

**SPECIFICATION NO. 743**

**For**

**CHAPMAN AVENUE STREET REHABILITATION  
FROM BROOKHURST STREET TO NELSON STREET  
CITY PROJECT NO. 7280  
DRAWING NO. A-1873;**

**SAPPHIRE STREET, FROM BELGRAVE AVE TO VANGUARD AVE.;  
HEALEY AVENUE AT LAMPLIGHTER STREET  
CITY PROJECT NO. 7280  
DRAWING NO. A-1880;**

**SANTA RITA AVE FROM LAMPLIGHTER ST TO WILD GOOSE ST;  
WILD GOOSE STREET FROM CHAPMAN AVE TO SANTA RITA AVE.  
CITY PROJECT NO. 7280  
DRAWING NO. A-1881.**

**Prepared by**

**CITY OF GARDEN GROVE  
PUBLIC WORKS DEPARTMENT  
ENGINEERING DIVISION  
11222 ACACIA PARKWAY  
GARDEN GROVE, CA 92842**

**APRIL, 2018**

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CITY PROJECT NO. 7280  
DRAWING NO. A-1880;**

**SANTA RITA AVE, FR. LAMPLIGHTER ST TO WILD GOOSE ST;  
WILD GOOSE STREET, FR. CHAPMAN AVE TO SANTA RITA AVE.  
CITY PROJECT NO. 7280  
DRAWING NO. A-1881**

Prepared by:



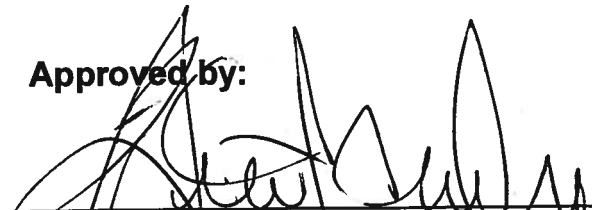
**Mike Santos, P.E.  
Associate Engineer  
Expiration Date 6/30/2019  
R.C.E. No. 77657**

Reviewed by:



**Mark P. Dphus, P.E.  
Senior Civil Engineer  
Expiration Date 06/30/19  
R.C.E. No.: 44242**

Approved by:



**Dan Candelaria, P.E., T.E.  
City Engineer  
Expiration Date 12/31/18  
R.C.E. No.: 52125**

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## **PROJECT DESCRIPTIONS**

### **ARTERIAL STREETS**

#### **CHAPMAN AVENUE STREET REHABILITATION FROM BROOKHURST STREET TO NELSON STREET CITY PROJECT NO. 7280 DRAWING NO. A-1873;**

This project is approximately 3/4 mile segment of arterial street pavement rehabilitation. The project generally consists of:

- Roadway rehabilitation by full depth reclamation and cement treatment;
- Full depth reclamation;
- To achieve the required reclaimed structural section for CTB, cold mill existing 6" to 8" AC, preserve, and temporarily store AC material; excavate and haul out excess subgrade/dirt material underneath; then haul the preserved existing AC material back to the project site for pulverization and CTB process (this happens on areas where existing to proposed grades are being lowered by 3"-4" or more;
- Asphalt paving;
- Repair of AC pavement on some of the intersection approaches either by AC remove & replace or mill & fill;
- Replacement of PCC sidewalk, cross gutter, curb & gutter, drive approach, tree wells and accessible curb ramps;
- Adjustment of utility covers to finish grade; some SD & SS manhole frame and cover will be removed and replaced per plan;
- Installation of loops for Redflex cables;
- Installation of traffic striping, raised pavement markers, and signage;
- Reestablishment of centerline ties and monuments;
- Other items not mentioned above that are required by the plans and specifications.

## **PROJECT DESCRIPTIONS**

### **RESIDENTIAL STREETS**

#### **SAPPHIRE STREET FROM BELGRAVE AVE TO VANGUARD AVE.; HEALEY AVENUE AT LAMPLIGHTER STREET CITY PROJECT NO. 7280 DRAWING NO. A-1880**

Sapphire Street is approximately 850 LF segment and Healey Ave is a very short segment, approximately 160 LF consisting of a cul-de-sac and both are categorized as residential street. The project generally consists of:

- Roadway rehabilitation by full depth reclamation and cement treatment;
- Full depth reclamation;
- Asphalt paving;
- Repair a segment of AC pavement through mill & fill;
- Construction of accessible curb ramps;
- Adjustment of utility covers to finish grade;
- Installation of traffic striping, and raised pavement markers;
- Reestablishment of centerline ties and monuments;
- Remove existing and construct PCC sidewalk
- Other items not mentioned above that are required by the plans and specifications.

#### **SANTA RITA AVE, FR. LAMPLIGHTER ST TO WILD GOOSE ST; WILD GOOSE STREET, FR. CHAPMAN AVE TO SANTA RITA AVE. CITY PROJECT NO. 7280 DRAWING NO. A-1881**

Santa Rita Avenue is approximately 920 LF segment and Wild Goose Street is approximately 280 LF segment. These streets are adjacent to Patton Elementary School. Although the project may fall on summertime, there may be intermittent school activities that need to be coordinated with the school. The project generally consists of:

- Roadway rehabilitation by full depth reclamation and cement treatment;
- Full depth reclamation;
- Asphalt paving;
- Repair a segment of AC pavement through complete reconstruction;
- Installation of truncated domes on existing accessible curb ramps;
- Adjustment of utility covers to finish grade;
- Installation of traffic striping, and raised pavement markers;
- Installation of newer school signs.
- Reestablishment of centerline ties and monuments;
- Other items not mentioned above that are required by the plans and specifications.

**INSTRUCTIONS TO BIDDERS**

Subject: **CHAPMAN AVENUE, SAPPHIRE STREET,  
HEALEY AVENUE, SANTA RITA AVENUE,  
WILD GOOSE STREET REHABILITATIONS,  
CITY PROJECT NO. 7280**

**Steven R. Jones**  
Mayor

**Phat Bui**  
Mayor Pro Tem - District 4

**Kris Beard**  
Council Member - District 1

**John R. O'Neill**  
Council Member - District 2

**Thu-Ha Nguyen**  
Council Member - District 3

**Stephanie Klopfenstein**  
Council Member - District 5

**Kim Bernice Nguyen**  
Council Member - District 6

Gentlemen:

Enclosed are the plans, specifications, and proposal and contract forms for the subject project. Please submit your bid on the proposal form provided, page **13 through 24** (green and pink inserts), and include the Designation of Subcontractors and appropriate affidavit properly filled out.

The remaining documents need not be returned since the fee paid for them is not refundable. Two (2) sets of plans and specifications will be furnished to the successful bidder and one (1) set each to all designated subcontractors, free of charge, after award of contract. Additional copies will be provided at Contractor's expense.

The Contractor is advised that this project is a combination of two (2) separate projects with two (2) separate working day requirements combined into one (1) Contract. Two (2) "Notice to Proceed" will be issued for the entire project. The Chapman Avenue project shall be completed within **sixty (60) working days**. The rest of the combined residential streets shall be completed within **forty five (45) working days**. The primary goal is to complete all work before school begins in the fall. All items of work must be reflected in the project schedule submittal.

The Contractor will be required to pay the latest prevailing wage rates **per the Davis-Bacon Prevailing Wage Regulations** as established by the State of California, Department of Industrial Relations. Certified weekly payroll reports, monthly utilization and Davis-Bacon Regulation reports for the prime and all subcontractors will be required on this project.

The bid period for this project is 3 weeks. Any questions regarding this project should be directed to Mike Sahtos at (714) 741-5179.

Respectfully,



Dan Candelaria, P.E., T.E.  
City Engineer  
Public Works Department

## **SECTION 1 - NOTICE TO CONTRACTORS**

### **A - INFORMATION FOR BIDDERS**

1. Preparation of Bid Form: Bids must be submitted on the prescribed form. All blank spaces for bid prices and lump sum price for which the bid is made, must be filled in, in both words and figures. The signature of all persons signing shall be in longhand. The completed bid form shall be without alterations or erasures.

All bids must be submitted in sealed envelopes bearing on the outside the name of the bidder, his address, and the name of the project for which the bid is submitted.

It is the sole responsibility of the bidder to see that their bid is received in proper time. Any bid received after the scheduled closing time for receipt of bids will be returned to the bidder unopened.

Bids shall not contain any recapitulation of the work to be done. Alternative proposals will not be considered. No oral, telephonic or telegraph modifications will be considered.

Before submitting bids, bidders and their sub-contractors shall be licensed in accordance with the provisions of the Business and Professions Code.

The bidder shall state in words and figures, the unit prices or the specific sums, as the case may be, for which he/she proposes to perform the work as required by the specifications. In case words and figures do not agree, the words shall govern and the figures shall be disregarded. If the unit price and the total amount for any item are not in agreement, the unit price alone shall be considered as representing the bidder's intention and the totals will be corrected to conform.

Failure by Contractor to fill in appropriate blanks in bid proposals may cause rejection of his/her proposal at the discretion of the City Engineer.

2. Examination of Site, Drawings, etc.: Each bidder shall visit the site of the proposed work. He shall fully acquaint himself with all conditions relating to construction and labor involved so that he may fully understand the facilities, difficulties and restrictions attending the execution of the work under the contract. Bidders shall thoroughly examine any form, instrument, addendum or other document and be familiar with the drawings and specifications. The failure or omission of any bidder to receive or to examine any form, instrument, addendum or other document or to visit the site and acquaint with existing conditions shall in no way relieve any bidder from obligation with respect to their bid or to the contract. The submission of a bid shall be taken as prima facie evidence of compliance with this section.
3. Withdrawal of Bids: Any bidder may withdraw their bid, either personally or by telegraphic or written request, at any time prior to the scheduled closing time for receipt of bids.
4. Agreement and Bonds: The construction agreement, which the successful bidder, as Contractor, will be required to execute and the forms and amounts of the bonds which it will be required to furnish at the time of the execution of the Agreement, are included in the Contract Documents, and should be carefully examined by the bidder. The Agreement and the Bonds will be executed in one original.

## **SECTION 1 - NOTICE TO CONTRACTORS** (Continued)

5. Interpretation of Drawings and Documents: If any person contemplating submitting of a bid for the proposed contract is in doubt as to the meaning of any part of the plans, specifications, or other proposed omissions from the drawings, etc., he may submit to City of Garden Grove (City) a written request for an interpretation or correction thereof. The person submitting the request will be responsible for its prompt delivery.

Any interpretation by addendum duly issued and a copy of such addendum will be mailed or delivered to each person receiving a set of documents. City will not be responsible for any other explanation or interpretation of the proposed documents.

6. Opening of Bids: Bids will be opened **at 11:00 am on May 30, 2018** and publicly read aloud at the time set in the **ADVERTISEMENT FOR BIDS** in the 1st floor South Conference Room at City Hall.
7. Bidder's Security: If a bidder to whom an award is made, fails or refuses to execute the contract and furnish the required bonds, all within the time stated, said bidder's bond or check and the monies represented thereby, or the cash guaranty, shall be and remain the property of the City and shall be subject to deposit with the finance director of the City as other monies belonging to the City.
8. Other Requirements: The bidder's attention is specifically directed to the requirements of the Contract Documents with reference to insurance, maintenance of facilities at the site of the project, and the inspection and testing of materials.
9. Award of Contract: The Contract will be awarded to the lowest responsible bidder, or bidders, complying with these instructions and with the **ADVERTISEMENT FOR BIDS**. City, however, reserves the right to reject any or all bids and to waive any informality in the bids received.
10. Lowest Responsible Bidder: In selecting the lowest responsible bidder, consideration will be given not only to the financial standing, but also to the general competence of the bidder for the performance of the work covered by the proposal. To receive favorable consideration, a bidder must present evidence that he has successfully performed similar work of compatible magnitude or submit other evidence satisfactory to the City that he or his associates are personally competent to manage the proposed undertaking and to carry it forward to a successful conclusion. Professional integrity and honesty of purpose shall be essential requirements.
11. Bidders Interested in More than One Bid: No person, firm, or corporation shall be allowed to make, or file, or be interested in more than one bid for the same work unless alternate bids are called for. A person, firm, or corporation who has submitted a sub-proposal to a bidder or who has quoted prices of materials to the bidder is not thereby disqualified from submitting a sub-proposal or quoting prices to other bidders.
12. Non-Collusion Affidavit: The City reserves the right, before any award of the contract is made, to require any bidder to whom it may make an award of the principal contract to execute a Non-Collusion Affidavit.

City also reserves the right to require that the principal Contractor, before awarding any subcontract, secure a Non-Collusion Affidavit from the proposed subcontractor.



**SECTION 1 - NOTICE TO CONTRACTORS** (Continued)

13. Non-Discrimination Policy: City hereby notifies all bidders that it will affirmatively insure that in any contract entered into pursuant to this advertisement, minority business enterprises will be afforded full opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color or national origin in consideration for an award.

Minimum wage rates for this project as predetermined by the Secretary of Labor are set forth in the special provisions. If there is a difference between the minimum wage rates predetermined by the Secretary of Labor and the prevailing wage rates determined by the state for similar classifications of labor, the Contractor and subcontractors shall pay not less than the higher wage rate.

Pursuant to Section 1773 of the Labor Code, the general prevailing wage rates in the county in which the work is to be done has been determined and the Department has listed these wage rates in the Department of Transportation publication entitled Equipment Rental Rates and General Prevailing Wage Rates.

14. Effective July 1, 2014, a prime contractor is required to include the license number of a listed subcontractor which submitting a bid on any public work in California. The license number should be included in Section 3 – Designation of Subcontractors/References.

**SECTION 1 - NOTICE TO CONTRACTORS** (Continued)

**B - ADVERTISEMENT FOR BIDS**

1. Sealed Bids, marked “ **VARIOUS CITY STREETS REHABILITATION**” City Project No. **7280** will be received by the City Clerk in the City Hall, 11222 Acacia Parkway, Garden Grove, California until **11:00 AM**, on **May 30, 2018**, at which time they will be publicly opened in the 1-South Conference Room in City Hall (1st floor).
2. The plans, specifications and contract documents may be purchased from SABP Reprographics for the price of one hundred dollars (\$100). The price does not include tax or shipping if needed. The documents may be made available for “will call” or shipped directly to you. Please contact:

SABP Reprographics  
2372 Morse Avenue  
Irvine, CA 92614  
www.sabp.com  
949-756-1001 (ask for the Digital Bond Department)  
Alternatively, you can e-mail your order to [workorder@sabp.com](mailto:workorder@sabp.com)
3. In conformance with Section 37931 of the Government Code, all bids shall be presented under sealed cover on the proposal form provided and accompanied by one of the following forms of bidder's security:
  - a. Cash.
  - b. Cashier's check made payable to the City of Garden Grove.
  - c. A certified check made payable to the City of Garden Grove.
  - d. A bidder's bond executed by an admitted surety insurer, prepared on the forms provided and made payable to the City of Garden Grove.
4. The security shall be in an amount equal to at least 10 percent of the amount bid. A bid shall not be considered unless one of the forms of bidder's security is enclosed with it.
5. A Surety Bond for payment of Labor and Material in the amount of 100 percent of the estimated total contract price and Faithful Performance Bond in the amount of 100 percent of the total contract price, both prepared on the forms provided, will be required at the time of signing the contract agreement.
6. Attention is directed to Section 3-1.01 of the Standard Specifications regarding the award of contract to the lowest responsible bidder.

**The City reserves the right to reject the bid of any or all Bidders for any reason and to waive any informality or irregularity in the bids received. The City also reserves the right to withdraw this Invitation for Bids at any time for any reason without prior notice and the City makes no representations that the contract will be awarded to any Bidder responding to this Invitation for Bids.**

**The City also reserves the right to determine whether a Bidder is a responsible Bidder based on the Bidder's trustworthiness, quality, fitness, capacity, experience, and ability to perform as required under this Invitation for Bids. Any Bidder, or any officer of such Bidder, or an employee of such Bidder who has a proprietary interest in such Bidder,**

**SECTION 1 - NOTICE TO CONTRACTORS** (Continued)

who has been disqualified, removed, or otherwise prevented from bidding on, or completing a federal, state, or local project because of a violation of law or a safety regulation, may be determined to be a non-responsible Bidder.

A designee or designees of the Public Works Director shall perform the evaluation of a Bidder's responsibility. When the Public Works Director's designee determines that a Bidder is disqualified as non-responsible, the Public Works Director's designee shall mail to the affected Bidder the disqualification determination, the basis for the determination, and any supporting evidence that the Public Works Director's designee received or relied on relating to such determination.

Any Bidder, who disagrees or disputes the non-responsible determination, may appeal such rating or determination. Such appeal may only be taken by filing a written notice of appeal with the City Manager within five working days after the Public Works Director's designee has mailed notice of the rating or determination. Within five working days of the receipt of an appeal, the City Manager, or a designee of the City Manager who has not been involved in the evaluation of qualifications of contractors for the subject project, shall conduct a hearing on the appeal. During the hearing, the affected Bidder shall have the opportunity to rebut any evidence used as a basis for the non-responsible determination and to present evidence to the City Manager or the City Manager's designee hearing the appeal as to why the Bidder should be found responsible. Within five working days of the conclusion of the hearing, the City Manager or the General Manager's designee hearing the appeal shall issue a written decision on the appeal and such decision shall be final.

7. The City Council has hereto determined the prevailing rate of per diem wages for the doing of said work, which said scale of wages is set forth by Resolution No. 5730 79 of the City Council, said resolution being on file in the office of the City Clerk of the City of Garden Grove, California, and is hereby made a part of and is incorporated herein.
8. Apprentices may be employed in conformity with Section 1777.5 and 1777.6 of the California Labor Code. Every apprentice shall be paid the standard wage paid to apprentices under the regulations of the trade at which he is employed. Information relative to employment of apprentices shall be obtained from the Director of Industrial Relations, who is the Administrative Officer of the California Apprenticeship Council.
9. Copies of all collective bargaining agreements relating to the work as set forth in the aforementioned Labor Code are on file and available for inspection in the office of the State of California, Department of Industrial Relations, Division of Labor Statistics and Research.
10. In order to help eliminate combinations or schemes, which restrain free competition in the procurement of bids on public construction projects and, in compliance with a request from the Department of Justice, **the completion of the "Questionnaire to General Contractors" is mandatory for a valid bid.** Said questionnaire is found in Section 4 of this document and is to be returned with bid proposal.
11. It is the policy of the City of Garden Grove to take positive steps to maximize the utilization of minority business enterprises in all contract activity administered by the City.

**SECTION 1 - NOTICE TO CONTRACTORS** (Continued)

The Contractor will utilize his best efforts to carry out this policy in the award of his subcontracts to the fullest extent consistent with the efficient performance of this contract. As used in this contract, the term "minority business enterprise" means a business, at least 50 percent of which is owned by minority group members or, in the case of publicly owned businesses, at least 51 percent of the stock is owned by minority group members. For the purpose of this definition, minority group members are black, Hispanics, Asians, Native Americans, Alaskans, or Pacific Islanders.

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

**No contractor or subcontractor may be awarded a contract for public work on a public works project unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5.**

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

**SECTION 1 – NOTICE TO CONTRACTORS**

**ENGINEER'S QUANTITY ESTIMATE  
FOR  
CHAPMAN AVENUE STREET REHABILITATION  
FROM BROOKHURST STREET TO NELSON STREET  
CITY PROJECT NO. 7280  
DRAWING NO. A-1873**

<u>ITEM</u>	<u>DESCRIPTION OF WORK</u>	<u>QUANTITY</u>	<u>UNIT</u>
1.	Mobilization (including clearing & grubbing)	1	LS
2.	Traffic Control	1	LS
3.	Construction surveying	1	LS
4.	SWPPP	1	LS
5.	Cold milling & preservation, stockpiling & re-use existing AC to a depth of 6" to 8", approximately from STA 23+00 to STA 35+00	72,000	SF
6.	Full Depth Reclamation of AC/AB pavement (varying depth per plan); Cement treat 0.90' with 5% cement content. Allow CTB to cure and microcrack.	268,800	SF
7.	AC Base Course (5" thick)	8,900	TN
8.	ARHM Surface course (2" thick)	3,600	TN
9.	Excavate and remove existing 6" AC over 12" AB pavement	1,800	SF
10.	Recompact subgrade and install 0.9' thick crushed aggregate base	120	TN
11.	Cold mill existing AC (2" thick)	2,000	SF
12.	Remove existing and construct PCC sidewalk	4,500	SF
13.	Remove existing and construct PCC curb and gutter	450	LF
14.	Remove existing and construct PCC cross gutter	700	SF
15.	Remove existing and construct access ramp	28	EA
16.	Adjust Sewer manhole frame and cover to grade	21	EA
17.	Adjust Storm Drain manhole frame and cover to grade	10	EA
18.	Adjust Water Valve & Monument Well frame and cover to grade	32	EA
19.	Traffic signing, striping, pavement markings and markers; paint curbs; removal of existing traffic loops	1	LS
20.	Install redflex loops	2	EA
21.	Furnish and install bio clean round curb inlet filter	6	EA
22.	Surface Profilograph	1	LS

The foregoing quantities are approximately only, being given as a basis for the comparison of bids, and the City of Garden Grove does not expressly or by implication, agree that the actual amount of work will correspond therewith, but reserves the right to increase or decrease the amount of any class or portion of the work as may be deemed necessary or expedient by the Engineer.

**ENGINEER'S QUANTITY ESTIMATE  
FOR  
SAPPHIRE ST. FROM BELGRAVE AVE TO VANGUARD AVE.;  
HEALEY AVENUE, AT LAMPLIGHTER STREET  
CITY PROJECT NO. 7280  
DRAWING NO. A-1880**

<u>ITEM</u>	<u>DESCRIPTION OF WORK</u>	<u>QUANTITY</u>	<u>UNIT</u>
1.	Mobilization (including Clearing and Grubbing)	1	LS
2.	Traffic Control	1	LS
3.	Construction Surveying	1	LS
4.	Full Depth Reclamation of existing AC/AB pavement to a depth of 0.83'; Cement treat 0.50' with 5% cement content. Allow CTB to cure and microcrack	40,000	SF
5.	Cold mill existing AC (2")	1,800	SF
6.	AC Base Course (2")	550	TON
7.	ARHM Surface Course (2")	560	TON
8.	Construct access ramp	6	EA
9.	SWPPP	1	LS
10.	Traffic Striping and Signing	1	LS
11.	Adjust Sewer Manhole Frame and Cover to Grade	4	EA
12.	Adjust Water Valve to Grade	2	EA
13.	Remove existing and construct PCC sidewalk	150	SF

The foregoing quantities are approximately only, being given as a basis for the comparison of bids, and the City of Garden Grove does not expressly or by implication, agree that the actual amount of work will correspond therewith, but reserves the right to increase or decrease the amount of any class or portion of the work as may be deemed necessary or expedient by the Engineer.

**ENGINEER'S QUANTITY ESTIMATE  
FOR  
SANTA RITA AVE, FR. LAMPLIGHTER ST TO WILD GOOSE ST;  
WILD GOOSE STREET, FR. CHAPMAN AVE TO SANTA RITA AVE.  
CITY PROJECT NO. 7280  
DRAWING NO. A-1881**

<u>ITEM</u>	<u>DESCRIPTION OF WORK</u>	<u>QUANTITY</u>	<u>UNIT</u>
1.	Mobilization (including Clearing and Grubbing)	1	LS
2.	Traffic Control	1	LS
3.	Construction Surveying	1	LS
4.	Full Depth Reclamation of existing AC/AB pavement to a depth of 0.83'; Cement treat 0.50' with 5% cement content. Allow CTB to cure and microcrack	41,800	SF
5.	Excavate and remove existing 4" AC over 6" AB pavement	700	SF
6.	Crushed Aggregate Base (6")	30	TON
7.	AC Base Course (2")	530	TON
8.	ARHM Surface Course (2")	530	TON
9.	SWPPP	1	LS
10.	Traffic Striping and Striping	1	LS
11.	Adjust Sewer Manhole Frame and cover to Grade	4	EA
12.	Adjust Water Valve to Grade	6	EA
13.	Furnish and Install Truncated dome to existing curb ramp	7	EA

The foregoing quantities are approximately only, being given as a basis for the comparison of bids, and the City of Garden Grove does not expressly or by implication, agree that the actual amount of work will correspond therewith, but reserves the right to increase or decrease the amount of any class or portion of the work as may be deemed necessary or expedient by the Engineer.

