate, 5 percent will be deducted and retained by the CITY, and the remainder less the amount of all previous payments will be paid. In addition, 125% of the amount of outstanding "Stop Notices" shall be withheld.

Add the following:

The Contractor shall submit all requests for payment on a Progress Payment Invoice.

Prior to submittal of said invoice, all items for which payment is requested shall be checked and approved in writing by the Engineer. No payments will be made unless all back-up data is submitted with the payment request and the Progress Payment Invoice is signed by both Contractor and Engineer.

9-3.4 Mobilization. Replace the entire subsection with the following:

Mobilization shall include the provisions of the Construction Schedule; Sewage Spillage Prevention; Emergency Response Plan; site review; obtaining all permits, insurance, and bonds; moving onto the site all plant and equipment; furnishing and erecting plants, temporary buildings, and other construction facilities, and removal of same at completion of the Work; and other work, all as required for the proper performance and completion of the Work.

Mobilization shall include, but not be limited to, the following items:

- (a) Submittal and modification, as required, of the Construction Schedule.
- (b) Moving on to the site of all Contractor's plant and equipment required for the first month's operations.
- (c) Installing temporary construction power and wiring.
- (d) Establishing fire protection system.
- (e) Developing construction water supply.
- (f) Providing on-site sanitary facilities and portable water facilities, as required.
- (g) Arranging for and erection of Contractor's work and storage yard.
- (h) Submittal of all required insurance certificates and bonds, including subcontractors.
- (i) Obtaining all required permits.
- (j) Posting all OSHA required notices and establishment of safety programs.
- (k) Potholing and other research and review as necessary to verify site conditions and utility locations
- (l) Having the Contractor's Superintendent present at the job site full-time.
- (m) Removal (including all spray-painted markings on any surface), cleanup, and restoration

9-3.5 Noncompliance with Plans and Specifications. Add the following section:

Failure of the Contractor to comply with any requirement of the Plans and Specifications, and/or to immediately remedy any such noncompliance upon notice from the Engineer, may result in suspension of Contract Progress Payments. Any Progress Payments so suspended shall remain in suspension until the Contractor's operations and/or submittals are brought into compliance to the satisfaction of the Engineer. No additional compensation shall be allowed as a result of suspension of Progress Payments due to noncompliance with the plans or specifications. The Contractor shall not be permitted to stop work due to said suspension of Progress Payments.

9-4 CLAIMS.

The Contractor shall not be entitled to the payment of any additional compensation for any cause, including any act, or failure to act, by the CITY, or the happening of any event, thing or occurrence, unless the Contractor shall have given the CITY due written notice of potential claim as hereinafter specified.

The written notice of potential claim shall set forth the reasons for which the Contractor believes additional compensation will or may be due, the nature of the costs involved, and, insofar as possible, the amount of the potential claim. Said notice shall be submitted on a form approved by the CITY at least forty-eight (48) hours (two working days) in advance of performing said work, unless the work is of an emergency nature, in which case the Contractor shall notify and obtain approval from the Engineer prior to commencing the work. The Engineer may require the Contractor to delay construction involving the claim, but no other work shall be delayed, and the Contractor shall not be allowed additional costs for any said delay but may be allowed an extension of time if the Engineer agrees that the work delayed is a controlling element of the Construction Schedule. The Contractor shall be required to submit any supporting data (or a detailed written explanation justifying further delay) within five (5) work days of a request from the Engineer and shall be responsible for all costs associated with any delays resulting from late and/or incomplete submittals. By submitting a Bid, the Contractor hereby agrees that this subsection shall supersede 6-6.3 and 6-6.4 of the Standard Specifications.

It is the intention of this subsection that differences between the parties arising under and by virtue of the Contract be brought to the attention of the Engineer at the earliest possible time in order that such matters may be settled, if possible, or other appropriate action promptly taken. The Contractor hereby agrees that it shall have no right to additional compensation for any claim that may be based on any such act, failure to act, event, thing or occurrence for which no written notice of potential claim as herein required was timely filed.

PART 2 - CONSTRUCTION MATERIALS

SECTION 200 – ROCK MATERIALS

200-2 UNTREATED BASE MATERIALS

200-2.1 General. Replace the entire subsection with the following:

Untreated base for pavement, curb, gutter, cross gutters, hardscape and other improvements shall be Crushed Miscellaneous Base conforming to 200-2.4.

SECTION 203 – BITUMINOUS MATERIALS

203-6 ASPHALT CONCRETE

203-6.1 General. Add the following:

Asphalt concrete shall be Type Class B-PG-64-10 for the base courses and C2-PG-64-10 for surface courses and leveling courses.

203-11 ASPHALT RUBBER HOT MIX (ARHM) WET PROCESS

203-11.3 Composition and grading. Add the following:

Asphalt rubber hot mix wet process shall be Type ARHM-GG-C.

SECTION 210 – PAINT AND PROTECTIVE COATINGS

210-1 PAINT

210-1.6 Paint for Traffic Striping, Pavement Marking, and Curb Marking

210-1.6.1. General. Add the following:

All permanent striping on Crenshaw Boulevard shall be hot applied alkyd thermoplastic in accordance with the provisions of Section 84-2.02 of the Caltrans Standard Specifications.

All permanent striping and pavement markings on residential streets shall be paint in accordance with the provisions of this Section 84-3.02 of the Caltrans Standard Specifications.

210-1.6.2. Thermoplastic Paint, State Specifications. Replace the entire subsection with the following:

Thermoplastic traffic stripes and pavement markings shall conform to the provisions of Section 84 of the Caltrans Standard Specifications. Contractor shall paint a solid black stripe between all double striping.

SECTION 214 – PAVEMENT MARKERS

214-1 GENERAL

Replace with the following:

Delete the entire Section 214 and replace with Section 85 of the Caltrans Standard Specifications (latest edition).

85-1.05 Reflective Pavement Markers

85-1.055 Adhesives. Add the following:

At the option of the Contractor, a hot melt bituminous adhesive may be used to cement the markers to the pavement, instead of the Rapid Set Type or Standard Set Type adhesive specified in Section 85-1.06 of the Caltrans Standard Specifications. The bituminous adhesive material, if used, shall conform to the following:

<u>ASTM Test Specification</u>	<u>Method</u>	<u>Requirement</u>
Flash Point, COC °F	D 92	550 Min.
Softening Point, °F	D 36	200 Min.
Brookfield Viscosity, 400° F	D 2196	3,000-7,500 cP
Penetration, 100g 5 sec., 77° F	D 5	10-20 dmm
Filler Content, % by weight (Insoluble in 1,1,1 Trichloroethane)	D 2371	50-75

SECTION 217 - SIGNAGE

217-1 ROADSIDE SIGNS.

All roadside signs shall conform to the provisions of Section 56-2 of the Caltrans Standard Specifications amended as follows:

56-2.02 Materials. Revise the entire subsection with the following: The various materials and fabrication thereof of roadside signs shall conform to the requirements of 56-2.02 A and 56-2.02 D.

56-2.02A Metal Posts. Delete the first paragraph.

PART 3 - CONSTRUCTION METHODS

SECTION 300 – EARTHWORK

300-1 CLEARING AND GRUBBING.

300-1.3 Removal and Disposal of Materials.

300-1.3.1 General. Replace the entire subsection with the following:

Unless otherwise stated on the Plans or Specifications, all material removed from the Work shall become the property of the Contractor and shall be disposed of in a lawful manner. Removals shall include, but not limited to, all excess excavation material, trees and plants, debris, interfering portions of curb, gutters, asphalt and PCC concrete pavements and sidewalks (including base, where applicable), and miscellaneous items as shown on the Plans. The Contractor shall conform to the following requirements:

- 1) The Contractor shall not start any removal work unless it is prepared to perform reconstruction work within 24 hours of the time removals were begun, unless otherwise approved by the Engineer.
- 2) The Contractor shall complete forming and pouring of PCC construction within five (5) working days following the removal of existing material at any location.
- 3) The Contractor shall not remove on-site improvements until it is prepared to construct the adjacent street section and shall promptly restore all such improvements as applicable, upon completion of the adjacent street work.

All concrete removed shall be hauled off the Work site no later than the calendar day following the day that the removal is performed.

The limits for sidewalk, curb and gutter and driveway shown on the plans are approximate. The actual removal and/or construction limits shall be as marked and/or directed by the Engineer in the field.

In order to protect the public streets from deterioration due to hauling of materials, the Contractor shall submit, prior to the Pre-Construction Meeting, for approval a proposed route for hauling of materials for disposal. Upon approval, the Contractor shall strictly adhere to that route, unless written permission from the Engineer is obtained to change the route.

300-1.3.2 Requirements.

- a) **Bituminous Pavement.** Replace the first and second sentences with the following: Bituminous pavement shall be removed to neatly sawed edges.

Add subparagraphs (d) and (e):

- (d) **Trees.** The City maintains a tree conservation policy. Unless otherwise shown, all trees are to be protected in place. Demolition and destruction of trees and tree parts, including

trunks, branches and foliage, shall be limited to tree removals as shown on the Plans. Root pruning and removals shall be limited to the minimum required to construct new improvements where trees are to be conserved.

The Engineer shall place a visible removable "tag" on each tree proposed to be removed at least five (5) work days and no earlier than ten (10) work days prior to removal. Said "tag" is intended to give adjacent residents proof of trees to be removed or saved. Tags shall be on the sidewalk side of trees and located at least five feet (5') above ground.

The Contractor shall remove only trees that have been marked by the Engineer for removal. Trees shall be removed in a workmanlike manner so as not to injure other standing trees, plants, and improvements which are to be preserved.

Stumps shall be ground down three feet (3') below ground surface within five (5) feet of the center of the stump. All surface roots shall be removed within the parkway.

The Contractor shall conform to the following requirements:

- 1) The cutting down, root pruning, or removal of trees is prohibited after the prescribed working hours unless permission is granted by the Engineer.
 - 2) All debris from pruning or removing a tree shall be cleaned up and hauled away from the Work site on the same day that the tree is cut or pruned. Firewood size logs may be left neatly piled for residents to pick up for no longer than three days.
 - 3) All holes created from removal of tree stumps shall be backfilled and graded to finish level by the end of the workday.
 - 4) Sprinkler systems disrupted by the Contractor shall be capped or restored by the end of the workday. Capped systems shall be restored to original working condition within three (3) days.
- (e) **Miscellaneous Removals and Relocations.** This work shall include all removals not specifically listed in the Proposal or otherwise covered by these Specifications, and all necessary relocations and restorations of walls, fences, plants, hardscape, signs and other items, whether shown on the Plans or not, and as necessary to complete the improvements.

Add the following section:

300-1.3.3 Construction and Demolition Debris Recycling.

General. Consistent with the Agency's efforts to comply with the California Integrated Waste Management Act of 1989 (AB 939), the Contractor shall reduce, reuse, and/or recycle to the maximum extent feasible, the construction and demolition debris (debris) generated by this

Contract hereby diverting the debris from disposal facilities, saving landfill space, and conserving virgin materials and natural resources.

Definitions.

Shall be as defined in the TORRANCE MUNICIPAL CODE, DIVISION 4, CHAPTER 3, ARTICLE 8 (or Section 43.8.1).

"Construction and Demolition Debris or Debris" means materials resulting from building, construction or demolition-related activities such as excavation, grading, land clearing, renovation, repair, road work and site cleanup and are considered solid waste pursuant to Section 40191 of the California Public Resources Code. The materials include, but are not limited to, asphalt, brick, cardboard, carpet, cinder block, concrete, concrete with reinforcement bars, drywall, excavated materials, fixtures and fittings, glass, gravel, green waste, metal, mixed rubble, packaging materials, paper, plastics, porcelain, road work materials, roofing materials, rock, sand, site clearance materials, soil, trees, tree stumps and other vegetative matter, stones and wood waste.

"Deconstruction" means the process of carefully dismantling a structure, piece by piece prior to or instead of conventional demolition, to maximize the recovery of building materials for reuse and/or recycling.

"Delivery Site" means recycling facility as defined in Subsection E.14 and recycling or reuse site as defined in Subsection E.15 or any place, including a transfer station as defined in Subsection E.20 where the debris is delivered for the sole purpose of reuse and/or recycling in a manner acceptable to the Director/Designee.

"Disposal" means the process of disposing of debris at a Disposal Facility.

"Disposal Facility" means a Landfill or any location where the debris is taken for Transformation as defined.

"Generation" means the quantity of debris produced by the Work before the debris is reused and/or recycled.

"Green Waste" means all vegetative cuttings, shrubs, stumps, logs, brush, tree trimmings, grass, and related materials which have been separated from other solid waste.

"Landfill" means a solid waste disposal facility that accepts solid waste for land disposal and is operating under a current Solid Waste Facility Permit issued by a local enforcement agency as defined in Section 40130 of the California Public Resources Code and concurred upon by the California Integrated Waste Management Board.

"Recyclable" means material that still has useful physical or chemical properties after serving its original purpose and that can be reused or re-manufactured into additional products.

"Recycle or 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 materials for new, reused, or reconstituted products which meet the quality standards necessary to be used in the marketplace, and in a manner acceptable to the Agency. "Recycle" or "Recycling" does not include Transformation.

"Recycling Facility" means any facility (except a transformation facility) whose principal function is to receive, store, convert, separate, or transfer recyclable materials for processing.

"Recycling or Reuse Site" means any place other than a recycling facility acceptable to the Agency for recycling and/or reuse of debris.

"Reduce" means any action which causes a net reduction in the generation and/or disposal of solid waste.

"Reuse" means the use, in the form as it was produced, and in a manner acceptable to the Agency of materials which might otherwise be discarded into a Disposal Facility.

"Site Clearance Material" means materials such as trees, brush, earth, mixed concrete, rubble, sand, steel, extraneous paper, plastics, and other waste materials generated from site clearance.

"Source Separation" means the segregation, by the generator, of materials designated for separate collection for materials recovery or special handling.

"Transfer Station" means a facility utilized to receive solid wastes and to temporarily store, separate, convert, or otherwise process the materials in the solid wastes, and/or to transfer the solid wastes directly from smaller to larger vehicles or railroad trains for transport.

"Transformation" means incineration, pyrolysis, distillation, gasification, or biological conversion other than composting.

"Wood Waste" means solid waste consisting of wood pieces or particles which are generated from the manufacturing or production of wood products, harvesting, processing or storage of raw wood materials, or construction or demolition activities.

RECYCLING SUMMARY.

The Contractor shall prepare and submit a Recycling Summary report using the form included as Appendix IV summarizing the disposal, reuse, and/or recycling activities which occurred throughout the Contract duration. This report shall be submitted by the Contractor to the Agency, before or with its request for the final Progress Payment for said Contract.

Failure of the Contractor to submit the Recycling Summary within the time specified will result in damages being sustained by the Agency. Such damages are, and will continue to be, impracticable and extremely difficult to determine. For failure to submit the Recycling Summary, as required, the Contractor shall pay to the Agency, or have withheld from monies due it, the sum of \$10,000 for a contract of \$500,000 or more. The Contractor shall pay to the Agency, or have withheld from monies due it, 2% of the total contract amount for a contract of \$499,999 or less.

Execution of the Contract shall constitute agreement by the Agency and Contractor that \$10,000 (2% for contracts \$499,999 or less) is the minimum value of the costs and actual damage caused by the failure of the Contractor to submit the Recycling Summary within the time specified. Such sum is liquidated damages and shall not be construed as a penalty, and may be deducted from payments due the Contractor.

PAYMENT.

The cost of construction and demolition debris recycling and completing the Recycling Summary report shall be considered as included in the Contract Unit Price for the various Bid items. The quantities reported will be used for information gathering purposes and not for purposes of payment to the Contractor.

300-1.4 Payment. Replace the entire subsection with the following:

When the Contract does not include a pay item for clearing and grubbing, payment under this section shall be by the following:

- a) **Bituminous Pavement.** Payment for the removal and disposal of bituminous pavement for construction of local depression, alley intersection and cross gutters/spandrels shall be considered as included in the Contract Unit Price for the appurtenant items of work, and shall include sawcutting, removal of underlying subgrade and base, disposal, subgrade preparation and compaction, labor and equipment.
- b) **Concrete Pavement, Cross-Gutters and Alley Intersections.** Payment for removal and disposal of concrete pavement, cross-gutters, alley intersection and local depression shall be included in the Contract Unit Price for the appurtenant items of work and shall include sawcutting, complete removal of underlying subgrade and base, disposal, and all labor and equipment necessary to complete the required removal.
- c) **Concrete Curb, Walk, Gutters and Driveways.** Payment for removal and disposal of concrete curb, curb and gutter, walk, and driveways shall be included in the Contract Unit Price for the appurtenant items of work. Removals shall include sawcutting, root pruning, complete removal of underlying subgrade and base, subgrade preparation and compaction, disposal, and all labor and equipment necessary to complete the required removal.
- d) **Trees.** Payment for tree removals and disposal shall be per the Contract Unit Price for REMOVE EXISTING TREE and shall include all work involved in tagging, cutting and complete removal of trunks, branches, stumps and roots; hauling, disposal, restoration and replanting of removal areas; and other appurtenant work.
- e) **Miscellaneous Removal and Relocations.** Payment for miscellaneous removals and relocations shall be per the Contract Unit Price, and shall include full compensation for excavation, backfilling, grading, trimming plants, import if required, placing of top soil, disposing of surplus material and appurtenant work.
- f) **Painted Curb.** There is no separate payment for removal of paint on concrete curb. Full compensation for furnishing all labor materials, tools, equipment and incidentals as shown on the plans and specified in these Special Provisions shall be included in the contract unit price for traffic striping, markings and pavement markers.

300-2 UNCLASSIFIED EXCAVATION.

300-2.2 Unsuitable Material.

300-2.2.1 General. Replace the first paragraph with the following:

If unsuitable material is found, the Contractor shall remove said material to the limits to be determined by the Engineer and shall replace said material with select fill or base material, as to be determined by the Engineer.

Payment for unsuitable material excavation and backfill shall be measured and paid for as UNCLASSIFIED EXCAVATION and ROADWAY PATCHING CRUSHED BASE COURSE (4").

300-2.9 Payment. Add the following:

Payment for the removal and disposal of bituminous pavement for street reconstruction areas shall be considered as included in the Contract Unit Price for UNCLASSIFIED EXCAVATION and shall include sawcutting, removal of underlying subgrade and base, disposal, subgrade preparation and compaction, labor and equipment.

SECTION 301 – TREATED SOIL, SUBGRADE PREPARATION, AND PLACEMENT OF BASE MATERIALS

301-2 UNTREATED BASE.

301-2.1 General. Add the following:

Base is required under all PCC and AC improvements as shown on the Plans. Additional base may be required after review of work areas following removals. Prior to constructing new improvements, the Contractor shall verify with the Engineer that the base sections as shown on the Plans (including areas where no base is called for) are adequate. Payment for any changes shall be made pursuant to Section 3.

A minimum of 8-inches CMB shall be placed under curb, curb and gutter, cross gutters, and spandrels. A minimum of 6-inches CMB shall be placed under driveways (includes portion to right-of way/property line), alley intersections, local depressions, and AC or PCC pavement on private property as part of driveway reconstruction. A minimum of 4-inches CMB shall be placed under sidewalks, access ramps and areas of street reconstruction.

301-2.4. Measurement and Payment. Delete the second paragraph and add the following:

Payment for construction of CMB under AC pavement, excluding reconstructed pavement adjacent to new curb, curb and gutter, alley intersections, gutters, cross gutters shall be per the Contract Unit Price per ton of ROADWAY PATCHING CRUSHED BASE COURSE (4").

Payment for construction of CMB under curb, slot paving, curb and gutter, driveways, local depressions, sidewalks, walks, alleys, cross gutter, gutter and access ramps shall be considered as included in the unit price bid for the appurtenant item of work and no additional compensation will be allowed therefore.

SECTION 302 – ROADWAY SURFACING

302-5 ASPHALT CONCRETE PAVEMENT.

302-5.1 General. Add the following sentence at the end of the first paragraph:

When the Plans, Specifications or Standard Plans inadvertently specify B-AR-4000, C2-AR-4000 and /or D2-AR-4000, the equivalent replacement courses shall be B-PG 64-10 for B-AR-4000, C2-PG 64-10 for C2-AR-4000, and D2-PG 64-10 for D2-AR-4000.

302-5.2 Cold Milling Asphalt Concrete Pavement

302-5.2.1 General. Add the following after the first paragraph:

Cold Milling shall include edge milling, header milling and profile milling as necessary to provide the required grades and allow for a smooth pavement profile in preparation for asphalt concrete overlay paving. Milling limits shown on the plans are approximate. The Engineer may direct the Contractor to cold mill in other areas, as necessary for construction. Some adjustment of limits and depths will be necessary to accommodate paving requirements. Cold milling shall be to the depth as specified or directed, or to the underlying base material, pavement fabric, or macadam material. Milling depth shall be adjusted so as not to remove any macadam encountered. Care shall be exercised not to damage adjacent concrete including curbs without gutters. Gutters or curbs damaged shall be replaced at the Contractor's expense. There are areas within the project that require cold planing which are inaccessible to the type of milling machine as described herein above. Some of these areas include local depressions, curb return, curbs without gutters, utility manholes and vaults. The Contractor shall be required to use a smaller hand machine or other device to cold plane the required horizontal limits and depth at those locations.

Add the following after the third paragraph:

The Contractor shall apply any leveling course at least one day prior to placing either an AC or ARHM overlay. Payment for AC Leveling Course shall be per the contract unit price per ton complete in place for Asphalt Concrete Pavement.

302-5.2.6 Measurement and Payment. Replace the first paragraph with the following:

Cold milling will be measured by the square foot. Payment for cold milling shall be per the Contract Unit Price per square foot of COLD MILL 2 INCHES AND CRACK SEAL and COLD MILL ROADWAY VARIABLE DEPTH 0"-1.5" AND CRACK SEAL, complete up to the depth specified, including disposal of milled material, and shall include construction, removal and disposal of temporary asphalt concrete ramps as specified in 302-5.2.5.

302-5.4 Tack Coat. Replace the first sentence of the first paragraph with the following:

If the asphalt concrete pavement is being constructed directly upon an existing hard-surfaced pavement, a tack coat of performance grade PG 64-10 paving asphalt conforming to 203-1 applied at an approximate rate of 0.25 L/m² (0.05 gallon per square yard), or SS-1h emulsified asphalt applied at an approximate rate of 0.25 L/m² to 0.45 L/m² (0.05 to 0/10 gallon per square yard), shall be uniformly applied upon the existing pavement preceding the placement of the asphalt concrete.

Add the following paragraph:

A Tack Coat shall be applied between base and finish courses when the finish course is not placed immediately after the base course, and to existing paved surfaces where new asphalt concrete overlaps or abuts existing pavement. Tack Coat shall be as specified in Section 302-5.4. There shall be no separate payment for Tack Coat.

302-5.5 Distribution and Spreading. Delete the fourth paragraph and substitute the following:

Asphalt concrete shall not be placed until the atmospheric temperature is a minimum of 10°C (50°F) and rising, and the surface temperature of the underlying material is a minimum of 4°C (40°F). Asphalt concrete shall also not be placed during unsuitable weather.

Fully automatic screeds will be required on this Project. A fully automatic screed shall have a sled, 9.1m (30 feet) in length, on the side of the machine which will receive the next mat of material. A joint maker, ski, etc., placed on the side of the machine to ride on the existing or previously constructed surface or mat of asphalt concrete material may be required as directed by the Engineer.

Delete Table 302-5.5(A) and substitute the following:

TABLE 302-5.5(A)

Specified Total Thickness of Pavement		Required Number of Courses	Class Of Mixture
Greater Than mm(Inches)	But Not More Than mm(Inches)		
38mm (1-1/2)	75mm (3)	1	C2-PG 64-10
75mm (3)	100mm (4)	2	Base Course - B-PG 64-10 Finish Course - C2-PG 64-10 or as directed
100mm (4)	-	2 or more	Base Course - B-PG 64-10 Other Courses - C2 -PG 64-10 or as directed

302-5.8 Manhole (and other structures). Add the following:

Contractor shall be required to remove manholes and utility access covers to below the depth to be removed and restore said covers to finish grade upon completion of paving.

Add the following subsection:

302-5.8.1 Payment. Payment for ADJUST SEWER, ELECTRICAL, OR STORM DRAIN MANHOLE FRAM AND COVER TO GRADE; ADJUST EXISTING WATER OR GAS VALVE CAN & LID TO GRADE; ADJUST SEWER MANHOLE FRAME AND COVER TO GRADE ON CRENSHAW BLVD; and ADJUST EXISTING WATER OR GAS VALVE CAN & LID TO GRADE (SEE PLAN FOR TYPE) ON CRENSHAW BLVD shall be made at the Contract unit price bid for **Each Item** , as shown in the Bid Schedule, and shall include all related asphalt concrete and PCC work, traffic control, and protection of the work during PCC curing and all incidentals to accomplish the work as specified herein, and no additional compensation will be allowed therefore.

302-5.9 Measurement and Payment (Asphalt Concrete Pavement). Payment for Asphalt concrete pavement shall be per the Contract Unit Price per ton of ASPHALT CONCRETE BASE COURSE (B-PG-64-10); ASPHALT CONCRETE SURFACE COURSE (C2-PG-64-10); and ASPHALT CONCRETE BASE COURSE (B-PG-64-10) ON CRENSHAW BLVD, including subgrade and base preparation, base course, leveling course, tack coat, and all work necessary to install complete in place. There shall be no separate payment for tack coat, header paving or temporary pavement, and all costs for any said item shall be included in the bid price for the work to which it is appurtenant.

Measurement and Payment for Asphalt Concrete (AC) Berm. Payment for REMOVE AND RECONSTRUCT AC BERM PER CALTRANS STD PLAN NO A87B, TYPE A; CONSTRUCT NEW AC BERM PER CALTRANS STD PLAN NO A87B, TYPE A; AND CONSTRUCT NEW 8' INCH AC BERM WITH 4 FOOT PAINT PER DETAIL E shall be per the Contract Unit Price per linear foot, including tack coat, paint, and all work necessary to install complete in place. There shall be no separate payment for tack coat, and all costs for any said item shall be included in the bid price for the work to which it is appurtenant.

302-6 PORTLAND CEMENT CONCRETE PAVEMENT

302-6.1 General Add the following text:

Replacement: Concrete pavement replacement will conform to S.P.P.W.C Standard 132-2. Contractor shall instead be required to install #15M (#5) tie bars, 24" long with one end bonded 12", at 18" (more or less) on center on the longest dimension joints, unless otherwise approved by the inspector. No tie bar shall be within 3'1/2" of a corner of a replaced section of concrete.

302-9 ASPHALT RUBBER HOT MIX (ARHM).

Add the following:

The contractor shall pave the roadway within the limits indicated in these special provisions or staked in the field with asphalt rubber hot mix (ARHM-GG-C) in accordance with Section 302-9 of the standard specification. Roadways to receive full-width cold milling shall be resurfaced within the same work week.

The thickness of ARHM shall be as specified on the plans and specifications. The Engineer will strictly enforce conformance to this thickness. Any deviation from this thickness resulting in additional tonnage shall be at the Contractor's expense unless otherwise approved by the Engineer.

Add the following subsection:

302-9.7 Measurement and Payment. Replace the first sentence with the following:

Payment for Asphalt Rubber Hot-Mix (ARHM) shall be per the Contract Unit Price per ton, and shall include preparation, tack coat, asphalt rubber hot mix, header paving, labor, equipment, and all other work necessary to install complete in place.

Add the following subsections:

302-11 BITUMINOUS PAVEMENT CRACK SEALING

302-11.1 General. Bituminous Pavement Crack Sealing consists of furnishing all labor, equipment, and materials and performing all operations in connection with bituminous pavement crack sealing.

302-11.2 Cleaning. All pavement cracks greater than or equal to 1/4" width shall be cleaned by a hot air lance.

302-11.3 Materials. The crack sealing material shall be an asphalt cement, aromatic rubber extender, oil and a minimum of 20% powdered rubber by weight combined in such a manner as to produce a material with the following properties:

- 1) **WORKABILITY.** The material shall pour readily and penetrate large cracks at temperatures below 400° Fahrenheit.
- 2) **CURING.** The product shall contain no water or volatile solvents and shall cure immediately upon cooling to a sufficient viscosity to prevent tracking by traffic.
- 3) **LABORATORY EVALUATION.** When the sample of the product has been heated at 350° Fahrenheit for two hours, it shall pass the following tests:

Softening Point (R & B) 135°F Min. (ASTM D312)

Flexibility A 1/8" thick specimen of the product conditioned to 10°F shall be capable of being bent to a 90° angle over 1" mandrel without cracking.

The sealer shall be forced into the crack by use of a squeegee.

302-11.4 Measurement and Payment. There shall be no separate payment for Bituminous Pavement Crack Sealing. Full compensation for furnishing labor, materials and equipment and performing all operations in connection with pavement removals shall be included in the prices bid for appurtenant work.

SECTION 303 – CONCRETE AND MASONRY CONSTRUCTION

303-5 CONCRETE CURBS, WALKS, GUTTERS, CROSS GUTTERS, ALLEY INTERSECTIONS, ACCESS RAMPS, AND DRIVEWAYS.

303-5.1 Requirements.

303-5.1.1 General. Replace the first sentence of the first paragraph with the following:

Concrete curbs, gutters, curb and gutters, sidewalks, walks, cross gutters, alley intersections, access ramps, and driveways shall be constructed of Portland cement concrete of the class, compressive strength and other requirements prescribed in 201-1.

Replace the first sentence of the second paragraph with the following:

Unless otherwise specified on the Plans, and except as otherwise prescribed in 303-5.1.3 under the heading "Driveway Entrances," the minimum thickness of walks shall be 3.5 inches.

303-5.5. Finishing

303-5.5.2 Curb Add the following:

Unless otherwise approved by the Engineer, the entire affected concrete curb, gutter, cross-gutter, or spandrel portion shall be removed by sawcutting the adjacent AC pavement one (1) foot from the edge of the affected area to be removed. Where applicable, the contractor shall reconstruct this one (1) foot wide section of AC pavement either with a 4-inch thick section of AC pavement (C2-PG 64-10) on a 10-inch thick section of untreated Base **OR** with a 2-inch thick section of AC pavement (C2-PG 64-10) on a 4-inch thick section of Class 100-E-100 Concrete on an 8-inch thick section of untreated Base. For street sections receiving 1 ½" thick section of AC Pavement, the Class 100-E-100 Concrete shall be 4 ½ inches thick. The final surface elevation of the Class 100-E-100 Concrete shall be at an elevation below edge of gutter elevation to accommodate the AC overlay per plan and a 3/8" high "lip" along the edge of gutter.

For concrete curb and gutter or cross gutter reconstruction work adjacent to areas of pavement reconstruction that are two (2) feet wide or less, the Contractor shall reconstruct pavement with the same materials as is used for the one (1) foot wide area adjacent to the PCC work. This area shall be considered as included in the reconstruction of adjacent pavement (which includes adjacent slurry (Class 100-E-100), AC base/leveling course, and CMB).

For concrete curb and gutter reconstruction work adjacent to areas of pavement reconstruction greater than two (2) feet, the Contractor has the following 2 options:

1. The entire portion may be removed without sawcutting and removing the adjacent AC pavement; however, any damaged pavement must be removed and temporary AC provided and maintained in its place until the adjacent pavement is removed as per the contract; or
2. Remove the entire affected concrete curb or curb and gutter portion by sawcutting the adjacent AC pavement a distance of one (1) foot from the face of curb or edge of gutter to be removed. The contractor shall reconstruct this one (1) foot wide section with a 2-inch thick section of temporary AC pavement on either Crushed Miscellaneous Base or imported fill with a sand equivalent of 30 or greater.

For concrete curb and gutter work located in a spandrel, sawcut spandrel to a distance of six inches (6") minimum from the flow line of the gutter to be removed. The Contractor shall reconstruct the spandrel to match the existing spandrel portion to remain and be on eight inches (8") of untreated Base. No extra payment will be allowed for the PCC spandrel construction.

Unless otherwise indicated on the plans, parkway restoration due to the construction of PCC Curb and Gutter shall be in accordance with sections 7-9.1 Replacement of Lawns and 7-9.2 Replacement of Sprinkler Systems of these technical provisions. The unit price bid per linear foot for all curb construction shall include parkway restoration.

303-5.5.5. Alley Intersections, Access Ramps, and Driveways. Add the following:

Unless otherwise approved by the Engineer, the entire affected curb and gutter portion shall be removed by sawcutting the adjacent AC pavement and reconstructed in accordance with Section 303-5.5.2 of these Special Provisions. If the affected curb and gutter is located in a spandrel, the spandrel shall be sawcut six inches (6") minimum from the flow line of the gutter and the spandrel

reconstructed to match the existing spandrel portion to remain and be on 8 inches of untreated Base. 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 Standard Plans for Public Works Construction Std, 111-4, case and type per plan.

Access ramps constructed in existing curb returns may obliterate survey tie points. The Contractor shall reestablish the existing survey tie points within 5 days of ramp reconstruction.

Retrofitting existing PCC Access Ramps with 1 foot wide Groove Border shall consist of sawcutting and removal of existing PCC in the location of the required groove border and replacing the concrete with a scored pattern per the Grooving Detail and General Note 2 of the SPPWC Standard Plan 111-4.

Detectable Warning Surface. Access ramps shall have a single piece prefabricated detectable warning surface with dimensions of 36-inches (behind curb) by 48-inches wide (along curb) installed in accordance with the State of California's 2010 Standard Plan A88A and comply with the requirements of the Americans with Disabilities Act (ADA). Detectable warnings shall consist of raised truncated domes with a base diameter of nominal 0.9 inches, a top diameter of nominal 0.45 inches, a height of nominal 0.20 inches and a center-to-center spacing ranging from a consistent 1.67 inches for all spacings to 2.35 in (60 mm) for all spacings.

The detectable warning surface shall be a 0.1975 inch (minimum) thick, removable cast-in-place system on new ramp construction or a surface applied panel system for existing ADA compliant ramps. A sample of the system products that meet this specification is produced by ADA Solutions, Inc. at www.adatile.com or Access Tile at www.accesstile.com. A contractor may propose an alternate, similar product for consideration by the Engineer. The color of the detectable warning surface shall be Dark Gray or as approved by the Engineer prior to installation. The detectable warning system is to be manufactured with materials that are fully recyclable. The detectable warning surface shall be installed in accordance with the manufacturer's recommendations and instructions. The manufacturer shall provide a minimum 5-year warranty, guaranteeing replacement when there is a defect in the dome shape, color fastness, sound-on-cane acoustic quality, resilience or attachment. The warranty period shall begin on the date of acceptance of the Contract.

Driveways shall have a concrete thickness of 4 inches for single family residences and 6 inches for all other areas.

Work Requested by a Property Owner. The Contractor is allowed to perform work which is not a part of this Contract and in the project area if the work is requested, and paid for, by a property owner provided that:

- a The Contractor shall inform the Engineer of the nature, quantity and location of the work requested by the property owner; and
- b The requested work does not impact the schedule or cost of the contract work; and
- c The Property owner and Contractor are required to obtain all permits for requested work; and
- d The Contractor is required to obtain all inspections and approvals.

303-5.7 Repairs and Replacements. Add the following:

The Contractor shall be responsible to protect all new concrete work from being etched, scratched or otherwise marked following replacement thereof. If new concrete work is marked, the Contractor shall replace it at its expense and no extra costs will be allowed.

303-5.9 Measurement and Payment. Replace the entire subsection with the following:

Payment for PCC curb, depressed curb and gutter at driveways and access ramps, and curb and gutter, PCC curb transitions (excluding integral curb and curb/gutter associated with alley intersections, cross-gutters and spandrels) shall include all joints and keyways, Crushed Miscellaneous Base, reconstruction of adjacent pavement (adjacent CMB and slurry (Class 100-E-100) or AC base/leveling course), inspection of tree roots by a certified arborist and root pruning, protection of existing trees, parkway restoration (unless otherwise noted), repainting of addresses on curb faces where painted addresses have been removed due to new curb construction due to new curb construction and shall be per the Contract Unit Price per linear foot.

Payment for 10' curb and curb gutter transitions to match existing and mountable curbs at connection points will be measured and paid for as REMOVE AND CONSTRUCT 10 FT PCC CURB TRANSITION per linear foot.

Payment for concrete walks, sidewalks shall include all joints as shown in standard plans and construction details and shall include protection of existing trees, parkway restoration including irrigation, Crushed Miscellaneous Base, and shall be per the Contract Unit Price per square foot of REMOVE AND RECONSTRUCT 3.5" PCC SIDEWALK PER SPPWC STD NO 113-2 and REMOVE AND RECONSTRUCT 3.5" PCC WALKWAY.

Payment for cross-gutters and spandrels, and integral curbs along spandrels shall include all joints as shown in standard plans and construction details, Crushed Miscellaneous Base, reconstruction of adjacent pavement (adjacent CMB and slurry (Class 100-E-100) or AC base/leveling course) and shall be per the Contract Unit Price per square foot of REMOVE AND CONSTRUCT PCC CROSS GUTTER AND SPANDREL PER SPPWC STD 122-2.

Payment for driveways shall include all joints as shown in standard plans and construction details, Crushed Miscellaneous Base, and shall be per the Contract Unit Price per square foot of REMOVE AND RECONSTRUCT PCC DRIVEWAY APPROACH PER SPPWC STD PLAN 110-2.

Payment for REMOVE EXISTING AND INSTALL MONOLITHIC PCC CURB AND SIDEWALK PER DETAIL ON SHEET 31, shall include all joints as shown in standard plans and construction details and shall include protection of existing trees, parkway restoration, Crushed Miscellaneous Base, reconstruction of adjacent pavement (adjacent CMB and slurry (Class 100-E-100) or AC base/leveling course), and shall be per the Contract Unit Price per square foot.

Payment for restoring Portland Cement Concrete paving and Base located on private property behind a newly constructed driveway apron shall be measured and paid for as Concrete Driveway.

Payment for alley intersections, including the integral curbs, Crushed Miscellaneous Base, joints, and reconstruction of adjacent pavement (adjacent CMB and slurry (Class 100-E-100) or AC base/leveling course), shall be per the Contract Unit Price per square foot of REMOVE AND RECONSTRUCT PCC ALLEY APPROACH PER SPPWC STD NO 130-2 AND DETAIL ON SHEET 3.

Payment for Access Ramps with or without integral retaining curb for access ramps shall include all joints, Crushed Miscellaneous Base, and shall be per the Contract Unit Price per each

of REMOVE RAMP AND RECONSTRUCT PCC ADA RAMP PER SPPWC STD PLAN 111-4, CASE AND TYPE PER PLAN.

Payment for FURNISH AND INSTALL DETECTABLE WARNING DEVICE ONTO EXISTING ADA RAMP PER SPPWC STD 111-4 will be made at the Contract Unit Price for each, and includes all labor, materials and equipment listed in the manufacturer's instructions/installation procedure.

Payment to Retrofit 1 foot wide Groove Border on Existing Curb Ramp per SPPWC Std Plan No. 111-4 shall be per the Contract Unit Price per each of RETROFIT 1 FT WIDE GROOVE BORDER ON EXISTING CURB RAMP PER SPPWC STD PLAN NO 111-4, and include removal and disposal of existing concrete and constructing 4" thick PCC and scoring the grooves in accordance with the standard plan.

306-7 CURB DRAINS.

Add the following:

The Contract Unit Price to FURNISH AND INSTALL MULTIPLE PIPE CURB DRAIN PER SPPWC STD PLAN 150-3 shall include full compensation for constructing the curb drain complete in place, as shown on the Plans. Said Contract Unit Price shall include, but not be limited to, construction of the inlet and pipes or culvert, connections to existing pipes, and assurance that said outlet has positive drainage flow.

SECTION 307 – STREET LIGHTING AND TRAFFIC SIGNALS

Delete the entire Section 307, and replace with Section 86 of the Caltrans Standard Specifications.

86-1 GENERAL

86-1.01 Description. Replace the entire subsection with the following:

The Work shall consist of replacing traffic signal loop detectors as shown on the Plans, and as specified in these Special Provisions.

The locations of the loops shown on the Plans are approximate and the exact locations will be established by the Engineer in the field.

All systems shall be complete and in operating condition at the time of acceptance of the Contract.

86-1.05 Warranties, Guaranties and Instruction Sheets. Add the following:

Guaranty for all Work, materials and labor shall be valid for a period of one year from the date of acceptance of the Work.

Full compensation for furnishing the guaranty will be considered as included in the Contract Unit Price for the items of work involved and no additional compensation will be allowed therefore.

86-1.06 Maintaining Existing and Temporary Electrical Systems. Add the following:

Maintenance of the existing traffic signals, street lighting, signs or approved temporary replacements shall be the responsibility of the Contractor. The Contractor shall provide twenty-four (24) hour telephone number where any intersection problem can be reported. Unless permission has been granted by the Engineer, the intersection must not be left on flash more than two (2) hours. Existing traffic signal system shall remain in operation during construction and until the new system is in operation.

All work to be done in connection with modification of traffic signals shall be performed in such a manner that the signals shall be in continuous operation, except for an approved duration between the hours of 9:00 AM and 3:00 PM on weekdays when a traffic signal may be turned off for necessary work. All signal indications, detectors and control equipment shall be maintained in operation except during shutdown hours as specified above. For permission to shutdown a traffic signal, Contractor shall notify the Engineer at least 48 hours prior to shutdown. If the traffic signal is at the intersection of two Arterial streets, the Contractor shall notify the Engineer at least 7 working days prior to shutdown. The placement of any temporary wiring necessary to maintain traffic signal operations shall provide a minimum of 18 feet vertical clearance for vehicles and a minimum of 10 feet over pedestrian areas. All safety regulations and precautions shall be observed in the installation work.

Full compensation for furnishing, installing, maintaining and removing temporary "STOP AHEAD" and "STOP" signs and for covering signs not in use shall be considered as included in the contract lump sum price paid for the signal item involved and no additional compensation will be allowed therefore.

86-5 DETECTORS

86-5.01 Vehicle Detectors

86-5.01A Inductive Loop Detectors.

86-5.01A(4) Construction Materials. Replace the first paragraph with the following:

Conductor for each inductive loop detector shall be continuous and unspliced and shall conform to the following:

Type 1 loop wire shall be Type RHW-USE neoprene-jacketed or Type USE cross-linked polyethylene insulated, No. 12, stranded copper wire. The minimum insulation thickness at any point shall be 40 mils.

86-5.01A (5) Installation Details. Add the following:

The Contractor shall test the detectors with a motor-driven cycle, as defined in the California Vehicle Code that is licensed for street use by the Department of Motor Vehicles of the State of California.

The unladen weight of the vehicle shall not exceed 220 pounds and the engine displacement shall not exceed 100 cubic centimeters. Special features, components or vehicles designed to activate the detector will not be permitted. The Contractor shall provide an operator who shall drive the motor-driven cycle through the response or detection area of the detector at no less than

three miles per hour and no more than seven miles per hours. The detector shall provide an indication in response to this test.

Asphaltic emulsion sealant shall be used in all sawcuts.

86-8 PAYMENT

86-8.01 Payment. Replace the entire subsection with the following:

Payment for REMOVE AND REPLACE TRAFFIC SIGNAL LOOPS PER TRAFFIC SIGNAL IN KIND shall be on a lump sum basis per intersection and shall include full compensation for; for modifying or removing such systems; for temporary systems; and shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work involved in furnishing and installing, modifying, or removing the system, as shown on the Plans, as specified in the Specifications and these Special Provisions, and as directed by the Engineer. Said work shall also include any necessary pull boxes; excavation and backfill; restoring sidewalk, pavement and appurtenances damaged or destroyed during construction; salvaging existing materials; and making all required tests.

SECTION 308 – LANDSCAPE AND IRRIGATION INSTALLATION

308-2 EARTHWORK AND TOPSOIL PLACEMENT.

308-2.3 Topsoil Preparation and Conditioning

308-2.3.2 Fertilizing and Conditioning Procedures. Add the following:

The conditioning material per 1000 square feet shall be:

- a) Four (4) cubic yards nitrogen stabilized organic amendment derived from redwood, fir or cedar sawdust.
- b) Fifteen (15) lbs. 12-12-12 commercial fertilizer.
- c) Fifteen (15) lbs. soil sulfur.

The Contractor shall apply post-plant fertilizer at the rate of twenty pounds (20 lbs.) per 1,000 sq. ft., thirty (30) days after planting and once again at the end of the post-construction maintenance period.

308-4 PLANTING

308-4.8 Lawn Planting

308-4.8.3 Sod.

Add the following:

Existing sod on properties along Border Avenue that are affected by the construction shall be cut and removed to the limits shown on the plans. The removed sod may be salvaged and stockpiled at the option of the contractor for planting as sod. The exact locations to remove and replace sod shall be as designated by the Engineer. Sod, if not salvaged from the project site, shall be new sod

and shall be the same type and variety as the existing sod. Prior to planting sod, the ground receiving it shall be fertilized with an appropriate fertilizer. The plant establishment period shall be fourteen working days in length.

Full compensation for cutting sod, removal, transporting, stockpiling, maintenance, planting and plant establishment work shall be considered as included in the contract price paid for for *BORDER AVENUE- REMOVE EXISTING LANDSCAPING, GRADE PER TYPICAL SECTION, ADJUST IRRIGATION TO GRADE, & REPLACE TURF* and no separate payment will be made therefore.

Add the following subsections:

308-4.10 Parkway Trees

308-4.10.1 General. The CITY maintains a tree conservation policy. The Contractor is required to assist the CITY in its efforts to conserve trees.

The Contractor shall be required to provide a Consulting Arborist (CA) to review and guide its operations that may impact trees to be protected and trees with roots interfering with the construction of concrete curb. The CA shall be required to have Certification as an Arborist by the International Society of Arboriculture (217-355-9411), unless otherwise approved by the Engineer.

The CA shall inspect all work locations and assess the impact of construction on existing trees to remain. If the CA determines that destructive impact is likely, Contractor is required to modify its operations to reduce the likelihood of damage to the fullest extent feasible. Contractor shall be responsible to schedule its operations in a manner that will permit the CA to view areas after removals and prior to construction, as necessary.

The CA shall spot-check representative operations and modifications employed to protect existing trees. A preliminary identification of trees that may potentially be impacted has been made by the Engineer. The CA shall check these and other locations to assure adequate protective measures are taken.

There shall be no separate payment for the services of the CA. All costs for the CA shall be included in the prices bid for appurtenant work.

308-4.10.2 Conservation Methods. Manual operations shall be employed for the removal of sod and soil to establish a finished grade within 4 feet of existing trees to remain.

Tree root systems must remain adequate to withstand heavy windstorms.

Construction equipment, materials, sand, soil, gravel, or other material shall not be placed, parked or stored on the surface of any unpaved areas within the driplines (outermost reach of branches) of street trees. No chemicals, rinstates, or petroleum products shall be deposited within the driplines of street trees.

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 4-inches wide and 14-inches and 18-inches deep adjacent to sidewalk and curb and gutter respectively. The cuts shall extend 6 feet in each direction along the curb from the center of the tree trunk for a total length of 12 feet 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 50mm (2 inches) 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.

The root barrier shown in City of Torrance Standard Plan Nos. T401 and T402 is hereby deleted from this project.

308-4.11. Payment. Payment for root pruning and all appurtenant work shall be included in the various items bid for the construction of curb, curb and gutter, and AC Berm.

308-5 IRRIGATION SYSTEM INSTALLATION

308-5.1 General. Add to the last paragraph:

The Contractor shall verify the water pressure available at the site before installation of the irrigation system to make sure there is adequate pressure to properly operate the irrigation heads and valves. If the pressure provided at Work site or any other Work condition will create problems that will prevent proper operation of the irrigation system, the Engineer shall be notified before commencement of any work. Minor additions and adjustments of heads, piping, and circuits shall be made at no additional cost to the CITY where it is necessary to make the irrigation system operate properly.

308-5.2 Irrigation Pipeline Installation

308-5.2.1 General. Add the following:

Trenching machines or other mechanical means of excavation shall not be used for excavation of trenches where such use may damage existing improvements. However, in any case, the Contractor will be held responsible for any damage to existing improvements caused by their

operations and any damage so occurring shall be repaired to the satisfaction of the Engineer by and at the expense of the Contractor.

Trench excavation for pipelines shall be made on the alignments shown on the Plans. Unless otherwise shown, lateral water lines shall have a minimum cover of twelve inches (12") of soil. Main water lines shall have a minimum cover of 36" of soil.

Irrigation pipe shall be installed in conformance with 308-5.2.3. Pipe flushing and pressure testing shall conform to 308-5.6.

At any location where irrigation pipe has less than 15" of cover due to interferences or other adjustments, the Contractor shall, at its own expense, provide a galvanized sleeve or other protection to the satisfaction of the Engineer. No extra costs shall be allowed for this protection.

Bedding material for irrigation piping shall be sand conforming to the requirements of 200-1.5.3 (minimum SE of 70) and 200-1.5.5.

Backfill material placed in the pipe trenches and immediately over electrical wiring shall be select material free from stones or other material that might damage the pipe or insulation on the conductors.

Backfill of irrigation pipe shall conform to 308-2.2.

Densification of bedding material shall be per 306-1.3.3.

All trenches shall be compacted to the same compaction as the adjoining area and finished flush with adjoining grades.

Unless otherwise directed by the Engineer, pressure piping shall be provided with PCC thrust blocks. Thrust blocks shall be constructed at the following places:

- a) Where pipe changes direction at fittings.
- b) Where pipe changes size.
- c) Where line terminates.
- d) Around gate valves (bottom half of valve in concrete; bolts exposed for change of top half).

Add the following:

Construction on properties affected by improvements along Border Avenue shall include removing, resetting, and replacing irrigation systems for each property with existing landscaping and irrigation. Only portions of existing irrigation systems that interfere with construction shall be reset.

Replaced irrigation systems shall be constructed of equal or better quality materials.

The contract price paid per Square Yard for *BORDER AVENUE- REMOVE EXISTING LANDSCAPING, GRADE PER TYPICAL SECTION, ADJUST IRRIGATION TO GRADE, & REPLACE TURF* shall include furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work necessary in resetting, removing, and/or replacing the sprinklers, valves,

controllers, pipe, fittings, complete in place and disposing of surplus materials and no additional compensation will be allowed therefore.

308-5.4 Sprinkler Head Installation and Adjustment

308-5.4.2 Location, Elevation, and Spacing. Add the following to the first paragraph:

Any deviation to spacing and location of sprinkler heads shall be reported to the Engineer and have his approval before installation.

Add the following:

The Contractor shall coordinate the installation of all sprinkler heads, including pipe, in a manner that avoids interference with trees or other planting and/or permanent pavement.

No spray from sprinkler heads will be permitted to throw into public streets or onto walks, driveways or parking areas.

308-7 GUARANTEE.

Add the following:

The Contractor, without expense to the CITY, shall adjust all irrigation heads to their appropriate operational heights, shall adjust and clean or replace, if necessary, all irrigation heads so that the planting areas are properly covered and they shall be adjusted so as to prevent excessive overflow into the adjacent street right-of-way.

The CITY reserves the right to make temporary repairs as necessary to keep the irrigation system equipment in operating condition. The exercise of this right by the CITY shall not relieve the Contractor of its responsibility under the terms of the Contract as herein specified.

Maintenance shall be done by qualified and experienced irrigation pipefitters.

Any plant material found to be dead, missing, or in poor condition during the post-construction maintenance period, shall be replaced immediately at the Contractor's expense. The Engineer shall be the sole judge as to the condition of the material. Replacement shall be made to the same specifications required for the original plantings.

During the guarantee period, should the Contractor fail to expeditiously replace dead plant material upon written notification by the Engineer, the City shall cause the work to be corrected and bill the actual costs incurred to the Contractor.

SECTION 309 – MONUMENTS

309-2 MATERIALS.

Replace the second paragraph with the following:

Marker plates for survey monuments shall be furnished by the Contractor.

309-4 Payment. Replace the entire subsection with the following:

The unit price paid for SURVEY MONUMENTS shall include full compensation for furnishing all materials, doing all the work involved in establishing and re-establishing survey centerline ties and survey monuments, including necessary excavation and backfill.

SECTION 310 – PAINTING

310-5 PAINTING VARIOUS SURFACES.

310-5.6 Painting Traffic Striping, Pavement Markings and Curb Markings. Delete the entire subsection 310-5.6 and replace with Section 84 of the Caltrans Standard Specifications.

84-1.01 Description. Replace the first two paragraphs with the following:

The work on Crenshaw Blvd shall consist of applying thermoplastic traffic stripes (traffic lines) and pavement markings at the locations and in accordance with the details shown on the Plans or designated by the Engineer, and as specified in these Specifications and Special Provisions.

The work on residential streets shall consist of applying paint traffic stripes (traffic lines) and pavement markings at the locations and in accordance with the details shown on the Plans or designated by the Engineer, and as specified in these Specifications and Special Provisions.

The Contractor shall paint red curb markings as shown on the plans.

When street addresses painted on curb faces have been eliminated due to work associated with this contract, each street address shall be restored by painting on the face of new curb. New curb will be replaced at approximately 465 properties, Contractor shall verify house number curb markings before removals begin. Background shall be white in color and address numbers shall be black in color and 4 inches in height.

Existing paint markings on curbs shall be removed prior to applying the new paint markings.

The thermoplastic material and paint material shall conform to the provisions of 84-2.02 and 84-3.02, respectively, of the Caltrans Standard Specifications.

84-2.06 Payment. Replace the entire subsection with the following:

Payment for thermoplastic traffic striping on Crenshaw Boulevard shall be on a lump sum basis per the Contract Unit Price for various bid items for PAINT and shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, necessary to complete the Work.

All costs for establishing alignment of traffic stripes, pavement markers, layout, and temporary pavement painting shall be included and no extra costs will be allowed.

84-3.07 Payment. Replace the entire subsection with the following:

Payment for traffic striping, pavement marking, curb markings - red curb (top and face) and house numbers, pavement markers, and pavement legends shall be on a lump sum basis per the Contract Unit Price for various bid items for PAINT and shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals, necessary to complete the Work.

Payment for painting the berm shall be considered as included in bid item CONSTRUCT NEW 8-INCH AC BERM WITH 4' PAINT PER DETAIL E and no additional payment will be allowed.

All costs for establishing alignment of traffic stripes, pavement markings, pavement markers, layout, temporary pavement painting, and sandblasting of existing lines and markings shall be included and no extra costs will be allowed.

SECTION 312 – PAVEMENT MARKER PLACEMENT AND REMOVAL

Delete the entire Section 312 and replace with Sections 85-1.06, 85-1.07 and 85-1.09 of the Caltrans Standard Specifications.

85-1.06 Placement. Add the following:

The solid 4" white lines at intersections shall have a marker installed at each end. These markers shall be placed on the line.