**SECTION 2 – CONTRACTOR’S PROPOSAL**

**SECTION 2 - CONTRACTOR'S PROPOSAL**

CONTRACTOR'S NAME: \_\_\_\_\_

THE HONORABLE MAYOR AND CITY COUNCIL  
CITY OF GARDEN GROVE  
11222 ACACIA PARKWAY  
GARDEN GROVE, CALIFORNIA 92842

SUBJECT PROJECT: **CHAPMAN AVENUE STREET REHABILITATION  
FROM BROOKHURST STREET TO NELSON STREET,  
CITY PROJECT NO. 7280**

Gentlemen:

The undersigned, having carefully examined the Plans and Specifications for the above subject project and having personally visited the site of the work and been made familiar with the conditions, HEREBY PROPOSE to furnish all labor, materials, equipment and transportation, and do all the work required to complete the said work in accordance with the said Plans and Specifications for the unit prices named in the following bid proposal:

**BID PROPOSAL**

ITEM	APPROX. QUANTITY	ITEM WITH UNIT PRICE WRITTEN IN WORDS	UNIT PRICE	ITEM TOTAL
1.	1 LS	Mobilization (including Clearing and Grubbing) _____ _____	\$ _____	\$ _____
Per Lump Sum				
2.	1 LS	Traffic Control _____ _____	\$ _____	\$ _____
Per Lump Sum				
3.	1 LS	Construction Surveying _____ _____	\$ _____	\$ _____
Per Lump Sum				
4.	1 LS	SWPPP _____ _____	\$ _____	\$ _____
Per Lump Sum				
5.	72,000 SF	Cold milling & preservation, stockpiling & re-use existing AC to a depth of 6" to 8", approximately from STA 23+00 to STA 35+00 _____ _____	\$ _____	\$ _____
Per Square Feet				



**SECTION 2 – CONTRACTOR’S PROPOSAL**

ITEM	APPROX. QUANTITY	ITEM WITH UNIT PRICE WRITTEN IN WORDS	UNIT PRICE	ITEM TOTAL
6.	268,800 SF	Full Depth Reclamation of existing AC/AB pavement (varying depth per plan); Cement treat 0.90' with 5% cement content. Allow CTB to cure and microcrack.		
		_____	\$ _____	\$ _____
		Per Square Foot		
7.	8,900 TN	AC Base Course (5" thick)		
		_____	\$ _____	\$ _____
		Per Ton		
8.	3,600 TN	ARHM Surface Course (2" thick)		
		_____	\$ _____	\$ _____
		Per Ton		
9.	1,800 SF	Excavate and remove existing 6" AC over 12" AB pavement		
		_____	\$ _____	\$ _____
		Per Square Foot		
10.	120 Ton	Recompact subgrade and install 0.9' thick aggregate base		
		_____	\$ _____	\$ _____
		Per Ton		
11.	2,000 SF	Cold mill existing AC (2" thick)		
		_____	\$ _____	\$ _____
		Per Square Foot		
12.	4,500 SF	Remove existing and construct PCC sidewalk		
		_____	\$ _____	\$ _____
		Per Square Foot		
13.	450 LF	Remove existing and construct PCC curb and gutter		
		_____	\$ _____	\$ _____
		Per Linear Foot		

**SECTION 2 – CONTRACTOR’S PROPOSAL**

ITEM	APPROX. QUANTITY	ITEM WITH UNIT PRICE WRITTEN IN WORDS	UNIT PRICE	ITEM TOTAL
14.	700 SF	Remove existing and construct PCC cross gutter _____ _____ Per Square Foot	\$ _____	\$ _____
15.	28 EA	Remove existing and construct access ramp _____ _____ Per Each	\$ _____	\$ _____
16.	21 EA	Adjust Sewer manhole frame and cover to grade _____ _____ Per Each	\$ _____	\$ _____
17.	10 EA	Adjust Storm Drain manhole frame and cover to grade _____ _____ Per Each	\$ _____	\$ _____
18.	32 EA	Adjust Water Valve & Monument Well frame and cover to grade _____ _____ Per Each	\$ _____	\$ _____
19.	1 LS	Traffic signing, striping, pavement markings and markers; paint curbs; removal of existing traffic loops _____ _____ Per Lump Sum	\$ _____	\$ _____
20.	2 EA	Install Redflex loops _____ _____ Per Each	\$ _____	\$ _____
21.	6 EA	Furnish and install bio clean round curb inlet filter _____ _____ Per Each	\$ _____	\$ _____

**SECTION 2 – CONTRACTOR’S PROPOSAL**

ITEM	APPROX. QUANTITY	ITEM WITH UNIT PRICE WRITTEN IN WORDS	UNIT PRICE	ITEM TOTAL
22.	1 LS	Surface Profilograph Five Thousand Dollars		
			\$ 5,000.00	\$ 5,000.00
		Per Lump Sum		
<b>Total Written in Words:</b>			<b>Total in Figures</b>	
_____				
_____			\$	

**NOTES:**

1. In case of discrepancy between the words and figures, the words shall prevail.
2. Surface Profilograph unit price is set at a fixed amount and is an item that may be deleted at no extra charge to the City. The Engineer or his authorized representative will make a field determination as to whether this item is needed.
3. The aforementioned quantities are approximate only, being given as a basis for the comparison of bids, and the City of Garden Grove does not expressly or by implication, agree that the actual amount of work will correspond therewith, but reserves the right to increase or decrease the amount of any class or portion of work as may be deemed necessary or expedient by the Engineer.

**SECTION 2 – CONTRACTOR’S PROPOSAL**

CONTRACTOR'S NAME: \_\_\_\_\_

THE HONORABLE MAYOR AND CITY COUNCIL  
 CITY OF GARDEN GROVE  
 11222 ACACIA PARKWAY  
 GARDEN GROVE, CALIFORNIA 92842

SUBJECT PROJECT: **SAPPHIRE STREET, FR. BELGRAVE AVE TO VANGUARD AVE.;  
 HEALEY AVENUE, AT LAMPLIGHTER STREET, CITY PROJECT  
 NO. 7280, DRAWING NO. A-1880**

Gentlemen:

The undersigned, having carefully examined the Plans and Specifications for the above subject project and having personally visited the site of the work and been made familiar with the conditions, HEREBY PROPOSE to furnish all labor, materials, equipment and transportation, and do all the work required to complete the said work in accordance with the said Plans and Specifications for the unit prices named in the following bid proposal:

**BID PROPOSAL**

ITEM	APPROX. QUANTITY	ITEM WITH UNIT PRICE WRITTEN IN WORDS	UNIT PRICE	ITEM TOTAL
1.	1 LS	Mobilization (including Clearing and Grubbing) _____ _____ Per Lump Sum	\$ _____	\$ _____
2.	1 LS	Traffic Control _____ _____ Per Lump Sum	\$ _____	\$ _____
3.	1 LS	Construction Surveying _____ _____ Per Lump Sum	\$ _____	\$ _____
4.	40,000 SF	Full Depth Reclamation of existing AC/AB pavement to a depth of 0.83'; Cement treat 0.50' with 5% cement content. Allow CTB to cure and microcrack. _____ _____ Per Square Foot	\$ _____	\$ _____
5.	1,800 SF	Cold mill existing AC (2") _____ _____ Per Square Foot	\$ _____	\$ _____

**SECTION 2 – CONTRACTOR’S PROPOSAL**

ITEM	APPROX. QUANTITY	ITEM WITH UNIT PRICE WRITTEN IN WORDS	UNIT PRICE	ITEM TOTAL
6.	550 TN	AC Base Course (2") _____ _____	\$ _____	\$ _____
		Per Ton		
7.	560 TN	ARHM Surface Course (2") _____ _____	\$ _____	\$ _____
		Per Ton		
8.	6 EA	Construct access ramp _____ _____	\$ _____	\$ _____
		Per Each		
9.	1 LS	SWPPP _____ _____	\$ _____	\$ _____
		Per Lump Sum		
10.	1 LS	Traffic Striping and Striping _____ _____	\$ _____	\$ _____
		Per Lump Sum		
11.	4 EA	Adjust Sewer Manhole Frame and cover to Grade _____ _____	\$ _____	\$ _____
		Per Each		
12.	2 EA	Adjust Water Valve to Grade _____ _____	\$ _____	\$ _____
		Per Each		
13	150 SF	Remove existing and construct PCC sidewalk _____ _____	\$ _____	\$ _____
		Per Square Feet		
<b>Total Written in Words:</b>			<b>Total in Figures</b>	
_____			\$ _____	
_____				
_____				

## **SECTION 2 – CONTRACTOR’S PROPOSAL**

### **NOTES:**

1. In case of discrepancy between the words and figures, the words shall prevail.
2. Surface Profilograph unit price is set at a fixed amount and is an item that may be deleted at no extra charge to the City. The Engineer or his authorized representative will make a field determination as to whether this item is needed.
3. The aforementioned quantities are approximate only, being given as a basis for the comparison of bids, and the City of Garden Grove does not expressly or by implication, agree that the actual amount of work will correspond therewith, but reserves the right to increase or decrease the amount of any class or portion of work as may be deemed necessary or expedient by the Engineer.

**SECTION 2 – CONTRACTOR’S PROPOSAL**

CONTRACTOR'S NAME: \_\_\_\_\_

THE HONORABLE MAYOR AND CITY COUNCIL  
 CITY OF GARDEN GROVE  
 11222 ACACIA PARKWAY  
 GARDEN GROVE, CALIFORNIA 92842

SUBJECT PROJECT: **SANTA RITA AVE, FR. LAMPLIGHTER ST TO WILD GOOSE ST;  
 WILD GOOSE STREET, FR. CHAPMAN AVE TO SANTA RITA AVE.  
 CITY PROJECT NO. 7280; DRAWING NO. A-1881**

Gentlemen:

The undersigned, having carefully examined the Plans and Specifications for the above subject project and having personally visited the site of the work and been made familiar with the conditions, **HEREBY PROPOSE** to furnish all labor, materials, equipment and transportation, and do all the work required to complete the said work in accordance with the said Plans and Specifications for the unit prices named in the following bid proposal:

**BID PROPOSAL**

ITEM	APPROX. QUANTITY	ITEM WITH UNIT PRICE WRITTEN IN WORDS	UNIT PRICE	ITEM TOTAL
1.	1 LS	Mobilization (including Clearing and Grubbing) _____ _____ Per Lump Sum	\$ _____	\$ _____
2.	1 LS	Traffic Control _____ _____ Per Lump Sum	\$ _____	\$ _____
3.	1 LS	Construction Surveying _____ _____ Per Lump Sum	\$ _____	\$ _____
4.	41,800 SF	Full Depth Reclamation of existing AC/AB pavement to a depth of 0.83'; Cement treat 0.50' with 5% cement content. Allow CTB to cure and microcrack. _____ _____ Per Square Foot	\$ _____	\$ _____
5.	700 SF	Excavate and Remove Existing 4" AC over 6" AB _____ _____ Per Square Foot	\$ _____	\$ _____

**SECTION 2 – CONTRACTOR’S PROPOSAL**

ITEM	APPROX. QUANTITY	ITEM WITH UNIT PRICE WRITTEN IN WORDS	UNIT PRICE	ITEM TOTAL
		Per Square Foot		
6.	30 TN	Aggregate Base (6"), _____ _____	\$ _____	\$ _____
		Per Ton		
7.	530 TN	AC Base Course (2") _____ _____	\$ _____	\$ _____
		Per Ton		
8.	530 TN	ARHM Surface Course (2") _____ _____	\$ _____	\$ _____
		Per Ton		
9.	1 LS	SWPPP _____ _____	\$ _____	\$ _____
		Per Lump Sum		
10.	1 LS	Traffic Striping and Striping _____ _____	\$ _____	\$ _____
		Per Lump Sum		
11.	4 EA	Adjust Sewer Manhole Frame and cover to Grade _____ _____	\$ _____	\$ _____
		Per Each		
12.	6 EA	Adjust Water Valve to Grade _____ _____	\$ _____	\$ _____
		Per Each		
13.	7 EA	Install Truncated dome to existing curb ramp _____ _____	\$ _____	\$ _____
		Per Each		
<b>Total Written in Words:</b>			<b><u>Total in</u></b>	
_____			<b><u>Figures</u></b>	
_____				



**SECTION 2 – CONTRACTOR’S PROPOSAL**

ITEM	APPROX. QUANTITY	ITEM WITH UNIT PRICE WRITTEN IN WORDS	UNIT PRICE	ITEM TOTAL
			\$	

**NOTES:**

1. In case of discrepancy between the words and figures, the words shall prevail.
2. Surface Profilograph unit price is set at a fixed amount and is an item that may be deleted at no extra charge to the City. The Engineer or his authorized representative will make a field determination as to whether this item is needed.
3. The aforementioned quantities are approximate only, being given as a basis for the comparison of bids, and the City of Garden Grove does not expressly or by implication, agree that the actual amount of work will correspond therewith, but reserves the right to increase or decrease the amount of any class or portion of work as may be deemed necessary or expedient by the Engineer.

**SECTION 2 – CONTRACTOR’S PROPOSAL**

**SUMMARY OF BID PROPOSAL**

<b><u>SEGMENTS</u></b>	<b><u>TOTAL OR GROSS SUM BID WRITTEN IN WORDS</u></b>	<b><u>GROSS SUM BID IN FIGURES</u></b>
<b>1. CHAPMAN AVENUE</b> REHABILITATION FROM BROOKHURST STREET TO NELSON STREET	_____ _____ _____	\$ _____
<b>2. SAPPHIRE STREET</b> REHABILITATION FROM BELGRAVE AVENUE TO VANGUARD AVENUE; <b>HEALEY AVENUE</b> REHABILITATION, AT LAMPLIGHTER STREET	_____ _____ _____ _____	\$ _____
<b>3. SANTA RITA AVENUE</b> REHABILITATION FROM LAMPLIGHTER STREET TO WILD GOOSE STREET; <b>WILD GOOSE STREET</b> REHABILITATION, FROM CHAPMAN AVENUE TO SANTA RITA AVENUE	_____ _____ _____ _____	\$ _____

-----  
**GRAND TOTAL BID WRITTEN IN WORDS**

**GRAND TOTAL BID IN  
FIGURES**

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

\$ \_\_\_\_\_

**NOTES:**

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

The City will award the Contract to the lowest responsible bidder, at the discretion of the City, based on the **GRAND TOTAL BID** of **SEGMENTS 1, 2 and 3** above.

**SECTION 2 – CONTRACTOR’S PROPOSAL**

It is understood and agreed that:

(a) Pursuant to Section 1773.2 of the Labor Code, general prevailing wage rates set forth in the Department of Transportation publication entitled General Prevailing Wage Rates, which is a part of the contract shall be posted by the Contractor at a prominent place at the site of the work.

If there is a difference in the minimum wage rate predetermined by the Secretary of Labor and the prevailing wage rates determined by the Director of Industrial Relations, for similar classifications of labor, the Contractor and its subcontractors shall pay not less than the highest wage rate.

(b) No verbal agreement or conversation with any officer, agent or employee of CITY, either before or after the execution of the Agreement shall affect or modify any of the terms or obligations of this Proposal.

(c) CITY will not be responsible for any errors or omissions on the part of the undersigned in making up their bid, nor will bidders be released because of errors.

(d) The undersigned is licensed in accordance with the laws of the State of California.

(e) The undersigned hereby certifies that this Proposal is genuine and is not sham or collusive, or made in the interest or in behalf of any person not herein named, and that the undersigned has not directly or indirectly induced or solicited any other bidder to put in a sham bid; or any other person, firm or corporation to refrain from bidding, that the undersigned has not in any manner sought, by collusion, to secure for itself an advantage over any other bidder and that the unit prices proposed herein shall remain fully in effect for 180 calendar days from bid opening.

I declare under penalty of perjury that all statements or representations made herein are true and correct.

	_____	BIDDER'S NAME
	_____	AUTHORIZED SIGNATURE
DATE: _____	_____	TYPE OF ORGANIZATION: INDIVIDUAL, PARTNERSHIP OR CORPORATION
	_____	ADDRESS
	_____	TELEPHONE                      FAX
_____	_____	Expiration Date                      STATE OF CALIFORNIA LICENSE NUMBER

**SECTION 3 - DESIGNATION OF SUBCONTRACTORS/REFERENCES**

1. The undersigned certifies that the sub-bids of the following listed subcontractors have been used in making up this bid, and that the subcontractors listed will be used for the work for which they bid, subject to the approval of the Engineer, and in accordance with the applicable provisions of the Specifications.

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

**PART I**

The bidder shall list all subcontractors (both DBE and non-DBE) in accordance with Title 49, Section 26.11 of the Code of Federal Regulations. This listing is required in addition to listing DBE Subcontractors elsewhere in the proposal. Photocopy this form for additional firms.

Firm Name/LICENSE NUMBER Address/ City, State, ZIP	Phone/ Fax	Annual Gross Receipts	Description of items of Work to be Performed	Local Agency Use Only (Certified DBE?)
<i>Name</i>	<i>Phone</i>	<input type="checkbox"/> < \$1 million		<input type="checkbox"/> YES
<i>Address</i>		<input type="checkbox"/> < \$5 million		<input type="checkbox"/> NO
<i>City State ZIP</i>	<i>Fax</i>	<input type="checkbox"/> < \$10 million		<i>If YES list DBE #:</i>
		<input type="checkbox"/> < \$15 million		<i>Age of Firm (Yrs.)</i>
		<input type="checkbox"/> > \$15 million		
<i>Name</i>	<i>Phone</i>	<input type="checkbox"/> < \$1 million		<input type="checkbox"/> YES
<i>Address</i>		<input type="checkbox"/> < \$5 million		<input type="checkbox"/> NO
<i>City State ZIP</i>	<i>Fax</i>	<input type="checkbox"/> < \$10 million		<i>If YES list DBE #:</i>
		<input type="checkbox"/> < \$15 million		<i>Age of Firm (Yrs.)</i>
		<input type="checkbox"/> > \$15 million		
<i>Name</i>	<i>Phone</i>	<input type="checkbox"/> < \$1 million		<input type="checkbox"/> YES
<i>Address</i>		<input type="checkbox"/> < \$5 million		<input type="checkbox"/> NO
<i>City State ZIP</i>	<i>Fax</i>	<input type="checkbox"/> < \$10 million		<i>If YES list DBE #:</i>
		<input type="checkbox"/> < \$15 million		<i>Age of Firm (Yrs.)</i>
		<input type="checkbox"/> > \$15 million		
<i>Name</i>	<i>Phone</i>	<input type="checkbox"/> < \$1 million		<input type="checkbox"/> YES
<i>Address</i>		<input type="checkbox"/> < \$5 million		<input type="checkbox"/> NO
<i>City State ZIP</i>	<i>Fax</i>	<input type="checkbox"/> < \$10 million		<i>If YES list DBE #:</i>
		<input type="checkbox"/> < \$15 million		<i>Age of Firm (Yrs.)</i>
		<input type="checkbox"/> > \$15 million		

**PART II**

The bidder shall list all subcontractors who provided a quote or bid but were not selected to participate as a subcontractor on this project. This is required for compliance with Title 49, Section 26 of the Code of Federal Regulations. Photocopy this form for additional firms.

Firm Name/ Address/ City, State, ZIP	Phone/ Fax	Annual Gross Receipts	Description of items of Work to be Performed	Local Agency Use Only (Certified DBE?)
<i>Name</i>	<i>Phone</i>	<input type="checkbox"/> < \$1 million		<input type="checkbox"/> YES
		<input type="checkbox"/> < \$5 million		<input type="checkbox"/> NO
<i>Address</i>	<i>Fax</i>	<input type="checkbox"/> < \$10 million		<i>If YES list DBE #:</i>
		<input type="checkbox"/> < \$15 million		
<i>City State ZIP</i>		<input type="checkbox"/> > \$15 million		Age of Firm (Yrs.)
<i>Name</i>	<i>Phone</i>	<input type="checkbox"/> < \$1 million		<input type="checkbox"/> YES
		<input type="checkbox"/> < \$5 million		<input type="checkbox"/> NO
<i>Address</i>	<i>Fax</i>	<input type="checkbox"/> < \$10 million		<i>If YES list DBE #:</i>
		<input type="checkbox"/> < \$15 million		
<i>City State ZIP</i>		<input type="checkbox"/> > \$15 million		Age of Firm (Yrs.)
<i>Name</i>	<i>Phone</i>	<input type="checkbox"/> < \$1 million		<input type="checkbox"/> YES
		<input type="checkbox"/> < \$5 million		<input type="checkbox"/> NO
<i>Address</i>	<i>Fax</i>	<input type="checkbox"/> < \$10 million		<i>If YES list DBE #:</i>
		<input type="checkbox"/> < \$15 million		
<i>City State ZIP</i>		<input type="checkbox"/> > \$15 million		Age of Firm (Yrs.)
<i>Name</i>	<i>Phone</i>	<input type="checkbox"/> < \$1 million		<input type="checkbox"/> YES
		<input type="checkbox"/> < \$5 million		<input type="checkbox"/> NO
<i>Address</i>	<i>Fax</i>	<input type="checkbox"/> < \$10 million		<i>If YES list DBE #:</i>
		<input type="checkbox"/> < \$15 million		
<i>City State ZIP</i>		<input type="checkbox"/> > \$15 million		Age of Firm (Yrs.)

**SECTION 4 – AFFIDAVIT TO ACCOMPANY PROPOSAL**

**USE THIS FORM WHEN BIDDER IS AN INDIVIDUAL**

State of California )  
County of Orange ) ss.

(Name) \_\_\_\_\_, Affiant,  
being first duly sworn, deposes and says:

That it is the bidder who makes the accompanying proposal; that such proposal is genuine, and not sham or collusive, nor made in the interest or in behalf of any person not herein named, and that the bidder has not directly or indirectly induced or solicited any other bidder to put in a sham bid, or any other person, firm or corporation to refrain from bidding, and that the bidder has not in any manner sought by collusion to secure for itself an advantage over any other bidder.

Subscribed and sworn to before me \_\_\_\_\_

This \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

Signature: \_\_\_\_\_

Notary Public in and for the County of \_\_\_\_\_, State of \_\_\_\_\_

**USE THIS FORM WHEN BIDDER IS A CORPORATION**

State of California )  
County of Orange ) ss.

\_\_\_\_\_ affiant, the \_\_\_\_\_  
*Pres., Sec., or Mgr. Ofcr*  
of \_\_\_\_\_  
*Name of Corporation*

The corporation who makes the accompanying proposal, having first been duly sworn, deposes and says: That such proposal is genuine and not sham or collusive, nor made in the interest or in behalf of any person not herein named, and that the bidder has not directly or indirectly induced or solicited any other bidder to put in a sham bid, or any other person, firm or corporation to refrain from bidding, and that the bidder has not in any manner sought by collusion to secure for itself an advantage over any other bidder.

\_\_\_\_\_  
*Signature*  
President, Secretary or Managing Officer

Subscribed and sworn to before me

This \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

Notary Public in and for the County of \_\_\_\_\_, State of \_\_\_\_\_

Signature: \_\_\_\_\_

**SECTION 4 – AFFIDAVIT TO ACCOMPANY PROPOSAL (Continued)**

**USE THIS FORM WHEN BIDDER IS A CO-PARTNERSHIP**

State of California     )  
County of Orange     ) ss.

\_\_\_\_\_, Affiant(s),  
Being first duly sworn, each for itself deposes and says:

That \_\_\_\_\_  
(Names of all Partners)

are partners, doing business under the firm name and style of

\_\_\_\_\_ and that said co-partnership  
(Name of Firm)

makes the accompanying proposal; that such proposal is genuine, and not sham or collusive, nor made in the interest or in behalf of any person not herein named, and that the bidder has not directly or indirectly induced or solicited any other bidder to put in a sham bid, or any other person, firm or corporation to refrain from bidding, and that the bidder has not in any manner sought by collusion to secure for itself an advantage over any other bidder.

Subscribed and sworn to before me \_\_\_\_\_

This \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_.

Notary Public in and for the County of \_\_\_\_\_,  
State of \_\_\_\_\_

Signature: \_\_\_\_\_

**SECTION – AFFIDAVIT TO ACCOMPANY PROPOSAL (Continued)**

**CERTIFICATION WITH REGARD TO THE PERFORMANCE OF PREVIOUS CONTRACTS OR SUBCONTRACTS SUBJECT TO THE EQUAL EMPLOYMENT OPPORTUNITY CLAUSE AND THE FILING OF REQUIRED REPORTS**

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

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

\_\_\_\_\_  
(Title)

Date: \_\_\_\_\_

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

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

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



*(THE BIDDER'S EXECUTION ON THE SIGNATURE PORTION OF THIS PROPOSAL  
SHALL ALSO CONSTITUTE AN ENDORSEMENT AND EXECUTION OF THOSE  
CERTIFICATIONS WHICH ARE A PART OF THIS PROPOSAL)*

## **EQUAL EMPLOYMENT OPPORTUNITY CERTIFICATION**

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

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

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

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

## **PUBLIC CONTRACT CODE**

### **Public Contract Code Section 10285.1 Statement**

In conformance with Public Contract Code Section 10285.1 (Chapter 376, Stats. 1985), the bidder hereby declares

Under penalty of perjury under the laws of the State of California that the bidder has \_\_\_\_, has not \_\_\_\_ been convicted

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

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

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### **Public Contract Code Section 10162 Questionnaire**

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

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

Yes \_\_\_\_\_ No \_\_\_\_\_

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

## **Public Contract Code 10232 Statement**

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

Note: The above Statement and Questionnaire are part of the Proposal. Signing this Proposal on the signature portion thereof shall also constitute signature of this Statement and Questionnaire.  
Bidders are cautioned that making a false certification may subject the certifier to criminal prosecution.

---

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

To the CITY / COUNTY of \_\_\_\_\_  
*DEPARTMENT OF PUBLIC WORKS.*

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

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

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## DEBARMENT AND SUSPENSION CERTIFICATION

TITLE 49, CODE OF FEDERAL REGULATIONS, PART 29

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

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

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

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

Notes: Providing false information may result in criminal prosecution or administrative sanctions. The above certification is part of the Proposal. Signing this Proposal on the signature portion thereof shall also constitute signature of this Certification.

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## **NONLOBBYING CERTIFICATION FOR FEDERAL-AID CONTRACTS**

The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

- (1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
- (2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure of Lobbying Activities," in conformance with its instructions.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, Title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

The prospective participant also agrees by submitting his or her bid or proposal that he or she shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such subrecipients shall certify and disclose accordingly.

**DISCLOSURE OF LOBBYING ACTIVITIES**

COMPLETE THIS FORM TO DISCLOSE LOBBYING ACTIVITIES PURSUANT TO 31 U.S.C. 1352

<b>1. Type of Federal Action:</b> <input type="checkbox"/> a. contract <input type="checkbox"/> b. grant <input type="checkbox"/> c. cooperative agreement <input type="checkbox"/> d. loan <input type="checkbox"/> e. loan guarantee <input type="checkbox"/> f. loan insurance	<b>2. Status of Federal Action:</b> <input type="checkbox"/> a. bid/offer/application <input type="checkbox"/> b. initial award <input type="checkbox"/> c. post-award	<b>3. Report Type:</b> <input type="checkbox"/> a. initial <input type="checkbox"/> b. material change  <b>For Material Change Only:</b> year ____ quarter ____ date of last report _____
<b>4. Name and Address of Reporting Entity</b>  <input type="checkbox"/> Prime <input type="checkbox"/> Subawardee Tier _____, if known  Congressional District, if known	<b>5. If Reporting Entity in No. 4 is Subawardee, Enter Name and Address of Prime:</b>  Congressional District, if known	
<b>6. Federal Department/Agency:</b>	<b>7. Federal Program Name/Description:</b>  CFDA Number, if applicable _____	
<b>8. Federal Action Number, if known:</b>	<b>9. Award Amount, if known:</b>	
<b>10. a. Name and Address of Lobby Entity</b> (If individual, last name, first name, MI)	<b>b. Individuals Performing Services</b> (including address if different from No. 10a) (last name, first name, MI)	
(attach Continuation Sheet(s) if necessary)		
<b>11. Amount of Payment (check all that apply)</b> \$ _____ <input type="checkbox"/> actual <input type="checkbox"/> planned	<b>13. Type of Payment (check all that apply)</b> <input type="checkbox"/> a. retainer <input type="checkbox"/> b. one-time fee <input type="checkbox"/> c. commission <input type="checkbox"/> d. contingent fee <input type="checkbox"/> e. deferred <input type="checkbox"/> f. other, specify _____	
<b>12. Form of Payment (check all that apply):</b> <input type="checkbox"/> a. cash <input type="checkbox"/> b. in-kind; specify: nature _____ value _____		
<b>14. Brief Description of Services Performed or to be performed and Date(s) of Service, including officer(s), employee(s), or member(s) contacted, for Payment Indicated in Item 11:</b>  (attach Continuation Sheet(s) if necessary)		
<b>15. Continuation Sheet(s) attached:    Yes <input type="checkbox"/>    No <input type="checkbox"/></b>		
<b>16. Information requested through this form is authorized by Title 31 U.S.C. Section 1352. This disclosure of lobbying reliance was placed by the tier above when his transaction was made or entered into. This disclosure is required pursuant to 31 U.S.C. 1352. This information will be reported to Congress semiannually and will be available for public inspection. Any person who fails to file the required disclosure shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.</b> <b>Federal Use Only:</b>	Signature: _____ Print Name: _____ Title: _____ Telephone No.: _____ Date: _____	

Authorized for Local Reproduction

## **INSTRUCTIONS FOR COMPLETION OF SF-LLL, DISCLOSURE OF LOBBYING ACTIVITIES**

This disclosure form shall be completed by the reporting entity, whether subawardee or prime Federal recipient, at the initiation or receipt of covered Federal action or a material change to previous filing pursuant to title 31 U.S.C. section 1352. The filing of a form is required for such payment or agreement to make payment to lobbying entity for influencing or attempting to influence an officer or employee of any agency, a Member of Congress an officer or employee of Congress or an employee of a Member of Congress in connection with a covered Federal action. Attach a continuation sheet for additional information if the space on the form is inadequate. Complete all items that apply for both the initial filing and material change report. Refer to the implementing guidance published by the Office of Management and Budget for additional information.

1. Identify the type of covered Federal action for which lobbying activity is and/or has been secured to influence, the outcome of a covered Federal action.
2. Identify the status of the covered Federal action.
3. Identify the appropriate classification of this report. If this is a follow-up report caused by a material change to the information previously reported, enter the year and quarter in which the change occurred. Enter the date of the last, previously submitted report by this reporting entity for this covered Federal action.
4. Enter the full name, address, city, state and zip code of the reporting entity. Include Congressional District if known. Check the appropriate classification of the reporting entity that designates if it is or expects to be a prime or subaward recipient. Identify the tier of the subawardee, e.g., the first subawardee of the prime is the first tier. Subawards include but are not limited to subcontracts, subgrants and contract awards under grants.
5. If the organization filing the report in Item 4 checks "Subawardee" then enter the full name, address, city, state and zip code of the prime Federal recipient. Include Congressional District, if known.
6. Enter the name of the Federal agency making the award or loan commitment. Include at least one organization level below agency name, if known. For example, Department of Transportation, United States Coast Guard.
7. Enter the Federal program name or description for the covered Federal action (item 1). If known, enter the full Catalog of Federal Domestic Assistance (CFDA) number for grants, cooperative agreements, loans and loan commitments.
8. Enter the most appropriate Federal identifying number available for the Federal action identification in item 1 (e.g., Request for Proposal (RFP) number, Invitation for Bid (IFB) number, grant announcement number, the contract grant or loan award number, the application/proposal control number assigned by the Federal agency). Include prefixes, e.g., "RFP-DE-90-001."
9. For a covered Federal action where there has been an award or loan commitment by the Federal agency, enter the Federal amount of the award/loan commitments for the prime entity identified in item 4 or 5.
10. (a) Enter the full name, address, city, state and zip code of the lobbying entity engaged by the reporting entity identified in item 4 to influence the covered Federal action.  
(b) Enter the full names of the individual(s) performing services and include full address if different from 10 (a). Enter Last Name, First Name and Middle Initial (MI).
11. Enter the amount of compensation paid or reasonably expected to be paid by the reporting entity (item 4) to the lobbying entity (item 10). Indicate whether the payment has been made (actual) or will be made (planned). Check all boxes that apply. If this is a material change report, enter the cumulative amount of payment made or planned to be made.
12. Check the appropriate box. Check all boxes that apply. If payment is made through an in-kind contribution, specify the nature and value of the in-kind payment.
13. Check the appropriate box. Check all boxes that apply. If other, specify nature.
14. Provide a specific and detailed description of the services that the lobbyist has performed or will be expected to perform and the date(s) of any services rendered. Include all preparatory and related activity not just time spent in actual contact with Federal officials. Identify the Federal officer(s) or employee(s) contacted or the officer(s) employee(s) or Member(s) of Congress that were contacted.
15. Check whether or not a continuation sheet(s) is attached.
16. The certifying official shall sign and date the form, print his/her name title and telephone number.

Public reporting burden for this collection of information is estimated to average 30 minutes per response, including time for reviewing instruction, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0046), Washington, D.C. 20503.

SF-LLL-Instructions Rev. 06-04-90«ENDIF»



**SECTION 4 B - PREVIOUS DISQUALIFICATION QUESTIONNAIRE**

In accordance with Government Code Section 14310.5, the Bidder shall complete, under penalty of perjury, the following questionnaire:

**QUESTIONNAIRE**

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

Yes \_\_\_\_\_

No \_\_\_\_\_

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

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NOTE: This questionnaire constitutes a part of the Proposal and signature on the signature portion of this Proposal shall constitute signature of this questionnaire.

**SECTION 4 C - QUESTIONNAIRE TO GENERAL CONTRACTORS**

1. Were bid depository or registry services used in obtaining subcontractor bid figures in order to compute your bid?  
Yes ( )                      No ( )
  
2. If the answer to No. 1 is "yes," please forward a copy of the rules of each bid depository you used with this questionnaire.
  
3. Did you have any source of subcontractors' bids other than bid depositories?  
Yes ( )                      No ( )
  
4. Has any person or group threatened you with subcontractor boycotts, union boycotts, or other sanctions to attempt to convince you to use the services or abide by the rules of one or more bid depositories?  
Yes ( )                      No ( )
  
5. If the answer to No. 4 is "yes," please explain the following details:
  - (a) Date(s):
  
  - (b) Name of person or group:
  
  - (c) Job involved (if applicable):
  
  - (d) Nature of threats:
  
  - (e) Additional comments:  
(Use additional paper if necessary)

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

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

\_\_\_\_\_  
Name of Company

By \_\_\_\_\_

\_\_\_\_\_  
Title

**SECTION 4 C - QUESTIONNAIRE TO GENERAL CONTRACTORS (Continued)**

**QUESTIONNAIRE REGARDING BIDDERS**

Number of years engaged in the contracting business under present business name \_\_\_\_\_.

List of last three contracts performed which show experience in work of a nature similar to that covered in this proposal. If none, so indicate.

<u>Year</u>	<u>Type of Work</u>	<u>Contract Amt.</u>	<u>Location</u>	<u>For whom Performed &amp; Phone Number</u>

**REFERENCES:**

Following are the names, addresses and telephone numbers of firms or agencies with which you may confirm the past performances of the company in performing work of a similar nature and scope:

<u>Firm/Address</u>	<u>Type of Work</u>	<u>Contact Person Telephone No.</u>	<u>Contract Amount</u>

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

Authorized Signature: \_\_\_\_\_

Date: \_\_\_\_\_

State of California Contractor's License No. \_\_\_\_\_

Contractor's License Expiration Date \_\_\_\_\_

**SECTION 4 D - CONTRACTOR'S QUESTIONNAIRE**

1. List any lawsuit(s) filed against you or your firm over the past ten (10) years for breach or non-performance of contract: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_.

2. List the results of any lawsuit(s): \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_.

2. List any claim(s) filed by subcontractors against you or your firm over the past ten (10) years: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_.

4. List the results of each claim: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_.

3. List any disciplinary action and the ultimate disposition within the past ten (10) years taken against you or your firm by the State Contractor's License Board: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_.

4. List projects similar to the type applied for herein which you have worked on and how recently the project was performed: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_.

**I DECLARE UNDER PENALTY OF PERJURY THAT THE FOREGOING IS TRUE, COMPLETE, ACCURATE AND CORRECT.**

Dated: \_\_\_\_\_

\_\_\_\_\_  
Contractor's Signature

Accompanying this Bid is

(NOTICE: INSERT THE WORDS "CASH (\$ \_\_\_\_\_)," "CASHIER'S CHECK," "CERTIFIED CHECK," OR "BIDDER'S BOND," AS THE CASE MAY BE.)

in amount equal to at least ten percent of the total of the bid.

The names of all persons interested in the foregoing bid as principals are as follows:

**IMPORTANT NOTICE**

*If bidder or other interested person is a corporation, state legal name of corporation, also names of the president, secretary, treasurer, and manager thereof; if a co- partnership, state true name of firm, also names of all individual copartners composing firm; if bidder or other interested person is an individual, state first and last names in full.*

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

Licensed in conformance with an act providing for the registration of Contractors,

License No. \_\_\_\_\_ Classification(s) \_\_\_\_\_

**ADDENDA -**

This Bid is submitted with respect to the changes to the contract included in addenda number/s \_\_\_\_\_

*(Fill in addenda numbers if addenda have been received and insert, in this Bid, any Engineer's Estimate sheets that were received as part of the addenda.)*

By my signature on this bid I certify, under penalty of perjury under the laws of the State of California, that the foregoing questionnaire and statements of Public Contract Code Sections 10162, 10232 and 10285.1 are true and correct and that the bidder has complied with the requirements of Section 8103 of the Fair Employment and Housing Commission Regulations (Chapter 5, Title 2 of the California Administrative Code). By my signature on this Bid I further certify, under penalty of perjury under the laws of the State of California and the United States of America, that the Noncollusion Affidavit required by Title 23 United States Code, Section 112 and Public Contract Code Section 7106; and the Title 49 Code of Federal Regulations, Part 29 Debarment and Suspension Certification are true and correct.

Date: \_\_\_\_\_



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

Signature and Title of Bidder

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

Place of Business \_\_\_\_\_

Place of Residence \_\_\_\_\_

**SECTION 4 E**

**BID BOND**

Bond No. \_\_\_\_\_

Premium \_\_\_\_\_

**CHAPMAN AVENUE STREET REHABILITATION;  
SAPPHIRE STREET, HEALEY AVENUE,  
SANTA RITA AVENUE, WILD GOOSE STREET  
REHABILITATION, CITY PROJECT NO. 7280**

(10% of aggregate amount of bid)

(Not required if cash, cashier's check or certified check in the required amount accompanies the bid)

**KNOW ALL PERSONS BY THESE PRESENTS:** those we, \_\_\_\_\_

\_\_\_\_\_, As Principal and \_\_\_\_\_, as Surety, are held and firmly bound unto the City of Garden Grove, State of California, the sum of ten percent of the aggregate amount of bid, the payment of which we hereby bind ourselves, our successors, heirs, executors, and administrators, jointly and severally, firmly by these presents.

That the Surety's office is located at \_\_\_\_\_, California, Telephone No. \_\_\_\_\_ and the Surety is licensed to do business in the State of California, and the California resident agent for Surety is \_\_\_\_\_ California Insurance Agent License No. \_\_\_\_\_.

That the following clause must be completed if in fact, a non-resident agent for the Surety is a party to the transaction:

Name of non-resident agent \_\_\_\_\_

Non-resident agent's office address \_\_\_\_\_

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

The condition of the foregoing obligation is such that, whereas the above principal is about to submit to the Council of the City of Garden Grove a bid or proposal for the performance of the work therein mentioned, in compliance with the plans and specifications therefore, pursuant to published notice inviting bids:

Now, if the bid or proposal of the principal is accepted and the work awarded to the principal by the CITY, and if the principal shall fail or neglect to enter into a contract in accordance with the provisions of said bid or proposal and the accompanying Instructions and Information for Bidders, and to execute adequate faithful performance and labor and material surety bonds to the satisfaction of the CITY Attorney of the CITY, then the sum guaranteed by this bond is forfeited to the City of Garden Grove.

WITNESS OUR HANDS AND SEALS THIS \_\_\_\_\_ DAY OF \_\_\_\_\_ 20\_\_\_\_.

\_\_\_\_\_  
Principal

By \_\_\_\_\_

\_\_\_\_\_  
Surety

By \_\_\_\_\_  
Attorney-in-Fact



BIDDER/CONTRACTOR STATEMENT  
REGARDING INSURANCE COVERAGE

**A contract will not be issued to the Contractor until the City acknowledges receipt of this signed document!**

BIDDER/CONTRACTOR HEREBY CERTIFIES that he/she has reviewed and understands the insurance coverage requirements specified as in the attached Insurance Requirements Checklist.

Should we/I be awarded the contract, we/I certify that we/I can meet the specified requirements for insurance, including insurance coverage of the subcontractors, and agree to name the **City/Agency/Sanitary District** and other additional insureds as per the agreement for the work specified. And we/I will comply with the provisions of Section 3700 of the Labor Code, which require every employer to be insured against liability for worker's compensation or to undertake self-insurance in accordance with the provisions of that code, before commencing the performance of the work specified.

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Please Print (Person, Firm, or Corporation)

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Signature of Authorized Representative

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Please Print (Name & Title of Authorized Representative)

---

Date

Phone Number

Email

Insurance Certificates and Endorsements will also be accepted via email and must be emailed to the following email address only: [nhsieh@garden-grove.org](mailto:nhsieh@garden-grove.org). This is the preferred and quickest method of submitting insurance certificates and endorsements.

Insurance Certificates and Endorsements can also be mailed to: City of Garden Grove  
Attention: **Mike Santos**  
11222 Acacia Parkway  
Garden Grove, CA 92840

**NOTE: All insurance certificates and endorsements must be received by the City of Garden Grove Purchasing Division within ten (10) City working days of the original request or the City reserves the right to proceed with the next lowest responsible bidder or the next highest scoring proposer in the process.**



## **INSURANCE REQUIREMENTS**

### **REVIEW AND SAMPLE DOCUMENTS**

Please review these documents carefully, as you will be required to submit the appropriate certificates of insurance as called out in the agreement. Work shall not commence without a fully executed agreement, which shall include the certificates of insurance signed off by the City's Risk Management Division.

### **Bidder's Statement**

This document shall be included in your submitted proposal or you will be disqualified. A contract will not be issued to the Contractor until the City acknowledges receipt of this signed document!

#### **INSURANCES:**

30-Day Notice

Workers Compensation

Commercial General Liability

Automobile Liability

Excess Liability - If underlying policies cannot meet limits.

#### **ENDORSEMENTS:**

**Waiver of Subrogation**

**Auto Liability**

**On-going Operations**

**Completed Operations**

IF UNDERLYING POLICIES CANNOT  
MEET CONTRACTUAL LIMITS

- Excess Liability
- Schedule of Underlying Policies
- "Follows Form" on Certificate

### **MUST BE PROVIDED WITH EVERY CONTRACT/AGREEMENT**

- Primary/Non – Contributory Endorsement
- Claims Made and Modified Occurrence policies are NOT acceptable, and all insurance carriers must have an AM Best's Guide Rating of A-, Class VII or Better.
- 30-Day Notice Prior to Termination/Modification Endorsement.

### **SAMPLE INSURANCE REQUIREMENTS FOUND IN APPENDIX A**

# CONSTRUCTION AGREEMENT

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**THIS AGREEMENT** is made this \_\_\_\_\_ day of \_\_\_\_\_, 2018 by the **CITY OF GARDEN GROVE**, a municipal corporation, ("CITY"), and \_\_\_\_\_ hereinafter referred to as ("CONTRACTOR").

## **RECITALS:**

The following recitals are a substantive part of this Agreement:

1. This Agreement is entered into pursuant to Garden Grove City Council Authorization dated \_\_\_\_\_.
2. CITY desires to utilize the services of CONTRACTOR to furnish material, equipment, and labor for the **CHAPMAN AVENUE, SAPPHIRE STREET, HEALEY AVENUE, SANTA RITA AVENUE, WILD GOOSE STREET REHABILITATIONS, CITY PROJECT NO. 7280.**
3. CONTRACTOR is qualified by virtue of experience, training, education, and expertise to accomplish services.

## **AGREEMENT**

THE PARTIES MUTUALLY AGREE AS FOLLOWS:

- 5.1 General Conditions.** CONTRACTOR certifies and agrees that all the terms, conditions and obligations of the Contract Documents as hereinafter defined, the location of the job site, and the conditions under which the work is to be performed have been thoroughly reviewed, and enters into this Contract based upon CONTRACTOR'S investigation of all such matters and is in no way relying upon any opinions or representations of CITY. It is agreed that this Contract represents the entire agreement. It is further agreed that the Contract Documents including the Notice Inviting Bids, Special Instructions to Bidders, if any, Plans, Specifications, and CONTRACTOR's Proposal, are incorporated in this Contract by reference, with the same force and effect as if the same were set forth at length herein, and that CONTRACTOR and its subcontractors, if any, will be and are bound by any and all of said Contract Documents insofar as they relate in any part or in any way, directly or indirectly, to the work covered by this Contract.

*"Project"* as used herein defines the entire scope of the work covered by all the Contract Documents. Anything mentioned in the Specifications and not indicated in the Plans, or indicated in the Plans and not mentioned in the Specifications, shall be of like effect as if indicated and mentioned in both. In case of discrepancy in the Plans or Specifications, the matter shall be immediately submitted to CITY'S Engineer, without whose decision CONTRACTOR shall not adjust said discrepancy save only at CONTRACTOR'S own risk and expense. The decision of the Engineer shall be final.

**SECTION 5 - AGREEMENT** (Continued)

- 5.2 Materials and Labor.** CONTRACTOR shall furnish, under the conditions expressed in the Plans and Specifications, at CONTRACTOR'S own expense, all labor and materials necessary, except such as are mentioned in the Specifications to be furnished by the CITY, to construct and complete the project, in good workmanlike and substantial order. If CONTRACTOR fails to pay for labor or materials when due, CITY may settle such claims by making demand upon the surety to this Agreement. In the event of the failure or refusal of the surety to satisfy said claims, CITY may settle them directly and deduct the amount of payments from the Contract price and any amounts due to CONTRACTOR. In the event CITY receives a stop notice from any laborer or material supplier alleging non-payment by CONTRACTOR, CITY shall be entitled to deduct all of its costs and expenses incurred relating thereto, including but not limited to administrative and legal fees.
- 5.3 Project.** The PROJECT is described as: **CHAPMAN AVENUE, SAPPHIRE STREET, HEALEY AVENUE, SANTA RITA AVENUE, WILD GOOSE STREET REHABILITATION, CITY PROJECT NO. 7280.**
- 5.4 Plans and Specifications.** The work to be done is shown in a set of detailed Plans and Specifications entitled: **CHAPMAN AVENUE, SAPPHIRE STREET, HEALEY AVENUE, SANTA RITA AVENUE, WILD GOOSE STREET REHABILITATION, CITY PROJECT NO. 7280.** Said Plans and Specifications and any revision, amendments or addenda thereto are attached hereto and incorporated herein as part of this Contract and referred to by reference. The work to be done must also be in accordance with the General Provisions, Standard Specifications and Standard Plans of the CITY, which are also incorporated herein and referred to by, reference.
- 5.5 Time of Commencement and Completion.** CONTRACTOR shall have **ten (10) working days from the award of the Contract** to execute the Contract and supply the CITY with all the documents and information required by the Instructions to Bidders and the other Contract Documents, including but not limited to, the necessary bonds and insurance certificates and endorsements. Once the CITY receives the executed contract and all of the other properly drafted and executed documents and information, it may issue a Notice to Proceed to the CONTRACTOR. If CONTRACTOR refuses or fails to provide the required documents and information within the ten (10) city working days, the CITY may then rescind the award of the Contract and then award the Contract to the next lowest responsive and responsible bidder.

**The Contract time shall commence on the fifteenth (15<sup>th</sup>) calendar day following the Notice to Proceed** issued by the City and the CONTRACTOR agrees to submit submittals **within fourteen (14) calendar days.** The CONTRACTOR shall diligently prosecute the work on **residential streets within forty five (45) working days starting July 16, 2018;** and **Chapman Avenue within sixty (60) working days starting July 23, 2018** and on to completion as required per the plans and specifications excluding delays caused or authorized by the CITY as set forth in Sections 5.7, 5.8 and 5.9 hereof.

## **SECTION 5 - AGREEMENT** (Continued)

### **5.6 Time is of the Essence.** Time is of the essence of this Contract.

Contractor shall have **fourteen (14) calendar days from the award of the Contract** to execute the Contract and supply CITY with all of the documents and information required by the Instruction to Bidders and the other Contract Documents, including but not limited to, the necessary bonds and insurance certificates and endorsements. Once the CITY receives the executed Contract and all of the other properly drafted and executed documents and information, it may issue a Notice to Proceed to the CONTRACTOR. If CONTRACTOR refuses or fails to execute the Contract or refuses or fails to provide the required documents and information within the fourteen (14) calendar days, the CITY may then rescind the award of the Contract and then award the Contract to the next lowest responsible and responsive bidder.

As required by the Contract Documents, CONTRACTOR shall prepare and obtain approval of all shop drawings, details and samples, and do all other things necessary and incidental to the prosecution of CONTRACTOR'S work in conformance with an approved construction progress schedule. CONTRACTOR shall coordinate the work covered by this Contract with that of all other CONTRACTORS, subcontractors and of the CITY, in a manner that will facilitate the efficient completion of the entire work in accordance with Section 5.5 herein. CITY shall have complete control of the premises on which the work is to be performed and shall have the right to decide the time or order in which the various portions of the work shall be installed or the priority of the work of other subcontractors, and, in general, all matters representing the timely and orderly conduct of the work of CONTRACTOR on the premises.