Markers shall not be installed on bike lane striping.

85-1.09 Payment. There shall be no separate payment for pavement markers. Full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work involved in furnishing and placing pavement markings, complete in place, including adhesives and establishing alignment for pavement markers, as shown on the Plans, and specified in these Special Provisions shall be included in the Contract Unit Price for traffic striping and pavement markers as described in Section 84-2.06 of these Special Provisions.

SECTION 315 - SIGNAGE

Add the entire Section 315.

315-1 ROADSIDE SIGNS.

All signs shall be installed in accordance with the requirements of Section 56-2.03 of the Caltrans Standard Specifications, Caltrans Standard Plans and these Special Provisions. Roadside signs shall be installed at the locations shown on the Plans or where directed by the Engineer.

Unless otherwise indicated, all signs shown on the plans shall be new signs provided and installed by the contractor, except for existing signs specifically indicated to be relocated or to remain.

Removal and Reset of Existing Warning Sign per MUTCD W1-8R shall include salvaging the signs and discarding the posts and following the completion of the paving operation of that street replacing each sign on a new post at the same location and position prior to construction.

All signs shall be of 3M Diamond Grade Cubed, with 1160 protective anti-graffiti overlay film and matched components system warranty (12 years) on 0.080 Aluminum with "Torrance" and year on border.

56-2.03 CONSTRUCTION. Delete the third paragraph and last sentence of the eleventh paragraph.

Delete the entire subsection 56-2.05.

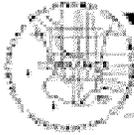
56-2.06 PAYMENT. Replace the entire subsection with the following:

Payment for REMOVE AND RELOCATE EXISTING TRAFFIC SIGN shall be per unit per the Contract Unit Price and shall include all labor, materials, tools, equipment, and individuals, and for doing all the work involved in furnishing and installing roadside signs, complete in place, as shown on the Plans and these Special Provisions, and as directed by the Engineer.

Payment for REMOVE AND RESET EXISTING W1-8R WARNING SIGNS be per the Contract Unit Price and shall include all labor, materials, tools, equipment, and individuals, and for doing all the work involved in furnishing and installing roadside signs, complete in place, as shown on the Plans and these Special Provisions, and as directed by the Engineer.

APPENDIX I

CITY OF TORRANCE PERMIT AND BUSINESS LICENSE



City of Torrance, Community Development Department
Permit Application Form

3031 TORRANCE BLVD. • TORRANCE, CA 90503

OWNER/APPLICANT INFORMATION

Name: _____
Address: _____
City/State: _____
Zip: _____
Phone: _____

Evacuation permits will not be issued without
USA LD. number.

Underground Service Alert
Call 1-800/227-2600

USA LD. #: _____

CONTRACTOR INFORMATION ON FILE

State License #: _____
Class: _____ Exp. Date: _____
City Business #: _____
Workers Comp. #: _____
Exp. Date: _____

JOB LOCATION/ADDRESS

(or closest street address)

Please list cross streets: _____

DESCRIPTION OF WORK

Lin/Ft Trench _____ Width of Trench _____ Lin/Ft Curb & Gutter _____
Lin/Ft Bore _____ Sewer Connection _____ Number of Curb Drains _____
Sq/Ft Asphalt _____ Sq/Ft Concrete _____ Sq/Ft Dirt _____

Work Order Number (for utility companies): _____

Applicant or Authorized Signature: _____

**NOTICE
CITY OF TORRANCE
COMMUNITY DEVELOPMENT DEPARTMENT/
ENGINEERING DIVISION
NEW INSURANCE REGULATIONS**

The City of Torrance Community Development Department/Engineering Division will be requiring proof of liability insurance from each contractor applying for a Construction & Excavation permit to work in the public right-of-way or in a public easement beginning October 1, 2001. Insurance shall cover contractor and vehicles used in the construction. The attached requirements dated September 20, 2001 will detail the insurance limits.

All insurance certificates shall have an additional clause that states: "The City of Torrance, the City Council and each member thereof, members of boards and commissions, every officer, agent, official, employee and volunteer" as additional insured.

Contractors should bring in proof of insurance at the time of application for permit. For major companies that are self-insured, a letter stating this fact and signed by an officer of the firm will be acceptable. Annual insurance may also be kept on file for contractors working periodically within the City of Torrance.

If you have any questions, please contact the Engineering Division Permit Counter at 310-618-5898.

JEFFERY W. GIBSON
Community Development Director
City of Torrance

EFFECTIVE 8/11/03

8/11/03

CITY OF TORRANCE
COMMUNITY DEVELOPMENT DEPARTMENT/
ENGINEERING DIVISION

PERMIT APPLICATION FORM
INSURANCE REQUIREMENTS

Any entity performing work on City streets, right-of-way, and property must comply with the following requirements.

1. TYPE OF INSURANCE

Any entity performing work must maintain at their sole expense the following insurance, which shall be full coverage not subject to self-insurance provisions.

- General Liability including coverage for premises, products and completed operations, underground hazards, independent contractors, personal injury and contractual obligations with combined single limits of at least \$1,000,000 per occurrence.
- Automobile Liability, including owned, non-owned and hired vehicles, with at least the following limits of liability:
 - Primary Bodily Injury with limits of at least \$500,000 per person, \$1,000,000 per occurrence AND; Primary Property Damage with limits of at least \$500,000 per occurrence, OR
 - Combined single limits of at least \$1,000,000 per occurrence.
- Workers' Compensation with limits as required by the State of California and Employer's Liability with limits of at least \$1,000,000.

2. CERTIFICATES

- Certificates or an attached endorsement must be provided that contains the following provisions:
 - The City of Torrance, the City Council and each member thereof, members of boards and commissions, every officer, agent, official, employee and volunteer must be named as additional insured under the automobile and general liability policies.
 - The insurance policies required by this clause shall contain a provision that no termination, cancellation or change of coverage can be made without 30 days written notice to the City.

3. FILING REQUIREMENTS

- Certificates of insurance and/or endorsements must be provided to the Community Development Department, Permits and Records Section, 3031 Torrance Blvd., Torrance, CA 90503, prior to the issuance of the permit.

4. ADDITIONAL REQUIREMENT

- Insurance required of any entity performing work will be satisfactory only if issued by companies rated "B+" or better in the most recent edition of Best's Key Rating Guide, and only if they are of a financial category of a VII or better, unless these requirements are modified or waived by the City's Risk Manager.

Please call the Business License Office at 310-518-8923 for fee amounts. Payment must be submitted with your application.

FOR OFFICIAL USE ONLY

1. LICENSE NO. _____ 2. CATEGORY NO. _____

3. HOME OCCUPATION _____ 4. HOME PHONE _____ 5. A.C. CODE _____



PART I. APPLICANT TO ANSWER ALL QUESTIONS IN THIS SECTION (print or type)

8. BUSINESS NAME OR DBA _____ 9. CONTACT NAME (PRINT OR TYPE) _____

10. BUSINESS ADDRESS _____ CITY _____ STATE _____ ZIP _____

11. BUSINESS ADDRESS _____ CITY _____ STATE _____ ZIP _____

12. TYPE OF BUSINESS (check type of business being conducted at this location)
 A. BUSINESS HOME _____ B. BUSINESS OFFICE _____

13. NAME OF PERSONS WHO ARE PARTNERS OR CO-OWNERS (if other, partner or corporate officer)
 NAME _____ TITLE _____

14. BUSINESS ADDRESS _____ CITY _____ STATE _____ ZIP _____

15. BUSINESS LICENSE NO. _____ 16. STATE SALES TAX NO. _____

17. SOCIAL SECURITY NO. _____ 18. FEEDING NO. _____ 19. STATE SALES TAX NO. _____

20. BUSINESS TYPE
 PARTNERSHIP CORPORATION SOLE OWNERSHIP

21. NAMES OF OTHER PARTNERS OR PRINCIPAL OFFICERS _____ HOME ADDRESS _____ HOME PHONE _____

22. I declare that I am the owner, partner, corporate officer or person with the power of attorney, and I understand if all the information provided above is not the true business license being applied for may be revoked as outlined in sections 3.1 & 4.0 of the Torrance Municipal Code.

23. I am duly authorized to make this application and all of the information provided in this application is true and correct. The business will not provide any service, good or product which is illegal under Federal, State, or Local Laws. I declare under penalty of perjury that the foregoing is true and correct.

SIGNATURE _____ DATE _____

PART II. FOR OFFICIAL USE ONLY

24. SALES TAX _____ 25. BUSINESS TYPE _____ 26. BUSINESS TYPE _____

27. BUSINESS TYPE _____ 28. BUSINESS TYPE _____

29. BUSINESS TYPE _____ 30. BUSINESS TYPE _____

31. BUSINESS TYPE _____ 32. BUSINESS TYPE _____

33. BUSINESS TYPE _____ 34. BUSINESS TYPE _____

35. BUSINESS TYPE _____ 36. BUSINESS TYPE _____

37. BUSINESS TYPE _____ 38. BUSINESS TYPE _____

39. BUSINESS TYPE _____ 40. BUSINESS TYPE _____

41. BUSINESS TYPE _____ 42. BUSINESS TYPE _____

43. BUSINESS TYPE _____ 44. BUSINESS TYPE _____

45. BUSINESS TYPE _____ 46. BUSINESS TYPE _____

47. BUSINESS TYPE _____ 48. BUSINESS TYPE _____

49. BUSINESS TYPE _____ 50. BUSINESS TYPE _____

51. BUSINESS TYPE _____ 52. BUSINESS TYPE _____

53. BUSINESS TYPE _____ 54. BUSINESS TYPE _____

55. BUSINESS TYPE _____ 56. BUSINESS TYPE _____

57. BUSINESS TYPE _____ 58. BUSINESS TYPE _____

59. BUSINESS TYPE _____ 60. BUSINESS TYPE _____

61. BUSINESS TYPE _____ 62. BUSINESS TYPE _____

63. BUSINESS TYPE _____ 64. BUSINESS TYPE _____

65. BUSINESS TYPE _____ 66. BUSINESS TYPE _____

67. BUSINESS TYPE _____ 68. BUSINESS TYPE _____

69. BUSINESS TYPE _____ 70. BUSINESS TYPE _____

71. BUSINESS TYPE _____ 72. BUSINESS TYPE _____

73. BUSINESS TYPE _____ 74. BUSINESS TYPE _____

75. BUSINESS TYPE _____ 76. BUSINESS TYPE _____

77. BUSINESS TYPE _____ 78. BUSINESS TYPE _____

79. BUSINESS TYPE _____ 80. BUSINESS TYPE _____

81. BUSINESS TYPE _____ 82. BUSINESS TYPE _____

83. BUSINESS TYPE _____ 84. BUSINESS TYPE _____

85. BUSINESS TYPE _____ 86. BUSINESS TYPE _____

87. BUSINESS TYPE _____ 88. BUSINESS TYPE _____

89. BUSINESS TYPE _____ 90. BUSINESS TYPE _____

91. BUSINESS TYPE _____ 92. BUSINESS TYPE _____

93. BUSINESS TYPE _____ 94. BUSINESS TYPE _____

95. BUSINESS TYPE _____ 96. BUSINESS TYPE _____

97. BUSINESS TYPE _____ 98. BUSINESS TYPE _____

99. BUSINESS TYPE _____ 100. BUSINESS TYPE _____

APPENDIX II

CONSTRUCTION AND DEMOLITION DEBRIS RECYCLING SUMMARY

Building Permit Number: _____

CITY OF TORRANCE

Construction & Demolition Waste Management Plan (WMP)

THE REQUIREMENT IS TO REUSE OR RECYCLE AT LEAST 50% OF PROJECT WASTE AND 100% OF EXCAVATED SOIL AND LAND-CLEARING DEBRIS

- 1) As part of your application, you must complete the front and back of this page and the "estimate" or left side of the table on the backside of this page to the best of your ability, indicating that you will recycle at least 50% of the waste from the project and 100% of excavated soil and land-clearing debris.
- 2) As your project proceeds, collect and keep receipts of all waste disposed, recycled, reused or donated. Receipts must show material type, weight of material, how the material was treated and the facility used.
- 3) To final your project, you must then fill out the "actual" or right side of the table on the backside of this sheet, and submit it again with all the receipts to verify that at least 50% of the project's waste and 100% of excavated soil and land-clearing debris was diverted from the landfills.

Please note, if you are contracting with a different company to haul your waste or using a roll off box from another company, that company must have a business license to operate in the City of Torrance.

A COPY OF THIS WMP AND RECEIPTS (SHOWING MATERIAL TYPE, WEIGHT, TREATMENT AND FACILITY USED) FOR ALL RECYCLING AND DISPOSAL SHALL BE SUBMITTED BEFORE THE PROJECT WILL RECEIVE FINAL BUILDING APPROVAL. (FOR DEMO PERMITS, THE RECEIPTS FOR THE DEMOLITION WASTE SHOULD BE PROVIDED BEFORE THE FIRST FOOTING INSPECTION AFTER THE BUILDING PERMIT HAS BEEN ISSUED.)

Project Name: _____

Location: _____

Requesting Infeasibility Exemption: Yes No

Contractor Name: _____ Contact 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: **WMP Compliance Official**

Alison Sherman, Public Works
asherman@TorranceCA.Gov
Fax: 310-781-6902

For questions or for in-person visit (by appointment only), please call 310-781-6900

CITY OF TORRANCE

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)
	(In Tons)	(In Tons)	(In Tons)	(In Tons)	
Asphalt & Concrete					
Bricks/Masonry/Tiles					
Building Materials (doors, windows, fixtures, etc.)					
Cardboard					
Excavated dirt and land-clearing debris					
Dirt					
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):

Prepared by (print): _____ Date: _____

Signature: _____ Phone Number: _____

Must be signed by Contractor or Owner. Signatory accepts financial responsibility for penalties for non-compliance.

* 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 facility capable of recycling those commingled materials.

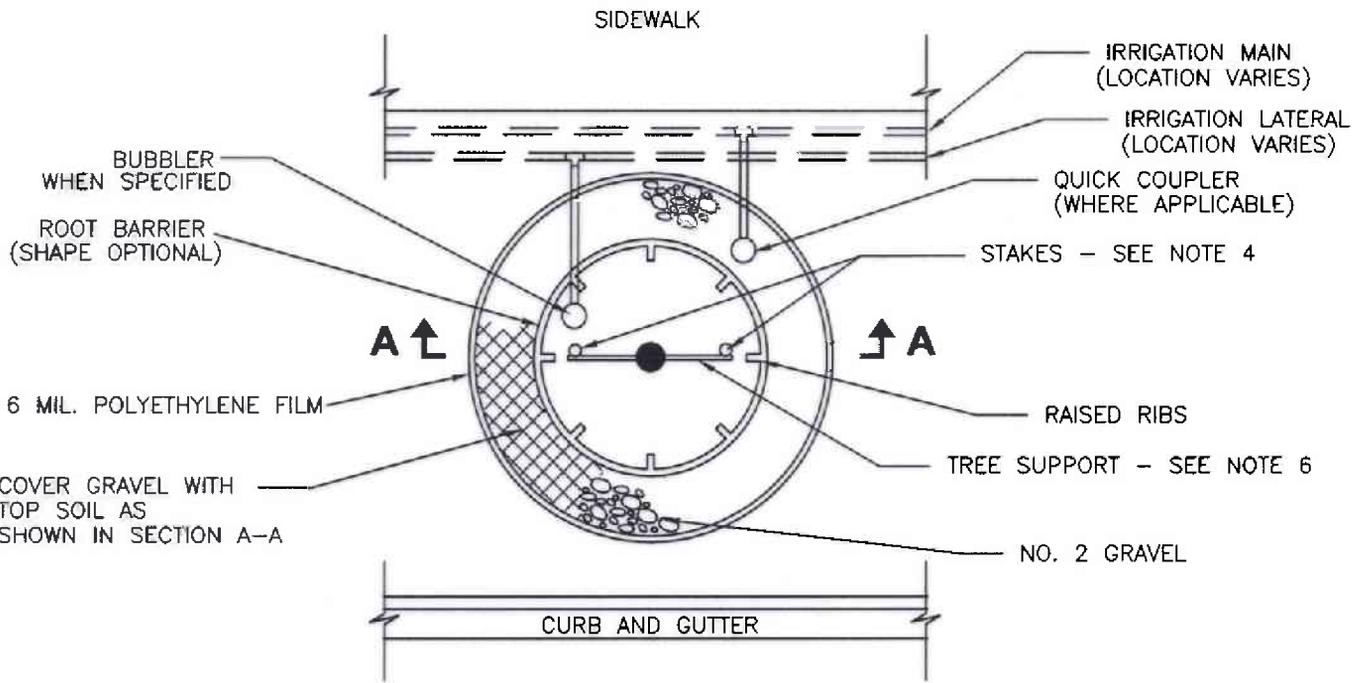
Conversion Rates

The following conversion rates are estimates to help complete the Waste Management Plan by converting materials into tonnage format. 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 the 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 estimating these numbers.

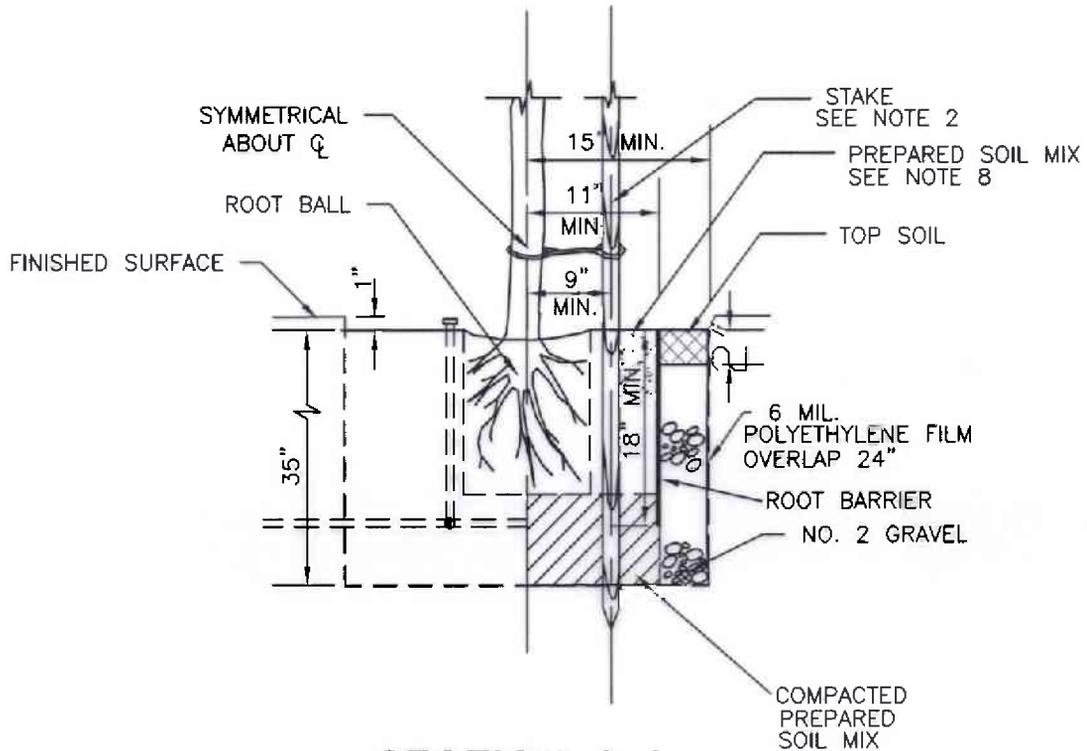
Material	Lbs/cy	Tons/cy
Asphalt	1,400 lbs/cy	0.7 tons/cy
Brick	2,430 lbs/cy	1.21 tons/cy
Cardboard	100 lbs/cy	0.05 tons/cy
Concrete	2,600 lbs/cy (Sources range from 1,000 to 4,000)	1.3 tons/cy
Dirt/Soils	2,660 lbs/cy	1.33 tons/cy
Drywall	700 lbs/cy	0.35 tons/cy
Wood (chipped)	300 - 650 lbs/cy	0.15 – 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

APPENDIX III

CITY OF TORRANCE STANDARD PLANS



TREE - DIRT PARKWAY



SECTION A-A

CITY OF TORRANCE

DATE ISSUED

23 SEP 2009

TREE PLANTING

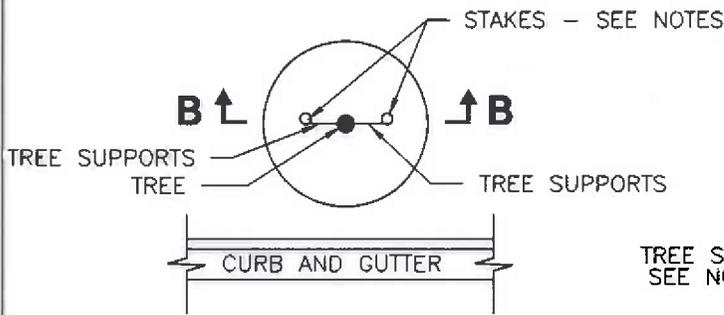
STANDARD NO.

T401

ROBERT J. BESTE
PUBLIC WORKS DIRECTOR
R.C.E. NO. 50737

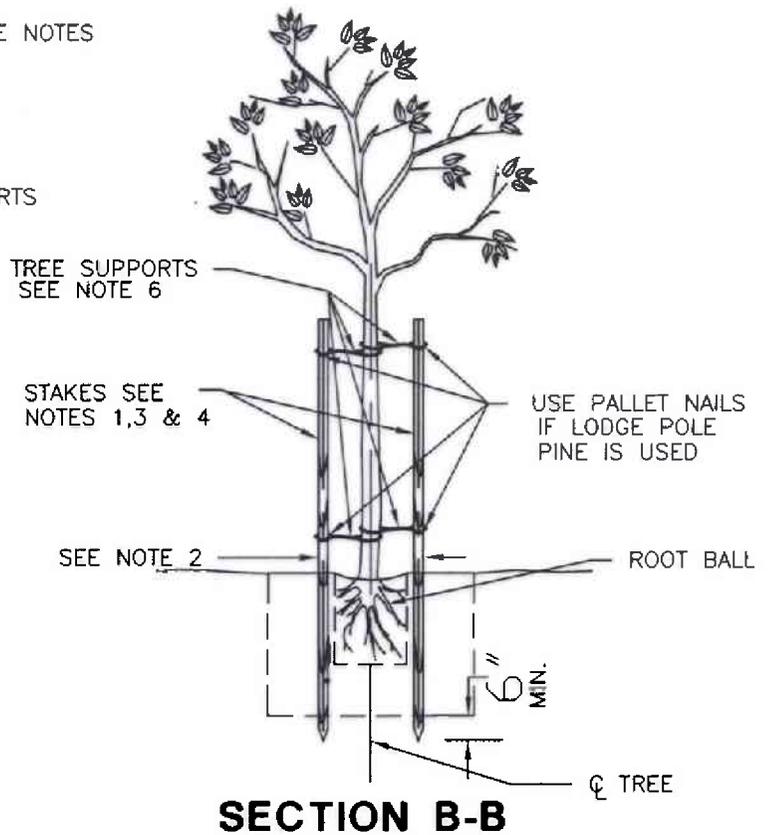
SHEET 1 OF 2

TT/T401



PLAN

LENGTH OF STAKES	
TREE SIZE	LENGTH
15 GAL.	10'
24" BOX	12'
30" BOX	12'
36"-48" BOX	SEE NOTE 5



SECTION B-B

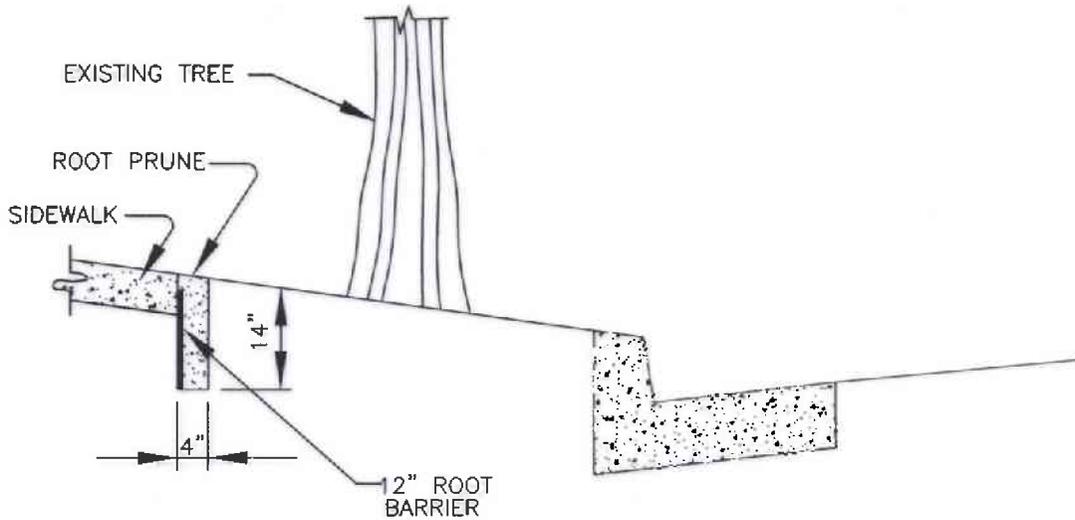
NOTES:

1. STAKES SHALL BE EITHER 2" DIAMETER LODGE POLE PINE, TREATED WITH COPPER NANTHANATE OR PRESSURE TREATED WITH CHROMATED COPPER ARSENATE, OR GALVANIZED STEEL PIPE, PER SUBSECTION 308-4.6.1 (METHOD A) OF THE STD. SPEC'S
2. PLACE STAKES 18" APART FOR 15 GAL. TREE. PLACE STAKES AT OUTER EDGE OF ROOT BALL FOR LARGER SIZE (BOX) TREES.
3. HEIGHT OF STAKES SHALL NOT BE HIGHER THAN THE TOP OF THE TREE.
4. ALL STAKES SHALL BE ALIGNED IN THE EAST-WEST DIRECTION REGARDLESS OF CURB ORIENTATION.
5. FOR 36" OR LARGER BOX TREES - STAKE OR GUY AT THE DIRECTION OF THE STREETScape ADMINISTRATOR.
6. TREE TIES SHALL BE PER SUBSECTION 308-4.6.2 OF THE STANDARD SPECIFICATIONS.
7. THE STREETScape ADMINISTRATOR WILL DESIGNATE THE GROUND LOCATION OF ALL TREES BY PLACING OF STAKES OR OTHER SUITABLE MARKERS.
8. UNLESS OTHERWISE APPROVED BY STREETScape ADMINISTRATOR PREPARED SOIL MIX SHALL BE:
 - 4 PARTS BY VOLUME NITROGEN-STABILIZED ORGANIC AMENDMENT.
 - 6 PARTS BY VOLUME ON-SITE SOIL FROM AN AREA APPROVED BY THE STREETScape ADMINISTRATOR.
 - 2 LBS. IRON SULFATE PER CUBIC YARD OF MIX.
9. ROOT BARRIERS WHEN SPECIFIED ON PROJECT DRAWINGS OR IN PROJECT SPECIFICATIONS, SHALL BE FABRICATED FROM A HIGH DENSITY AND HIGH IMPACT PLASTIC SUCH AS POLYVINYL CHLORIDE, ABS OR POLYETHYLENE AND HAVE A MINIMUM THICKNESS OF 0.06". THE PLASTIC SHALL HAVE 1/2" TO 3/4" HIGH RAISED VERTICAL RIBS ON THE INNER SURFACE SPACED AT LEAST 6" BUT NOT MORE THAN 8" APART.

CITY OF TORRANCE

DATE ISSUED	TREE PLANTING	STANDARD NO.
23 SEP 2009		T401
	ROBERT J. BESTE PUBLIC WORKS DIRECTOR R.C.E. NO. 50737	SHEET 2 OF 2

TT/T401



NOTES:

1. ROOT PRUNE ADJACENT TO SIDEWALK TO BE REPLACED DUE TO ROOT INTRUSION, 12' LONG MINIMUM. INSTALL 12' LONG ROOT BARRIER ADJACENT TO SIDEWALK AND BACKFILL WITH CLASS "C" TOPSOIL. ROOT PRUNING SHALL BE CENTERED ON EXISTING TREE OR AT ADDITIONAL LOCATIONS WHERE DIRECTED BY THE ENGINEER.
2. ROOT PRUNING SHALL BE ACCOMPLISHED BY A ROOT CUTTING METHOD THAT IS NOT DETRIMENTAL TO THE TREE. THE METHOD USED SHALL BE APPROVED BY THE ENGINEER.
3. WHEN REQUIRED, TREES SHALL BE PRUNED TO BALANCE ROOT PRUNING AND ROOT REMOVAL. TREE PRUNING SHALL BE DONE PRIOR TO ROOT PRUNING AND ROOT REMOVAL. (SEE PROJECT PLANS AND/OR SPECIFICATIONS).
4. ROOT BARRIER WHEN SPECIFIED SHALL BE FABRICATED FROM A HIGH DENSITY, HIGH IMPACT PLASTIC SUCH AS POLYVINYL CHLORIDE, ABS OR POLYETHYLENE AND SHALL HAVE A MINIMUM THICKNESS OF 0.06". THE PLASTIC SHALL HAVE 1/2" - 3/4" HIGH RAISED VERTICAL RIBS ON THE INNER SURFACE SPACED NOT MORE THAN 6" - 8" APART. ROOT BARRIER SHALL BE INSTALLED WITH RAISED RIBS PLACED TOWARDS THE TREE.
5. PROTECT EXISTING SPRINKLER SYSTEMS, WATER METERS, AND SERVICE LATERALS, AND ALL OTHER UNDERGROUND UTILITIES IF POSSIBLE. IF THESE FACILITIES ARE DAMAGED BY THE CONTRACTOR, THEY SHALL BE REPLACED IN KIND AT THE CONTRACTOR'S EXPENSE.
6. RESEED TO MATCH EXISTING LAWNS IN EXCAVATED AREAS.

CITY OF TORRANCE

**ROOT BARRIER AND PRUNING
AT EXISTING TREE LOCATIONS**

ROBERT J. BESTE
PUBLIC WORKS DIRECTOR
R.C.E. NO. 50737

STANDARD NO.

T402

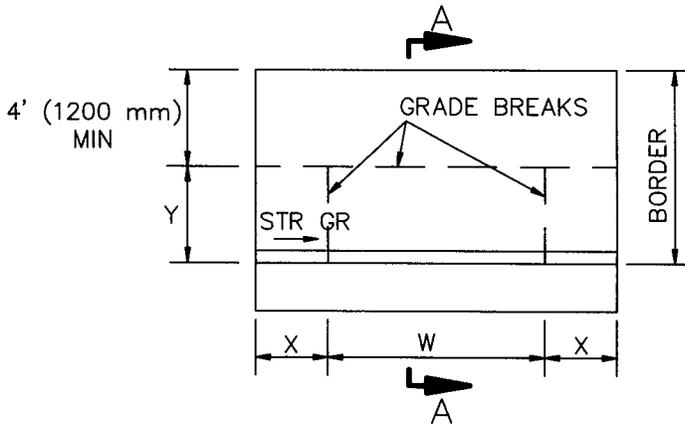
SHEET 1 OF 1

TT\T402

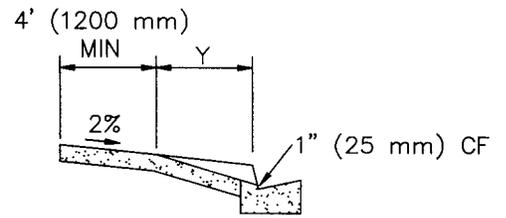
DATE ISSUED

23 SEP 2009

APPENDIX IV
SPPWC STANDARD PLANS

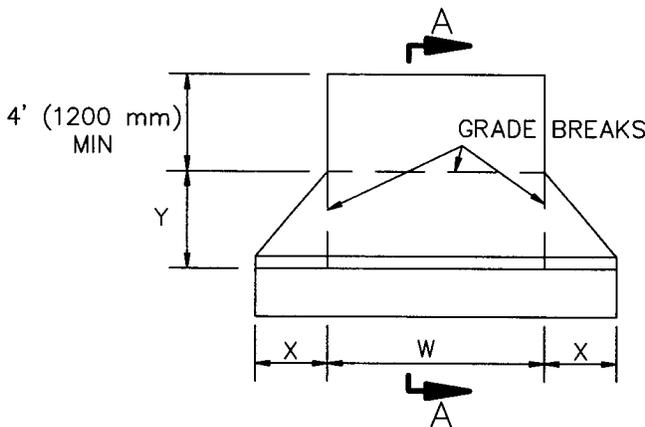


TYPE A

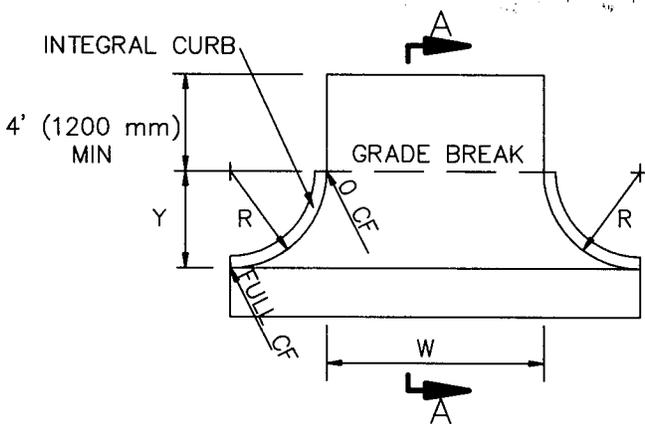


SECTION A-A

CURB FACE, inches (mm)	X, inches (mm)	Y, inches (mm)
6" (150) or less	3'-0" (900)	4'-0" (1200)
7" (175)	3'-6" (1050)	4'-9" (1425)
8" (200)	4'-0" (1200)	5'-8" (1700)
9" (225)	4'-6" (1350)	6'-6" (1950)
10" (250)	5'-0" (1500)	7'-3" (2175)
11" (275)	5'-6" (1650)	8'-0" (2400)
12" (300) or more	6'-0" (1800)	8'-9" (2625)



TYPE B



TYPE C

NOTES:

1. RESIDENTIAL DRIVEWAYS SHALL BE 4" (100 mm) THICK PCC.
2. COMMERCIAL DRIVEWAYS SHALL BE 6" (150 mm) THICK PCC.
3. WEAKENED PLANE JOINTS SHALL BE INSTALLED AT BOTH SIDES OF A DRIVEWAY AND AT 10' (3.0 m) INTERVALS.
4. CURB FOR TYPE C DRIVEWAY SHALL BE INTEGRAL AND MATCH ADJACENT CONSTRUCTION.
5. REFER TO LOCAL DEVELOPMENT REGULATIONS FOR AMERICANS WITH DISABILITIES ACCESS REQUIREMENTS AND MAXIMUM PERMITTED DRIVEWAY WIDTHS.

STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION

PROMULGATED BY THE
PUBLIC WORKS STANDARDS INC.
GREENBOOK COMMITTEE
1984
REV. 1996, 2009

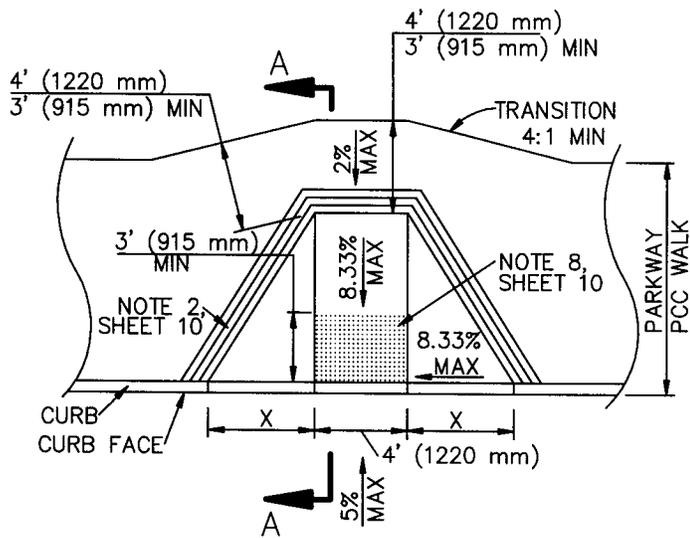
DRIVEWAY APPROACHES

STANDARD PLAN

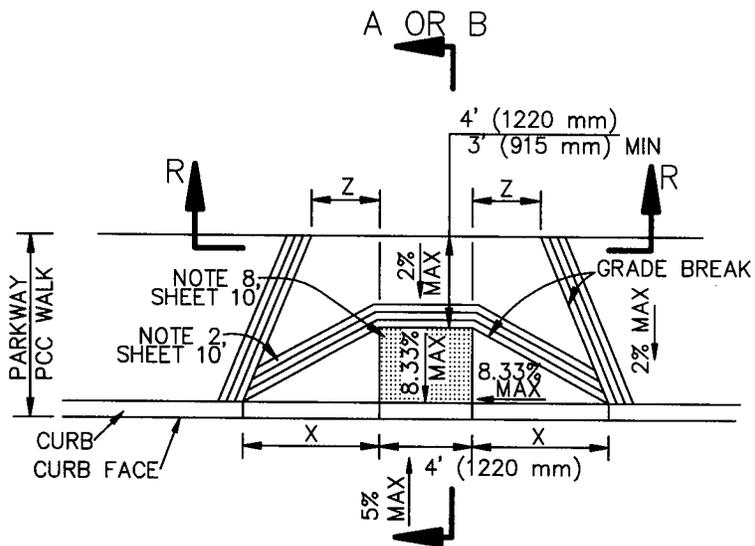
110-2

USE WITH STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION

SHEET 1 OF 1



TYPE 1



SEE SHEET 7, THIS SECTION

TYPE 2
CASE A

STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION

PROMULGATED BY THE
PUBLIC WORKS STANDARDS INC.
GREENBOOK COMMITTEE
1992
REV. 1996, 2000, 2005, 2009

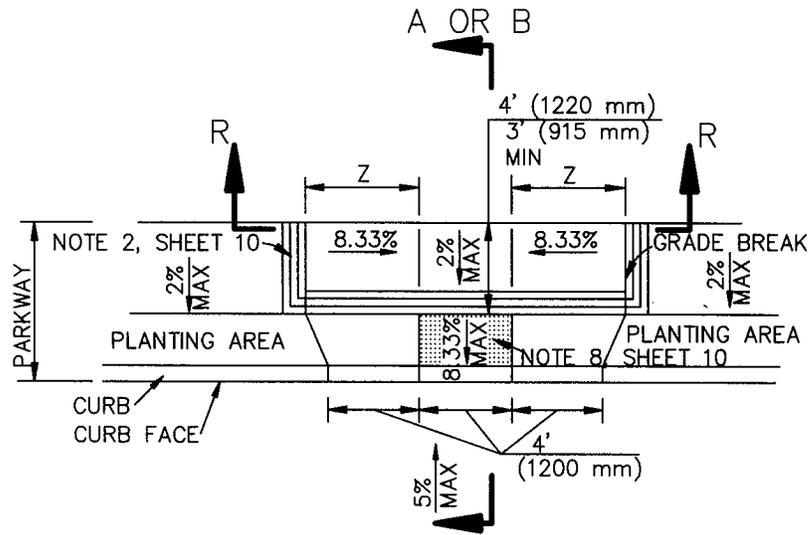
CURB RAMP

STANDARD PLAN

111-4

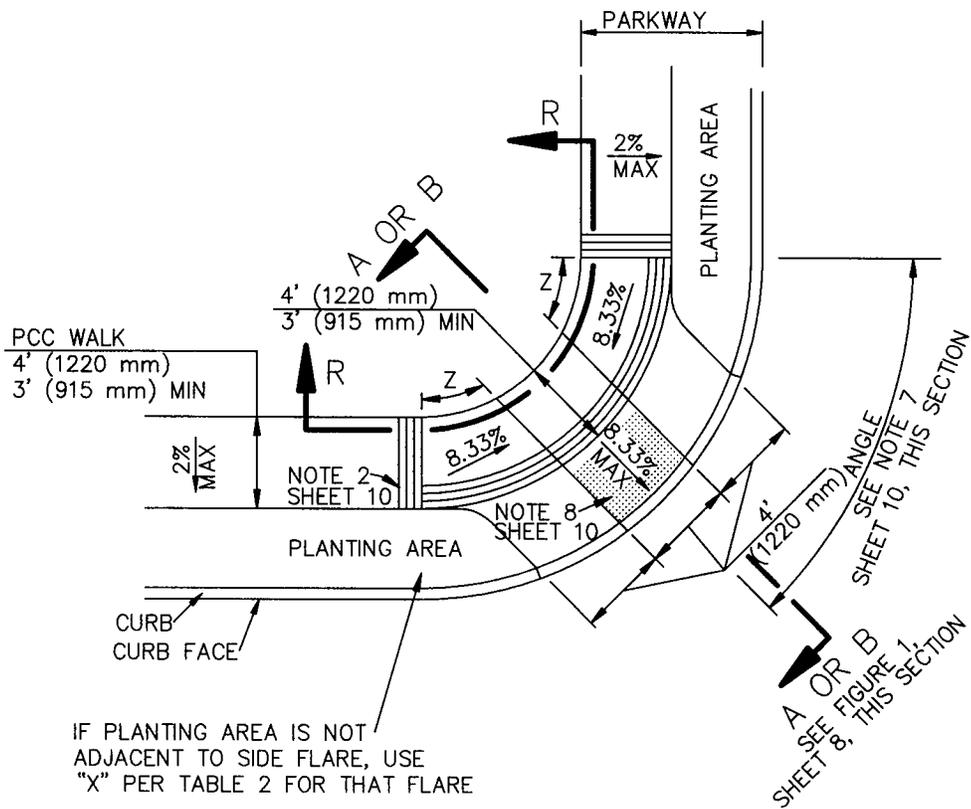
USE WITH STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION

SHEET 1 OF 10



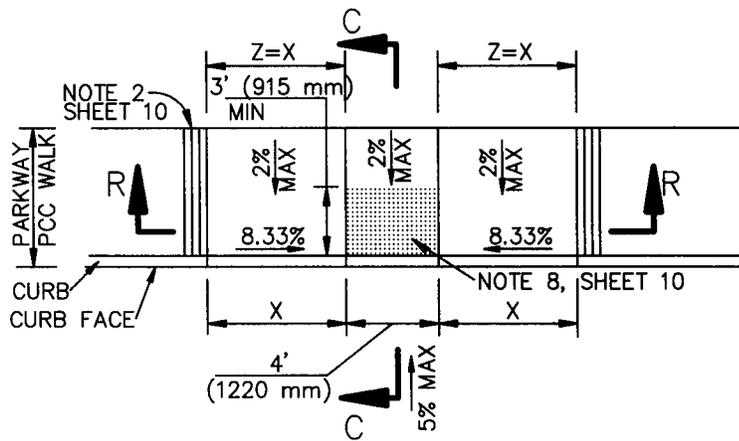
A OR B
SEE FIGURE 1, SHEET 8, THIS SECTION

TYPE 5

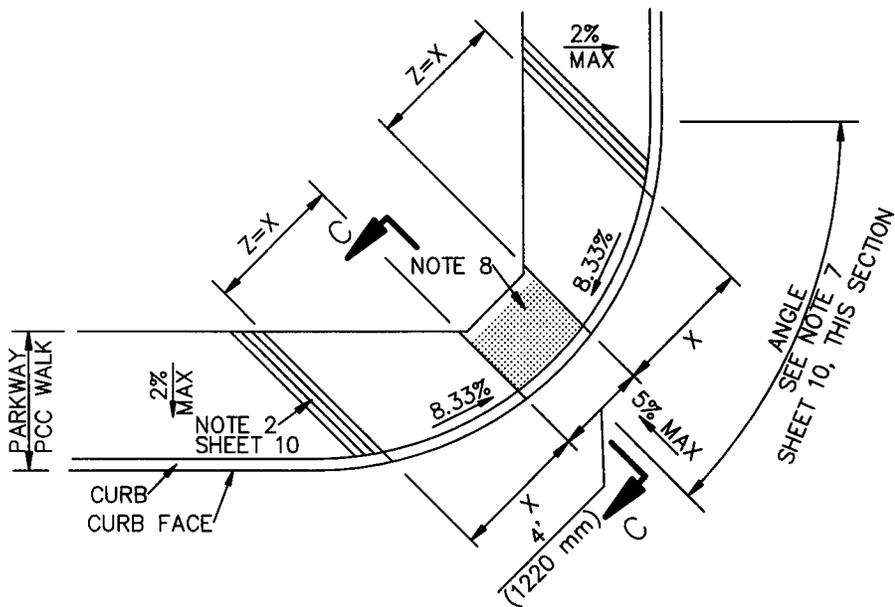


IF PLANTING AREA IS NOT ADJACENT TO SIDE FLARE, USE "X" PER TABLE 2 FOR THAT FLARE

TYPE 6
CASE A

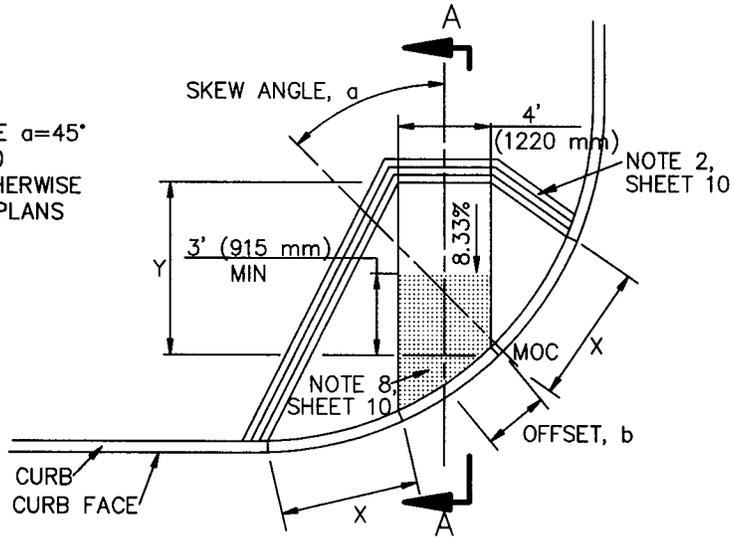


TYPE 1

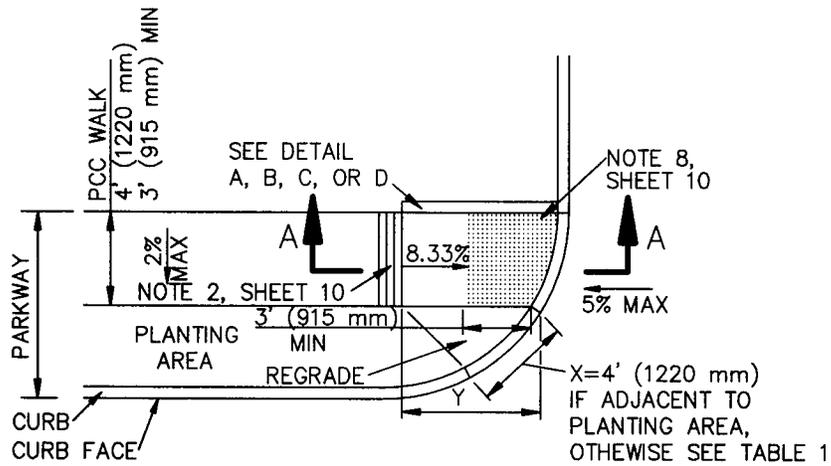


TYPE 2
CASE B

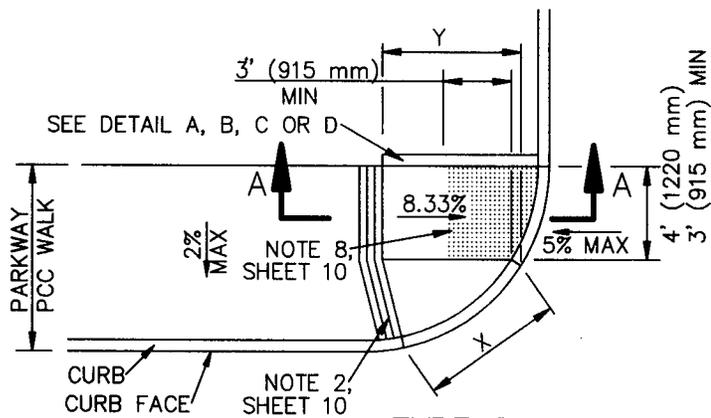
SKEW ANGLE $\alpha=45^\circ$
 OFFSET $b=0$
 UNLESS OTHERWISE
 NOTED ON PLANS



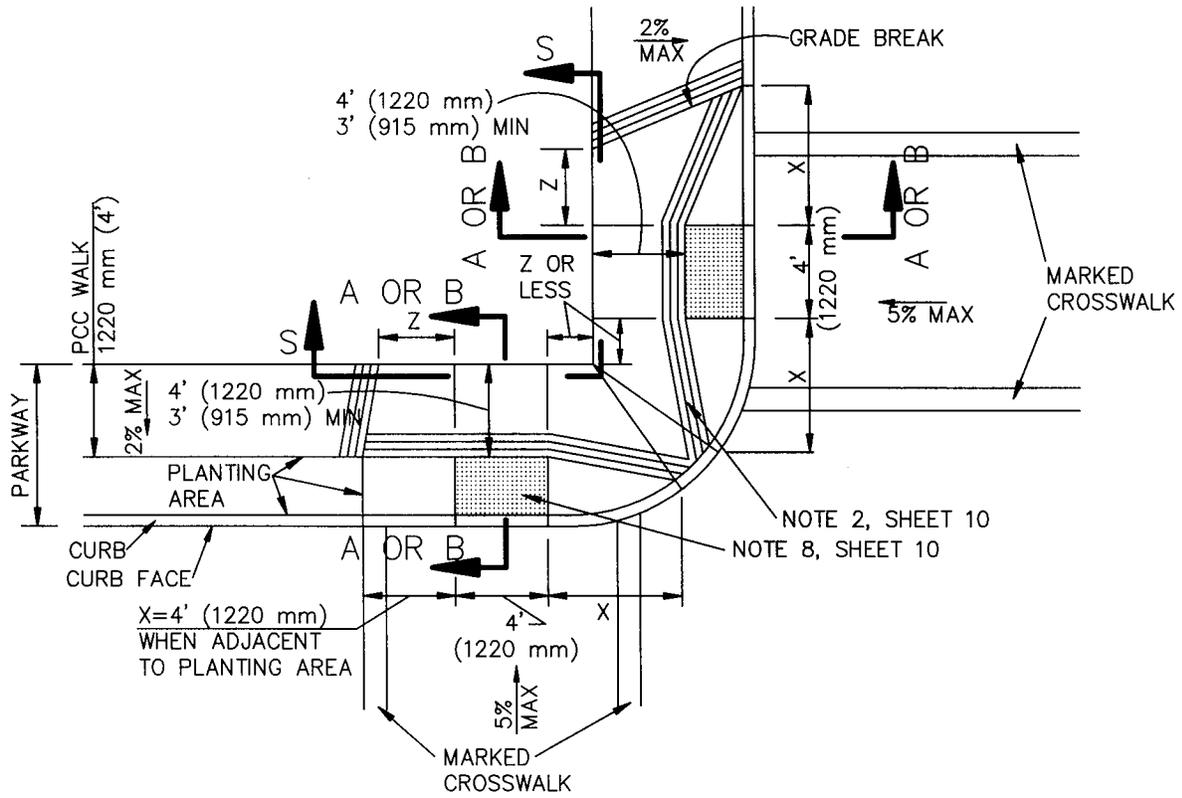
CASE C



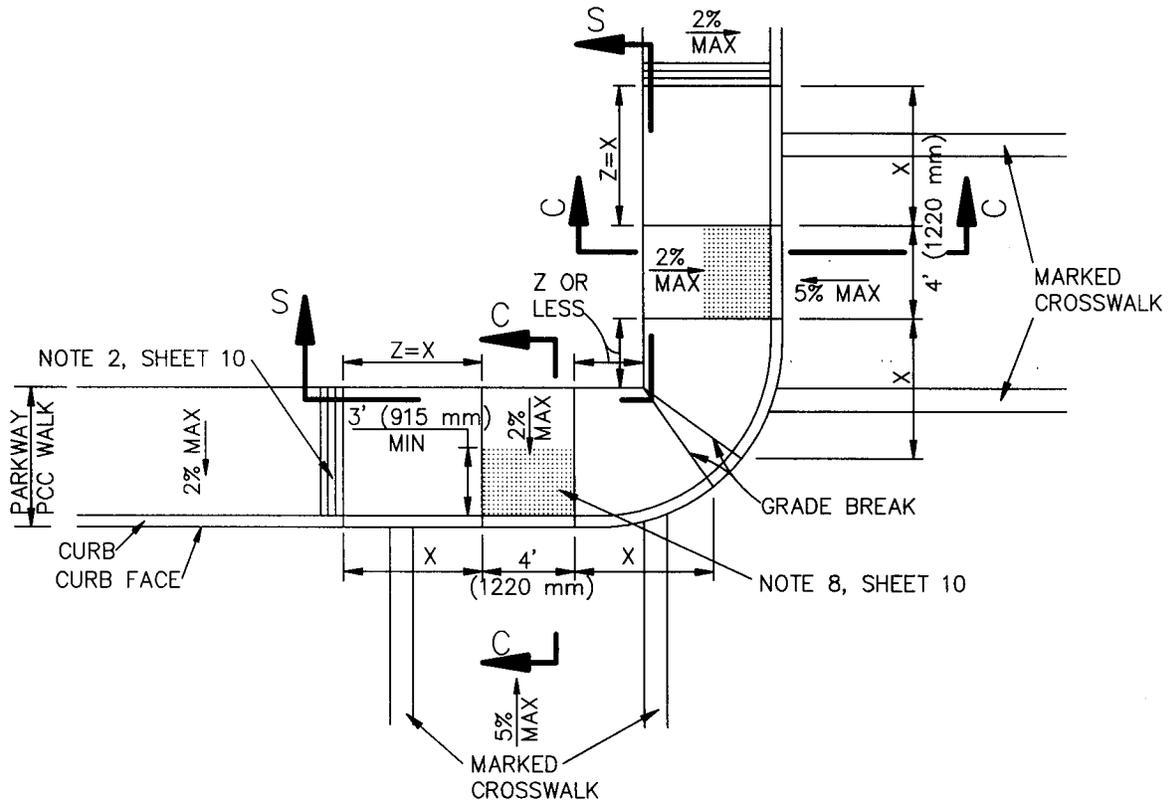
TYPE 1



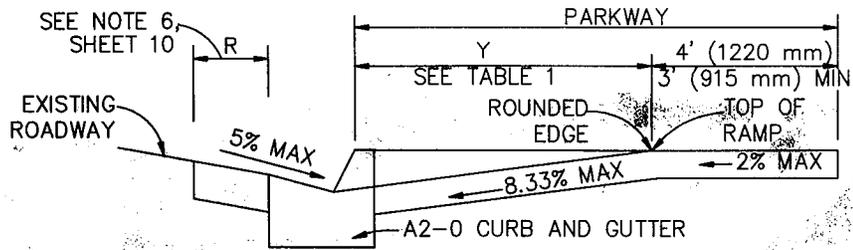
TYPE 2
 CASE D



TYPE 1

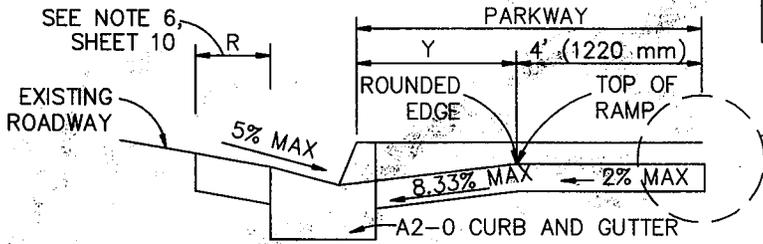


TYPE 2
CASE E



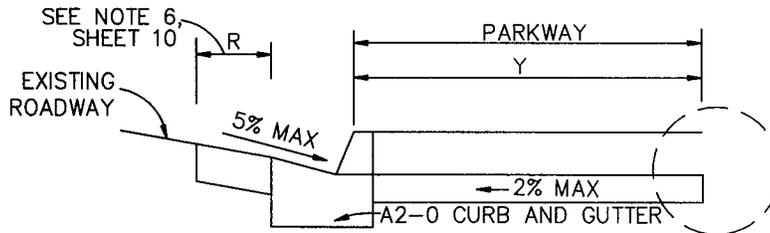
SECTION A-A

USE FIGURE 1 TO DETERMINE WHICH OF SECTIONS A-A, B-B OR C-C IS APPROPRIATE.