### **5.7 Excusable Delays.** CONTRACTOR shall be excused for any delay in the prosecution or completion of the Project caused by acts of God; inclement weather; damages caused by fire or other casualty for which CONTRACTOR is not responsible; any act of negligence or default of CITY; failure of CITY to make timely payments to CONTRACTOR; late delivery of materials required by this CONTRACT to be furnished by CITY; combined action of the workers in no way caused by or resulting from default or collusion on the part of CONTRACTOR; a lockout by CITY; or any other delays unforeseen by CONTRACTOR and beyond CONTRACTOR'S reasonable control.

CITY shall extend the time fixed in Section 5.5 herein for completion of the Project by the number of days CONTRACTOR has thus been delayed, provided that CONTRACTOR presents a written request to CITY for such time extension within fifteen (15) days of the commencement of such delay and CITY finds that the delay is justified. CITY'S decision will be conclusive on the parties to this Contract. Failure to file such request within the time allowed shall be deemed a waiver of the claim by CONTRACTOR.

No claims by CONTRACTOR for additional compensation or damages for delays will be allowed unless CONTRACTOR satisfies CITY that such delays were unavoidable and not the result of any action or inaction of CONTRACTOR and that CONTRACTOR

**SECTION 5 - AGREEMENT** (Continued)

took all available measures to mitigate such damages. Extensions of time and extra compensation as a result of incurring undisclosed utilities would be determined in accordance with SPECIAL PROVISIONS and Section 3-3 of the Standard Specifications for Public Works Construction 2006 Edition (GREEN BOOK). The CITY'S decision will be conclusive on all parties to this Contract.

- 5.8 Extra Work.** The Contract price includes compensation for all work performed by CONTRACTOR, unless CONTRACTOR obtains a written change order signed by a designated representative of CITY specifying the exact nature of the extra work and the amount of extra compensation to be paid all as more particularly set forth in Section 5.9 hereof.

CITY shall extend the time fixed in Section 5.5 for completion of the Project by the number of days reasonably required for CONTRACTOR to perform the extra work, as determined by CITY'S Engineer. The decision of the Engineer shall be final.

**5.9 Changes in Project.**

**5.9.1** CITY may at any time, without notice to any surety, by written order designated or indicated to be a change order, make any change in the work within the general scope of the Contract, including but not limited to changes:

- a. In the Specifications (including drawings and designs);
- b. In the time, method or manner of performance of the work;
- c. In the CITY -furnished facilities, equipment, materials, services or site; or
- d. Directing acceleration in the performance of the work.

If CONTRACTOR believes that the written order issued as part of this Section 5.9.1 has caused an increase in costs or time, the CONTRACTOR shall submit a written request for equitable adjustment to the CITY that includes a detailed cost breakdown and time impact analysis in sufficient detail to allow the CITY to analyze the request. Said notice shall be submitted via certified mail within twenty (20) days of the CONTRACTOR'S receipt of the written order. CONTRACTOR'S failure to submit the written request for equitable adjustment within the required twenty (20) days shall constitute a waiver of any potential change order or claim for said alleged change. The CITY shall review CONTRACTOR'S request and shall provide a written response within thirty (30) days of receipt of the request either approving or denying the request.

**5.9.2** A change may also be any other conflict, difficulty or issue which the CONTRACTOR believes caused any change to the CONTRACTOR'S costs or project schedule, provided CONTRACTOR gives the CITY written notice and a request for equitable adjustment that includes a detailed cost breakdown and time impact analysis in sufficient detail to allow the CITY to analyze the request. The notice shall also state the date the CONTRACTOR became aware of the issue, circumstances and source of the issue and that CONTRACTOR regards the issue as a change order. Said written notice

## **SECTION 5 - AGREEMENT** (Continued)

shall be delivered to the CITY via certified mail within twenty (20) days of CONTRACTOR'S first notice of the issue. CONTRACTOR'S failure to submit the notice, which includes the written request for equitable adjustment within the required twenty (20) days shall constitute a waiver of any potential change order or claim for said alleged change. The CITY shall review CONTRACTOR'S request and shall provide a written response within thirty (30) days of receipt of the request either approving or denying the request.

**5.9.3** Except as provided in this Section 5.9, no order, statement or conduct of the CITY or its representatives shall be treated as a change under this Section 5.9 or entitle CONTRACTOR to an equitable adjustment.

**5.9.4** Except for claims based on defective specifications, no claim for any change under paragraph 5.9.1 or 5.9.2 above shall be allowed for any work performed more than 20 days before the CONTRACTOR gives written notice as required in paragraphs 5.9.1 and 5.9.2. In the case of defective specifications for which the CITY is responsible, the equitable adjustment shall include any increased direct cost CONTRACTOR reasonably incurred in attempting to comply with those defective specifications.

**5.9.5** If CONTRACTOR intends to assert a claim for an equitable adjustment under this Section 5.9, it must, within thirty (30) days after receipt of a denial of a request for equitable adjustment under paragraphs 5.9.1 and 5.9.2, submit a written statement to the CITY setting forth the general nature and monetary extent of such claim. The CITY may extend the 30-day period. CONTRACTOR'S failure to submit the notice of a claim, within the required thirty (30) days shall constitute a waiver of the claim by the CONTRACTOR.

**5.9.6** No claim by CONTRACTOR for an equitable adjustment shall be allowed if made after final payment under this Agreement.

**5.9.7** CONTRACTOR hereby agrees to make any and all changes, furnish the materials and perform the work that CITY may require without nullifying this Contract. CONTRACTOR shall adhere strictly to the Plans and Specifications unless a change there from is authorized in writing by the CITY. Under no condition shall CONTRACTOR make any changes to the Project, either in additions or deductions, without the written order of the CITY and the CITY shall not pay for any extra charges made by CONTRACTOR that have not been agreed upon in advance in writing by the CITY. CONTRACTOR shall submit immediately to the CITY written copies of its firm's cost or credit proposal for change in the work. Disputed work shall be performed as ordered in writing by the CITY and the proper cost or credit breakdowns therefore shall be submitted without delay by CONTRACTOR to CITY.

**5.10 Liquidated Damages for Delay.** The parties agree that if the total work called for under this Contract, in all parts and requirements, is not completed within the time specified in Section 5.5 herein, plus the allowance made for delays or extensions authorized under Sections 5.7, 5.8 and 5.9 herein, the CITY will sustain damage which would be extremely difficult and impractical to ascertain. The parties

**SECTION 5 - AGREEMENT** (Continued)

therefore agree that CONTRACTOR will pay to CITY the sum of **two thousand five hundred dollars (\$2,500.00) per day** each and every calendar day during which completion of **Chapman Avenue** have not been completed within sixty days (60) day period and **one thousand three hundred dollars (\$1,300.00) per day** each and every calendar day during which completion of **residential streets** have not been completed within forty five (45) day period. CONTRACTOR agrees to pay such liquidated damages and further agrees that CITY may offset the amount of liquidated damages from any monies due or that may become due CONTRACTOR under the Contract.

- 5.11 Contract Price and Method of Payment.** CITY agrees to pay and the CONTRACTOR agrees to accept as full consideration for the faithful performance of this Contract, subject to any subsequent additions or deductions as provided in approved change orders, the sum of **Dollars and No Cents (\$00.00)** as itemized in the bid proposal.

Progress payments shall be made to the CONTRACTOR on a monthly basis for each successive month as the work progresses. The CONTRACTOR shall be paid such sum as will bring the total payments received since the commencement of the work up to ninety-five percent (95%) of the value of the work completed, less all previous payments, provided that the CONTRACTOR submits the request for payment prior to the end of the day required to meet the payment schedule. The CITY will retain five percent (5%) of the amount of each such progress estimate and material cost until 30 days after the recordation of the Notice of Completion.

Payments shall be made on demands drawn in the manner required by law, accompanied by a certificate signed by the CITY'S Engineer, stating that the work for which payment is demanded has been performed in accordance with the terms of the Contract. Partial payments of the Contract price shall not be considered as an acceptance of any part of the work.

- 5.12 Substitution of Securities in Lieu of Retention of Funds.** Pursuant to California Public Works Contract Code § 22300, the CONTRACTOR will be entitled to post approved securities with the CITY or an approved financial institution in order to have the CITY release funds retained by the CITY to ensure performance of the Contract. CONTRACTOR shall be required to execute an addendum to this Contract together with escrow instructions and any other documents in order to effect this substitution.

- 5.13 Completion.** Within 10 days after the contract completion date of the Project, CONTRACTOR shall file with the CITY'S Engineer its affidavit stating that all workers and persons employed, all firms supplying materials, and all subcontractors upon the Project have been paid in full, and that there are no claims outstanding against the Project for either labor or material, except those certain items, if any, to be set forth in an affidavit covering disputed claims, or items in connection with Stop Notices which have been filed under the provisions of the statutes of the State of California. CITY may require affidavits or certificates of payment and/or releases from any subcontractor, laborer or material supplier.

**SECTION 5 - AGREEMENT** (Continued)

**5.14 CONTRACTOR 's Employees Compensation**

**5.14.1 General Prevailing Rate.** CITY has ascertained CONTRACTOR shall comply with all applicable requirements of Division 2, Part 7, Chapter 1 of the California Labor Code and all applicable federal requirements respecting the payment of prevailing wages. If there is a difference between the minimum wage rates predetermined by the Secretary of Labor and the prevailing wage rates determined by the Director of the Department of Industrial Relations (DIR) for similar classifications of labor, the CONTRACTOR and its Sucontractors shall pay not less than the higher wage rate. The DIR will not accept lower State wage rates not specifically included in the Federal minimum wage determinations. This includes "helper" (or other classifications based on hours of experience) or any other classification not appearing in the Federal Wage determinations. Where Federal wage determinations do not contain the State wage rate determination otherwise available for use by the CONTRACTOR and Subcontractors, the CONTRACTOR and its Subcontractors shall pay not less than the Federal Minimum wage rate which most closely approximates the duties of the employees in question."

**5.14.2 Forfeiture for Violation.** CONTRACTOR shall, as a penalty to the CITY, forfeit one hundred dollars (\$100.00) for each calendar day or portion thereof for each worker paid (either by the CONTRACTOR or any subcontractor under it) less than the prevailing rate of per diem wages as set by the Director of Industrial Relations, in accordance with Sections 1770-1780 of the California Labor Code for the work provided for in this Contract, all in accordance with Section 1775 of the Labor Code of the State of California.

**5.14.3 Apprentices.** Section 1777.5, 1777.6 and 1777.7 of the Labor Code of the State of California, regarding the employment of apprentices is applicable to this Contract and the CONTRACTOR shall comply therewith; provided, however, that this requirement shall not apply if and/or to the extent that the Contract of the general CONTRACTOR, or the contracts of specialty contractors not bidding for work through a general or prime contractor involve less than thirty thousand dollars (\$30,000.00).

**5.14.4 Workday.** In the performance of this Contract, not more than eight (8) hours shall constitute a day's work, and CONTRACTOR shall not require more than eight (8) hours of labor in a day from any person employed by him hereunder except as provided in paragraph (5.14.2) above. CONTRACTOR shall conform to Article 3, Chapter 1, Part 7 (Sections 1810 et seq.) of the Labor Code of the State of California and shall forfeit to the CITY as a penalty, the sum of twenty-five Dollars (\$25.00) for each worker employed in the execution of this Contract by CONTRACTOR or any subcontractor for each calendar day during which any worker is required or permitted to labor more than eight (8) hours in any one calendar day and forty (40) hours in any one week in violation of said Article. CONTRACTOR shall keep an accurate record showing the name and actual hours worked



## **SECTION 5 - AGREEMENT** (Continued)

each calendar day and each calendar week by each worker employed by CONTRACTOR in connection with the Project.

**5.14.5 Record of Wages: Inspection.** CONTRACTOR agrees to maintain accurate payroll records showing the name, address, social security number, work classification, straight-time and overtime hours worked each day and week, and the actual per diem wages paid to each journeyman, apprentice, worker or other employee employed by it in connection with the Project and agrees to require that each of its subcontractors does the same. The applicable CONTRACTOR or subcontractor or its agent having authority over such matters shall certify all payroll records as accurate. CONTRACTOR further agrees that its payroll records and those of its subcontractors shall be available to the employee or employee's representative, the Division of Labor Standards Enforcement, and the Division of Apprenticeship Standards and shall comply with all of the provisions of Labor Code Section 1776, in general. CONTRACTOR shall comply with all of the provisions of Labor Code Section 1776, and shall submit payroll records to the Labor Commissioner pursuant to Labor Code section 1771.4(a)(3). The CONTRACTOR shall submit copies of certified payroll reports **and cancelled checks** for labors, every two weeks to the Engineer. Certified payroll and cancelled checks submittals are due one month after start of construction and every two weeks thereafter. *If the certified payroll and cancelled checks are not submitted, the CONTRACTOR will be notified that compliance is required within five (5) working days or contract work must cease. The CITY will not be responsible for any delay or acceleration charges or any incurred costs or damages as a result of the work stoppage due to CONTRACTOR's failure to comply.* Work shall be ceased in an orderly, safe fashion with all vehicle access restored. Should this not occur, CITY will correct the deficiencies and deduct the cost from funds due to the CONTRACTOR. In addition, no progress payment shall be made until the copies of certified payroll reports and cancelled checks are submitted.

**5.14.6 Contractor Registration.** CONTRACTOR and its subcontractors must be registered with the California Department of Industrial Relations pursuant to Labor Code Section 1725.5. This Agreement shall not be effective until CONTRACTOR provides proof of registration to the CITY.

**5.14.7 Posting of Job Site Notices.** CONTRACTOR shall comply with the job site notices posting requirements established by the Labor Commissioner pursuant to Title 8, California Code of Regulations Section 16461(e) or other regulation promulgated pursuant to Labor Code Section 1771.4(a) (2).

**5.14.7 Notice of DIR Compliance Monitoring and Enforcement.** Pursuant to Labor Code Section 1771.4, this Project is subject to compliance monitoring and enforcement by the California Department of Industrial Relations.

**5.15 Surety Bonds.** CONTRACTOR shall, prior to entering into performance of this Agreement, furnish a performance bond, on the CITY's bond form in the amount of one hundred percent (100%) of the Contract price, to guarantee the faithful

## SECTION 5 - AGREEMENT (Continued)

performance of the work, and a payment bond, on the CITY's form in the amount of one hundred percent (100%) of the Contract price, to guarantee payment of all claims for labor and materials furnished. Bonds submitted on any form other than the CITY's form will be rejected. The required bonds shall be from a surety licensed to do business in the State of California and with a current A.M. Best's rating of A-, VII. This Contract shall not become effective until such bonds are supplied and approved by the CITY."

### **5.16 Insurance.**

**5.16.1 COMMENCEMENT OF WORK.** CONTRACTOR shall not commence work under this Agreement until all certificates and endorsements have been received and approved by the CITY. All insurance required by this Agreement shall contain a statement of obligation on the part of the carrier to notify the city of any material change, cancellation, or termination at least **thirty (30) days** in advance. A **waiver of subrogation** shall be provided by the insurer for **each policy** waiving subrogation against CITY, its officers, officials, employees, agents, and volunteers for this contract and all public agencies from whom permits will be obtained and their directors, officers, agents, and employees, as determined by the CITY, Claims **made** and **modified occurrence** policies **shall not be accepted** for any policy. All Subcontractors shall be required to provide and maintain the same insurances as required of CONTRACTOR under this contract. CONTRACTOR shall be required to collect and maintain all required insurances from all Subcontractors.

**5.16.2** CONTRACTOR is aware of the provisions of Section 3700 of the Labor Code, which requires every employer to be insured against liability for Workers' Compensation or undertake self-insurance in accordance with the provisions of that Code, and will comply with such provisions before commencing the performance of the work of this Contract.

**5.16.3** CONTRACTOR and all Subcontractors shall carry workers' compensation insurance for the protection of its employees during the progress of the work. The insurer shall waive its rights of subrogation against the CITY, its officers, officials, employees, agents, and volunteers for this contract and all public agencies from whom permits will be obtained and their directors, officers, agents, and employees, as determined by the CITY, and shall issue a waiver of subrogation.

**5.16.4** Before CONTRACTOR performs any work at, or prepares or delivers materials to, the site of construction, CONTRACTOR shall furnish:

Additional Insured Endorsements, **ongoing and products-completed operations**, for the **Commercial General Liability policy**, including mobile equipment and not excluding XCU. Endorsements shall designate CITY, its officers, officials, employees, agents, and volunteers for this contract and all public agencies from whom permits will be obtained and their directors, officers, agents, and employees, as determined by the CITY, as additional insureds for liability arising out of work or operations performed by or on behalf of the CONTRACTOR. CONTRACTOR shall

**SECTION 5 - AGREEMENT** (Continued)

provide to CITY proof of insurance and endorsement forms that conform to CITY's requirements, as approved by the CITY. (**Form CG 20 26 07 04 & Form CG 20 37 07 04** or equivalent) (**Claims made and modified occurrence policies are not acceptable**; Insurance companies must be acceptable to CITY and have a minimum A.M. Best Guide rating of A-, class VII or better, as approved by CITY).

An Additional Insured Endorsement for an **Automobile Liability** policy and shall designate CITY, its officers, officials, employees, agents, and volunteers for this contract and all public agencies from whom permits will be obtained and their directors, officers, agents, and employees, as determined by the CITY, as additional insureds for automobiles owned, leased, hired, or borrowed by the CONTRACTOR. CONTRACTOR shall provide to CITY proof of insurance and endorsement forms that conform to CITY's requirements, as approved by the CITY. (**Form CA 20 48 02 99** or equivalent) (**Claims made and modified occurrence policies are not acceptable**; Insurance companies must be acceptable to CITY and have a minimum A.M. Best Guide rating of A-, class VII or better, as approved by CITY).

A Loss Payee Endorsement for the **Course of Construction** policy designating the City of Garden Grove as Loss Payee. (**Claims made and modified occurrence policies are not acceptable**; Insurance companies must be acceptable to CITY and have a minimum A.M. Best Guide rating of A-, class VII or better, as approved by CITY).

In the event any of CONTRACTOR'S underlying policies do not meet policy limits as required here in, CONTRACTOR shall provide the schedule of underlying policies for a **follows form excess liability** policy, state that the excess policy follows form on the insurance certificate, and an additional insured endorsement for the excess liability policy designating CITY, its officers, officials, employees, agents, and volunteers for this contract and all public agencies from whom permits will be obtained and their directors, officers, agents, and employees, as determined by the CITY, as additional insureds. (**Claims made and modified occurrence policies are not acceptable**; Insurance companies must be acceptable to CITY and have a minimum A.M. Best Guide rating of A-, class VII or better, as approved by CITY).

For any claims related to this Project, the CONTRACTOR's insurance coverage shall be primary insurance as respects CITY, its officers, officials, employees, agents, and volunteers for this contract and all public agencies from whom permits will be obtained and their directors, officers, agents, and employees, as determined by the CITY. Any insurance or self-insurance maintained by the CITY, its officers, officials, employees, agents, and volunteers for this contract and all public agencies from whom permits will be obtained and their directors, officers, agents, and employees, as determined by the CITY, shall be excess of the CONTRACTOR's insurance and not contribute with it.

**SECTION 5 - AGREEMENT** (Continued)

**5.16.5** Before CONTRACTOR performs any work at, or prepares or delivers materials to, the site of construction, CONTRACTOR shall furnish:

CONTRACTOR shall maintain all of the foregoing insurance coverage in force until the work under this Contract is fully completed. The requirement for carrying the foregoing insurance shall not derogate from the provisions for indemnification of CITY by CONTRACTOR under Section 5.17 of this Contract. Notwithstanding nor diminishing the obligations of CONTRACTOR with respect to the foregoing, CONTRACTOR shall subscribe for and maintain in full force and effect during the life of this Contract, the following insurance in amounts not less than the amounts specified and issued by a company admitted and licensed in California and having a Best's Guide Rating of A-Class VII or better (claims made and modified occurrence policies are not acceptable):

Workers' Compensation	As required by the State of California.
Employer's Liability	Not less than \$1,000,000 per accident for bodily injury or disease.
Commercial General Liability (including on-going operations, products - completed operations, and mobile equipment, and not excluding XCU)	Not less than \$5,000,000 per occurrence for bodily injury, personal injury and property damage.
Automobile Liability, for all automobiles including non-owned and hired vehicles	Not less than \$2,000,000 combined single limit for bodily injury and property damage.
Course of Construction	Completed value of the project with no coinsurance penalty provisions.
Follows Form Excess Liability	Required for any underlying policy that does not meet the underlying policy limits required herein.

If contractor maintains higher insurance limits than the minimums shown above, CONTRACTOR shall provide coverage for the higher limits otherwise maintained by the CONTRACTOR.

CITY or its representatives shall at all times have the right to inspect and receive a certified copy of all said policies of insurance, including certificates and endorsements at CONTRACTORS sole cost and expense. CONTRACTOR shall pay the premiums on the insurance hereinabove required.

**SECTION 5 - AGREEMENT** (Continued)

**5.17 Risk and Indemnification.** All work covered by this Contract done at the site of construction or in preparing or delivering materials to the site shall be at the risk of CONTRACTOR alone. CONTRACTOR agrees to save, indemnify and keep the CITY, its Officers, Agents, Employees, Engineers, and Consultants for this Contract, and all public agencies from whom permits will be obtained and their directors, Officers, Agents and Employees harmless against any and all liability, claims, judgments, costs and demands, including demands arising from injuries or death of persons (CONTRACTOR'S employees included) and damage to property, arising directly or indirectly out of the obligations herein undertaken or out of the operations conducted by CONTRACTOR, save and except claims or litigation arising through the sole negligence or sole willful misconduct of CITY and will make good to reimburse CITY for any expenditures, including reasonable attorneys' fees CITY may incur by reason of such matters, and if requested by CITY, will defend any such suits at the sole cost and expense of CONTRACTOR.

**5.18 Termination.**

**5.18.1** This Contract may be terminated in whole or in part in writing by the CITY for its convenience, provided that the CONTRACTOR is given (1) not less than ten (10) calendar days written notice (delivered by certified mail, return receipt requested) of intent to terminate, and (2) an opportunity for consultation with the terminating party prior to termination.

**5.18.2** If termination for default or convenience is effected by the CITY, an equitable adjustment in the price provided for in this Contract shall be made, but (1) no amount shall be allowed for anticipated profit on unperformed services or other work, and (2) any payment due to the CONTRACTOR at the time of termination may be adjusted to cover any additional costs to the CITY because of the CONTRACTOR'S default.

**5.18.3** Upon receipt of a termination action under paragraph (5.18.1) or (5.18.2) above, the CONTRACTOR shall (1) promptly discontinue all affected work (unless the notice directs otherwise), and (2) deliver or otherwise make available to the CITY all data, drawings, specifications, reports, estimates, summaries and such other information and materials as may have been accumulated by the CONTRACTOR in performing this Contract whether completed or in process.

**5.18.4** Upon termination under paragraphs (5.18.1) and (5.18.2) above, the CITY may take over the work and may award another party an agreement to complete the work under this Contract.

**5.19 Warranty.** The CONTRACTOR agrees to perform all work under this Contract in accordance with the CITY'S designs, drawings and specifications.

The CONTRACTOR guarantees for a period of one (1) year from the date of the notice of completion of the work that the completed work is free from all defects due to faulty materials, equipment or workmanship and that he shall promptly make whatever adjustments or corrections which may be necessary to cure any defects, including repairs or any damage to other parts of the system resulting from such

**SECTION 5 - AGREEMENT** (Continued)

defects. The CITY shall promptly give notice to the CONTRACTOR of observed defects. In the event that the CONTRACTOR fails to make adjustments, repairs, corrections or other work made necessary by such defects, the CITY may do so and charge the CONTRACTOR the cost incurred. The performance bond shall remain in full force and effect through the guarantee period.

The CONTRACTOR'S obligations under this clause are in addition to the CONTRACTOR'S other express or implied assurances of this Contract or state law and in no way diminish any other rights that the CITY may have against the CONTRACTOR for faulty materials, equipment or work.

**5.20 Attorneys' Fees.** If any action at law or in equity is necessary to enforce or interpret the terms of this Contract, each shall bear its own attorneys' fees, costs and necessary disbursements. Notwithstanding the foregoing, if any action is brought against the CONTRACTOR or any subcontractor to enforce a Stop Notice or Notice to Withhold, which named the CITY as a party to said action, the CITY shall be entitled to reasonable attorneys' fees, costs and necessary disbursements arising out of the defense of such action by the CITY. The CITY shall be entitled to deduct its costs for any Stop Notice filed, whether court action is involved or not.

**5.21 Notices.** Any notice required or permitted under this Contract may be given by ordinary mail at the address set forth below. Any party whose address changes shall notify the other party in writing.