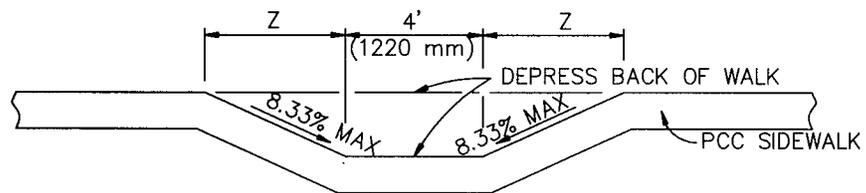
SECTION B-B

DEPRESS BACK OF WALK SEE DETAIL A, B, C OR D, SHEET 10.

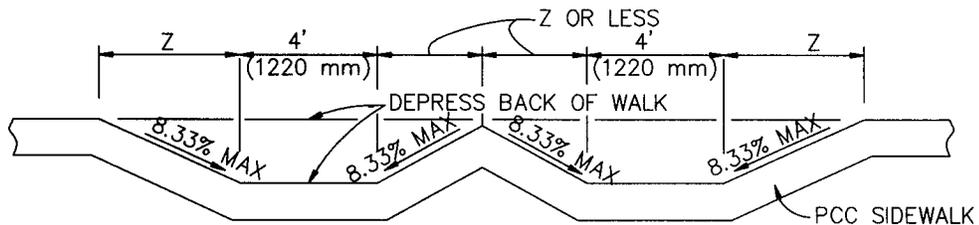


SECTION C-C

DEPRESS BACK OF WALK SEE DETAIL A, B, C OR D, SHEET 10.



SECTION R-R



SECTION S-S

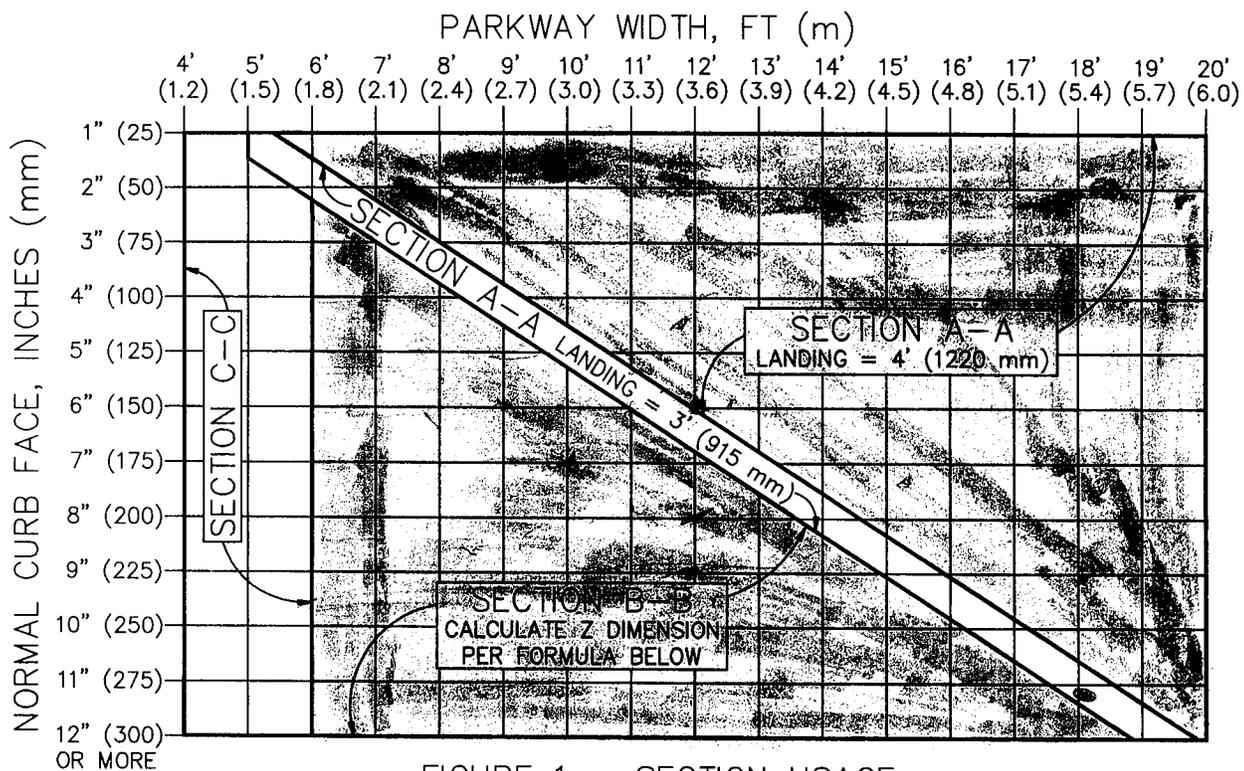


FIGURE 1 - SECTION USAGE

NORMAL CURB FACE, INCHES (mm)	X, FT (mm)	SECTION Y-Y Y, FT (mm)
2" (50)	4.00' (1200) MIN	2.63' (790)
3" (75)	4.00' (1200) MIN	3.95' (1185)
4" (100)	4.00' (1200)	5.26' (1580)
5" (125)	5.00' (1500)	6.58' (1975)
6" (150)	6.00' (1800)	7.90' (2370)
7" (175)	7.00' (2100)	9.21' (2765)
8" (200)	8.00' (2400)	10.53' (3160)
9" (225)	9.00' (2700)	11.84' (3555)
10" (250)	10.00' (3000)	13.16' (3950)
11" (275)	11.00' (3300)	14.47' (4340)
12" (300)	12.00' (3600)	15.79' (4735)

WHERE FIGURE 1 SHOWS USE OF SECTION B-B, FIGURE Z DIMENSION AS FOLLOWS:

W = PARKWAY WIDTH
L = LANDING WIDTH, 4' (1220 mm) TYP, 3' (915 mm) MIN

$$Z = [(Y+L)-W] \times 0.760$$

IF (Y+L) < W, THEN Z = 0

TABLE 1 SHOWS X FOR A FLARE SLOPE OF 8.33% AT THE CURB FACE. IF L IS 4' (1220 mm) OR MORE, X MAY BE MULTIPLIED BY 0.833 FOR A MAXIMUM FLARE SLOPE OF 10% AT THE CURB FACE.

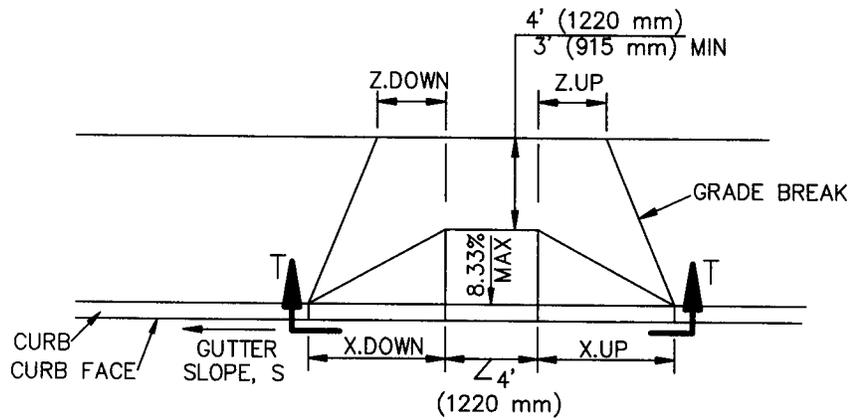
SEE SHEET 9 FOR STREET SLOPE ADJUSTMENT FACTORS, ALL STREETS

TABLE 1 - X AND Y VALUES

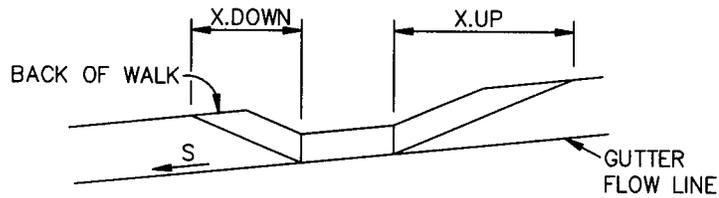
TABLE 1 REFERENCE FORMULAS:

$$X = CF / 8.333\%$$

$$Y = CF / (8.333\% - 2\% \text{ WALK CROSS SLOPE})$$



TYPICAL CURB RAMP



SECTION T-T
SLOPED STREET

FOR SLOPED STREETS, MULTIPLY THE DIMENSIONS PARALLEL TO THE STREET, X AND Z, UPSTREAM AND DOWNSTREAM OF THE RAMP, BY THE FACTORS IN THE FOLLOWING TABLE.

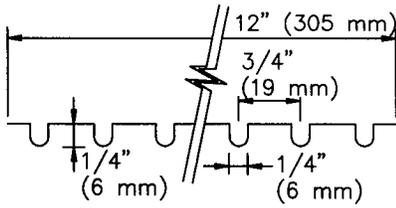
FOR EXAMPLE, $X.DOWN = X \times K.DOWN$

S	K.DOWN	K.UP
0%	1.000	1.000
0.2%	0.977	1.025
0.5%	0.943	1.064
1%	0.893	1.136
2%	0.806	1.316
3%	0.735	1.563
4%	0.676	1.923
5%	0.625	2.500

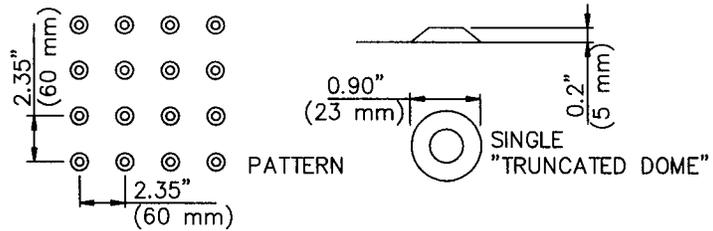
TABLE 2 - SLOPE ADJUSTMENTS

TABLE 2 REFERENCE FORMULAS:
 $K.DOWN = 8.333\% / (8.333\% + S)$
 $K.UP = 8.333\% / (8.333\% - S)$

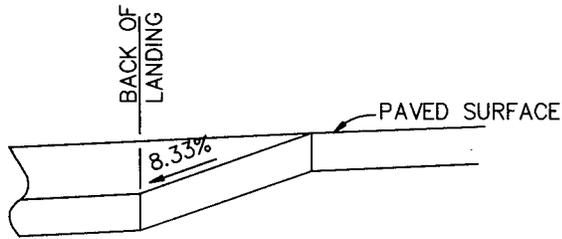
STREET SLOPE ADJUSTMENTS



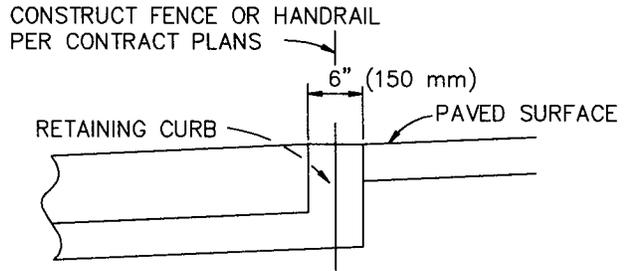
GROOVING DETAIL



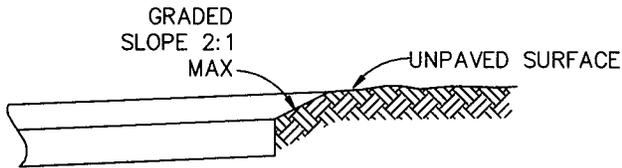
DETECTABLE WARNING DETAIL



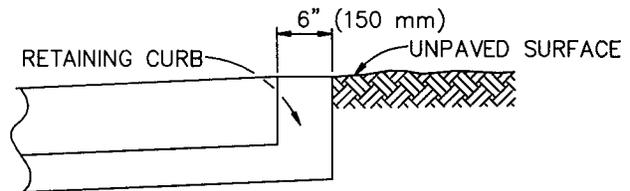
DETAIL A



DETAIL B



DETAIL C



DETAIL D

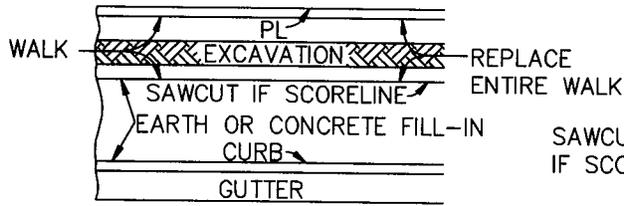
GENERAL NOTES:

1. CONCRETE SHALL BE CLASS 520-C-2500 (310-C-17) CONFORMING TO SSPWC 201-1.1.2 AND SHALL BE 4" (100 mm) THICK.
2. THE RAMP SHALL HAVE A 12" (305 mm) WIDE BORDER WITH 1/4" (6 mm) GROOVES APPROXIMATELY 3/4" (19 mm) OC. SEE GROOVING DETAIL.
3. THE RAMP SURFACE SHALL HAVE A TRANSVERSE BROOMED SURFACE TEXTURE CONFORMING TO SSPWC 303-1.9.
4. USE DETAIL "A" OR "B" IF EXISTING SURFACE BEHIND LANDING IS PAVED.
5. USE DETAIL "C" OR "D" IF EXISTING SURFACE BEHIND LANDING IS UNPAVED.
6. R = 3' (900 mm) UNLESS OTHERWISE SHOWN ON PLAN.
7. ANGLE = $\Delta/2$ UNLESS OTHERWISE SHOWN ON PLAN.
8. CONSTRUCT DETECTABLE WARNING SURFACE PER DETAIL THIS SHEET. MATERIALS SHALL BE PER CONTRACT DOCUMENTS.

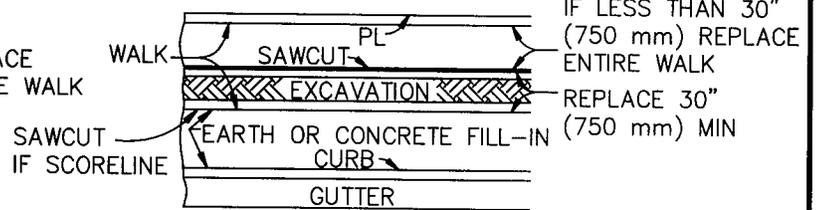
WALK OR FILL-IN REPLACEMENT FOR EXCAVATIONS MADE PARALLEL TO CURB OR PROPERTY LINE

WALK ADJACENT TO PROPERTY LINE

WALK LESS THAN 5' (1500 mm) WIDE

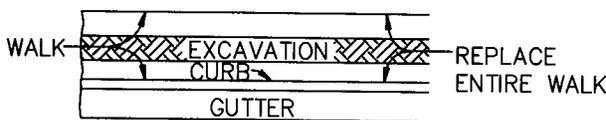


WALK 5' (1500 mm) WIDE OR MORE

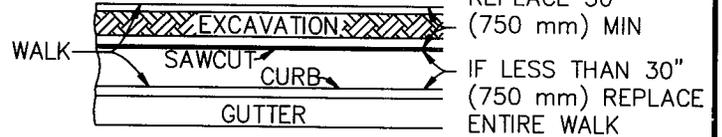


WALK ADJACENT TO CURB

WALK LESS THAN 5' (1500 mm) WIDE

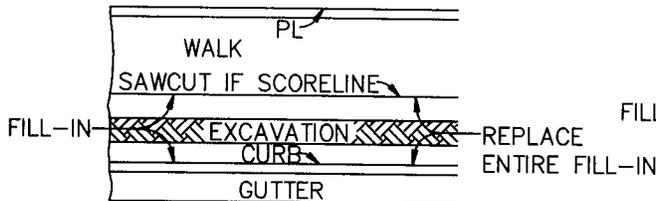


WALK 5' (1500 mm) WIDE OR MORE

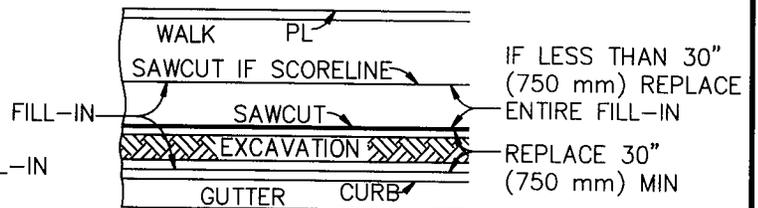


FILL-IN REPLACEMENT

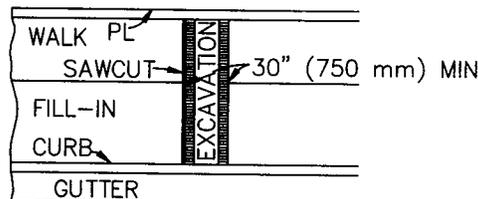
FILL-IN LESS THAN 5' (1500 mm) WIDE



FILL-IN 5' (1500 mm) WIDE OR MORE



WALK OR FILL-IN REPLACEMENT FOR EXCAVATIONS MADE NORMAL TO CURB OR PROPERTY LINE



THESE REQUIREMENTS ALSO APPLY TO ENDS OF PARALLEL EXCAVATIONS.

IF AN EXCAVATION FALLS WITHIN 30" (750 mm) OF AN EXPANSION JOINT, CONSTRUCTION JOINT, WEAKENED PLANE JOINT, OR EDGE, THE CONCRETE SHALL BE REMOVED AND REPLACED TO THE JOINT OR EDGE.

IF AN EXCAVATION FALLS WITHIN 12" (300 mm) OF A SCORELINE, THE CONCRETE SHALL BE REMOVED AND REPLACED TO THE SCORELINE. THE SCORELINE SHALL BE SAWCUT BEFORE CONCRETE REMOVAL.

THE MINIMUM LENGTH OF REPLACEMENT IN BOTH CASES SHALL BE 30" (750 mm).

STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION

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GREENBOOK COMMITTEE
1993
REV. 1996, 2009

SIDEWALK & DRIVEWAY REPLACEMENT

USE WITH STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION

STANDARD PLAN

113-2

SHEET 1 OF 2

NOTES

1. CONCRETE WALK, FILL-IN AND DRIVEWAYS REMOVED IN CONNECTION WITH CONSTRUCTION SHALL BE REPLACED TO NEATLY SAWED EDGES. ALL CUTS SHALL BE PARALLEL TO OR PERPENDICULAR TO THE CURB; ON CURVES, THE CUT SHALL BE RADIAL TO THE CURB.
2. DRIVEWAY APRONS IN WHICH THE "W" DISTANCE IS LESS THAN 11' (3300 mm) SHALL BE REPLACED IN THEIR ENTIRETY IF CUT IN ANY AREA.
3. DRIVEWAY APRONS IN WHICH THE "W" DISTANCE IS 11' (3300 mm) OR MORE MAY BE CUT WITHIN THE "W" SECTION. THE MINIMUM REPLACEMENT SHALL BE 30" (750 mm) IN LENGTH. THE MINIMUM DISTANCE ALLOWED BETWEEN SUCH CUTS SHALL BE 14' (4200 mm).
4. DRIVEWAY APRONS IN WHICH THE "W" DISTANCE IS 11' (3300 mm) OR MORE MAY BE CUT IN THE "X" OR "R" SECTION. REPLACEMENT SHALL BE THE ENTIRE "X" OR "R" SECTION.
5. DRIVEWAY APRONS SHALL BE REPLACED FROM THE BACK OF THE CURB TO THE FRONT EDGE OF THE WALK, EXCEPT, WHERE WALK IS ADJACENT TO CURB, REPLACEMENT SHALL BE FROM BACK OF CURB TO BACK OF WALK.
6. WALK PORTIONS OF DRIVEWAYS SHALL BE REPLACED AS SHOWN ABOVE FOR EXCAVATIONS MADE PARALLEL OR NORMAL TO CURB.
7. REPLACEMENT OF THE "X" OR "R" SECTION SHALL MATCH EXISTING CONSTRUCTION.

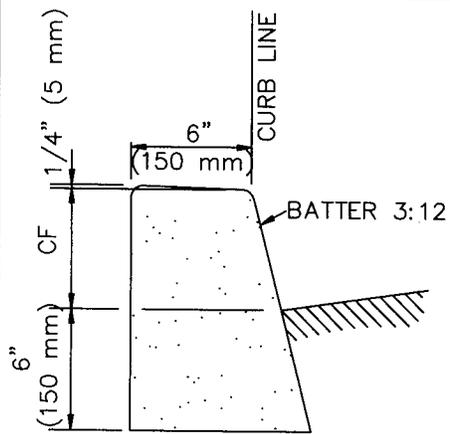
STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION

SIDEWALK & DRIVEWAY REPLACEMENT

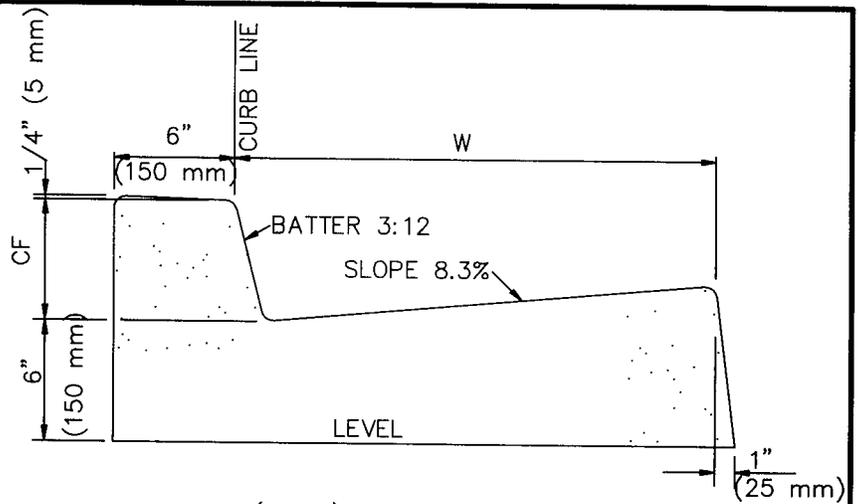
STANDARD PLAN

113-2

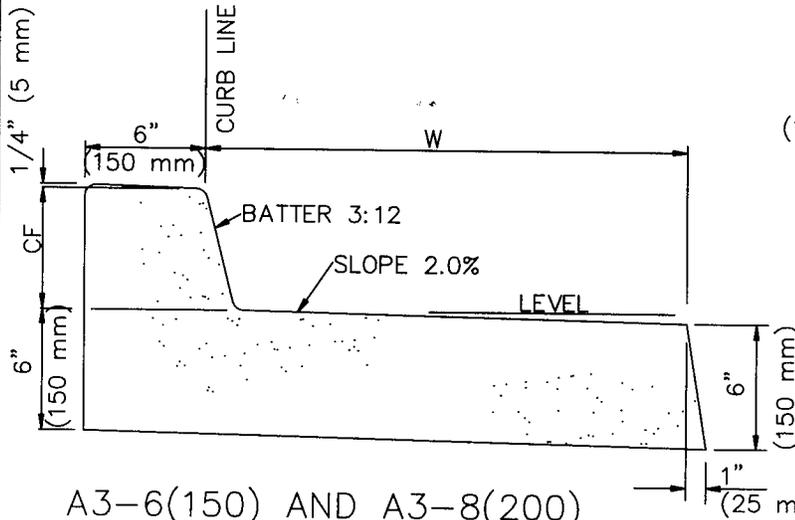
SHEET 2 OF 2



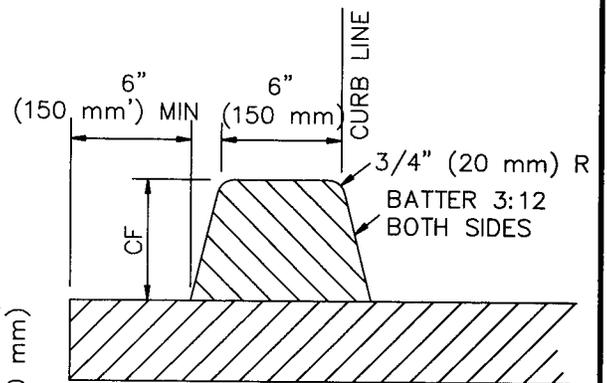
A1-6(150) AND
A1-8(200)



A2-6(150) AND A2-8(200)



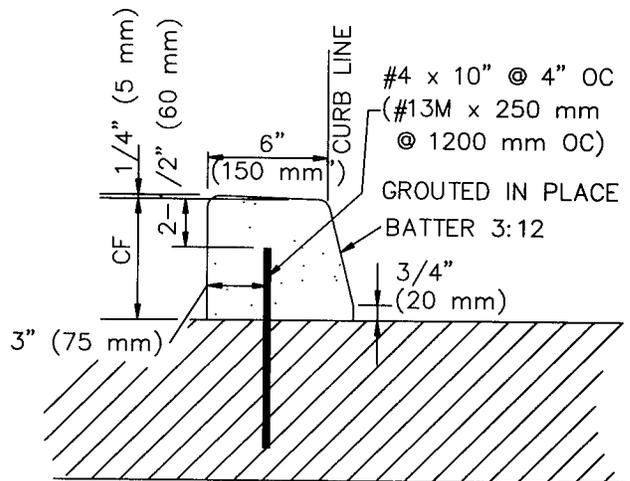
A3-6(150) AND A3-8(200)



D1-6(150) AND
D1-8(200)

NOTES:

1. THE LAST NUMBER IN THE DESIGNATION IS THE CURB FACE (CF) HEIGHT, INCHES (mm).
2. GUTTER WIDTH, W, IS 24" (600 mm) UNLESS OTHERWISE SPECIFIED.
3. TYPES A1, A2, A3 AND C1 SHALL BE CONSTRUCTED FROM PCC.
4. TYPE D1 CURB SHALL BE CONSTRUCTED FROM ASPHALT CONCRETE.
5. TYPE C1 CURB SHALL BE ANCHORED WITH STEEL DOWELS AS SHOWN OR WITH AN EPOXY APPROVED BY THE ENGINEER.
6. ALL EXPOSED CORNERS ON PCC CURBS AND GUTTERS SHALL BE ROUNDED WITH A 1/2" (15 mm) RADIUS.



C1-6(150) AND C1-8(200)

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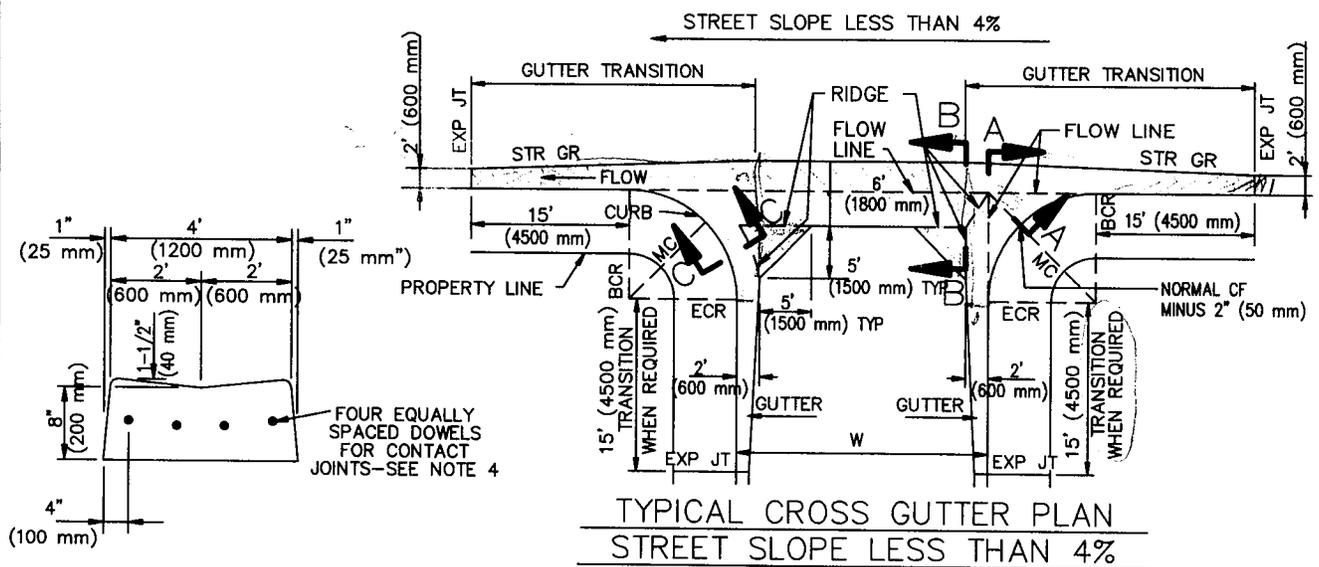
CURB AND GUTTER - BARRIER

USE WITH STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION

STANDARD PLAN

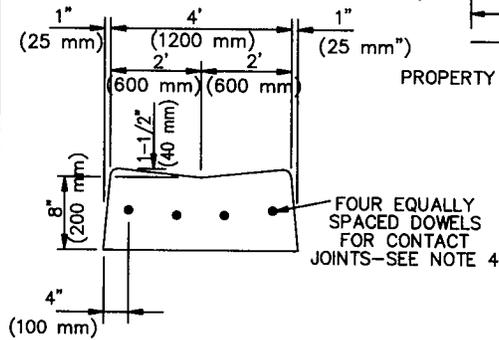
120-2

SHEET 1 OF 1



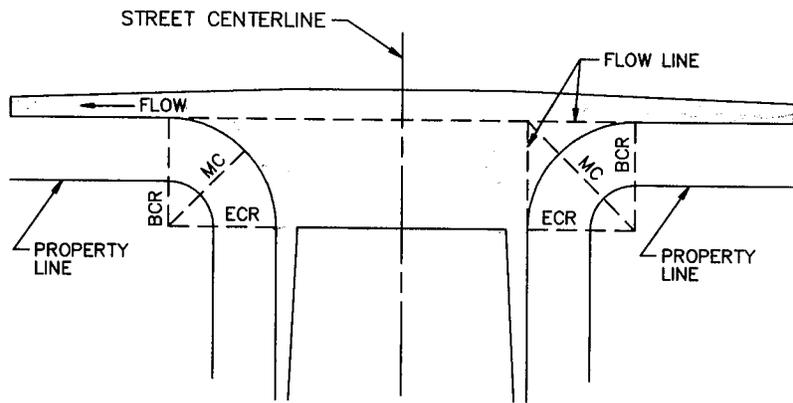
TYPICAL CROSS GUTTER PLAN
STREET SLOPE LESS THAN 4%

LONGITUDINAL
GUTTER

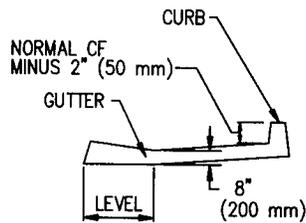


FOUR EQUALLY SPACED DOWELS FOR CONTACT JOINTS—SEE NOTE 4

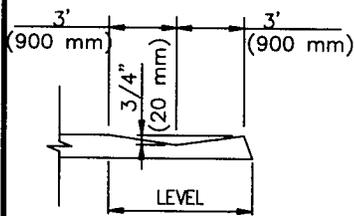
STREET SLOPE 4% OR GREATER



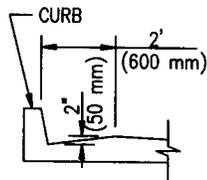
TYPICAL CROSS GUTTER PLAN
STREET SLOPE MORE THAN 4%



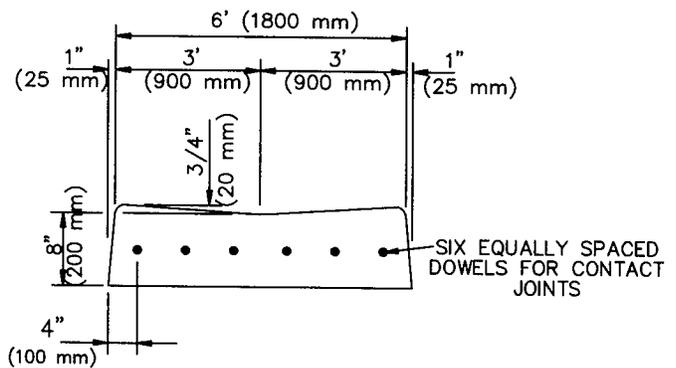
SECTION A-A



SECTION B-B



SECTION C-C



SECTION D-D

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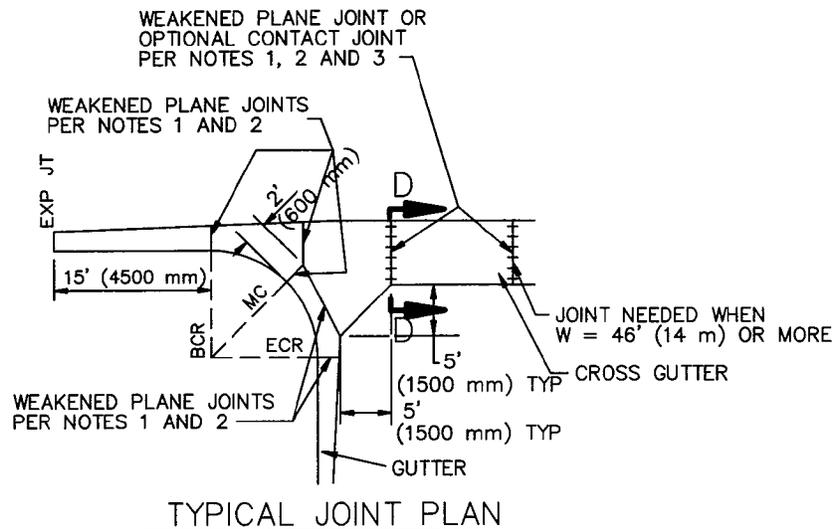
CROSS AND LONGITUDINAL GUTTERS

USE WITH STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION

STANDARD PLAN

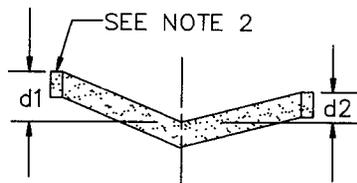
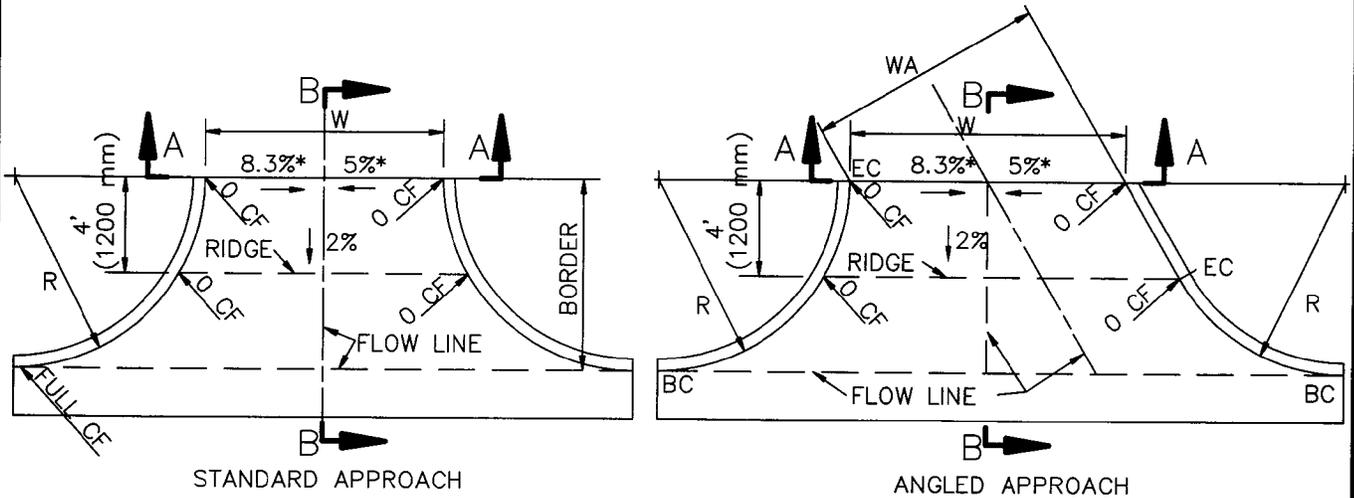
122-2

SHEET 1 OF 2

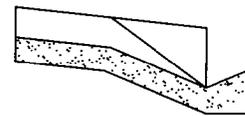


NOTES:

1. WEAKENED PLANE AND/OR CONTACT JOINTS SHALL BE PLACED IN CURB AND GUTTER AT LOCATIONS SHOWN ON THE TYPICAL JOINT PLAN HEREON.
2. WEAKENED PLANE JOINTS SHALL BE PLASTIC CONTROL JOINTS OR 1-1/2" (40 mm) DEEP SAW CUTS. CONCRETE SAWING SHALL TAKE PLACE WITHIN 24 HOURS AFTER CONCRETE IS PLACED.
3. DOWELS FOR CONTACT JOINTS SHALL BE #4 BARS 18" LONG (#13M BARS 450 mm LONG).
4. PLACE A WEAKENED PLANE OR CONTACT JOINT WHERE LONGITUDINAL ALLEY GUTTER JOINS CONCRETE ALLEY INTERSECTION.
5. ALL EXPOSED CORNERS ON PCC GUTTERS SHALL BE ROUNDED WITH 1/2" (15 mm) RADIUS.
6. CONCRETE SHALL BE INTEGRAL WITH CURB UNLESS OTHERWISE SPECIFIED.



SECTION
A-A



SECTION
B-B

W, ft	8'	10'	15'	20'	25'	30'
W, mm	(2400mm)	(3000mm)	(4500mm)	(6000mm)	(7500mm)	(9000mm)
d1, ft	0.33'	0.42'	0.63'	0.83'	1.04'	1.25'
MAX	(100 mm)	(125 mm)	(188 mm)	(250 mm)	(313 mm)	(375 mm)
d2, ft	0.17'	0.25'	0.25'	0.25'	0.25'	0.25'
MIN	(50 mm)	(75 mm)				

NOTES:

1. FOR CASE A, THE RADIUS OF THE CURB RETURN, R, IS EQUAL TO THE PARKWAY WIDTH.
2. ALLEY INTERSECTION SHALL BE PCC, CLASS 520-C-2500 (310-C-17), 6" (150 mm) THICK. CURB SHALL BE INTEGRAL TYPE "A".
3. ASTERISKS,*, SHOW MAXIMUM GRADES.

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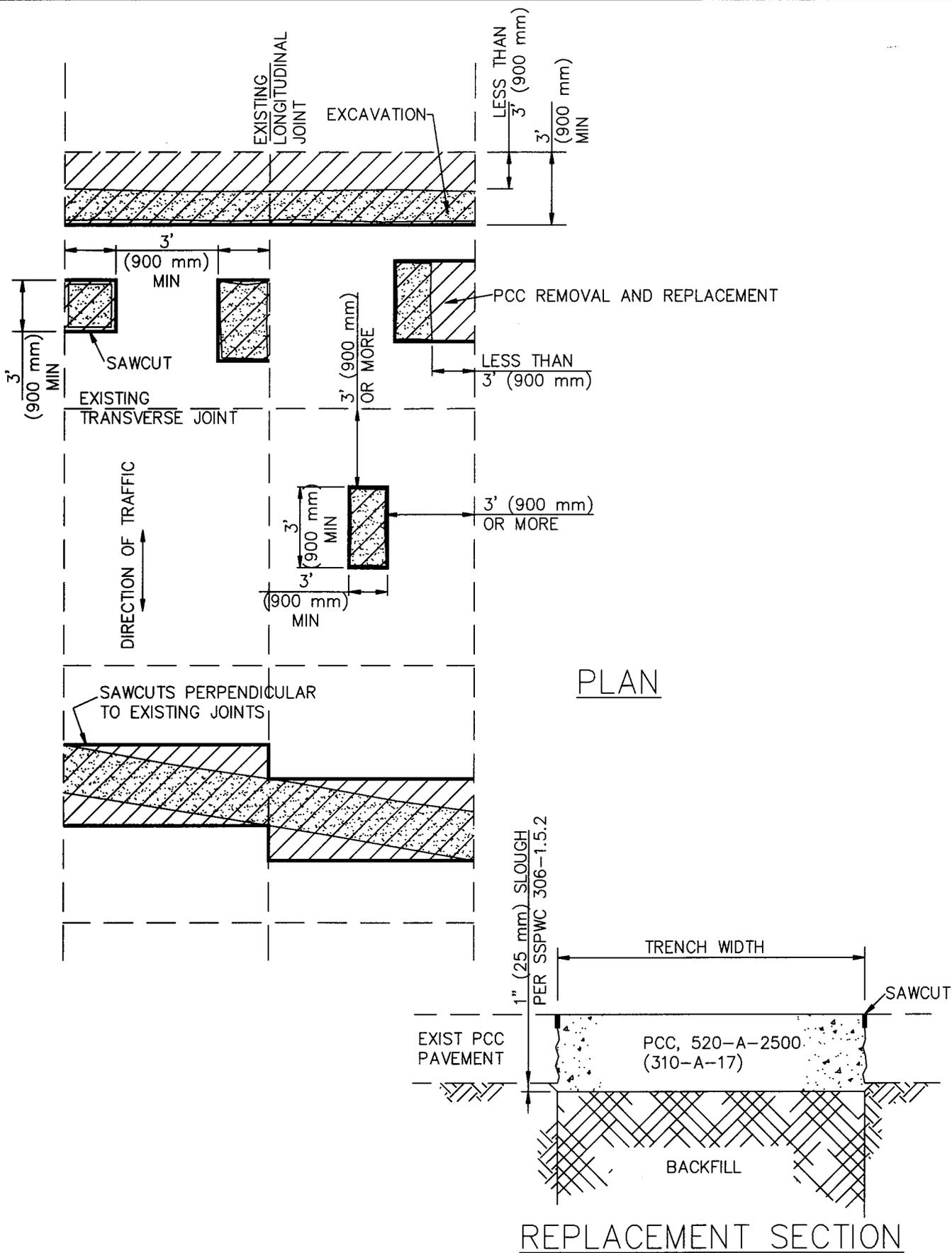
ALLEY INTERSECTION

USE WITH STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION

STANDARD PLAN

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SHEET 1 OF 1



STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION

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1993
REV. 2005, 2009

CONCRETE PAVEMENT REPLACEMENT

USE WITH STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION

STANDARD PLAN

132-3

SHEET 1 OF 2

NOTES:

1. THE EXTENT OF REPAIRS FOR CONCRETE CUTS NOT SHOWN ON THIS STANDARD OR CUTS MADE WITHIN 3' (900 mm) OF EXISTING PATCHES, CRACKS, OR DETERIORATED SLABS SHALL BE DETERMINED BY THE ENGINEER.
2. CONCRETE PAVEMENT SHALL BE REMOVED PER SSPWC 300-1.3.
3. BACKFILL AND DENSIFICATION SHALL CONFORM TO SSPWC 306-1.3.
4. TEMPORARY RESURFACING SHALL BE PLACED PER SSPWC 306-1.5.1.

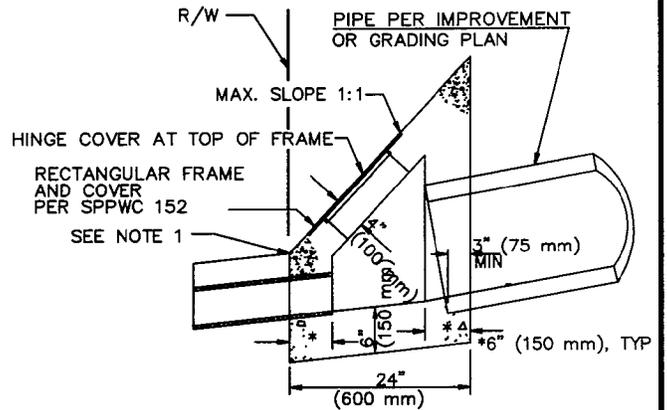
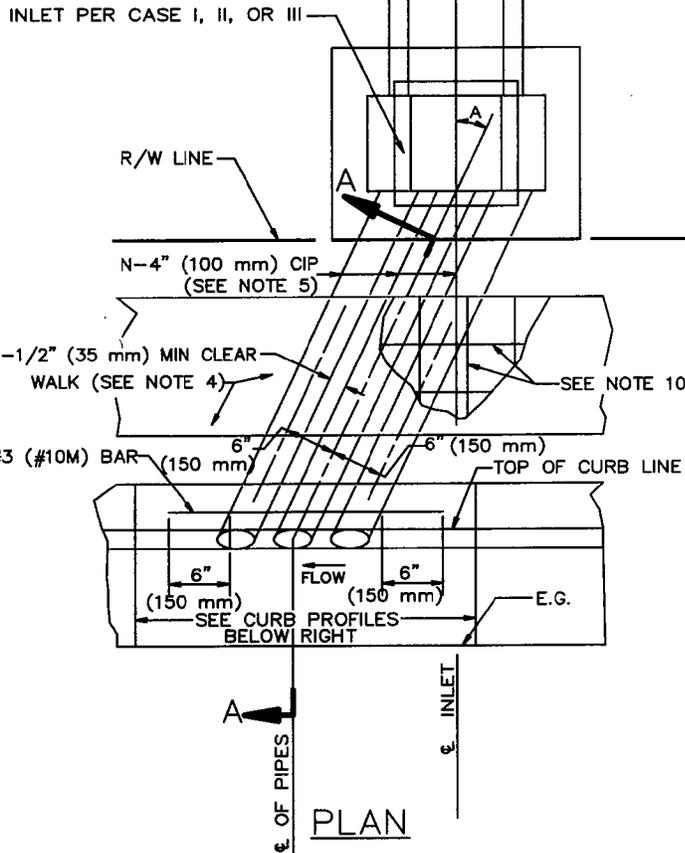
STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION

CONCRETE PAVEMENT REPLACEMENT

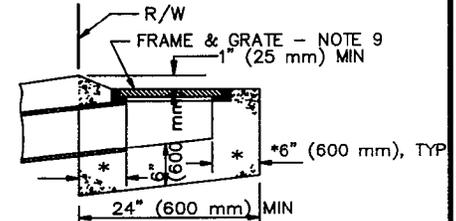
STANDARD PLAN

132-3

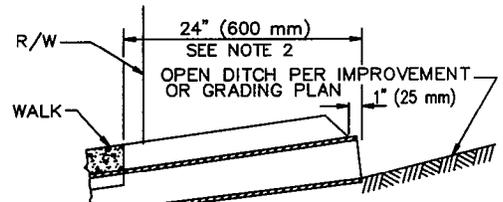
SHEET 2 OF 2



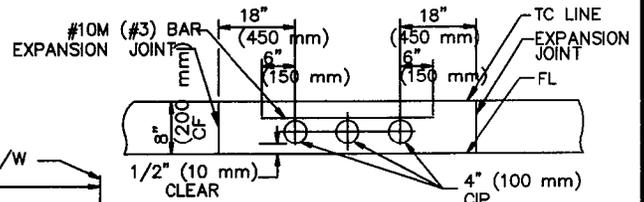
CASE I INLET
TRANSITION STRUCTURE SECTION



CASE II INLET
DROP INLET CATCH BASIN SECTION

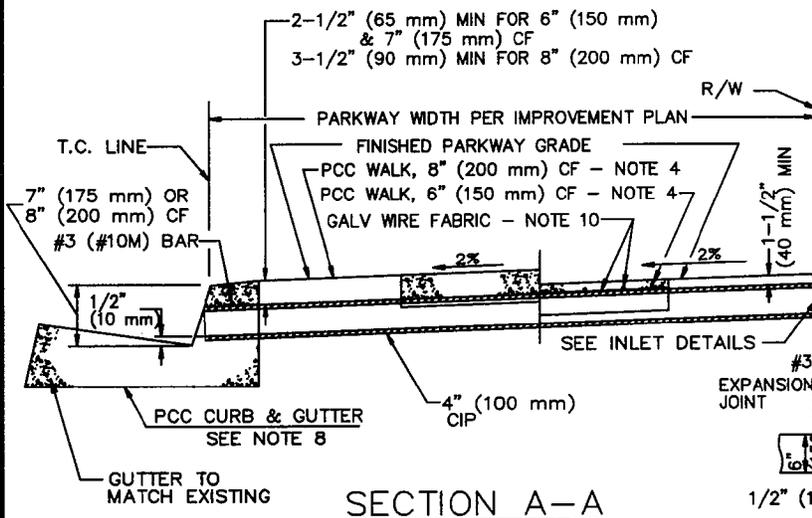


CASE III INLET
GRADED DITCH SECTION

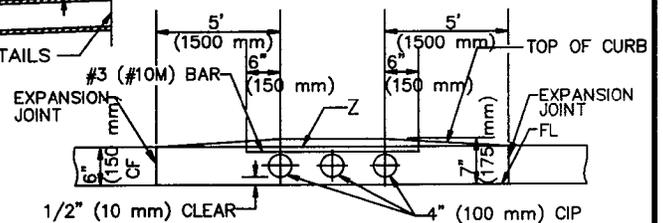


NOTE: APPLIES TO ANY NUMBER OF PIPES

CURB PROFILE
8" (200 mm) CURB FACE



SECTION A-A



NOTE: APPLIES TO ANY NUMBER OF PIPES
Z = TOP-OF-CURB LINE SHOWN ON PROFILE

CURB PROFILE
6" (150 mm) CURB FACE

STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION

PROMULGATED BY THE
PUBLIC WORKS STANDARDS INC.
GREENBOOK COMMITTEE
1984
REV. 1992, 1996, 2009

CURB DRAIN

STANDARD PLAN

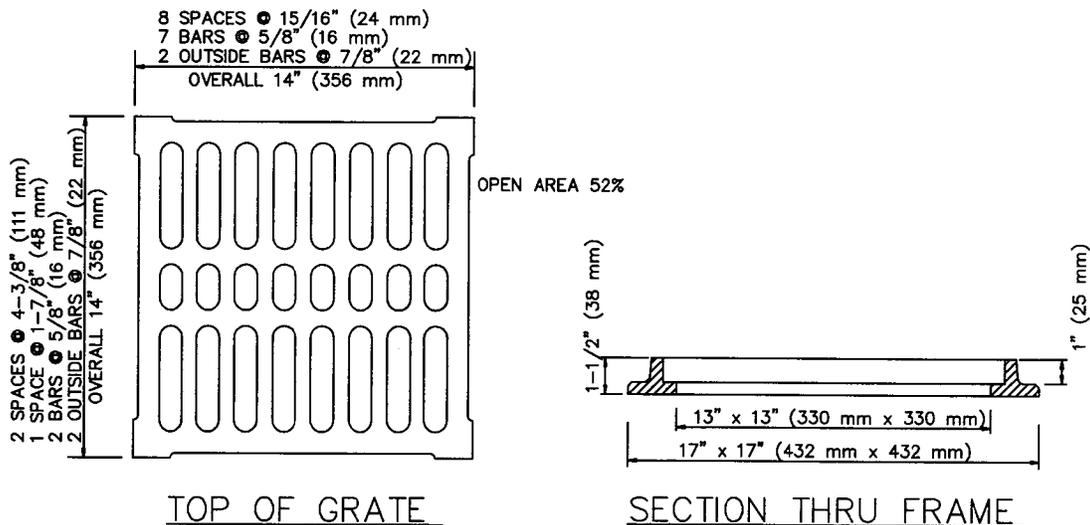
150-3

USE WITH STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION

SHEET 1 OF 2

NOTES

1. IF THE TOP OF SLOPE IS ALLOWED WITHIN THE R/W, INLET CASE I BEGINS AT THE TOP RATHER THAN THE R/W LINE.
2. FOR OPEN DITCH (CASE INLET III), THE 24" (600 mm) EXTENSION BEYOND THE R/W LINE IS NOT REQUIRED WHEN BACK OF WALK IS 24" (600 mm) OR MORE FROM THE R/W LINE; HOWEVER, PIPE SHALL EXTEND TO R/W LINE.
3. TOP OF INLET STRUCTURE (CASE I AND II) TO BE FLUSH WITH ADJACENT SURFACE WHERE PRACTICAL.
4. CONSTRUCT PCC WALK WHEN SPECIFIED ON PLANS. THE CONTRACT PRICE PAID FOR PCC WALK ITEM SHALL INCLUDE WALK CONSTRUCTED IN CONJUNCTION WITH PARKWAY CULVERT.
5. "N" EQUALS NUMBER OF PIPES (MAXIMUM OF THREE) AS SPECIFIED ON PLANS.
6. INLET CASE TO BE SPECIFIED ON PLANS.
7. ANGLE A EQUALS 0°; UNLESS OTHERWISE SPECIFIED.
8. TYPE, DIMENSIONS AND ELEVATIONS OF P.C.C. CURB AND GUTTER PER PLANS.
9. UNLESS OTHERWISE SPECIFIED, FRAME AND GRATE FOR CASE II INLET SHALL BE GALVANIZED CAST IRON. WEIGHT OF FRAME AND GRATE SHALL BE 80 LBS (36 kg).
10. AT LOCATIONS WITH LESS THAN 8" (200 mm) CURB FACE, USE 6x6-10/10 (152x152-MW9.1xMW9.1) GALVANIZED WIRE FABRIC. WIRE FABRIC SHALL EXTEND 8" (200 mm) BEYOND THE EDGE OF CAST IRON PIPES.