TO CITY:

*City of Garden Grove.  
Public Works Department  
Attention: Mike Santos  
11222 Acacia Parkway  
Garden Grove, CA 92842  
(714) 741-5179  
(714) 741-5578 Fax*

TO CONTRACTOR:

**SECTION 5 - AGREEMENT** (Continued)

**IN WITNESS THEREOF**, these parties have executed this Construction Agreement on the day and year shown below.

Date: \_\_\_\_\_

**"CITY"**  
**CITY OF GARDEN GROVE**

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

**Scott C. Stiles**  
**City Manager**

**ATTEST:**

\_\_\_\_\_  
City Clerk

Date: \_\_\_\_\_

**"CONTRACTOR"**

\_\_\_\_\_.

CONTRACTOR'S State License No. \_\_\_\_\_  
(Expiration Date: \_\_\_\_\_)

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

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

Date: \_\_\_\_\_

**APPROVED AS TO FORM:**

\_\_\_\_\_  
Garden Grove City Attorney

Date \_\_\_\_\_

If CONTRACTOR is a corporation, a Corporate Resolution and/or Corporate Seal is required.

**FAITHFUL PERFORMANCE BOND**

Bond No. \_\_\_\_\_  
Premium \_\_\_\_\_

NOTICE: TO WHOM IT MAY CONCERN: those we, \_\_\_\_\_,  
\_\_\_\_\_  
as Principal, and \_\_\_\_\_  
as Surety, are held and firmly bound unto the City of Garden Grove, (CITY) in the sum of \_\_\_\_\_

\_\_\_\_\_ Lawful money of the United States, for the payment of which we bind heirs, our executors, administrators, successors, and ourselves jointly and severally.

That the Surety's office is located at \_\_\_\_\_,  
telephone no. \_\_\_\_\_; the Surety is licensed to do business in the State of California; and the California Insurance Agent's License No., address, and telephone no. are as follows:

License No.: \_\_\_\_\_

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

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

That the following clause must be completed if, in fact, a non-resident agent for the Surety is a party to the transaction:

Name of non-resident agent: \_\_\_\_\_

Non-resident agent's office address: \_\_\_\_\_

\_\_\_\_\_

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

THE CONDITION OF THIS OBLIGATION IS SUCH, that:

1. The Principal has agreed entered into a contract attached hereto, dated the \_\_\_\_\_ day of \_\_\_\_\_, 2018, with the CITY OF GARDEN GROVE for **CHAPMAN AVENUE, SAPPHIRE STREET, HEALEY AVENUE, SANTA RITA AVENUE, AND WILD GOOSE STREET REHABILITATION, CITY PROJECT NO. 7280.**
2. If the Principal shall well and truly perform, or cause to be performed, each and all of the requirements and obligations of the contract to be performed by the Principal, as set forth in the contract, then this bond shall be null and void; otherwise, it shall remain in full force and effect. In the event that suit is instituted to recover on this bond, the Surety will pay reasonable attorneys' fees.
3. Further, the Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration, or modification of the contract documents or of work performed shall in any way affect its obligation on this bond, and it does hereby waive notice of any change, extension of time, alteration, or modification of the contract documents, or of work to be performed.





**LABOR AND MATERIAL BOND**

Bond No. \_\_\_\_\_  
Premium \_\_\_\_\_

NOTICE: TO WHOM IT MAY CONCERN: those we, \_\_\_\_\_

\_\_\_\_\_,  
as Principal, and \_\_\_\_\_, as Surety,  
are held and firmly bound unto the City of Garden Grove, California ("CITY") in the sum of \_\_\_\_\_  
Dollars (\$\_\_\_\_\_), lawful money of the United  
States, for the payment of the sum, we bind heirs, our executors, administrators, successors, and  
ourselves jointly and severally.

That the Surety's office is located at \_\_\_\_\_,  
\_\_\_\_\_ telephone no. \_\_\_\_\_; the Surety is licensed to do business in the  
State of California; and the California Insurance Agent's License No., address, and telephone no. are  
as follows:

License No.: \_\_\_\_\_  
Address: \_\_\_\_\_  
Telephone No.: \_\_\_\_\_

That the following clause must be completed if, in fact, a non-resident agent for the Surety is a  
party to the transaction:

Name of non-resident agent: \_\_\_\_\_  
Non-resident agent's office address: \_\_\_\_\_  
\_\_\_\_\_  
Telephone No.: \_\_\_\_\_

THE CONDITION OF THIS OBLIGATION IS SUCH, that:

1. The Principal has entered into a contract attached hereto, dated \_\_\_\_\_ day of \_\_\_\_\_, 2018, with the CITY OF GARDEN GROVE for **CHAPMAN AVENUE, SAPPHIRE STREET, HEALEY AVENUE, SANTA RITA AVENUE, AND WILD GOOSE STREET REHABILITATION, CITY PROJECT NO. 7280.**
2. If the Principal, its heirs, executors, administrators, successors, or assigns, or subcontractors, shall fail to pay for any materials, provisions, provender, or other supplies or teams, implements, or machinery used in, upon, for, or about, the performance of the improvement, or for any work or labor thereon of any kind, or for amounts due under the Unemployment Insurance Code with respect to work or labor, and provided that the claimant shall have complied with the provision of the code, the Surety or Sureties will pay for same in the amount not exceeding the sum specified in this bond; otherwise, the above obligation shall be void. In case suit is brought upon this bond, the Surety will pay reasonable attorneys' fees.
3. The Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration, or modification of the contract documents, or of work performed, shall in any way affect its obligation on this bond, and it does hereby waive notice of any change, extension of time, alteration, or modification of the contract documents, or of work to be performed.



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

This Escrow Agreement is made and entered into by and between \_\_\_\_\_  
whose address is \_\_\_\_\_,  
hereinafter called "owner", \_\_\_\_\_,  
whose address is \_\_\_\_\_,  
hereinafter called "contractor", \_\_\_\_\_,  
and \_\_\_\_\_, whose address  
is \_\_\_\_\_,  
hereinafter called "escrow agent."

For the consideration hereinafter set forth, the owner, contractor, and escrow agent agree as follows:

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

(2) The owner shall make progress payments to the contractor for those funds which otherwise would be withheld from progress payments pursuant to the contract provision, provided that the escrow agent holds securities in the form and amount specified above.

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

(4) The contractor shall be responsible for paying all fees for the expenses incurred by the escrow agent in administering the escrow account. These expenses and payment terms shall be determined by the contractor and escrow agent.

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

(6) The contractor shall have the right to withdraw all or any part of the principal in the escrow account only by written notice to the escrow agent accompanied by written authorization from the owner to the escrow agent that the owner consents to the withdrawal of the amount sought to be withdrawn by contractor.

(7) The owner shall have a right to draw upon the securities in the event of default by the contractor. Upon two days' written notice to the escrow agent from the owner of the default, the

escrow agent shall immediately convert the securities to cash and shall distribute the cash as instructed by the owner.

(8) Upon receipt of written notification from the owner certifying that the contract is final and complete, and that the contractor has complied with all requirements and procedures applicable to the contract, the escrow agent shall release to the contractor all securities and interest on deposit less escrow fees and charges of the escrow account. The escrow shall be closed immediately upon disbursement of all moneys and securities on deposit and payment of fees and charges.

(9) The escrow agent shall rely on the written notifications from the owner and the contractor pursuant to Sections (1) to (8), inclusive, of this agreement and the owner and contractor shall hold the escrow agent harmless from the escrow agent's release, conversion, and disbursement of the securities and interest as set forth above.

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

On behalf of the owner:

On behalf of the contractor:

\_\_\_\_\_  
On behalf of the owner:  
Title

\_\_\_\_\_  
On behalf of the contractor:  
Title

\_\_\_\_\_  
Name

\_\_\_\_\_  
Name

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Address

\_\_\_\_\_  
Address

On behalf of the escrow agent:  
Title

Title

\_\_\_\_\_  
Name

\_\_\_\_\_  
Name

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Address

\_\_\_\_\_  
Address

At the time the escrow account is opened, the owner and contractor shall deliver to the escrow agent a fully executed counterpart of this Agreement.

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

Owner/Contractor \_\_\_\_\_

Dated: \_\_\_\_\_

Title/Title \_\_\_\_\_

Approved as to Form \_\_\_\_\_

City Attorney

**SECTION 6 - GENERAL CONDITIONS**

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## **SECTION 6 - GENERAL CONDITIONS**

### 1. GENERAL DESCRIPTION

The work shall consist of furnishing all material and equipment and performing all labor required to carry out the general intention in accordance with the Plans and Specifications.

### 2. DEFINITIONS

State: Shall mean the State of California or the City of Garden Grove as applicable

City Council: Shall mean the governing body of the City of Garden Grove.

Public Works: Shall mean the Public Works Department of the City of Garden Grove.

City: Shall mean the City of Garden Grove.

Engineer: Shall mean the City Engineer or his authorized agent.

### 3. LOCATION

The work shall be constructed on land owned or controlled by the City of Garden Grove, at the sites shown on the plans.

### 4. CONTRACT

Within ten (10) calendar days after CITY award, the Contract shall be executed on the form enclosed herein by the successful CONTRACTOR. It shall be the responsibility of the CONTRACTOR to make an appointment within the above time limit to sign the Contract in the Engineer's office and to discuss the construction operations with the Engineer or his representative.

### 5. PERFORMANCE BOND

Refer to Construction Agreement.

### 6. RETENTION

Refer to Construction Agreement.

### 7. BEGINNING OF WORK

Refer to Construction Agreement.

### 8. TIME FOR COMPLETION

Refer to Construction Agreement.

## **SECTION 6 – GENERAL CONDITIONS (Continued)**

### 9. LIQUIDATED DAMAGES

Refer to Construction Agreement.

### 10. STANDARD SPECIFICATIONS AND STANDARD PLANS

"Standard Specifications" referred to herein shall be those published by the State of California, Department of Transportation, Standard Specifications 2015, and the "Greenbook" referred to herein shall be Standard Specifications for Public Works Construction, latest edition. The "Standard Plans" referred to herein shall be those of the City of Garden Grove, Public Works Department, latest revision unless noted otherwise.

### 11. MATERIALS

Materials shall be new and in accordance with these specifications. Certified reports of material's inspections of materials required under this contract as specified herein shall be submitted and may be accepted by the Engineer in lieu of actual chemical or physical tests in the field. Where a reasonable doubt exists in the mind of the Engineer, however, he shall conduct all necessary tests to determine that the material in question meets the requirements of the specifications. The cost of making such tests shall be borne by the City of Garden Grove when the results indicate compliance with the specifications, otherwise, the expense of such tests shall be borne by the Contractor.

### 12. LICENSES, PERMITS, REGULATIONS AND ORDINANCES

At its sole cost and expense, Contractor and all sub-contractors shall obtain such licenses, permits, and approvals as may be required by law for the performance of the services required by this agreement. Contractor and all subcontractors shall have the sole obligation to pay for any fees, assessments, and taxes, plus applicable penalties and interest, which may be imposed by law and arise from or are necessary for the performance of the services required by this contract. The Contractor and any subcontractor shall have the proper state licenses for the work to be performed along with obtaining a City business license prior to commencement of their work.

Contractor shall secure a City of Garden Grove and City of Westminster business license prior to working in the City of Garden Grove or the City of Westminster. The Contractor shall complete the permit process by paying all applicable fees and providing insurance, traffic control plans and information satisfactory to the City of Garden Grove and City of Anaheim. Contractor shall add the City of Garden Grove and the City of Westminster as an additional insured on the required liability insurance and to provide a copy of insurance to the City of Garden Grove and the City of Anaheim.

The Contractor and all subcontractors shall comply with all laws, ordinances, rules and regulations bearing on the conduct of the work. Any work performed, or materials or equipment furnished, which does not conform to said laws, ordinances, rules and regulations, shall be changed to conform thereto by the Contractor at his sole expense.

### 13. WORK OUTSIDE REGULAR HOURS

No work will be allowed outside regular working hours without the express permission of the Engineer of City of Garden Grove, except work items as mentioned above and relating to maintenance and cleanup of the work area for the purpose of public safety and convenience. In the event, work outside regular hours is allowed, any extra expense incurred by the

## **SECTION 6 – GENERAL CONDITIONS (Continued)**

CONTRACTOR shall be considered as being included in his bid prices and no extra compensation will be due for such work. The night work shall be lighted in a manner approved by the Engineer.

The legal workday shall consist of eight (8) hours. Work may be completed between the hours of 7:30 AM to 4:30 PM unless otherwise specified. Should CONTRACTOR receive permission from the Engineer to work overtime, the CONTRACTOR shall pay \$500.00/hr for all inspection costs because of the CONTRACTOR's overtime work.

Workdays shall be restricted to Monday through Friday unless written request outlining substantial reasons for working on Saturdays, Sundays or contractual holidays is submitted to the Engineer a minimum of forty-eight (48) hours in advance of the proposed non-contractual working day(s). If the work proposed is determined by the Engineer as being in the best interest of the CITY, the necessary inspection will be provided.

If the reasons for such request are not deemed sufficient, the Engineer may authorize inspection and survey services, if available, and such services shall be billed against the CONTRACTOR at the time and one-half salary rate plus fringe benefits for the personnel assigned to the project. Such services shall be paid to the nearest half-hour worked, subject to a minimum working period of two (2) hours.

Emergency repairs and pre-storm protective installations may be performed in project areas without written notice.

### 14. ORDER OF WORK

The method of conducting the work shall be subject to the approval of the Engineer, or his authorized representative. (Refer to ARTICLE 4 of these Specifications.)

### 15. PRECONSTRUCTION CONFERENCE

The CONTRACTOR, along with his field representative(s) and all subcontractors', shall meet with representatives of the City of Garden Grove before the start of construction. The CONTRACTOR will be notified regarding the exact time and place of the conference.

The CONTRACTOR shall submit a list of material suppliers to the Engineer at the Preconstruction Conference. He shall also designate an employee to be responsible for traffic control on this project other than the Project Superintendent. This employee shall have expertise in urban traffic control, and shall be at the site during all operations requiring traffic control. As part of his responsibilities, he shall personally inspect the traffic control devices in use at least twice per day during operations, and twice per day on days when traffic control remains in effect when no work is in progress.

A schedule of construction shall be submitted to the Engineer at the Preconstruction Conference.

### 16. QUANTITIES OF WORK

The quantities of work shown in the Proposal are approximate only and constitute the Engineer's Estimate for this project. The CITY does not expressly or by implication agrees that the actual amounts of work will correspond exactly with the Engineer's Estimate.

## **SECTION 6 – GENERAL CONDITIONS (Continued)**

The CITY reserves the right to increase or decrease the amount of any class or portion of the work as may be deemed necessary or expedient by the Engineer.

### **17. LEGAL RELATIONS AND RESPONSIBILITY**

General - In connection with laws to be observed and responsibility of CONTRACTOR, attention is directed to Section 7 of the Standard Specifications and to the laws therein applicable to this contract.

Labor - Attention is directed to the provisions and penalties applicable to workmen permitted to labor more than eight hours in a calendar day, to labor discrimination, and to employment of alien labor.

### **18. PROSECUTION OF WORK**

The CONTRACTOR shall conduct the work in such a manner and with sufficient materials, equipment, and in the time limits set forth in the Specifications. Should the CONTRACTOR with the consent of the Engineer discontinue the prosecution of the work for any reason, he shall notify the Engineer at least twenty-four hours in advance of resuming operation.

### **19. EXAMINATION OF PREMISES**

Contractors are required to visit the site before submitting proposals so as to satisfy themselves as to existing conditions in and around the project work area. No extra payment will be allowed by the CITY for failure to properly assess site work area and conditions.

### **20. TERMS OF CONSTRUCTION AS USED IN THESE SPECIFICATIONS**

The present tense includes the past and future tenses; and the future the present.

The masculine gender includes the feminine and the neuter.

The singular number includes the plural; and the plural the singular.

*"Shall or will"* is mandatory and *"may"* is permissive.

### **21. RECORD DRAWINGS**

The CONTRACTOR shall keep a complete set of Record Drawings at the job site. Contract Drawings shall be legibly marked showing each actual item of record construction including:

- A. Measured depths of elements in relation to fixed datum points.
- B. Measured horizontal and vertical locations of underground utilities with reference to permanent surface improvements.
- C. Field changes of dimensions, locations and/or materials with details as required to clearly delineating the modifications.
- D. Any details not in the original Contract Drawings developed by the CITY or the CONTRACTOR through the course of construction necessary to clarify or modify the Contract Drawings.

## **SECTION 6 – GENERAL CONDITIONS (Continued)**

- E. Each month, the contractor will submit updated as-built plan to the Engineer for review as a condition of payment for monthly progress payment. Progress pay will be withheld until as-built plans are brought up to date.

At the end of the project, CONTRACTOR shall submit to the Engineer of Garden Grove "As-Built" prints prior to the CITY acceptance of the work. The prints shall indicate in red all deviations from Project Plans. Failure by CONTRACTOR to submit "As-Built Plans" may cause delay in final payments.

### **22. SUBMITTALS**

The CONTRACTOR shall submit for approval by the Engineer such material, samples, product specifications/brochures, certified mix designs, warranties material certifications, operations and maintenance manuals and equipment as may be required, whether mentioned specifically herein or not.

### **23. SUPERINTENDENCE OF LABOR AND COMPETENCY**

The CONTRACTOR, or an experienced superintendent authorized to act for him, shall be continually in charge of the work. Information given by the Engineer to the CONTRACTOR's superintendent or his authorized representative shall be as binding as though given to the CONTRACTOR in person. In addition, there shall be a qualified and experienced foreman in charge of each branch of work. No workman, foreman, or superintendent shall be continued on the work that, in the judgment of the Engineer, is negligent or incompetent.

### **24. PROTECTIONS AND INSURANCE**

Refer to Construction Agreement.

### **25. SUBCONTRACTORS**

No subcontractors will be recognized as such. All persons engaged in the work of construction will be considered as employees of CONTRACTOR, and CONTRACTOR will be held directly responsible for their work. No contract or any portion thereof may be assigned without the written consent of the Engineer.

### **26. CLAIMS/LEGAL ACTIONS AGAINST THE CITY**

It is the intent of this contract, that the Contractor shall and will indemnify and hold harmless the City of Garden Grove, its officers and employees from all claims, suits or actions regardless of the existence or degree of fault or negligence on the part of the City. The Contractor shall be responsible for any liability imposed by law and for injuries to or death of any person including but not limited to workmen and the public, or damage to property resulting from defects or obstruction or from any cause whatsoever during the progress of the work or at any time before its completion and final acceptance.

In the event claim/legal actions are brought against the City, immediately it will be referred to the Contractor. Failure by the Contractor, for any reason to indemnify, defend and save harmless the City, the City shall deduct from any money due to Contractor reasonable expenses that the City staff or consultant working for the City have incurred in processing, investigation, defending any claims/legal actions brought against the City.

## SECTION 6 – GENERAL CONDITIONS (Continued)

### 27. SATISFACTION OF LIENS

Prior to judicial determination of any claim or claims in accord therewith, the CITY may apply an amount withheld to the payment and satisfaction of subcontractors for labor and services rendered and materials furnished. In so doing the CITY shall be deemed the agent of the CONTRACTOR and any payment so made by the CITY shall be considered as a payment made under the Contract by the CITY to the CONTRACTOR, the CITY shall not be liable to the CONTRACTOR for any such payment made in good faith provided that such payment shall not be made except by court order if the CONTRACTOR furnished a bond satisfactory to the CITY to indemnify the CITY against any lien or claim.

If any lien or claim should remain unsatisfied after final payment to the CONTRACTOR, the CONTRACTOR, upon demand, shall refund to the CITY any money that the latter may be compelled to pay to discharge such lien or claim, including all costs and reasonable attorney's fees.

Before the CITY will make the final payment to the CONTRACTOR, the CONTRACTOR shall furnish the CITY with lien releases from all subcontractors and suppliers of material, together with a certified statement that the releases represent all the materials furnished and all the subcontractors engaged for the work.

### 28. DISPUTED WORK

If the CONTRACTOR and the CITY are unable to reach agreement on disputed work, the CITY may direct the CONTRACTOR to proceed with the work. Payment shall be as later determined by arbitration, if the CITY and the CONTRACTOR agree thereto, or as fixed in a court of law.

Although not to be construed as proceeding under extra work provisions, the CONTRACTOR shall keep and furnish records of disputed work in accordance with Section 9-1.03C of the Standard Specifications.

### 29. CLEAN UP

The CONTRACTOR shall protect and care for all work until final completion and acceptance.

During construction, the CONTRACTOR shall keep the site free and clean from all rubbish and debris, and the site must be cleaned up within one day after the Engineer gives him notice.

At the time of the completion of the work, the CONTRACTOR shall remove from the site and the vicinity of the work all plant equipment, buildings and other temporary facilities, all used or unused materials belonging to him or used under his direction during construction. He shall remove all debris and rubbish from the site of the work before he makes application for acceptance of the work.

### 30. LEGAL HOLIDAYS

Legal holidays shall be regarded as New Year's Day and the day before or after as approved by the CITY, Martin Luther King, President's Day, Memorial Day, Fourth of July, Labor Day, Veterans Day, Thanksgiving and the Friday following, and from **December 21, 2018 to January 1, 2019**. No work shall be scheduled on a legal holiday.

## **SECTION 6 – GENERAL CONDITIONS (Continued)**

### 31. PAYMENTS

Refer to Construction Agreement.

### 32. PAYMENT OF TAXES

The contract prices paid for the work shall include full compensation for all taxes which the CONTRACTOR is required to pay, whether imposed by Federal, State, or local government, including, without being limited to, Federal Excise Tax and Federal Transportation Tax.

### 33. SCHEDULE OF CONSTRUCTION

The CONTRACTOR shall submit to the Engineer a schedule of construction for approval. The schedule of construction shall be submitted in accordance with Section 8.1.04 of the Standard Specifications with the following exceptions:

- A. The CONTRACTOR shall submit a written proposed progress schedule to the engineer before starting construction.
- B. The CONTRACTOR shall be responsible for furnishing a schedule on a form, which meets the Engineer's approval.
- C. The CONTRACTOR shall be responsible for updating the schedule and, if requested, will provide an updated copy of the schedule at the end of each billing period.
- D. No payments of work completed shall be made until the subject schedule is submitted and approved.

The schedule of construction shall list in detail and proper sequence the various construction items for the job. The Engineer shall be notified before any change is made in the sequence of construction.

### 34. SAFETY PROVISIONS

The CONTRACTOR shall conform to the rules and regulations pertaining to safety established by the California Division of Industrial Safety.

The CONTRACTOR shall maintain the work site in a clean, safe and workmanlike manner. All material to be cleared from the site shall be removed from the site at the end of each day. All open trenches shall be backfilled at the end of each working day. The work area shall be secured with a six-foot (6') high chain link construction fence at the end of the day or adequately covered with steel plates or as directed by the CITY Engineer.

The CONTRACTOR shall upon direction of the Engineer, immediately remove or protect any item, which in the opinion of the Engineer presents a safety hazard. All costs involved in maintaining the work site in a clean and safe manner shall be included in the various items of work and no additional compensation will be allowed. With the approval of the City Engineer, The Contractor may establish temporary "No Parking Tow Away" zones adjacent to the work zone. Establishment of such zones shall be coordinated with the Garden Grove Police Department, (714) 741-5707, and the City's Traffic Engineer, (714) 741-5193.

### 35. GUARANTEE

Refer to Construction Agreement.

## **SECTION 6 – GENERAL CONDITIONS (Continued)**

### **36. ENGINEERING AND SURVEY CONTROL**

Control of the work shall be in accordance with Section 5 of the Standard Specifications and herein contained under Section 6 - General Conditions, with the following modifications:

- A. The CONTRACTOR shall provide the services of a land Surveyor licensed in the state of California, for laying out survey control for the work.

### **37. COORDINATION OF DOCUMENTS**

In case of conflict between the various contract documents, the order of precedence shall be as follows:

1. Special Provisions
2. General Conditions
3. Construction Plans
4. City of Garden Grove Standard Plans
5. The City of Garden Grove Public Works Department Specifications
6. The Standard Specifications 2010 Edition
7. Standard Specifications for Public Works Construction, 2012 Edition

The standard specifications shall apply to all phases of work not controlled by documents 1 through 5 above.

In case of conflict between the specifications and the instructions and conditions of the invitation to bid, the specifications shall have precedence.

In case of conflict, it is the contractor's responsibility to use best materials as approved by the Engineer.

### **38. RIGHT-OF-WAY**

It shall be the responsibility of the Contractor to conduct all of his activities and operations within the rights-of-way provided by the City and within the confines of the work site.

If, for any reason, the Contractor elects to encroach upon other lands adjoining rights-of-way or adjoining the work site, he shall first obtain written permission from the owner thereof and provide evidence of such permission in writing to the Engineer prior to entering upon such lands.

The Contractor shall indemnify and hold the City harmless from all claims for damages occasioned by such work or activity, whether done in compliance with this section and with permission or in violation of this section and without permission.

### **39. CONSTRUCTION SITE**

Construction equipment shall not be stored at the work site before its actual use on the work nor for more than three (3) working days after it is no longer needed on the work. All repairs or assembly of equipment that will take two (2) or more working days to repair shall be done at the construction yard adjacent to the work area. The CITY shall approve the location and size of construction yard. Any damaged, destroyed or disturbed area at the site shall be restored to their original condition or replaced by the CONTRACTOR as directed by the Engineer at no additional expense to the CITY. All equipment and materials shall be stored at the yard during weekends, unless otherwise authorized by the Engineer.



## **SECTION 6 – GENERAL CONDITIONS (Continued)**

Excavated materials shall not be stored on the site. Excavated materials that may be suitable for backfill may be stored at the site as approved by the CITY Engineer. The Engineer shall, at all times, have a safe access to the site for purposes of inspection and testing. The CONTRACTOR shall remove all trash, debris, and construction materials, spoil and contaminants (gas, oil diesel fuel, lubricants, etc.) and leave the site in a clean and level condition.

Full compensation for conforming to the requirements of this section shall be considered as included in the prices paid for the various contract items of work and no additional compensation will be allowed.

### 40. TESTS

Tests, including compaction tests, shall be performed in accordance with the Standard Specification and this Specification. The Contractor, at its own expense, shall deliver the materials for testing to the place and at the time designated by the Engineer. The Contractor shall notify the Engineer no less than two (2) working days in advance of any required materials testing. The cost of making such tests shall be borne by the City when results indicate compliance with the specifications, otherwise, the expense of such tests shall be borne by the Contractor.

### 41. COMPLIANCE WITH LAW

CONTRACTOR shall comply with all applicable laws, ordinances, codes, and regulations of the federal, state, and local governments.

### 42. NO WAIVER OF CONDITIONS

CONTRACTOR agrees that waiver by CITY of any one or more of the conditions of performance under this contract shall not be construed as waiver of any other condition of performance under this contract.

### 43. CORPORATE AUTHORITY

The persons executing this contract on behalf of the parties hereto warrant that they are duly authorized to execute this contract on behalf of said parties and that by so executing this contract; the parties hereto are formally bound to the provisions of this contract.

### 44. MODIFICATION

This Agreement constitutes the entire agreement between the parties. This Agreement may be modified only by subsequent mutual written agreement executed by the CITY and the CONTRACTOR.

### 45. WAIVER

All waivers of the provisions of this Agreement must be in writing by the appropriate authorities of the CITY and the CONTRACTOR.

### 46. CALIFORNIA LAW

This Agreement shall be construed in accordance with the laws of the State of California.

## **SECTION 6 – GENERAL CONDITIONS (Continued)**

### 47. INTERPRETATION

This Agreement shall be interpreted as though prepared by both parties.

### 48. PRESERVATION OF AGREEMENT

Should any paragraph, clause or provision of this agreement be found invalid or unenforceable, such decision shall affect only the paragraph, clause, or provision construed and interpreted, and all remaining provisions shall remain valid and enforceable.

### 49. MUTUAL AGREEMENT

The parties hereto do mutually covenant and agree to the full and faithful performance of their respective obligations under this contract.

### 50. NOTICE OF COMPLETION

Contractor shall certify in writing to City, prior to final payment, that the entire project is complete and request that City issue a Notice of Completion. Within a reasonable time thereafter, City and Contractor shall make an inspection. If the City does not consider the project complete, it will notify the Contractor in writing giving its reasons the list of work to be completed or corrected and shall be accepted by the City prior to recordation of the Notice of Completion and final payment.

### 51. HAUL ROUTE PLAN

Prior to the start of construction, the Contractor shall submit three copies of a haul route plan to the Engineer for review and approval. Plan shall delineate route and type of contractor and subcontractor vehicles from point of inception to work site, and return to point of inception.

The Contractor shall demonstrate that he has given full consideration to the possible impacts to the surrounding and adjacent properties and that the proposed plan provides the least possible impact. Safety appropriate to haul trucks will be required at all items. Haul truck route to be free of debris, material at the end of the working day, and cleaned continuously during the hauling operation.

### 52. NOTICE

Prior to the start of construction operations, the Contractor shall notify the Police and Fire Departments of the AGENCY, giving the approximate starting date, completion date, and the name and telephone of responsible persons who may be contacted at any hour in the event of a critical condition requiring immediate correction.

At least two weeks prior to starting work, the Contractor shall notify the Orange County Transportation Authority (OCTA) bus service of the approximate starting date and completion date. At least two weeks prior to starting work, the Contractor shall deliver notices to the residents and businesses in the area affected by the construction. At least 48 hours before working on a street, the contractor shall contact the residents and businesses of that street by written notice to provide information as to the type of work, closure, type of inconvenience and the expected duration. The written notice shall be a tag shape and be hanging on doorknobs and all parked vehicles on the street. In the event of a delay after the notice has been delivered, the contractor shall provide an updated notice to the residents and businesses. After construction completion on the street, the contractor shall collect any notices that are not pick up by the residents or businesses.

## **SECTION 7 - SPECIAL PROVISIONS**

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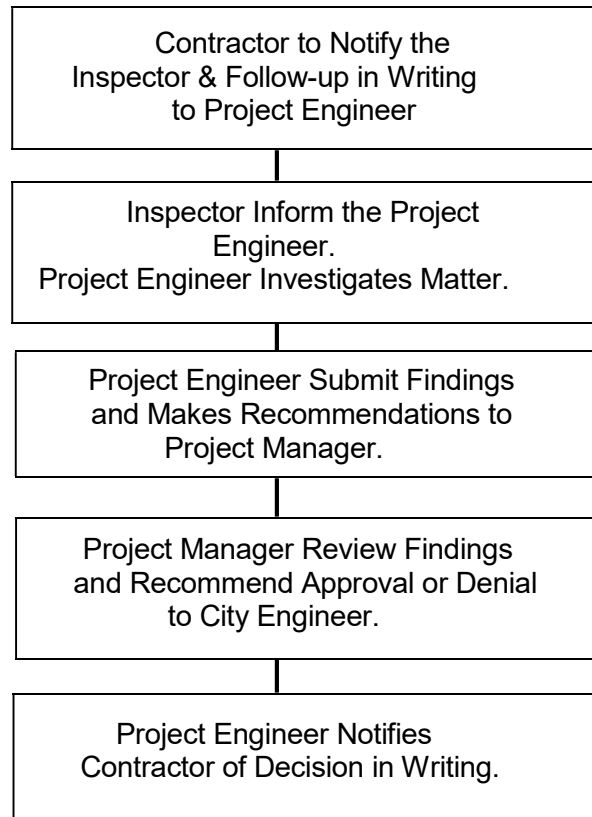
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**ARTICLE 1 - CONTRACT ADMINISTRATION PROCEDURES**

For any type of problems, changed conditions, plan interpretations, progress billings and etc.,



If Contractor disagrees with the decision, the City will direct the Contractor to proceed with the work, subject to the provisions of Subsection 5-1.43. If a notice of potential claim is filed under the provisions of Subsection 5-1.43, Contractor shall provide daily extra work reports per Subsection 9-1.04.

All daily extra work reports shall be delivered to the Engineer within 24 hours of performance of such extra work.

The Contractor shall notify the City Engineer through the inspector in writing within three (3) working days following the discovery of any conflicts and/or difficulties, and before they are disturbed of existing conditions. The Contractor's failure to give written notice of changed conditions within the time required (Ten calendar days) shall constitute a waiver of any potential claim.

It shall be the responsibility of the Contractor to initiate, to meet and confer, and try to resolve in good faith pending claims against labor, materials and equipment, potential and disputed claims, extra work, corrections and repairs, and any other claims associated with the project.

At the final inspection, Contractor shall provide a list of all claims, proceeding from notices of potential claims previously submitted under the requirements of the Contract, for which he intends to file claims.

## **SECTION 7 - SPECIAL PROVISIONS** (Continued)

Contractor shall also arrange to meet and confer on the listed claims within 15 days of the final inspection. Time of the meeting shall be within this 15-day period.

If on the day of final inspection Contractor fails to set such meeting or provide the list of claims, the project will not be accepted and working days will continue to accrue. If these requirements are met on the day of the final inspection, preliminary acceptance will be established pending final acceptance following attendance of Contractor at the scheduled meeting.

If Contractor attends the scheduled meeting within 15 working days of the final inspection, the date of acceptance will be the date of final inspection. Failure of the Contractor to attend such meeting within 15 days of the date of preliminary acceptance shall cause the working days used in performance of the contract to be calculated based on the date of the actual meeting being date of final acceptance, minus 15 days.

If for any reason claims cannot be settled through good faith negotiations, claims will be resolved in conformance with Section 9-1.22 "Arbitration" of the Standard Specifications with the following additions:

The City and the Contractor shall share all fees required by arbitration equally. When the claim is to be settled in court, both parties must pay their own attorneys' fees.

Full compensation for conforming to the requirements of this article shall be considered as included in the Contract bid prices for the various items of work, and no separate payment will be allowed therefore.

## **ARTICLE 2 - SCOPE OF WORK**

The scope of work shall conform to the provisions of Section 4 of the Standard Specifications and the following additions:

The intent of this project is to construct all items of work complete in place in accordance with the project plans, specifications and as directed by the Engineer. The unit prices, which include the cost of equipment, tool, materials and labor that are delivered to the work site are necessary for this purpose, to complete the project within the contract time required.

When unforeseen difficulties or a conflict is encountered, including toxic and hazardous materials, Contractor shall notify the engineer in writing immediately upon discovery and before the existing conditions are disturbed. Contractor shall also allow the engineer minimum of three (3) hours to investigate the conditions and make determinations concerning these conditions. Contractor and his work force shall assist the Engineer in such investigations. If the Engineer determines that additional time is needed for evaluation after investigation; the Contractor shall reschedule, reassign, transfer or move any labor, materials, tools, and equipment and alter the sequence of construction activities as necessary to carry out the intent of this project at no cost to the City.

The Contractor cannot withdraw from the project site any labor, materials, tools and equipment without prior written approval by the engineer or his authorized representative. The Contractor, therefore, shall have no claim against the City for delay, standby time of tolls, equipment and labor, damages, liability and loss of profit, when it is necessary for the engineer to exercise this requirement.

## **SECTION 7 - SPECIAL PROVISIONS** (Continued)

Full compensation for conforming to the requirements of this article shall be considered as included in the Contract bid prices for the various items of work, and no separate payment will be allowed therefore.

### **ARTICLE 3 - COOPERATION**

Although there can be no guarantee that difficulties will not be encountered, the cooperation of the Contractor is expected. The City has endeavored to provide a complete project plan and specifications. In the event of any conflict during the course of construction, Contractor shall allow reasonable time and to provide equipment and manpower for the engineer to field-check and make determination to resolve the conflict.

Contractor shall provide equipment and manpower to dig all holes necessary for testing and other test requirements.

Contractor shall have, at all times during working hours, a representative on the job site. The representative shall have the authority to make decisions regarding work that can commit Contractor time, materials, equipment's, labors, and resources.

Full compensation for conforming to the requirements of this article shall be considered as included in the Contract bid prices for the various items of work, and no separate payment will be allowed therefore.

### **ARTICLE 4 - SCHEDULE OF CONSTRUCTION AND ORDER OF WORK**

#### A. Schedule of Construction

Before starting construction, the Contractor shall submit to the Engineer a practicable progress schedule to be approved by the Engineer. The schedule shall show the order in which the Contractor proposes to carry out the work, and the contemplated dates for completing the salient features.

The progress schedule shall be consistent with the order of the work, and time requirements of the Contract. Construction shall also be scheduled in such a manner as to allow the Engineer to inspect the readiness of every phase of the work.

#### B. Construction Meeting

Contractor shall anticipate a weekly construction meeting held between representatives of the City of Garden Grove, and the Contractor, at an agreed place, day of the week and time in order to discuss progress, submittals, current challenges, potential problems and other miscellaneous topics necessary to the proposed project.

#### C. Order of Work

The first order of work, after being notified that he has awarded the Contract, shall be to place the order for all the materials required by this project within three (3) working days from date of notification. The Contractor shall furnish the Engineer with a statement from the vendor that the order for said materials has been received and accepted by said vendor.

## **SECTION 7 - SPECIAL PROVISIONS** (Continued)

**In addition, in order to provide lead time to resolve any unforeseen utility conflicts, the Contractor shall pothole and ascertain the true location and depth of all underground utilities and services as shown on the plans or located within the lines of excavation and/or marked by their respective owners in the field. This phase of work shall be performed a minimum of two (2) weeks, if allowable, prior to any pulverization or excavation work and shall be incorporated into the construction schedule.**

Full compensation for conforming to the requirements of this article shall be considered as included in the Contract bid prices for the various items of work and no separate payment will be allowed therefore.

### **ARTICLE 5 - CONSTRUCTION WATER**

Application of water shall conform to the provisions of Section 17-1.02 of the Standard Specifications. Construction water may be taken only at locations approved by the Water Services Division. The City, at the Contractor's expense, will install a construction meter and eddy valve at these locations. This valve shall be operated when taking construction water with the fire hydrant remaining open during the day. Contractor will be charged for construction water on an as-used basis.

The Contractor shall make application to the City of Garden Grove Water Department for installation of a fire hydrant water meter for his construction water and shall make appropriate meter deposits to cover cost of relocation or damage to the meter.

Payment for applying water, including all labor, tools, equipment, and incidentals required for the application of water shall be considered as included in the various contract items of work involving the use of water, and no additional compensation will be allowed therefore.

### **ARTICLE 6 - CONSTRUCTION YARD SITE**

The proposed project is located in residential and/or commercial areas. Contractor shall, at his expense, secure a site for storing materials supplies and equipment. A conscious effort on his part is required, that due regard to the rights of the public must be observed at all times possible obstruction and inconvenience shall be kept to the minimum.

Construction materials shall not be stored in streets, roads or highways for more than three (3) working days after unloading. All materials or equipment not installed or used in the construction within three (3) working days after unloading, shall be stored at the construction yard.

Construction equipment shall not be stored at the work site before its actual use on the work nor for more than three (3) working days after it is no longer needed on the work. All repairs or assembly of equipment that will take two (2) or more working days to repair shall be done at the construction yard. All equipment and materials shall be stored at the yard during weekends, unless otherwise authorized by the Engineer.

Excavated materials shall not be stored in public streets, roads or highways. Excavated materials that may be suitable for backfill shall be stored at a site of Contractor's choice. The Engineer shall, at all times, have a safe access to the site for purposes of inspection and testing.



## **SECTION 7 - SPECIAL PROVISIONS** (Continued)

Full compensation for conforming to the requirements of this article shall be considered as included in the Contract bid prices for the various items of work, and no separate payment will be allowed therefore.

### **ARTICLE 7 - PROJECT APPEARANCE**

The Contractor shall maintain a neat appearance to the work site. Asphalt concrete, aggregate base, broken PC concrete, native soil, and debris developed during construction shall be disposed of concurrently within its removal. If stockpiling is necessary, the material shall be removed or disposed of weekly.

Dust caused by the passage of public traffic through the work shall be considered as resulting from the Contractor's performance of work. Whenever the Contractor fails to control dust resulting from the performance of the work, the Engineer may cause such dust to be controlled and costs thereby incurred shall be deducted from moneys due or to become due the Contractor.

Full compensation for conforming to the requirements of this article shall be considered as included in the Contract bid prices for the various items of work, and no separate payment will be allowed therefore.

### **ARTICLE 8 - PUBLIC SAFETY**

The Contractor shall conform to the rules and regulations pertaining to safety established by the California Division of Industrial Safety.

The Contractor shall take all necessary precautions to protect the public from the hazards of open excavations. Trenches and other excavations shall either be covered or adequately fenced at night and on weekends or at other times required by the Engineer for safety. No open trenches or any other open excavation shall be left open for more than two (2) working days. Contractor shall backfill all open excavation at his expense.

The Contractor may establish temporary "No Parking Tow Away" zones adjacent to the work zone. Establishment of such zones shall be coordinated with the Garden Grove Police Department, (714) 741-5707, and the City's Traffic Engineer, (714) 741-5189.

Temporary "*No Parking Tow Away*" zone sign shall be posted 72 hours in advance by the Contractor, stating the date and time, for any arterial street. Residential streets shall be posted 48 hours in advance.

Payment for fencing, safety protection and temporary excavation backfill shall be included in the Contract bid prices for the various items of work involved, and no additional compensation will be allowed therefore.

### **ARTICLE 9 - ARCHAEOLOGICAL AND PALEONTOLOGICAL DISCOVERIES**

If discovery is made of items of archaeological or paleontological interest, the Contractor shall cease excavation of the area of discovery and shall not continue until such time as approved by the Engineer. The Engineer shall then direct excavation operations within the area of discovery.

## **SECTION 7 - SPECIAL PROVISIONS** (Continued)

Discoveries include but are not limited to, dwelling sites, stone or other artifacts, animal bones, human bones and fossils.

The Contractor shall be entitled to an extension of time in accordance with the provisions of Subsection 8-1.07B. Should the Contractor's operations be affected materially, additional work will be paid for as extra work as provided in Section 4, "EXTRA WORK," of the Standard Specifications.

## **ARTICLE 10 - GEOTECHNICAL INVESTIGATION**

A geotechnical exploration report completed on **August 10, 2016 for Chapman Avenue** and other **various residential streets (Sapphire Street, Santa Rita Avenue, Wild Goose Street and Healey Avenue)**, have been prepared for this project and are available to the Contractor for review upon request. The City does not guarantee, either expressed or implied, that groundwater and the conditions indicated on the geotechnical reports are representative of those actually existing throughout the project, or any part of it, or that unforeseen developments may not occur. The City, therefore, encourages the Contractor to conduct his/her own subsurface exploration before submitting a bid. The availability of the geotechnical investigation shall not be construed as a waiver of the Contractor's obligation to inspect the soil conditions himself, before submitting a bid.

By submitting a bid, the Contractor acknowledges that he has satisfied himself as to the nature of the work, including but not restricted to the conditions affecting handling and storage of materials, disposal of excess material, level and amount of groundwater, and ascertaining existing conditions that affect labor, materials and equipment costs.

In the event, groundwater is encountered, the Contractor shall provide and maintain dewatering during construction in accordance with the standard specifications and the requirements of the district's NPDES Order No. 85-83 issued by the California Regional Water Quality Control Board (Santa Ana Region).

All costs for dewatering, when encountered during construction, shall be included in the Contract bid prices in the various items of work and no additional compensation shall be allowed therefore.

## **ARTICLE 11 – MOBILIZATION INCLUDING CLEARING AND GRUBBING**

### Mobilization

Mobilization shall consist of preparatory work and operations including, but not limited to, those necessary for the movement of personnel, equipment, materials, portable toilets and incidentals to the project site necessary for work on the project and for all other work and operations which must be performed or costs incurred including bonds, insurance, City business license and financing prior to beginning work on the various contract items on the project site. Any bonds that must be posted or proof of insurance issues that arise must be resolved prior to mobilization. Mobilization shall also include the time and labor to move the necessary construction equipment to and from the job site, supervisory time on the job by the Contractor's personnel to keep the construction site in a safe condition, and all other related work as required for all non-working days during the course of entire contract period. The Contractor is responsible for securing an adequate storage site for equipment and materials. This item also includes costs associated with protection of existing improvement in place. It shall also include removal of tree stumps, tree roots, and other vegetation and native materials associated with tree wells.

## **SECTION 7 - SPECIAL PROVISIONS** (Continued)

### **Clearing and Grubbing**

Clearing and grubbing shall conform to the provisions of Section 16 of the Standard Specifications with the following modifications:

1. Removal and disposal of shrubs and plants, all natural and artificial objectionable materials such as logs, upturned stumps, roots of downed trees, brush, grass, plants, weeds and all other surface materials within the limits of construction area and tree wells to be paved.
2. Roots encountered within the project limits shall be removed a minimum of 12 inches from the new work. Root pruning shall be in conformance with OCPW Std. Plan 1708. **Prior to any root pruning work, the Contractor shall contact Richard Gosselin at 714-741-0361.**
3. This item shall also be interpreted to include the removal and disposal of any additional items not specifically mentioned herein to accomplish the proposed work shown on the plans or called out in the specifications which may be found within the work limits.

Payment for **Mobilization including Clearing and Grubbing** shall be made at the contract price per **Lump Sum**. Said payment shall include full compensation for furnishing all labor, materials, equipment, rental of necessary materials and storage sites for storage purpose, and incidentals necessary to perform the items of work per the contract plans. This item shall be paid in accordance with the completion percentage of the project to the Contractor and shall include the cost of such mobilizations, demobilizations, administration, and all items included in the clearing and grubbing work for the entire contract period.

## **ARTICLE 12 - TRAFFIC CONTROL**

Traffic control shall conform to the latest editions of the California Manual on Uniform Traffic Control Devices (CA MUTCD) and with Caltrans Standard Plan T11 Traffic Control System for lane closure on multi-lane conventional highways. Notes 2 and 6 of the Caltrans Standard Plan T11 regarding illuminated advanced warning signs and cones shall not apply.

### **A. VEHICLE TRAFFIC CONTROL**

A minimum of one (1) eleven foot lane for each direction and one left turn lane shall be kept open and maintained for public use at all times except as indicated on the plans or as directed by the Engineer during construction.

### **B. PEDESTRIAN TRAFFIC CONTROL**

A minimum of one four foot wide all-weather pedestrian walkway shall be kept open and maintained to the satisfaction of the Engineer along both sides of each public street at all times during construction.

### **C. ACCESS TO ADJACENT PROPERTIES**

A minimum of one (1) driveway per property shall be accessible and maintained at all times unless otherwise authorized by the City. Temporary drive approach ramps constructed of

## **SECTION 7 - SPECIAL PROVISIONS** (Continued)

recycled materials or temporary asphalt (12' minimum width) may be installed as approved by the Engineer. Trench plates may also be used.

### D. GENERAL TRAFFIC CONTROLS

Notification letters shall be hand delivered by Contractor two (2) weeks in advance of beginning of construction giving notice of traffic restriction, period of construction, and suggested use of alternate routing. Exact wording on the advanced notification letters will be approved by the Engineer.

**Six (6) Construction information signs for Chapman Avenue project and two (2) construction information signs on each Residential Streets project. Refer to Plan and City Standard Plan No. B-135 for sign requirements. Contractor shall also install SB1 signs, two on each segment, per attached at the end of this Specifications.** Cost for these signs shall be included in **Mobilization** item.

Traffic control devices shall comply with Section 12 of the standard specifications.

**The Contractor shall also provide electronic changeable message boards Chapman Avenue (2 total), and two on each residential streets two weeks in advance of the start of work to alert motorists of the period of traffic delays anticipated during lane closures.** Cost for these signs shall be included in **Mobilization** item.

The Contractor shall submit traffic control plans prepared by a civil engineer registered in the State of California, stamp the plans for approval at least ten (10) working days prior to commencement of work. The plans shall show all businesses, directional signs, driveway entrances, signs, delineation, tapers, dimensions, etc., for traffic control. No construction will begin until the Contractor's traffic control plans are approved by the City. The plans shall indicate the various phases of work and the proposed traffic control methods for each phase. The plans shall conform to the requirements of the latest edition of the CA MUTCD, and these special provisions.

Flashing arrow signs shall be used as noted in the traffic control plans. (Battery or solar powered only).

Placement of temporary pavement marking tape shall consist of applying, maintaining, and later removing temporary traffic stripe (traffic line) and pavement marking tape at the locations shows on the plans or designated by the Engineer in conformance with these special provisions.

Temporary tape and/or painted stripes and removal of existing channelization may be required for traffic control. Tape for temporary traffic stripes and pavement markings will be a reinforced plastic type especially designed for ease of removal.

Temporary stripes shall be placed to the line established by the Engineer. Completed stripes shall be straight on tangent alignment and shall be on a true arc on curved alignment.

Surfaces on which the tape is to be applied shall be cleaned of all dirt and loose material and shall be dry when the tape is applied. The air temperature and pavement temperature at the time the tape is applied shall be 50°F or above. Tape shall not be applied over existing painted stripes or markings.

## **SECTION 7 - SPECIAL PROVISIONS** (Continued)

After the tape has been applied it shall be rolled slowly with a rubber tired vehicle or roller to ensure complete contact with the pavement surface.

Temporary traffic stripes and pavement markings that are damaged from any cause during the progress of the work shall be repaired or replaced by the Contractor at his expense.

When no longer required for the direction of public traffic, as determined by the Engineer, the tape shall be removed and disposed of outside the highway right of way and all marks used to establish satisfactory lines for the temporary stripes and pavement markings shall be removed from the pavement.