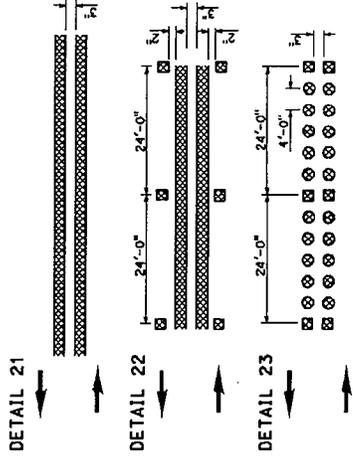


GRATE FOR CASE II INLET

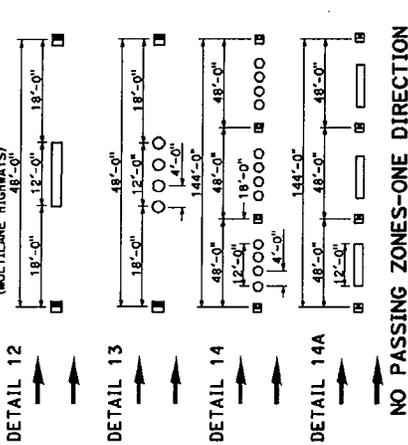
APPENDIX V
CALTRANS STANDARD PLANS

COUNTY ROUTE TOTAL PROJECT SHEETS
 REGISTERED CIVIL ENGINEER
 MAY 20, 2011
 PLANS APPROVAL DATE
 THE STATE OF CALIFORNIA
 REGISTERED CIVIL ENGINEER
 THE SIGNATURE OF THE REGISTERED CIVIL ENGINEER
 THE SIGNATURE OF THE REGISTERED CIVIL ENGINEER
 THE SIGNATURE OF THE REGISTERED CIVIL ENGINEER

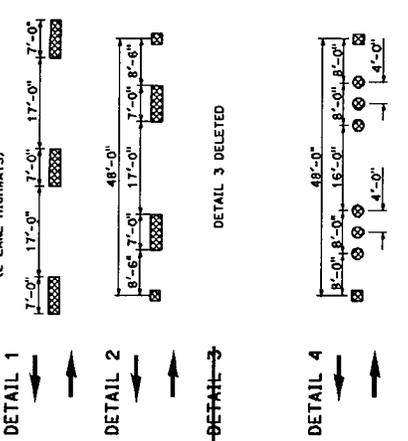
NO PASSING ZONES-TWO DIRECTION



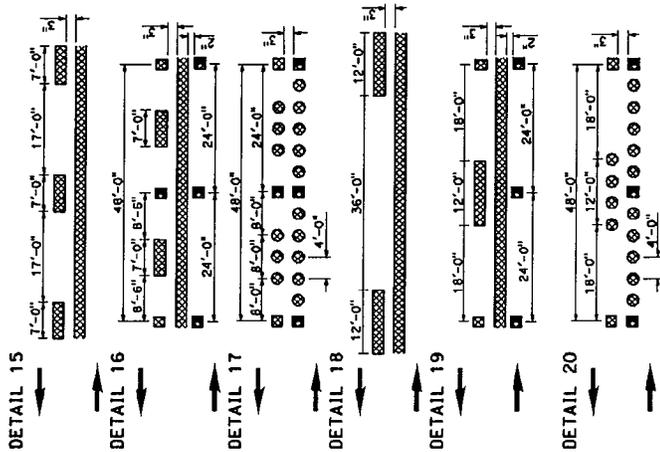
LANELINES (Cont)
(MULTILANE HIGHWAYS)



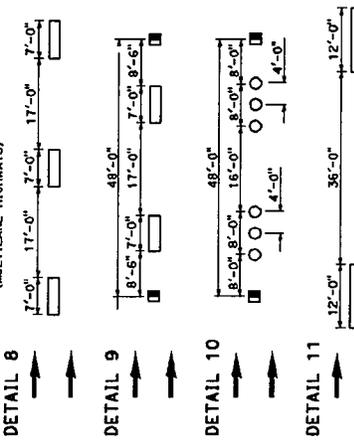
CENTERLINES
(2 LANE HIGHWAYS)



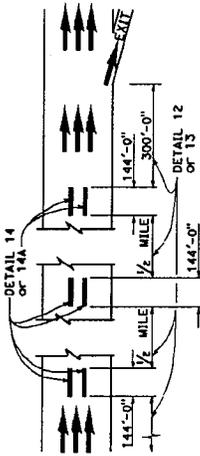
NO PASSING ZONES-ONE DIRECTION



LANELINES
(MULTILANE HIGHWAYS)



**TYPICAL LANE LINE DELINEATION
IN ADVANCE OF EXIT RAMP**



LEGEND

- MARKERS**
- TYPE A WHITE NON-REFLECTIVE
 - ⊙ TYPE AY YELLOW NON-REFLECTIVE
 - ⊞ TYPE C RED-CLEAR RETROREFLECTIVE
 - ⊞ TYPE D TWO-WAY YELLOW RETROREFLECTIVE
 - ⊞ TYPE G ONE-WAY CLEAR RETROREFLECTIVE
 - ⊞ TYPE H ONE-WAY YELLOW RETROREFLECTIVE
- MARKER DETAILS**
- 3 3/8" x 4 1/2"
 - 3 3/8" x 4 1/2"
 - 3 3/8" x 4 1/2"
- RETROREFLECTIVE FACE**

NOTE:

Detail 14 is to be used in combination with Detail 13. Detail 14A is to be used in combination with Detail 12.

LINES

- 4" WHITE
- 4" YELLOW
- DIRECTION OF TRAVEL

TYPE A AND TYPE AY

TYPE C AND TYPE D

TYPE G AND TYPE H

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
**PAVEMENT MARKERS
AND TRAFFIC LINES
TYPICAL DETAILS**

NO SCALE

A20A

PROJECT NO. 01-14 COUNTY ROUTE TOTAL SHEETS 103 104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204 205 206 207 208 209 210 211 212 213 214 215 216 217 218 219 220 221 222 223 224 225 226 227 228 229 230 231 232 233 234 235 236 237 238 239 240 241 242 243 244 245 246 247 248 249 250 251 252 253 254 255 256 257 258 259 260 261 262 263 264 265 266 267 268 269 270 271 272 273 274 275 276 277 278 279 280 281 282 283 284 285 286 287 288 289 290 291 292 293 294 295 296 297 298 299 300 301 302 303 304 305 306 307 308 309 310 311 312 313 314 315 316 317 318 319 320 321 322 323 324 325 326 327 328 329 330 331 332 333 334 335 336 337 338 339 340 341 342 343 344 345 346 347 348 349 350 351 352 353 354 355 356 357 358 359 360 361 362 363 364 365 366 367 368 369 370 371 372 373 374 375 376 377 378 379 380 381 382 383 384 385 386 387 388 389 390 391 392 393 394 395 396 397 398 399 400 401 402 403 404 405 406 407 408 409 410 411 412 413 414 415 416 417 418 419 420 421 422 423 424 425 426 427 428 429 430 431 432 433 434 435 436 437 438 439 440 441 442 443 444 445 446 447 448 449 450 451 452 453 454 455 456 457 458 459 460 461 462 463 464 465 466 467 468 469 470 471 472 473 474 475 476 477 478 479 480 481 482 483 484 485 486 487 488 489 490 491 492 493 494 495 496 497 498 499 500 501 502 503 504 505 506 507 508 509 510 511 512 513 514 515 516 517 518 519 520 521 522 523 524 525 526 527 528 529 530 531 532 533 534 535 536 537 538 539 540 541 542 543 544 545 546 547 548 549 550 551 552 553 554 555 556 557 558 559 560 561 562 563 564 565 566 567 568 569 570 571 572 573 574 575 576 577 578 579 580 581 582 583 584 585 586 587 588 589 590 591 592 593 594 595 596 597 598 599 600 601 602 603 604 605 606 607 608 609 610 611 612 613 614 615 616 617 618 619 620 621 622 623 624 625 626 627 628 629 630 631 632 633 634 635 636 637 638 639 640 641 642 643 644 645 646 647 648 649 650 651 652 653 654 655 656 657 658 659 660 661 662 663 664 665 666 667 668 669 670 671 672 673 674 675 676 677 678 679 680 681 682 683 684 685 686 687 688 689 690 691 692 693 694 695 696 697 698 699 700 701 702 703 704 705 706 707 708 709 710 711 712 713 714 715 716 717 718 719 720 721 722 723 724 725 726 727 728 729 730 731 732 733 734 735 736 737 738 739 740 741 742 743 744 745 746 747 748 749 750 751 752 753 754 755 756 757 758 759 760 761 762 763 764 765 766 767 768 769 770 771 772 773 774 775 776 777 778 779 780 781 782 783 784 785 786 787 788 789 790 791 792 793 794 795 796 797 798 799 800 801 802 803 804 805 806 807 808 809 810 811 812 813 814 815 816 817 818 819 820 821 822 823 824 825 826 827 828 829 830 831 832 833 834 835 836 837 838 839 840 841 842 843 844 845 846 847 848 849 850 851 852 853 854 855 856 857 858 859 860 861 862 863 864 865 866 867 868 869 870 871 872 873 874 875 876 877 878 879 880 881 882 883 884 885 886 887 888 889 890 891 892 893 894 895 896 897 898 899 900 901 902 903 904 905 906 907 908 909 910 911 912 913 914 915 916 917 918 919 920 921 922 923 924 925 926 927 928 929 930 931 932 933 934 935 936 937 938 939 940 941 942 943 944 945 946 947 948 949 950 951 952 953 954 955 956 957 958 959 960 961 962 963 964 965 966 967 968 969 970 971 972 973 974 975 976 977 978 979 980 981 982 983 984 985 986 987 988 989 990 991 992 993 994 995 996 997 998 999 1000

REGISTERED CIVIL ENGINEER
 MAY 20, 2011
 THE STATE OF CALIFORNIA
 PLANS APPROVAL DATE
 NO. 2-31-13
 THESE PLANS SHALL NOT BE REPRODUCED FOR ANY OTHER PROJECTS OR SCHEDULES OF THIS PLAN SHEET.

LEGEND

MARKERS

- TYPE AY
- TYPE D
- TYPE H

LINES

- 4" WHITE
- 4" YELLOW
- NON-REFLECTIVE
- RETROREFLECTIVE
- ONE-WAY YELLOW RETROREFLECTIVE

INTERSECTION TREATMENTS

DETAIL 34
 DETAIL 34A
 DETAIL 35
 DETAIL 35A

MEDIAN ISLANDS

DETAIL 28
 DETAIL 29
 DETAIL 30
 DETAIL 31

LEFT EDGELINES (DIVIDED HIGHWAYS)

DETAIL 24
 DETAIL 25
 DETAIL 25A
 DETAIL 26
 DETAIL 27

RIGHT EDGELINES

DETAIL 27A DELETED
 DETAIL 27B
 DETAIL 27C

MARKER DETAILS

TYPE AY
 TYPE D
 TYPE H

RETROREFLECTIVE FACE

INTERSECTION TREATMENTS

DETAIL 34
 DETAIL 34A
 DETAIL 35
 DETAIL 35A

TWO-WAY LEFT TURN LANES

DETAIL 32
 DETAIL 33

RIGHT EDGELINE EXTENSION THROUGH INTERSECTIONS

DETAIL 27C

RIGHT EDGELINES

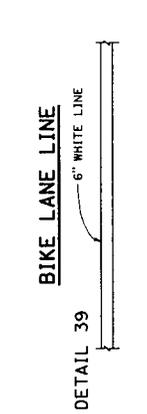
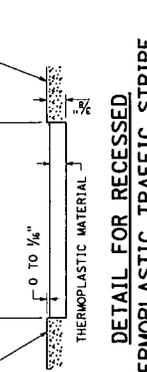
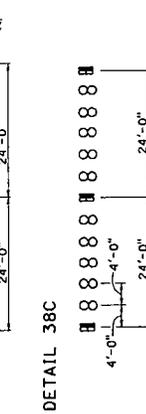
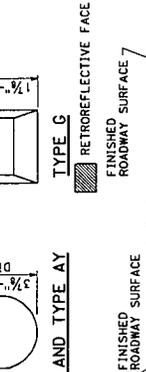
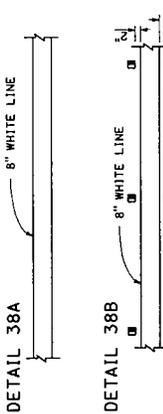
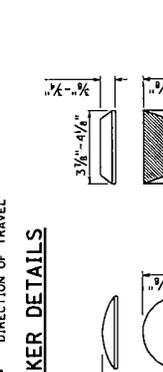
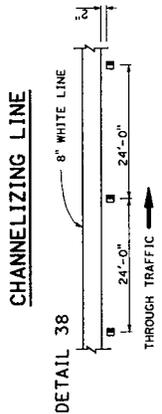
DETAIL 27A DELETED
 DETAIL 27B
 DETAIL 27C

STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
PAVEMENT MARKERS AND TRAFFIC LINES TYPICAL DETAILS
 NO SCALE

A20B

POST MILES: _____ STREET NO.: _____
 TOTAL PROJECT: _____ SHEETS: _____
 COUNTY: _____ ROUTE: _____
 REGISTERED CIVIL ENGINEER
 R. J. McLaughlin
 No. 000375
 May 20, 2011
 PLANS APPROVAL DATE: _____
 THE ENGINEER SHALL BE RESPONSIBLE FOR THE CORRECTNESS OF THIS PLAN SHEET.

LEGEND
MARKERS
 ○ TYPE A WHITE NON-REFLECTIVE
 ⊙ TYPE AY YELLOW NON-REFLECTIVE
 ◻ TYPE G ONE-WAY CLEAR RETROREFLECTIVE
 4" YELLOW LINE
 DIRECTION OF TRAVEL

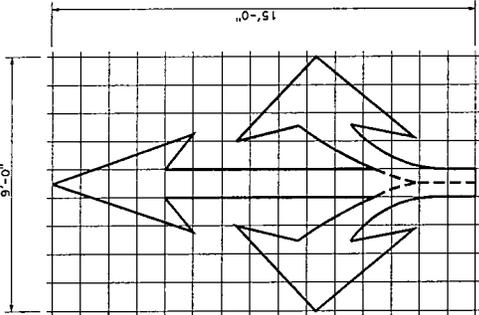


STATE OF CALIFORNIA
 DEPARTMENT OF TRANSPORTATION
PAVEMENT MARKERS AND TRAFFIC LINES TYPICAL DETAILS
 NO. SCALE
A20D

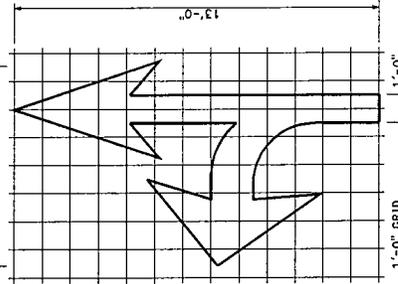
DATE	COUNTY	ROUTE	EAST MILES	SHEET NO.	TOTAL SHEETS

REGISTERED CIVIL ENGINEER
 Robert J. McLaughlin
 April 20, 2012
 PLANS APPROVAL DATE: 4/20/12
 THE ENGINEER SHALL BE RESPONSIBLE FOR THE ACCURACY AND COMPLETENESS OF THESE PLANS.

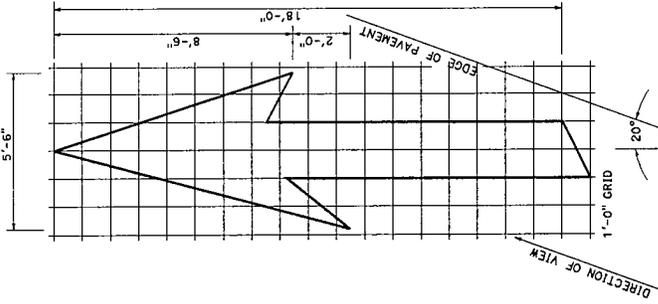
TO ACCOMPANY PLANS DATED _____



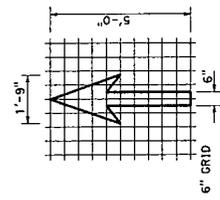
TYPE VIII ARROW
A=36 ft²



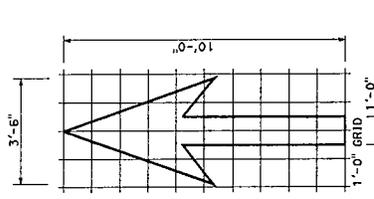
TYPE VII (L) ARROW
A=27 ft²
(For Type III (R) arrow, use mirror image)



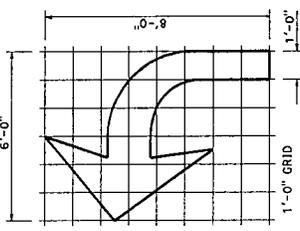
TYPE II ARROW
A=42 ft²
Right lane drop arrow
(For left lane, use mirror image)



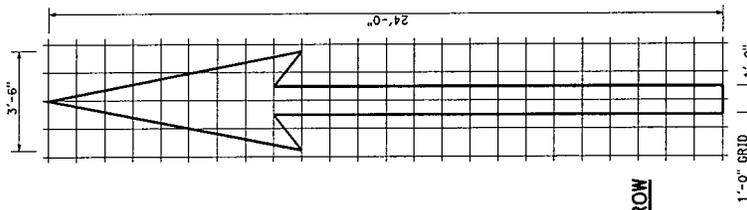
BIKE LANE ARROW
A=3.5 ft²



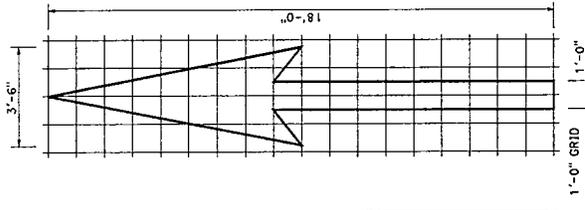
TYPE I 10'-0" ARROW
A=14 ft²



TYPE IV (L) ARROW
A=15 ft²
(For Type IV (R) arrow, use mirror image)



TYPE I 24'-0" ARROW
A=31 ft²



TYPE I 18'-0" ARROW
A=25 ft²

NOTE:
Minor variations in dimensions may be accepted by the Engineer.

TYPE V ARROW
A=33 ft²

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**PAVEMENT MARKINGS
ARROWS**
NO SCALE

RSP A24A DATED APRIL 20, 2012 SUPERSEDES STANDARD PLAN A24A
DATED MAY 20, 2011 - PAGE 13 OF THE STANDARD PLANS BOOK DATED 2010.

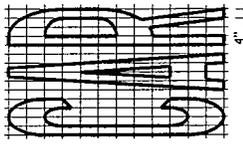
REVISED STANDARD PLAN RSP A24A

DISTRICT COUNTY ROUTE PROJECT SHEET TOTAL SHEETS
 REGISTERED CIVIL ENGINEER
 JULY 20, 2012
 THE STATE OF CALIFORNIA
 CIVIL ENGINEER
 NO. 33-13
 LICENSE NO. 40335
 REGISTERED CIVIL ENGINEER
 TO ACCOMPANY PLANS DATED _____
 THESE PLANS SHALL NOT BE RESPONSIBLE FOR ANY ERRORS OR OMISSIONS OR FOR THE CONSEQUENCES OF THEIR USE UNLESS SPECIFICALLY NOTED OTHERWISE ON THESE PLANS.

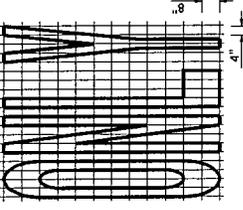
ITEM	ft±	ITEM	ft±
LANE	24	NO	14
POOL	23	BIKE	21
CAR	17	BUS	20
CLEAR	27	ONLY	22
KEEP	24	FWY	16



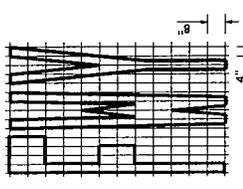
A=14 ft±



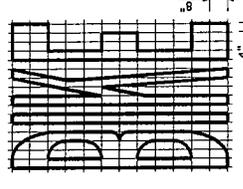
A=17 ft±



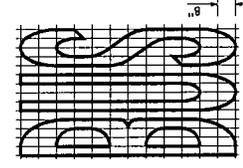
A=22 ft±



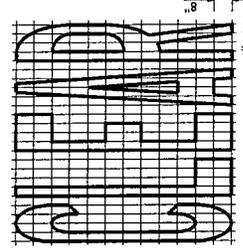
A=16 ft±



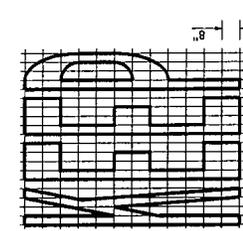
A=21 ft±



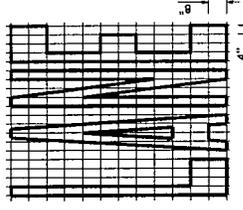
A=20 ft±



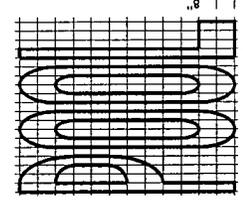
A=27 ft±



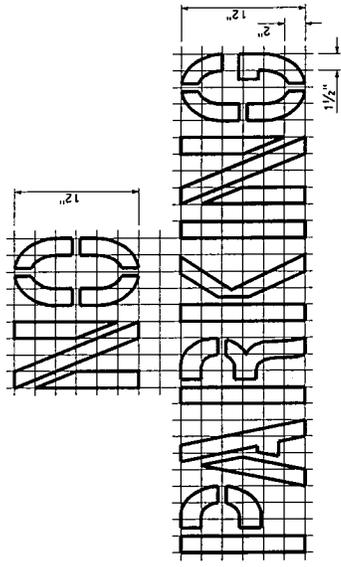
A=24 ft±



A=24 ft±



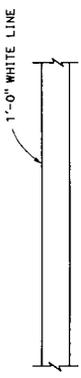
A=23 ft±



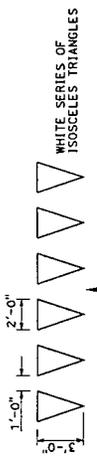
A=2 ft±
See Notes 6 and 7

NOTES:

- If a message consists of more than one word, it should read "UP", i.e., the first word should be nearest the driver.
- The space between words should be at least four times the height of the characters for low speed roads, but not more than ten times the height of the characters for high speed roads. The spacing should be appropriately where there is limited space because of local conditions.
- Minor variations in dimensions may be accepted by the Engineer.
- Portions of a letter, number or symbol may be separated by connecting segments not to exceed 2" in width.
- The words "NO PARKING" pavement marking is to be used for parking facilities. For typical locations or markings, see Standard Plans 99A and 990B.
- The words "NO PARKING" shall be painted in white letters no less than 1'-0" high and shall be located so that it is visible to traffic enforcement officials.



LIMIT LINE (STOP LINE)



YIELD LINE

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

**PAVEMENT MARKINGS
WORDS, LIMIT AND YIELD LINES**

NO SCALE

RSP A24E DATED JULY 20, 2012. SUPERSEDES STANDARD PLAN A24E DATED MAY 20, 2011 - PAGE 17 OF THE STANDARD PLANS BOOK DATED 2010.

DATE COUNTY ROUTE TOTAL PROJECT SHEET NO. TOTAL SHEETS

REGISTERED CIVIL ENGINEER

July 19, 2013

THIS DRAWING IS THE PROPERTY OF HILL & KNOWLTON AND SHALL NOT BE REPRODUCED OR COPIED FOR ANY OTHER PROJECT WITHOUT THE WRITTEN CONSENT OF HILL & KNOWLTON.

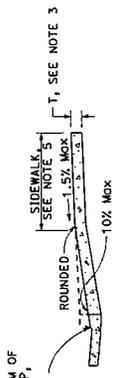
TO ACCOMPANY PLANS DATED _____

TABLE A

CURB TYPE	DIMENSIONS			CUBIC YARDS PER LINEAR FOOT
	"H1"	"H2"	"W2"	
A1-6	1'-2"	6"	7 1/2"	1 1/2"
A1-8	1'-4"	8"	8"	2"
A2-6	1'-0"	6"	2'-7 1/2"	1 1/2"
A2-8	1'-2"	8"	2'-8"	2"
A3-6	6"	5"	7 1/4"	1 1/4"
A3-8	8"	7"	7 3/4"	1 3/4"
B1-4	1'-0"	4"	7 1/2"	2 1/2"
B1-6	1'-2"	6"	9"	4"
B2-4	1'-0"	4"	2'-7 1/2"	2 1/2"
B2-6	1'-0"	6"	2'-9"	4"
B3-4	4"	3"	8"	2"
B3-6	6"	5"	8 1/2"	3 1/2"
D-4	10"	4"	1'-6"	1'-1"
D-6	1'-0"	6"	2'-2"	1'-9"

CURB QUANTITIES

TYPE	CUBIC YARDS PER LINEAR FOOT
A1-6	0.02585
A1-8	0.03084
A2-6	0.05903
A2-8	0.06379
A3-6	0.01036
A3-8	0.01435
B1-4	0.02185
B1-6	0.02970
B2-4	0.05515
B2-6	0.06171
B3-4	0.00641
B3-6	0.01074
D-4	0.05709
D-6	0.06804
E	0.06661

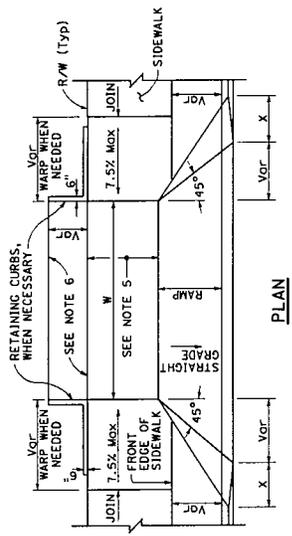


CASE A
Typical driveway, sidewalk not depressed

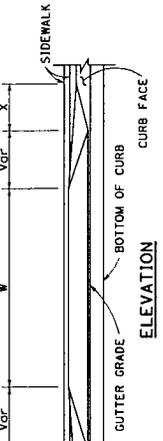


CASE B
Driveway with depressed sidewalk

SECTIONS

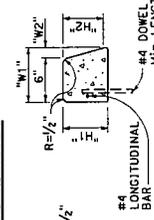


PLAN

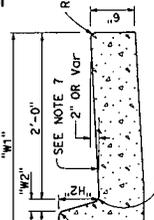


ELEVATION

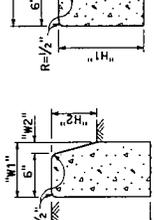
DRIVEWAYS



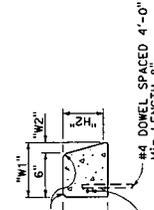
TYPE A1 CURBS
See Table A



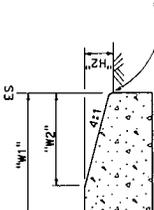
TYPE A2 CURBS
See Table A



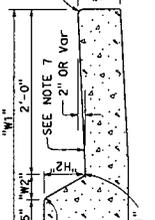
TYPE A3 CURBS
Superimposed on existing pavement
See Table A



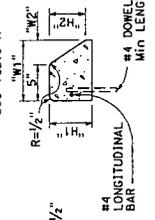
TYPE D CURBS
See Table A



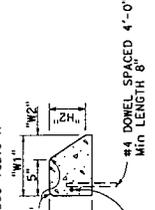
TYPE E CURB



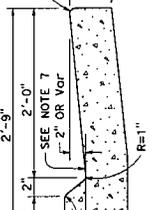
TYPE B1 CURBS
See Table A



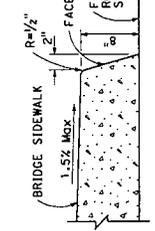
TYPE B2 CURBS
See Table A



TYPE B3 CURBS
Superimposed on existing pavement
See Table A



TYPE B4 CURBS



TYPE H CURB
On Bridges

NOTES:

- Case A driveway section typically applies.
- X=3'-0" except for curb heights over 10", where 4:1 slopes shall be used on curb slopes.
- Sidewalk and ramp thickness "T" at driveway shall be 4" for residential and 6" for commercial.
- Difference in slope of the driveway ramp and the slope of a line between the gutter and a point on the roadway 5'-0" from gutter line shall not exceed 15%. Reduce driveway ramp slope, not gutter slope, where required.
- Minimum width of clear passageway for sidewalk shall be 4'-2".
- Retaining curbs and acquisition of construction easement may be necessary for narrow sidewalks or curb heights in excess of 6".
- Across the pedestrian route at curb ramp locations, the gutter pan slope shall not exceed 1" of depth for each 2'-0" of width.