Every effort shall be made by the Contractor to insure traffic safety. If in the opinion of the Engineer additional signing or delineation is required for traffic safety, then the Contractor shall furnish and place the additional signs or delineators at no additional cost to the Agency.

### **E. ROAD CLOSURE CONDITIONS**

When construction conditions do not permit through traffic to use the street as determined by the Engineer, the following conditions will prevail:

- The Engineer must receive notice from the Contractor of any proposed road closure at least 48 hours prior to the actual closure. Before any road closures may be approved by the Engineer, specific detour plans for signing and barricading must be approved by the Traffic Engineer. At the times during the road closure conditions, a ten-foot (10') minimum width access corridor shall be kept open and maintained for emergency vehicles.

### **F. TRAFFIC CONTROL AND SAFETY**

All control, warning and safety devices shall conform to the requirements set forth in the latest edition of the CA MUTCD.

If attention is directed to the existence of a hazard and the Contractor fails to provide such devices, said devices will be placed or caused to be placed by the City. The cost of placement of these devices shall be the sole responsibility of the Contractor and shall be paid for at the rate of \$500.00 per hour for labor and the pickup truck, \$50.00 per day per barricade, and any other costs incurred by the City relative to traffic control. Said costs, if any, shall be deducted from the progress payments and from the total Contract price for the work.

When entering or leaving roadway carrying public traffic, the Contractor's equipment, whether empty or loaded, shall in all cases yield to public traffic. No excavation within five feet of the traveled way shall remain open no longer than is necessary to perform the work, and in no case shall remain unfenced or unplated overnight or on weekends.

The Contractor shall provide and maintain all signs, barricades, pedestals, flashers, delineators and other necessary facilities for the protection of the motoring public within the limits of the construction area and all its approaches, including advanced signing and barricades. He shall also post proper signs to notify the public regarding the conditions of the roadway, all in accordance with the provisions of the Vehicle Code, and the CA MUTCD, as published by the US Department of Transportation, Federal Highway Administration.

The Contractor shall conduct his operations so as to provide reasonable access to the adjacent properties and shall have no greater length or quantity of work under construction than he can

## SECTION 7 - SPECIAL PROVISIONS (Continued)

properly prosecute with a minimum of inconvenience to the public and other contractor engaged on adjacent or related work.

Portable delineators shall be spaced as necessary for proper delineation of the travel way. The spacing between delineators shall not exceed the requirements set forth in the CA MUTCD.

If the traffic cones or portable delineators are damaged, displaced or are not in an upright position from any cause, said cones or portable delineators shall immediately be replaced or restored to their original location in an upright position by the Contractor.

The Contractor shall furnish such flagmen as are necessary to give adequate warning to traffic or to the public of any dangerous conditions to be encountered. Flagmen, while on duty and assigned to give warning to the public of any dangerous conditions to be encountered, shall perform their duties and shall be provided with the necessary equipment in accordance with the current Caltrans "Instructions to Flagmen." The equipment shall be furnished and kept clean and in good working condition by the Contractor at his expense.

Should the Contractor appear to be neglectful or negligent in furnishing warning and protective measures as above provided, the Engineer may direct attention to the existence of a hazard and the necessary warning and protective measures shall be furnished and installed by the Contractor at this expense. Should the Engineer point out the inadequacy of warning and protective measures, such action on the part of the Engineer shall not relieve the Contractor from responsibility for public safety or abrogate his obligation to furnish and pay for these devices.

All existing stop signs and street name signs shall be maintained in visible locations during construction and permanently relocated or removed as directed by the Engineer. Signs, which need not be maintained during construction or permanently relocated, shall be salvaged and returned to City Yard.

### Temporary Traffic Lanes

1. Temporary control of traffic in work areas requires the provision of adequate street space to accommodate the traffic demands, particularly during peak traffic hours.
2. Temporary traffic lane requirements for construction activities in arterial streets may be specified on the permit, on the plans or in the specifications. These requirements constitute a part of the work and must be adhered to as rigidly as any other specification.
3. Construction activities on arterial streets shall be planned and scheduled to minimize interference with traffic. Except for emergencies, no construction work shall encroach into a moving lane of traffic between the hours of 4:30 PM to 7:30 AM unless otherwise authorized by the Engineer.

**No construction activities are allowed before 7:30 AM and no lane closures are allowed before 8:00 AM unless otherwise authorized by the Project Engineer or City Traffic Engineer. Any lanes closed shall be re-opened by 4:00 PM. Construction shall be scheduled in such a manner that the project site is completely cleaned, watered and/or swept by 4:30 PM.**

Any work activities before 7:30 AM and/or beyond 4:30 PM shall be considered as overtime, if allowed by the Engineer.

## **SECTION 7 - SPECIAL PROVISIONS** (Continued)

4. All temporary traffic lanes shall be a minimum of eleven feet in width at either direction unless otherwise authorized.
5. Suitable surfacing must be provided for the temporary traffic lanes in work areas. When traffic is diverted from the existing pavement, temporary surfacing shall be provided and shall be in conformance with the current standard specification for such work issued by the City.
6. Construction equipment not actively engaged in the work and employee vehicles shall not be parked near the work in such a manner as to further restrict or obstruct traffic flow. Vehicles and equipment in continuous or frequent use may be operated or parked in the same traffic lanes as the work obstruction.

### Control, Warning and Guidance Devices

1. Devices fall into six categories: (1) Signs, (2) Barricades, (3) Delineators, (4) High Level Warning Devices, (5) Warning Lights and (6) Flashing Arrow Signs.

### Sign Types

1. Traffic signs are classified into several functional groupings: construction, warning, guide and regulatory.
2. The use of "Regulatory" signs must be approved by the Engineer. When required, all such signs will be provided, installed and maintained by the Contractor.
3. Existing "Regulatory" signs within or adjacent to the work area must be maintained by the Contractor. If existing signs are not appropriate for traffic conditions in the work area, the Engineer must be notified to determine if signs shall be covered, replaced or relocated.
4. Temporary "No Parking" signs shall be installed and removed as directed by the Engineer.
5. Temporary "No Parking" signs shall not be posted on any tree, utility pole or traffic sign.

### Sign Placement

1. The location of signs will depend upon alignment, grade, and location of street intersections and posted speed limit. Signs shall face and be visible to oncoming traffic and be mounted to resist displacement. The center of signs shall be at least four and one-half feet above the roadway. Vertical clearance for signs where pedestrian traffic is permitted shall be two feet. "Advance Warning" signs shall be located on the right hand side of traffic lanes.
2. All signs, which are to convey their messages during darkness, shall be reflectorized or illuminated.
3. No signs or supports shall bear any commercial advertising.
4. Warning, Guide and Regulatory signs normally shall be installed immediately before work is to commence and must be removed immediately after work is complete.
5. If at any time a sign is not required, it shall be covered or removed.
6. Construction signs shall be installed in accordance with Section D, General Traffic Controls.

### Barricades

## **SECTION 7 - SPECIAL PROVISIONS** (Continued)

1. Barricades shall not be placed in a moving lane of traffic without advance warning, such as a high level warning devices and appropriate delineation.
2. Barricades shall be of three types: Type I, Type II, or Type III.

### **Delineators**

1. All delineators used at night must be reflectorized adequately or internally luminated.
2. Opposing traffic shall be separated by delineators, traffic striping, or raised pavement markers.
3. Where traffic is diverted to the left of an existing double yellow centerline, into a painted median or into a left turn lane, delineators shall be utilized beyond the work area to return traffic to normal lanes.
4. Devices, which could roll into the adjacent traffic lane when hit, shall not be used.
5. Metal or wooden post mounted in concrete-filled buckets or on automobile wheels are examples of types, which are prohibited.
6. Maximum Recommended Delineator and Sign Placement

Traffic Speed	Merging Taper Length	Spacing Transition	Spacing Tangent	Signs Space Between and Advance of Taper
25 mph	125 ft.	25 ft.	25 ft.	100 ft.
30 mph	180 ft.	25 ft.	25 ft.	250 ft.
35 mph	245 ft.	25 ft.	25 ft.	250 ft.
40 mph	320 ft.	25 ft.	25 ft.	250 ft.
45 mph	540 ft.	25 ft.	25 ft.	350 ft.

### **High Level Warning Devices**

1. High level warning devices shall be at least 9 feet high with legs, base or truck mounting designed to resist overturning.
2. Sandbags may be used to add weight to the base or legs.
3. High-level warning devices shall be equipped with a yoke at the top to accommodate at least three flags.
4. Flags shall be high visibility orange, with stays to keep flags extended.
5. Torn or dirty flags shall be immediately replaced.
6. High level warning devices are not permitted on arterial streets. Flashing arrow signs are required.

### **Warning Lights**

1. Flashers shall be used only to outline the work area or to provide advance warning.
2. Flashers shall not be used to channelize traffic, to separate opposing traffic, or to delineate the path that traffic is to follow.

### **Flashing Arrow Signs**

1. All flashing arrow signs shall meet the following requirements:



## **SECTION 7 - SPECIAL PROVISIONS** (Continued)

Type	Minimize Size	Minimum Number of Panel Lamps	Minimum Legibility Distance
II	36" x 72"	13	¾ mile
I	48" x 96"	15	1 mile

2. Flashing arrow signs are intended to supplement, not replace, other work area traffic control device.
3. Flashing arrow signs are required for each lane closure on an arterial street.

### **Pavement Striping/Markings**

1. Restriping will be considered under the following conditions:
  - a) Where traffic is diverted for extended periods.
  - b) When traffic is to be diverted to the left of an existing double yellow centerline for two or more consecutive nights.
  - c) When the work area is adjacent to an intersection and results in a transition within the intersection.
  - d) When the traffic lane is continuously obstructed for more than 5 working days and traffic volumes require two or more lanes in a single direction.
  - e) In other unusual situations when traffic and physical conditions require special treatment.
2. The Engineer shall determine the need for and extent of striping removal and restriping.
3. The installation of temporary striping or pavement markers will be the responsibility of the Contractor.

### **Pedestrian Traffic**

1. When the work area encroaches upon a sidewalk, walkway or crosswalk area, special consideration must be given to the pedestrian safety.
2. A minimum of advance warning is required.
3. The pedestrian must be separated from the work area.
4. Protective barricades, fencing, handrails and bridges, together with warning and guidance devices must be used to define the passageway.
5. Pedestrian walkways must be approved prior to installation by the Engineer.
6. Walkways shall be maintained at least four feet in width.
7. Minimum vertical clearance to any obstruction within the walkway must be two feet.
8. At no time shall pedestrians be diverted into a portion of the street without a physical barrier being provided, and in those areas where material can fall, the walkway shall be covered.
9. Appropriate signs and warning must be installed at the construction limits in advance of and crosswalk or pedestrian way that will be closed.

## **SECTION 7 - SPECIAL PROVISIONS** (Continued)

### Flag Person Control

1. Flag person will be required:
  - a) Where workers or equipment intermittently block a traffic lane.
  - b) Where the traffic plan allows the use of one lane for two directions of traffic.
  - c) Where the safety of the public and workers determines there is a need.
2. Flag persons should be stationed far enough from the work to slow down or stop vehicles before they enter the work area.
3. Flag persons shall wear orange jacket (vest) for daytime use and a reflectorized belt and harness for nighttime.
4. During daylight hours, flag person shall be equipped with a sign paddle and at night, they shall use a red light.

Pursuant to the provisions of Section 14005 of the Government Code, and pursuant to the provisions of Section 21400 of the California Vehicle Code, that the signs, lights, and devices shall conform to the provisions of the "Manual of Traffic Controls for Construction and Maintenance Work Zones," issued by the Department of Transportation for the State of California.

### G. PAYMENT

Payment for **Traffic Control** shall be made at the **Lump Sum** Contract price bid and shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work involved in preparation of traffic control plans, approval of traffic control plans, implementation of traffic control, including but not limited to, Advanced Notification Signs, applying, maintaining and removing tape for temporary traffic stripes and pavement markings, complete in place, flashing arrow sign, as specified in these special provisions and as directed by the Engineer, and no additional compensation will be allowed therefore.

## **ARTICLE 13 – SURVEY WORK AND MONUMENT PRESERVATION**

Attention is directed to Section 81 of the Standard Specifications and the following Special Provisions.

The services of a land surveyor licensed in the State of California shall be provided by the Contractor to perform all work necessary for establishing control, construction staking, re-establishing monuments and ties, records research, drafting, and all other surveying work necessary to construct the work.

Surveyor shall be resident on the site during all surveying operations and shall personally supervise and certify the surveying work.

### Construction Staking and Limits

The Contractor's surveyor shall be responsible for staking horizontal and vertical survey controls for the whole project. Survey work shall include sawcut, limit lines, and removal lines, staking for any PCC, top elevation of cement treated base, earth, aggregate base, and asphalt work, property lines,

## **SECTION 7 - SPECIAL PROVISIONS** (Continued)

etc., at 25-foot intervals, BC's, EC's,  $\frac{1}{4}$ ,  $\frac{1}{2}$ , and  $\frac{3}{4}$   $\Delta$ 's, angle points, center lines, and any other control points as required during construction. Contractor shall submit survey cut sheets to the Engineer at the completion of each staking.

Resetting of any construction stakes shall be at contractor's expense.

**Grades have not been provided for any of the intersections being reconstructed. It is the Contractor's responsibility to provide grades at the intersections as needed to ensure water flows towards the gutters and to provide smooth taper transitions between the intersections and all adjoining streets.**

**No flowline grades are provided. The contractor shall straight grade from one end of curb and gutter repair to the other end in order to determine 25' flowline elevation points. If there is a noticeable high point, the contractor shall provide a grade break as needed.**

Prior to pulverizing and mixing existing street, the Contractor shall provide a land surveyor licensed in the State of California to stake out in the field the horizontal and vertical survey control points at 50' intervals for the top of proposed cement treated base section.

### **Survey Monument Preservation and Ties**

The Contractor shall be responsible for protecting all existing horizontal and vertical survey controls, monuments, ties (centerline and corner) and benchmarks located within the limits of the project. If any of the above require removal; relocation or resetting, the Contractor shall, prior to any construction work, and under the supervision of a California licensed Land Surveyor, establish sufficient temporary ties and benchmarks to enable the points to be reset after completion of construction.

Any ties, monuments and bench marks disturbed during construction shall be reset per Orange County Surveyor Standards after construction. Contractor shall also re-set the tie monuments where curb or curb ramps are removed and replaced or new ramps are installed. The Contractor and his sureties shall be liable for, at his expense, any resurvey required due to his negligence in protecting existing ties, monuments, benchmarks or any such horizontal and vertical controls.

The Contractor shall include tie sheet preparation, setting ties, and reestablishing monuments, and the filing of a corner record as required. All ties associated with that monument shall be included for filing to the Orange County Surveyor's office. The Contractor's surveyor shall be responsible to meet all requirements stipulated by the County Surveyor regarding the filing of corner records. **A copy of the filing shall also be submitted to the City for their records. Ten (10) percent of the bid amount for Construction Surveying payment will be withheld until all record filing has been submitted to the City.**

If there are additional survey monuments and centerline ties not shown on the plans, the Contractor shall be responsible for re-establishing them as well. No additional compensation will be allowed for re-establishment of additional monuments and centerline ties.

Payment for **Construction Surveying** shall be paid for at the contract unit price bid per **Lump Sum** and shall include performing all construction staking, preservation or re-establishment of permanent survey monuments, survey monument wells, ties and markers including centerline ties, filing of all records to the Orange County Surveyor's office and submitting a copy to the City. Said payment shall include full compensation for furnishing all labor, materials, tools, equipment, and doing all the work described above to complete this project including excavation, backfill and replacement of

## **SECTION 7 - SPECIAL PROVISIONS** (Continued)

pavement section, and conforming to the requirements of this article. No additional compensation will be allowed therefor.

### **ARTICLE 14 - DEWATERING AND DUST, SEDIMENT, AND SOUND CONTROL REQUIREMENTS CLEAN AIR ACT AND WATER POLLUTION CONTROL ACT REQUIREMENTS**

Attention is directed to Section 13 and 14 of the Standard Specifications and the following Special Provisions.

#### **Dewatering**

It is anticipated that storm, surface, and ground water or other water will be encountered at various times and locations during the work and will require dewatering. The Contractor, by submitting a bid, acknowledges that he has investigated project area water conditions and associated risks and has bid accordingly to mitigate these risks. *The Contractor, by submitting a bid, assumes all of the said risk and shall be fully compensated for all work in the contract various items on work.*

When groundwater is encountered, the Contractor shall provide and maintain dewatering during construction in accordance with the requirements of NPDES Permit (Order No. R8-2009-0030, and CAS618030) and the Regional adopted Best Management Practice (BMP) for Dewatering Operations NS-2.

The Contractor shall provide and maintain ample means and devices with which to promptly remove and properly dispose of ground water entering the excavations or other areas of the work at all times during construction. Dewatering shall be accomplished by methods, which will ensure a dry excavation and preservation of the final lines and grades of the bottoms of excavations. The methods, all subject to final approval by the Engineer and may include sump pumps, deep wells, well points, temporary pipelines and other means.

Standby pumping equipment shall be at the job site at all times. A minimum of one standby unit shall be available for immediate installation should any well unit fail. The design and installation of well points or deep wells shall be suitable for the accomplishment of the work. Drawings or details indicating the proposed dewatering system shall be submitted to the City for review.

The Contractor shall dispose of the water from the work in a suitable manner without damaging or soiling adjacent City or private property. Water shall be disposed of in such a manner as not to be a menace to the public health and such disposal shall be performed in accordance with Environmental Protection Agency and State Water Quality Control Board Standards (NPDES permit). Any testing and reports required under NPDES permit shall be performed by the Contractor and submitted to the appropriate agency for approval with copies to the City at no additional cost to the City.

Conveyance of the water shall be such as to not interfere with traffic flow or sewer treatment facilities operations. No water shall be drained into proposed work built or under construction without prior consent of the Engineer.

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

## **SECTION 7 - SPECIAL PROVISIONS** (Continued)

It shall be the Contractor's responsibility to control the surface water entering the work area at no additional cost to the City. *The contractor shall correct damage to the work area as the result of surface water at no cost to the City.*

All compensation due the Contractor for control of water or any other expense incurred due to a water condition shall be included in the various items of work, and no additional compensation will be allowed. Full compensation for providing all dewatering of excavations shall be included in the various items of work and shall include all related materials, labor, coordination and approval processing and no additional compensation will be allowed.

**Sediment Control**. Sediment Control is required per the following:

Per the Federal Clean Water Act, the Contractor is required to eliminate pollution to waters of the United States in regards to this project. This project will require the Contractor to implement "Best Management Practices" (BMP's). This work shall include, but is not limited to site or fabric over the grates and side openings during the full depth reclamation process and the removal of the AC byproduct, immediately cleaning up spilled fluids with an absorbent material and broom, sealing cans containing hazardous liquids immediately after use, removing loose dirt from the work sites daily, covering materials, etc.

- a. Contractor is required to provide a sediment control program, including plans, prior to performing any excavation or disturbing any soil, landscape, or pavement.
- b. Submit four (4) copies of sediment control plan to City for approval.
- c. Sediment control plan shall include emergency 24-hour telephone number(s) of responsible Contractor personnel and details of protective measures, including desilting basins or other temporary drainage and/or control measures.
- d. Necessary materials (gravel bags, etc.) or devices, per the approved plan, shall be available on site at convenient locations to facilitate rapid installation or to repair any damaged sediment control measures when rain is imminent. All removable protective devices shown on the plan shall be in place at the end of each day when the five (5) day rain probability forecast exceeds forty (40) percent.
- e. Remove all silt and debris from check dams and desilting basins after a rainstorm and as needed to assure proper operation.
- f. Contractor is advised that, based upon actual site conditions, other work devices, controls, and/or revisions to the sediment control plan/program may be by the project inspector, at no cost to the City, to satisfy requirements of this article.

Payment for implementing best management practices shall be included in the prices bid for various contract items and no additional compensation will be allowed and shall include all costs of all documentation; administration and implementation of the sediment control requirements and SWPPP requirements for the entire contract period, and no additional compensation shall be made therefore.

### **Dust Control**

Dust control shall consist of applying water in conformance with Section 14-9.03 of the Standard Specifications, with the following modification:

The Contractor shall furnish and operate a water truck and Air Quality Management District (AQMD) compliant self-loading motor sweeper with spray nozzles applied at least twice each calendar day

## **SECTION 7 - SPECIAL PROVISIONS** (Continued)

(including holidays and weekends), first during construction to keep paved areas reasonably clean, and second at the end of work day. The Contractor shall never leave the construction premises dusty or with loose dirt on the surface.

All spillage, dirt or debris resulting from hauling operations, moving of equipment along or across any private or public property or public traveled way shall be removed immediately at the Contractor's expense.

No separate payment will be made for any work performed or material used to control dust resulting from the Contractor's performance of the work, or by public traffic, either inside or outside the right-of-way. Full compensation for such dust control will be considered as included in the price paid for the various items of work involved.

### **Sound Control**

The Contractor shall comply with all local sound control and noise level rules, regulations and ordinances, which apply to any work performed pursuant to the contract. Each internal combustion engine, used for any purpose on the job or related to the job, shall be equipped with a muffler of a type recommended by the manufacturer. No internal combustion engine shall be operated on the project without said muffler.

The noise level from the Contractor's operations, between the hours of 9 p.m. and 7 a.m., shall not exceed 86 DBA at a distance of fifty feet (50'). This requirement in no way relieves the Contractor from responsibility for complying with local ordinances regulating noise level.

Said noise level requirement shall apply to all equipment on the job or related to the job, including but not limited to trucks, transit mixers or transient equipment that may or may not be owned by the Contractor. The use of loud sound signals shall be avoided in favor of light warnings except those required by safety laws for the protection of personnel.

Full compensation for conforming to the requirements of sound control shall be considered as included in the prices paid for the various contract items of work involved and no additional compensation will be allowed therefore.

### **Water Pollution Control**

On September 2, 2009, the State Water Resources Control Board adopted Order No. 2009-0009-DWQ (Waste Discharge Requirements for Discharges of Storm Water Runoff Associated with Construction Activities and Land Disturbance Activities). Effective July 1, 2010, all dischargers (construction sites where calculated soil disturbance totals 1 acre or more) are required to obtain coverage and comply with this Construction General Permit (CGP).

A copy of this CGP and related documents/attachments may be found on the internet at:

[http://www.waterboards.ca.gov/water\\_issues/programs/stormwater/constpermits.shtml](http://www.waterboards.ca.gov/water_issues/programs/stormwater/constpermits.shtml)

The CONTRACTOR is hereby directed to read and understand all the requirements of this Permit as they relate to this PROJECT.

The City has been issued Municipal NPDES Permit No. CAS618030, Order No. R8-2009-0030, from the California Regional Water Quality Control Board, Santa Ana Region. Section XV, "Municipal

## **SECTION 7 - SPECIAL PROVISIONS** (Continued)

Construction Projects/Activities,” of the Municipal Permit describes specific compliance with the latest version of the State’s CGP within the Santa Ana Region.

Prior to commencing work, the CONTRACTOR shall submit the required Permit Registration Documents (PRDs) to the ENGINEER. If any of the required items are missing, the PRD submittal is considered incomplete and will be rejected. Upon receipt and acceptance of a complete PRD submittal, the **CONTRACTOR’s QSD will coordinate with the City’s ENGINEER/Project Manager to electronically submit these documents through the Stormwater Multi-Application, Reporting and Tracking System (SMARTS) to the State Water Resources Control Board (SWRCB) to obtain coverage under the CGP. The CONTRACTOR’s QSD shall update SMARTS with all requirements set forth in the permit in order to maintain compliance.** A copy of any documents submitted via SMARTS will be kept with the SWPPP and provided to the ENGINEER upon job completion.

### **STORM WATER POLLUTION PREVENTION PLAN (SWPPP)**

The CONTRACTOR will need to submit a site-specific SWPPP, prepared by a Qualified SWPPP Developer (QSD) as defined by the CGP, which must include the information needed to demonstrate compliance with all the requirements of the CGP, for review, acceptance. The QSD shall have one of the registrations or certifications listed in Section VII.B.1 of the CGP, and effective September 2, 2011, must have attended a State Water Board-sponsored or approved QSD training and successfully pass the end of training test.

**NO CONSTRUCTION ACTIVITY CAN BE ALLOWED UNTIL THE CITY HAS RECEIVED A TRACKING NUMBER FROM THE SWRCB.**

The SWPPP shall be developed and updated using Section 2 and Appendix G of the California Stormwater Quality Association (CASQA) Stormwater Best Management Practice Handbook Web Portal for Construction. The CASQA Construction BMP Web Portal requires a subscription to be purchased from CASQA and can be accessed at the following link:

<http://www.casqa.org/LeftNavigation/BMPHandbooksPortal/tabid/200/Default.aspx>

The CONTRACTOR must implement, maintain, and amend the SWPPP as needed during the course of work to reflect actual construction progress and construction practices. The CONTRACTOR shall designate a Qualified SWPPP Practitioner (QSP), as defined by the CGP, who will be responsible for compliance with CGP requirements on the project at all times.