CURBS

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

CURBS AND DRIVEWAYS

NO SCALE

RSP A87A DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN A87A DATED MAY 20, 2011 - PAGE 119 OF THE STANDARD PLANS BOOK DATED 2010.

REVISED STANDARD PLAN RSP A87A

POST MILES SHEET TOTAL
TOTAL PROJECT NO. SHEETS

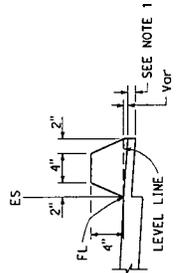
COUNTY ROUTE

REGISTERED CIVIL ENGINEER
Michael Johnson
Professional Engineer
No. 41189
Exp. 03-31-14
STATE OF CALIFORNIA

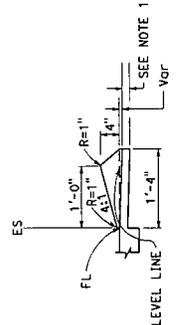
PLANS APPROVAL DATE
JULY 19, 2013

THESE PLANS SHALL NOT BE RESPONSIBLE FOR ANY DESIGN OR CONSTRUCTION DEFICIENCIES OR OMISSIONS UNLESS SPECIFICALLY NOTED OTHERWISE.

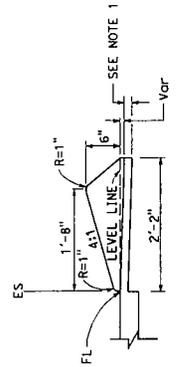
TO ACCOMPANY PLANS DATED _____



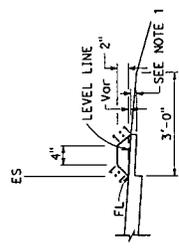
TYPE F
See Note 5



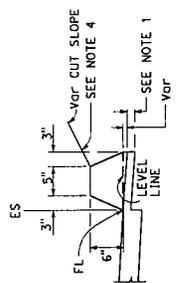
TYPE E
See Note 5



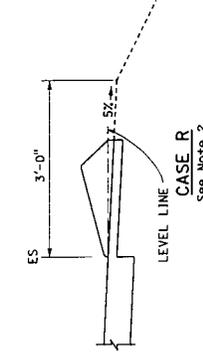
TYPE D
See Note 5



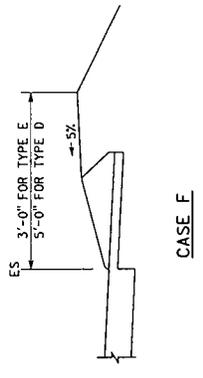
TYPE C
See Note 3



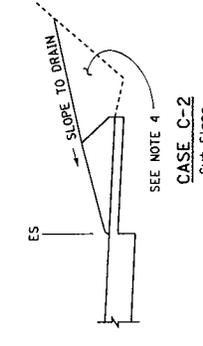
TYPE A
See Note 3



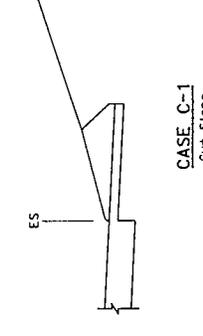
CASE R
See Note 2



CASE F
See Note 4



CASE C-2
Cut Slope



CASE C-1
Cut Slope

TYPE D AND E BACKFILL DETAILS

DIKE QUANTITIES

TYPE	CUBIC YARDS PER LINEAR FOOT
A	0.0135
C	0.0038
D	0.0283
E	0.0130
F	0.0066

Quantities based on 5% cross slope.

- NOTES:**
- For HMA shoulders only, extend top layer of HMA placed on the shoulder under the dike to the edge of the shoulder. For concrete shoulders, do not extend GFC under dike. See project plans for modified dike detail.
 - Case R applies to retrofit only projects where restrictive conditions do not provide enough width for Case F backfill.
 - Type A dike only to be used where restrictive slope conditions do not provide enough width to use Type D or Type E dike.
 - Fill and compact with excavated material to top of dike.
 - Use Type F dike, where dike is required with guard railing installations. See Revised Standard Plan RSP A77M for dike positioning details.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

HOT MIX ASPHALT DIKES

NO SCALE

RSP A87B DATED JULY 19, 2013 SUPERSEDES STANDARD PLAN A87B
DATED MAY 20, 2011 - PAGE 120 OF THE STANDARD PLANS BOOK DATED 2010.

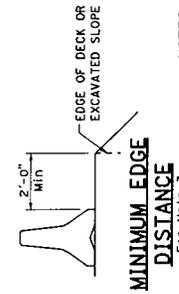
REVISED STANDARD PLAN RSP A87B

Sheet	COUNTY	ROUTE	POST MILES	SHEET TOTAL
			TOTAL PROJECT	No. SHEETS

Randall D. Heist
REGISTERED CIVIL ENGINEER

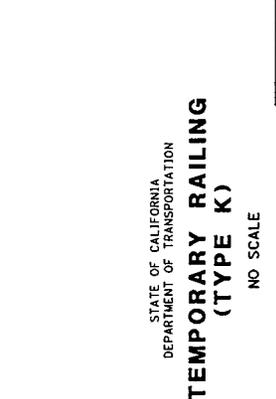
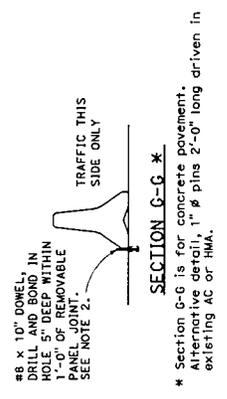
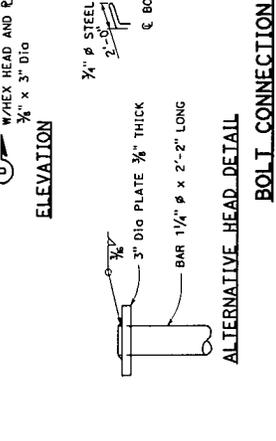
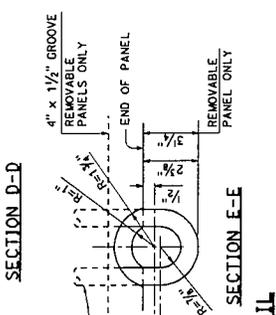
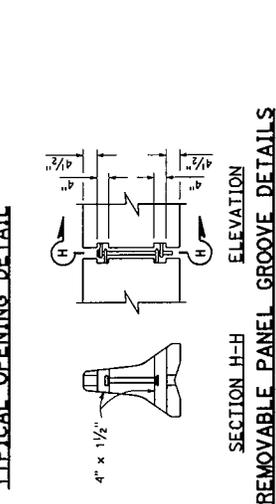
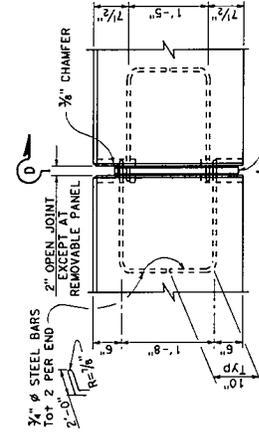
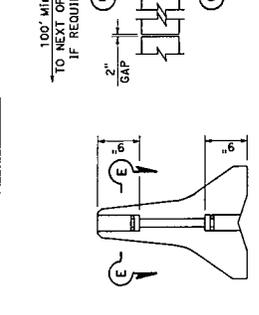
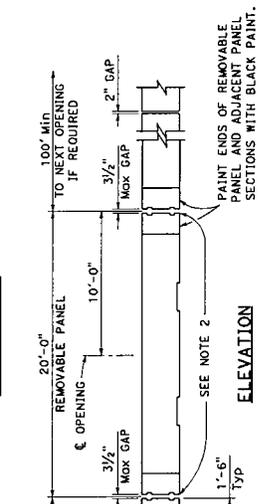
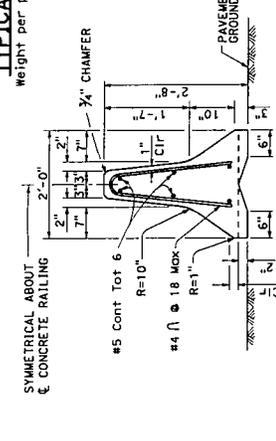
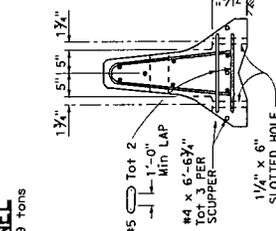
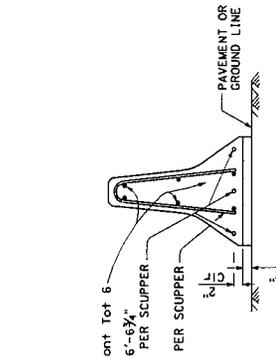
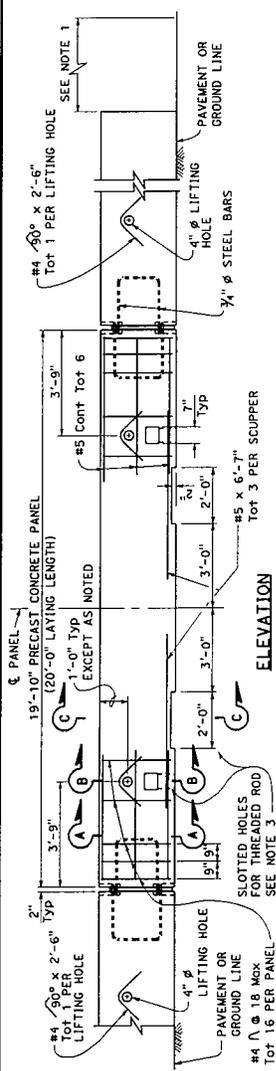
May 20, 2011
PLANS APPROVAL DATE

APPROVED BY: **APPROVAL STAMP**
Professional Engineer
No. 6-3021
Exp. 06/30/11
State of California
The State Seal of Office of the Engineer
The Engineer is responsible for the accuracy and completeness of the drawings and for the safety of the project.



NOTES:

- For end treatment, layout and crash cushions, where needed, see Project Plans or Special Provisions.
- All 3/2" gaps of removable panels are to be backed at the base with #8 x 10" dowel or 1" # pin each side of joint. See Section G-6.
- Where the offset distance from the exposed edge of deck to the closest edge of the temporary railing is less than 2'-0", attach each panel to deck slab with 1" # pins. The pins are to be attached to the panel and bond in drilled holes 6" deep in the deck slabs. See "Bridge Memo to Designers" Manual.



STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION
TEMPORARY RAILING
(TYPE K)

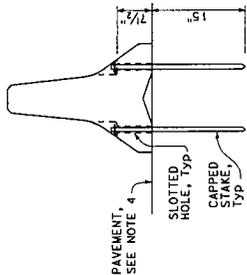
NO SCALE

T3A

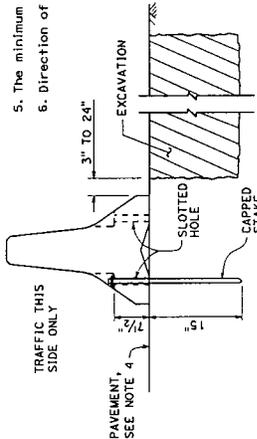
POST MILES	SHEET NO.	TOTAL SHEETS
COUNTY	ROUTE	PROJECT
RANDALL D. HIGHT REGISTERED CIVIL ENGINEER No. 529200 Exp. 6-30-11 (111) STATE OF CALIF.		
PLANS APPROVAL DATE: May 20, 2011 THE DESIGNER SHALL BE RESPONSIBLE FOR THE ACCURACY OF ALL DIMENSIONS AND NOTES ON THIS SHEET.		

NOTES:

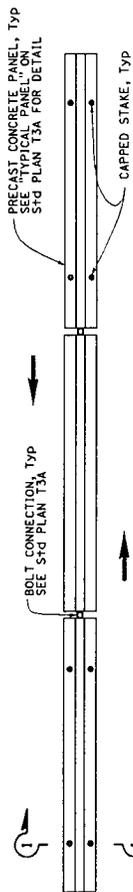
- Where Type K Temporary Railing is placed on curves and radii that are too severe to connect panels with bolted joints, the railing must be backed continuously with earth fill. See Section F-F.
- Where Type K Temporary Railing is placed on a temporary or long term barrier in two-way traffic on highways with less than 24" from the edge of traveled way, use four capped stakes per every other panel with end panels staked.
- Where Type K Temporary Railing is placed 3" to 24" from the edge of an excavation on highways, use two capped stakes per panel along the traffic side.
- Staked Type K Temporary Railing must be supported by at least 4" thick concrete, hot mix asphalt or existing asphalt concrete pavement.
- The minimum yield strength for the washer must be 60,000 psi.
- Direction of adjacent traffic indicated by →



SECTION I-I



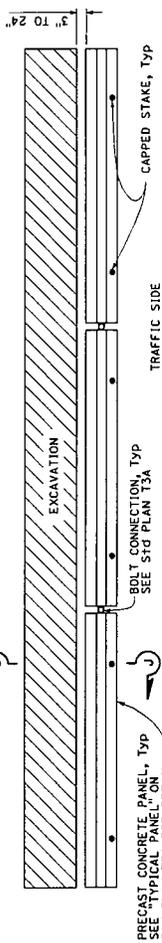
SECTION J-J



PLAN

RAILING STAKING CONFIGURATION FOR TWO-WAY TRAFFIC

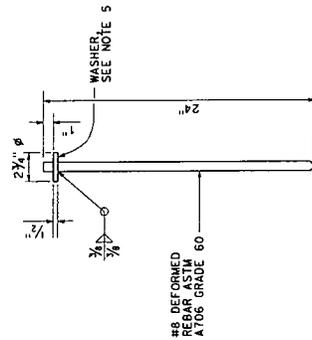
See Note 2



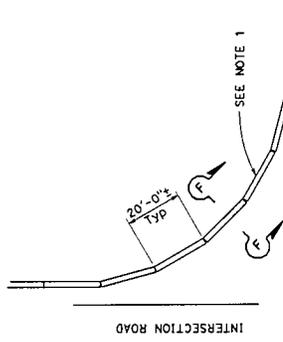
PLAN

RAILING STAKING CONFIGURATION ADJACENT TO AN EXCAVATION

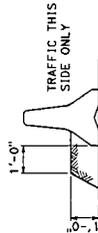
See Note 3



CAPPED STAKE DETAIL



CURVED LAYOUT



SECTION F-F

See Note 1

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TEMPORARY RAILING (TYPE K)

NO SCALE

**APPENDIX VI
CONSTRUCTION ACTIVITIES
STORM WATER GENERAL PERMIT
ORDER NO. 99-08-DWQ**

**NOTICE OF INTENT
AND
NOTICE OF TERMINATION
FOR ORDER NO. 99-08-DWQ**

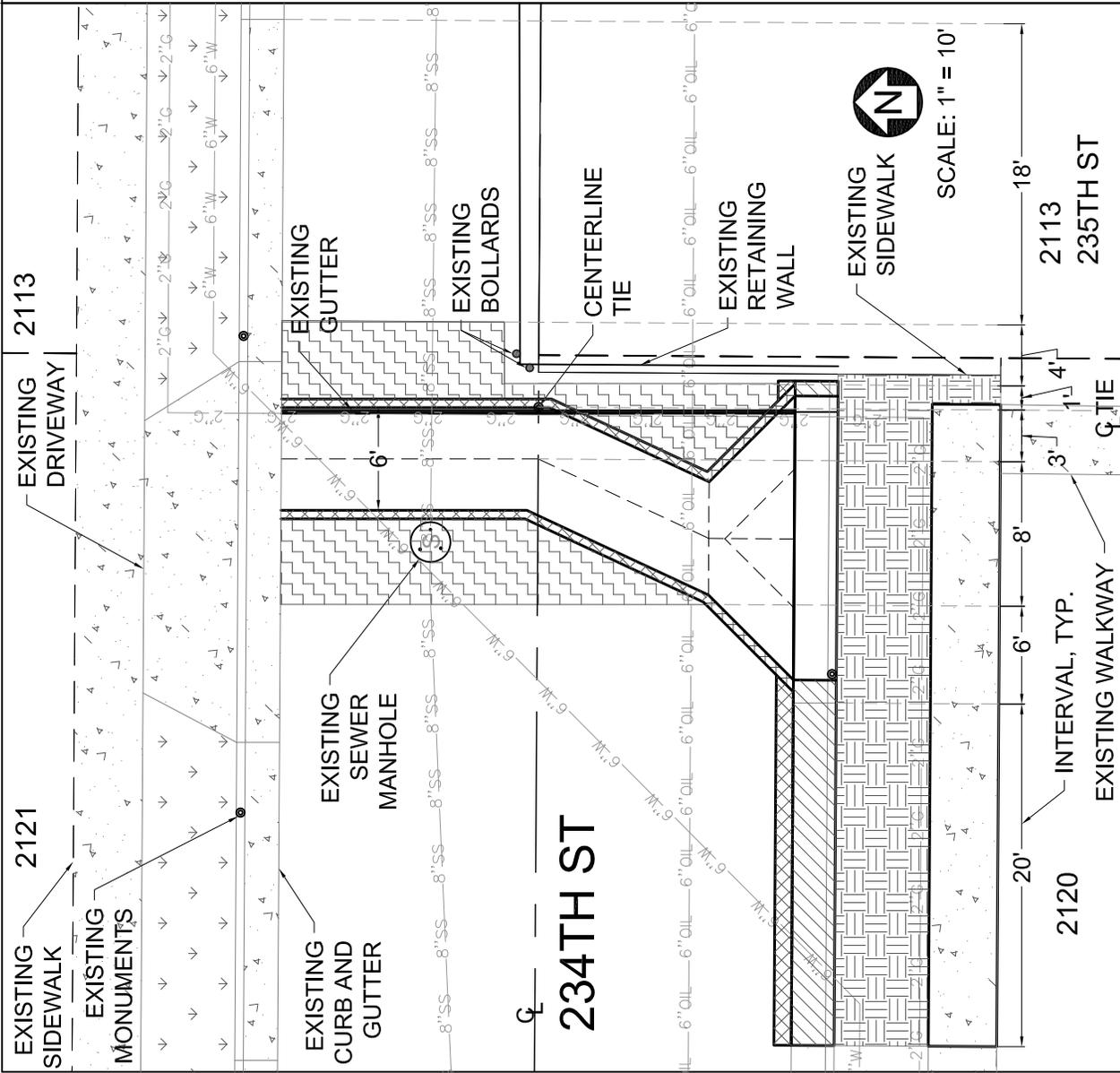
Additional information about these requirements and documents can be obtained at
http://www.waterboards.ca.gov/water_issues/programs/stormwater/gen_const.shtml#const_permit

**Go to the website and download these documents
and include in your specifications**

APPENDIX VII

**TYPICAL SURVEY POINTS FOR ADDITIONAL CROSS GUTTER IMPROVEMENT
AT 2120 W. 234TH STREET**

TOPOGRAPHIC SURVEY OF CROSS GUTTER IMPROVEMENT AT 2120 W. 234TH STREET (APPROX. 90')



LEGEND

	NEW AC		SLOT PAVE		EXST. NATIVE SOIL
	NEW X-GTR		EXST. GRASS		
	NEW C&G		EXST. PCC		

TOPOGRAPHIC SURVEY GENERAL NOTES:

1. THE DESIGN TOPOGRAPHIC SURVEY SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
2. THE SURVEY SHALL BE IN CONFORMANCE WITH THE STATE LAND SURVEYORS ACT AND BE PERFORMED UNDER THE DIRECT SUPERVISION OF A CA REGISTERED LAND SURVEYOR.
3. SURVEYOR SHALL BASE HORIZONTAL DATUM ON THE CALIFORNIA STATE PLANE COORDINATE SYSTEM, NAD83, ZONE V, US SURVEY FEET AND BASE THE VERTICAL DATUM ON THE CITY OR COUNTY BENCHMARK.
4. CROSS SECTION ELEVATIONS TAKEN AT INTERVALS AS SHOWN. THE SECTIONS WILL FOLLOW THIS FORMAT: PROPERTY LINE/RIGHT-OF-WAY, BACK OF WALK, TOP OF CURB, FLOW LINE, EDGE OF GUTTER/PAVEMENT, GRADE BREAKS AND/OR QUARTER POINTS AND FINISH SURFACE AT THE CENTERLINE. OBTAIN TOPOGRAPHIC INFORMATION 10-FEET BEYOND THE RIGHT-OF-WAY TO PROPERLY DESIGN TRANSITIONS AND DRIVEWAY/WALKWAY APPROACHES.
5. LOCATE ALL EXISTING IMPROVEMENTS WITHIN THE STREET RIGHT-OF-WAY (I.E. ABOVE GROUND UTILITIES, MANHOLES, VALVE COVERS, SIGNS, TREES, UTILITY POLES, CROSS GUTTERS, LOCAL DEPRESSIONS, CATCH BASINS, DRIVEWAY OPENINGS, SIDEWALKS, PARKWAY DRAINS, ETC).
6. REDUCE DATA TO A FORM SHOWING CENTERLINE STATIONING, OFFSET FROM CENTERLINE, AND ELEVATION.
7. PROVIDE 0.5 FT CONTOURS.
8. IDENTIFY IN THE SURVEY CENTERLINE TIES, ANY OTHER MONUMENTS, INCLUDING THOSE ON TOPS OF CURBS, TOPS OF BOLLARDS, SIDEWALK OR IN THE PARKWAY. [APPROXIMATELY FOUR (4)]
9. SURVEYOR SHALL PROVIDE TRAFFIC CONTROL AS REQUIRED DURING SURVEY OPERATIONS. LANE CLOSURES SHALL BE IN ACCORDANCE WITH CITY OF TORRANCE STANDARDS LOCATED AT THE FOLLOWING WEBSITE: [HTTP://WWW.TORRANCECA.GOV/13023.HTM](http://www.torranceca.gov/13023.htm) AND THE MUTCD 2012 CALIFORNIA SUPPLEMENT.

APPENDIX VIII

REFUSE AND RECYCLING COLLECTION DAY MAP

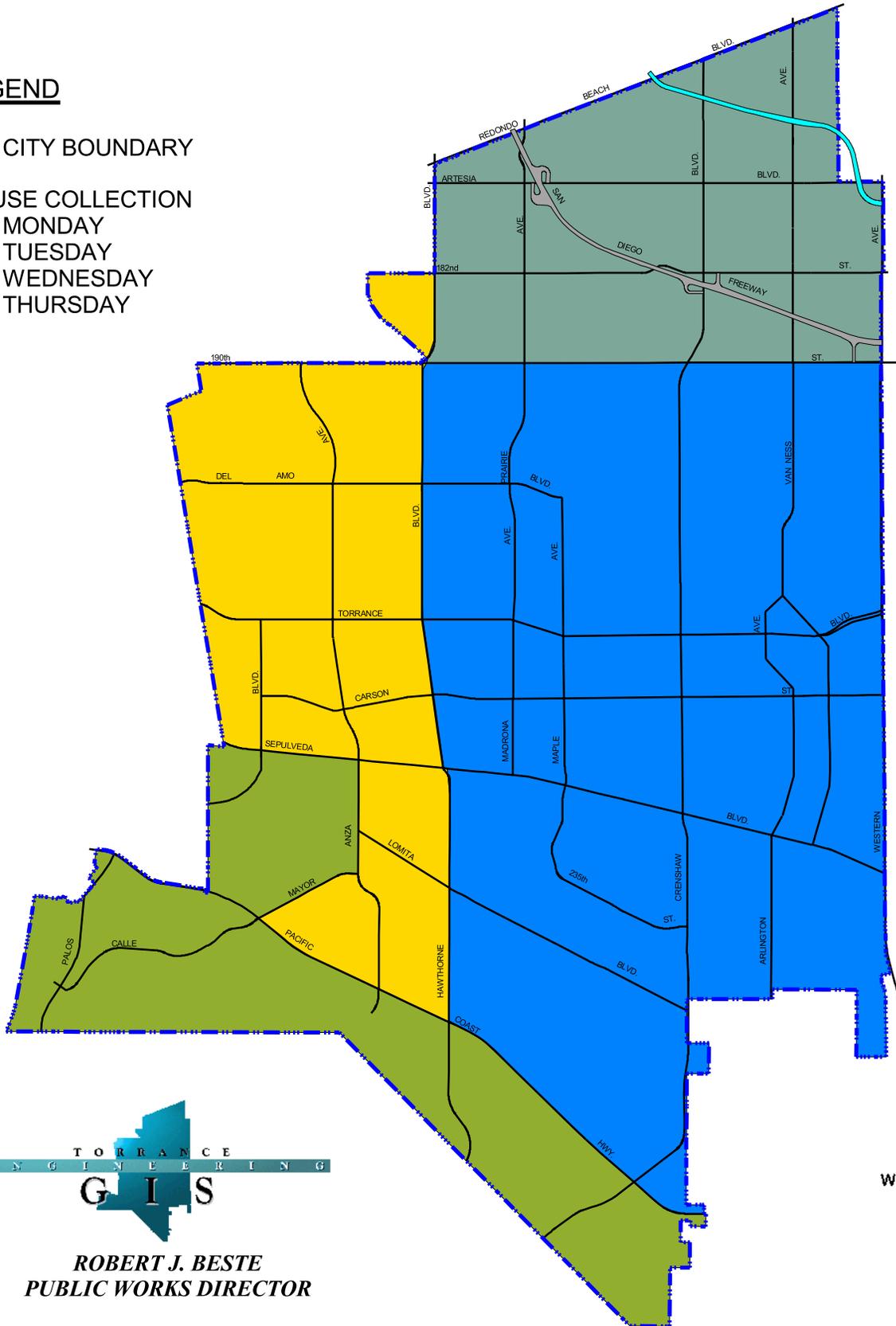
REFUSE AND RECYCLING COLLECTION DAY MAP

LEGEND

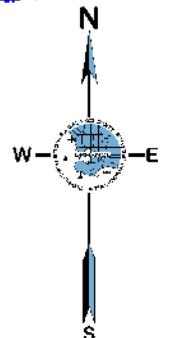
 CITY BOUNDARY

REFUSE COLLECTION

-  MONDAY
-  TUESDAY
-  WEDNESDAY
-  THURSDAY



ROBERT J. BESTE
PUBLIC WORKS DIRECTOR



NOT TO SCALE