CONTRACTOR’S QSP must be on site to observe BMP installation and approve of all SWPPP implementation. CONTRACTOR’S QSP must be on site during all required NPDES inspections (weekly, rain events, and quarterly non-storm). Within 72 hours from receiving BMP corrections from CITY staff, Local Agencies, or SWRCB staff, CONTRACTOR’S QSP shall start the repairs and complete them as soon as possible and prior to predicted rain events. The QSP shall prepare written reports for the corrective actions and submit them to the ENGINEER within 5 working days. All work on the PROJECT may be stopped by the City inspection staff’s discretion if corrective action is not taken within a timely manner. Any cost or delays incurred due to stopped work will be exclusively the CONTRACTOR’s responsibility.

The SWPPP shall not be construed to be a waiver of the CONTRACTOR’s obligation to review and understand the CGP before submitting a bid. By submitting a bid, the CONTRACTOR acknowledges that he has read and understands the requirements of the CGP.

## **SECTION 7 - SPECIAL PROVISIONS** (Continued)

### **REPORTING**

The CONTRACTOR shall be responsible for providing all reports required by the CGP (monitoring, inspection, Rain Event Action Plans, annual reports, etc.) to the CITY for review. Time sensitive reports involving monitoring data shall be provided as soon as the information is made available. All other reports shall be provided to the CITY a minimum of two weeks prior to their deadline for submittal to the SWRCB through SMARTS.

Full compensation for conforming to the requirements of CONSTRUCTION GENERAL PERMIT (CGP) shall include, but not be limited to, the following:

1. Submit Permit Registration Documents (PRDs) per Attachment B of the CGP to the Engineer.
2. Electronically submit all documents into the Stormwater Multi-Application, Reporting and Tracking System (SMARTS) and update any files as needed.
3. Determine the project Risk Level and develop a SWPPP to conform to the Contractor's actual construction practices.
4. Administer, implement, maintain, and ensure adequate functioning of the various water quality control measures identified within the SWPPP during construction including all Numeric Action Level (NAL) and Numeric Effluent Limitation (NEL) sampling, monitoring and reporting requirements statutorily required for the determined Risk Level of the project site. These tasks must be performed by Qualified SWPPP Practitioner (QSP). Effective on September 2, 2011, a QSP shall meet the requirements listed in the CGP.
5. Pay all annual permit fees;
6. Provide and maintain all documentation (at the jobsite) and administration for the entire CONTRACT period;
7. Perform all work required for compliance with the requirements of the CGP including preparation of all Rain Event Action Plans (REAPs), construction of effective treatment control BMPs, i.e: contingency basis, chemical treatments, etc.;
8. Provide all labor, tools, equipment's, and materials for any additional BMPs which may be required to comply with the requirements of the CGP.

Payment for **SWPPP** shall be made at the **Lump Sum** Contract price bid and shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals and for doing all the work involved in preparing, obtaining approval of, and amending the SWPPP, fulfilling construction site monitoring program, implementing SWPPP, installation of required BMPs per the SWPPP, preparing and submitting all required SWPPP-related reports, and no additional compensation will be allowed therefore.

### **IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT**

By submission of this bid, or the execution of this contract or subcontract, as appropriate, the bidder, Contractor, or subcontractor, as appropriate, will be deemed to have stipulated the following:

1. That any facility that is or will be utilized in the performance of this contract, unless such contract is exempt under the Clean Air Act, as amended (42 U.S.C. 1857 et seq., as amended by Pub. L.



## **SECTION 7 - SPECIAL PROVISIONS** (Continued)

91-604), and under the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251 et seq., as amended by Pub. L. 92-500), Executive Order 11738, and regulations in implementation thereof (40 CFR Part 15) is not listed, on the date of contract award, on the U.S. Environmental Protection Agency (EPA) List of Violating Facilities pursuant to 40 CFR 15.20.

2. That the Contractor agrees to comply and remain in compliance with all the requirements of Section 114 of the Clean Air Act and Section 308 of the Federal Water Pollution Control Act and all regulations and guidelines listed hereunder.
3. That the Contractor shall promptly notify the OSHA of the receipt of any communication from the Director, Office of Federal Activities, EPA, indicating that a facility that is or will be utilized for the contract is under consideration to be listed on the EPA List of Violating Facilities.
4. That the Contractor agrees to include or cause to be included the requirements of paragraphs 1 through 4 of this Section in every nonexempt subcontract, and further agrees to take such action as the government may direct as a means of enforcing such requirements (FHWA 1273 Rev. 8/89, 12-4-89).

Full compensation for conforming to the requirements of the Clean Air Act and Federal Water Pollution Control Act shall be considered as included in the prices paid for the various contract items of work involved and no additional compensation will be allowed therefore.

## **ARTICLE 15 - PROTECTION AND RESTORATION OF EXISTING UTILITIES AND NON-HIGHWAY FACILITIES**

Attention is directed to Section 5-1.36 and 5-1.37 of the Standard Specifications and the following special provisions:

All utilities including water, gas, oil, telephone, electrical, cable TV, traffic signals, sewer mains and services, storm drains, fiber optic cable, and street light conduit and wires shall be protected in place, except as noted on the project plans.

Abandoned facilities are likely to be encountered on this project. Many abandoned facilities are not available through the public record nor will they be located by USA, however if they are encountered, the abandoned facilities shall be saw cut and removed to accommodate the proposed construction. The facilities shall be capped or backfilled with slurry as deemed appropriate by the Engineer. The Contractor will not be entitled to damages or additional payment for delays due to such abandoned facilities. The City will pay for the transportation and disposal of such abandoned facilities and capping of such facilities on a time and materials basis in accordance with the Standard Specifications.

The City does not guarantee the accuracy of depth, size, type, material and location of all utilities shown on the plan or marked in the field by utility companies. Data was provided to the City based upon available records. It is to be used for information purposes only.

In order to provide lead time to resolve unforeseen utility conflicts, Contractor shall pothole and ascertain the true location and depth of all underground utilities and services as shown or located within the lines of excavation and/or as marked by their respective owners in the field. Utilities marked in the field and not shown in the project plan shall be treated the same as if it is shown in the project plans. Contractor shall attempt to expose utilities by excavating an area three (3) feet in all directions around the location shown on the plans or marked in the field. Should the contractor fail

## **SECTION 7 - SPECIAL PROVISIONS** (Continued)

to locate the utility, Contractor shall immediately notify the utility purveyor and Engineer and the Contractor shall proceed on schedule. Contractor shall not be entitled to delays, damages or cost for failure to locate a utility by potholing. After exposing the utilities and if in the opinion of the Contractor a utility is in conflict with the proposed improvements, Contractor shall immediately notify the Engineer and allow utilities reasonable time to relocate, realign or remove their facilities at no additional cost to the City.

Contractor shall exercise extreme care in exposing, locating, supporting, protecting and working near existing utilities. Contractor shall hand dig within three feet (3') on all sides of these utilities; main lines, service lines and other utility appurtenances. Contractor shall arrange a compatible work schedule with all utility companies involved. Contractor's attention is also directed to overhead and above ground utilities and poles that exist within the project site that may not be shown on the project plans, but are visible in the field. All utilities above and underground must be protected in place, unless otherwise specified in the project plan.

The Contractor will not be entitled to damages or additional payment for delays attributable to utility relocations or alterations if utilities are correctly located and shown on the plan. The Contractor, however, will be given an extension of time for unforeseen delays due to interferences by utilities. This work includes searching within three (3') feet on both sides of a marked utility in the field (not shown in the plans) that is not found or never existed

All costs incurred for potholing, hand digging, exposing, locating, supporting, protecting, maintaining and providing reasonable time to relocate or resolve conflict of underground and above ground utilities, shall be included in the Contract bid prices for the various items of work involved and no additional compensation will be allowed therefore.

The Contractor, prior to submitting his/her bid, shall first inquire from the utility owners listed regarding type of facility, line locations, size, material, manhole locations if any, specifications and requirements concerning the protection and support of their respective main, trunk lines, services lines and other appurtenances.

The Contractor is hereby notified that many waterlines in the City are steel encased. These encased waterlines are to be treated as asbestos concrete lines. If they are not supported, they will collapse and all resulting damages and delays will be the sole responsibility of the contractor and no additional compensation or time will be allowed. The costs of obtaining any required permits, protecting and supporting of all utility lines, including service and lateral lines shall be included in the Contract bid price for the various items of work involved, and no additional compensation will be allowed therefore. *No utility line shall be removed from service without written permission from the Engineer. If permitted, then it is the contractor's responsibility to install temporary services as needed in the field and as approved by the Engineer at no cost to the City.*

Contractor shall contact Underground Service Alert (USA) at (800) 422-4133 and request marking of utilities within the project area(s) at least 48 hours prior to beginning of work. The following is a list of utility companies and purveyors who may have underground utilities within the project right-of-way:

- GOLDEN WEST REFINERY (310) 921-3581
- ORANGE COUNTY SANITATION DISTRICT (714) 593-7880
- GENERAL TELEPHONE COMPANY (714) 375-6701
- CITY OF GARDEN GROVE, WATER DEPARTMENT (714) 741-5395
- CITY OF ANAHEIM, WATER DEPARTMENT (714) 765-4591

## **SECTION 7 - SPECIAL PROVISIONS** (Continued)

- CITY OF GARDEN GROVE, TRAFFIC ENGINEERING (714) 741-5189
- AT&T (714) 666-5500
- GARDEN GROVE SANITARY DIVISION (714) 741-5395
- SOUTHERN CALIFORNIA EDISON COMPANY (714) 973-5453
- SOUTHERN CALIFORNIA GAS COMPANY (714) 634-3039
- SOUTHERN CALIFORNIA GAS COMPANY – TRANSMISSION DEPARTMENT (818) 701-3253
- SOUTHERN CALIFORNIA WATER (714) 535-8010 X 320
- SPECTRUM (714) 903-8213
- CHEVRON PIPELINE CO. (213) 694-7666 / (310) 669-4014
- ARCO (310) 428-9454
- CRIMSON PIPELINE (562) 285-4156

Some of the above utilities and purveyors are not Underground Service Alert (USA) members. It shall be the Contractor's responsibility to call, notify and make certain that utilities have responded to his notification. Damage to utilities, caused by failure to notify, is the contractor's sole responsibility.

Contractor shall also protect facilities in place as shown on the plans or as marked in the field, and "To be relocated by others", in both original and relocated positions and any damage to such facilities shall be immediately repaired at no cost to the City.

When damage occurs to existing utilities, Contractor shall notify the owner immediately and have it repaired to the satisfaction of the owner. In the case of damage to water, gas, telephone, cable, traffic, electrical, storm drain, and sewer lines, the Contractor shall repair these facilities to the requirements of the utility owners, within a maximum of 24 hours or sooner as required by the Engineer. Contractor shall have necessary tools, equipment and materials available at all times for immediate repairs. Any expenditures incidental to maintaining water service to customers shall be borne by the Contractor.

The Contractor is notified therefore, that he is responsible and liable for all costs in rectifying damages to any utilities caused directly because of his operations. At the request of the owner, costs in rectifying such damages can be withheld or deducted from the final progress payment due to Contractor at the discretion of the Engineer.

The Contractor is responsible for protecting water service connections, sewer laterals, telephone conduits, cable TV conduits, electrical conduits, traffic signal conduits and all other utility service connections whose location can be determined or inferred by buildings and other above-ground visible facilities such as valve boxes, manholes, vaults, pull boxes and the like in spite of the fact that they are not shown on the plans or marked in the field. Therefore, the Contractor shall establish the location of such utilities in the field and determine the cost of protecting or relocating those facilities in order to perform the work indicated in the contract documents and includes that cost in his bid. The contractor shall assume that every parcel, including a vacant parcel, is served by a service connection for each type of utility.

All existing improvements, including utilities, shall be protected in place unless otherwise shown on the contract plans or approved by the Engineer. All existing improvements damaged by the contractor in the performance of his work shall be replaced in its original or better condition. This includes, but is not limited to landscaping, trees, irrigation lines, sprinklers, planters, foundations, walls, driveways, sidewalks, mailboxes, parking curbs, and utilities whether they are located on private property or within the public right-of-way.

## **SECTION 7 - SPECIAL PROVISIONS** (Continued)

Payment for protection and/or removing and replacing all facilities except for those items of work specifically included as separate bid items in the bid proposal and removing all USA markings at end of project shall be considered as paid for in the various contract items and no additional compensation will be allowed.

Private mailboxes, planters, and other facilities, etc. as shown on plans or within construction areas in the field shall be relocated by the Contractor. Payment for relocations shall be included in the various items of work and no additional compensation will be allowed therefore.

### **ARTICLE 16 - EXISTING HIGHWAY FACILITIES**

All work performed on existing highway facilities shall be done in accordance with Section 15 of the Standard Specifications and other portions of these special provisions with the following exceptions and modifications:

#### A. Miscellaneous Highway Facilities

Care shall be taken in all work performed in the removal of all traffic signs, devices, barricades, posts, barriers, and guard railings. Such devices, etc., shall be carefully removed by the Contractor as shown on the plans or as directed by the Engineer, cleaned of all adhering materials and shall be stockpiled within project limits for reuse.

Payment for all labor, materials, tools, and equipment used in removing, cleaning, transporting, relocating, and doing all the work involved shall be included by the Contractor in the various bid items, and no additional compensation will be allowed therefore.

#### B. Damaged Portland Cement Concrete Removal and Replacement

Existing Portland cement concrete (PCC) not shown on the plans to be replaced that is damaged by the contractor's operation shall be removed and replaced in kind. Work shall include all PCC curbs, gutters, cross gutters, spandrels, driveways, driveway approaches, slabs, sidewalks, decorative crosswalks, and all other miscellaneous PCC construction. Concrete shall be removed to neatly sawed edges with saw cuts made to a minimum depth of 1 ½ inch. Concrete sidewalk or driveway to be removed shall be neatly sawed in straight-line parallels either to the curb or at right angles to the alignment of the sidewalk. No section to be replaced shall be smaller than forty-eight inches (48") in either length or width. If the saw cut in sidewalk or driveway would fall within forty-eight inches (48") of a construction joint, expansion joint, or edge, the concrete shall be removed to the joint or edge, except that where the saw cut would fall within twelve inches (12") of a score mark, the saw cut shall be made in and along the score mark. Curb and gutter shall be sawed to a depth of 1 ½ inch on a neat line at right angles to the curb face. PCC and all other material unsuitable for use as fill, as determined by the Engineer, shall be removed from the right-of-way and disposed of by the Contractor at a site of his own choice and he shall pay all costs incidental to the disposal. Sharp edges left on concrete after saw cutting shall be ground in a manner acceptable to the Engineer.

Payment for damaging existing Portland cement concrete not shown on the plans by the Contractor's operations, shall be removed and replaced at the Contractor's expense and no additional compensation will be allowed. All PCC replacement shall conform to City standards and shall be replaced in kind.

## SECTION 7 - SPECIAL PROVISIONS (Continued)

### C. Remove and Restore Traffic Striping, Signing, Legends, Pavement Markings and Pavement Markers

Existing pavement markers, when no longer required for traffic lane delineation due to construction, or as directed by the Engineer, shall be removed and disposed of. The Engineer will designate traffic stripes and pavement markings to be removed.

Existing striping and pavement marking shall be removed by sand blasting. Existing pavement markers shall be removed prior to construction of ARHM overlay.

Sandblasting shall be used for the removal of painted traffic stripes and pavement markings and for removal of objectionable material. If such removal operation is being performed within ten feet (10') of a lane occupied by public traffic, the residue including dust shall be removed immediately after contact between the sand and the surface being treated. Such removal shall be by a vacuum attachment operating concurrently with the blast cleaning operation.

Nothing in these special provisions shall relieve the Contractor from his responsibilities as provided in Section 7-38.09, "Public Safety", of the Standard Specifications.

Any depressions or voids left in the roadway because of removing the existing pavement markers will be filled with hot bituminous adhesive or as directed by the Engineer.

Contractor shall provide cat tracks for review prior to final application of final striping. The City of Garden Grove shall have 24 hours of review time prior to approval of the cat tracks. All existing striping shall be restriped to satisfaction of the City Engineer.

Full compensation for removing, disposing and restoring, traffic stripes and pavement markings - including filling voids or depressions created by removing pavement markers, shall be included in the contract lump sum price for the traffic signing and striping and shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and performing all work involved, and no additional compensation will be allowed therefore.

### D. Damaged Asphalt Concrete Pavement Removal and Replacement

Existing asphalt concrete (AC) not shown on the plans to be replaced that is damaged by the contractor's operation shall be removed and replaced in kind.

Asphalt concrete removal areas shall be saw-cut prior to removal and removed with caution so as not to damage adjacent improvements. The Contractor shall not use equipment such as stompers, which may damage adjacent pavement or improvements. **The use of stompers and rock wheels will not be allowed for any portion of the work on this project.** The slurry created by saw cutting shall be removed by vacuum during the saw cutting operation.

Asphalt removal shall include removal of existing materials to grade. The Contractor shall implement whatever measures are practical during removal operations to maintain the existing sub-grade integrity. Any subgrade disturbed or removed due to the Contractor not using the extra care outlined or for his convenience, shall be graded and compacted to the required elevations at no cost to the City.

The minimum one (1) foot wide strip of asphalt and necessary base material removal adjacent to PCC curb and gutter, cross gutters, drive approaches, bus pads and spandrel removals shall be replaced with eight (8) inch Asphalt Concrete Base Course prior to the placement of

## **SECTION 7 - SPECIAL PROVISIONS** (Continued)

surface course. At no time shall the one (1) foot wide strip of asphalt remain open for more than three (3) calendar days.

Damage to existing asphalt concrete not shown on the plans to be milled, removed or altered by the Contractor's operations shall be removed and replaced at the Contractor's expense and no additional compensation will be allowed. All AC replacement shall conform to City standards and shall be replaced in kind.

### **ARTICLE 17 – FULL DEPTH RECLAMATION WITH CEMENT TREATED BASE**

Cement treated base is alternately known as: Cement Stabilized Pulverized Base (CSPB)

The work shall consist of cold milling and preservation of cold milling material for re-use, pulverizing existing asphalt concrete pavement, base material, and/or subgrade soil, removing excess pulverized material, creating temporary access ramps, mixing the pulverized material with Portland cement and water, and compacting, grading, finishing and curing in such a manner that the in-place mixture forms a dense, uniform mass conforming to the lines, grades, and cross sections shown on the Plans and in accordance with Section 301-3.4 of the 2015 SSPWC specifications. All references included in this article reference the same attached specifications. The mixed material shall be protected from traffic and the 7-day compressive strength shall meet the requirements of Section 301-3.4.3 c).

#### **Surveying**

Prior to pulverizing and mixing existing street, the Contractor shall provide a land surveyor licensed in the State of California to stake out in the field the horizontal and vertical survey control points at 50' intervals for the top of proposed cement treated base section per Article 13.

#### **Materials**

All materials used in the construction of the CTB shall conform to the requirements of Section 301-3.4.2. A minimum of **5%** cement mix ratio shall be used.

#### **Cold Milling and Preservation**

For Chapman Avenue, approximately from STA 23+00 to STA 35+00: the Contractor shall cold mill existing AC pavement, 6" to 8" deep prior to cement treatment and shall preserve cold milled AC for re-use in order to achieve the structural section required for FDR. Remove and dispose excess subgrade material under, and haul back the preserved A.C. material for CTB process. Cold milled AC may be stockpiled on the vacant lot at the intersection of Brookhurst St and Bixby Ave. If the site is unavailable at the time of construction, the contractor shall find a suitable site to stockpile material. There will be no additional cost in mobilization, hauling-out or hauling-in of the material should the contractor use different site. The contractor shall install appropriate best managements practices (BMPs) on stockpile location. Haul out and dispose excess A.C. material that was stored, or use it on other areas beyond specified station above at no additional cost to the City. Payment for cold milling AC to a depth of 6" to 8" and preservation of cold milled AC including hauling of material off and back the project site, spreading the material uniformly within the prescribed limits, shall be included under bid item **Cold milling & preservation, stockpiling & re-use existing AC to a depth of 6" to 8", approximately from STA 23+00 to STA 35+00.**

## **SECTION 7 - SPECIAL PROVISIONS** (Continued)

### **Pulverizing, Removals, Temporary Ramps and Mixing**

Pulverizing the existing street structural section and the mixing of those materials shall be performed in-place in accordance with Section 301-3.4.4.2.

After completing the initial pulverization pass, the contractor shall remove excess pulverized materials to the grades as shown in the plans. The contractor shall take into account the fluff factor after cement and water has been mixed in. Immediately after removals, the contractor shall create temporary ramps, using pulverized materials or any other suitable material, at all driveways, turn pockets, intersection crossings, and any other areas as deemed necessary by the Engineer. Temporary ramps shall be maintained until cement treating begins.

The contractor shall then thoroughly mix the pulverized material, Portland Cement and water to meet the gradation requirements above and the approval of the Engineer. The quantity of water added shall be adjusted by the contractor to produce a moisture content between the optimum moisture content and 3 percent above the optimum moisture content. The full depth of the cement treated subgrade shall be mixed a minimum of two times and mixing shall continue until homogenous mixture of uniformly distributed and coated base aggregate cement of unchanging appearance is produced. After mixing has been completed no additional water shall be added to the moisture unless directed to do so by the City of Garden Grove.

The Contractor shall not receive additional compensation if existing A.C. pavement sections are greater in depth than shown on the boring logs and/or existing cement treated base are encountered on the project, regardless of the pulverizer's effectiveness in such conditions.

### **Existing Subgrade**

The contractor, by virtue of his expertise and experience in manufacturing cement treated base in-place shall be responsible for selection and use of the proper equipment on the subgrade should the subgrade yield to the loading applied by the contractor's vehicles and equipment. Weak or wet subgrade materials shall not relieve the contractor of his responsibility to construct the CTB to the lines and grades shown on the plans, nor shall it relieve him of his duty to provide a firm and unyielding base on which to pave asphalt. A change in equipment or vehicle types shall be solely at the expense of the contractor.

### **Initial Grading**

Initial Grading shall conform to Section 301.3.4.7. Additionally, contractor shall grade the surface of the mixture to allow for the addition of cement and any resultant increase in the material volume. Any excess material shall be removed and disposed of as part of this bid item.

### **Initial Curing**

Cement treated base shall be moisture-cured continuously for 48 hours after final placement. Water shall be applied as necessary to keep the surface damp. During curing, only traffic necessary for access to residences and businesses shall be allowed to drive on the cement treated base. Initial moisture-curing may take place on the weekend. No additional compensation will be allowed for this type of weekend work.

### **Microcracking**

## **SECTION 7 - SPECIAL PROVISIONS** (Continued)

Microcracking shall conform to Section 301-3.4.13. The contractor shall perform micro-cracking on the cement treated base within 30 to 72 hours of the completion of compaction. Micro-cracking will overlap with the initial curing process. Microcracking may take place on the weekend. No additional compensation will be allowed for this type of weekend work.

### **Final Curing**

After completion of initial curing and micro-cracking, the cement treated base shall be continuously moisture-cured for an additional 48-72 hours prior to the placement of the asphalt concrete base course. Final moisture-curing may take place on the weekend. No additional compensation will be allowed for this type of weekend work.

### **Testing**

Forty-eight hours after mixing the cement, water and pulverized materials (cement treated base, CTB), the contractor shall proof-roll the newly made CTB with a heavily loaded rubber-tired truck like a full water truck or other such vehicle approved by the Engineer, in the presence of the Engineer and the Engineer's geotechnical representative. **Any areas found to fail after the proof-roll test shall be removed a day before the scheduled base paving AC work and shall be replaced with full depth AC by the Contractor. Payment for repair of any failed areas shall be paid at the Contractor's expense and no additional compensation will be allowed for AC Base Course placed.** The contractor shall submit his work plan to the Engineer for review and acknowledgement prior to starting removal and replacement of failed CTB.

### **Placement and Spreading**

All CTB material shall be placed in accordance with Section 301-3.4.8.

### **Compaction and Finishing**

Compaction and finishing shall conform to Section 301-3.4.10.

### **Partial-Width Construction**

Partial-width Construction shall conform to Section 301-3.4.9.

### **Construction Joints**

Construction joints shall conform to Section 301-3.4.11.

### **Payment**

Payment for cement used in the CSPB and for removal and disposal of excess pulverized base material, excess cement stabilized pulverized base material, and unsuitable material is included in the price paid for Full Depth Reclamation with Cement Treated Base. Payment for CSPB complete in-place will be made at the Contract Unit Price **per square foot** for each thickness specified for **Full depth reclamation of existing AC/AB pavement (varying depth per plan); Cement treat 0.90' with 5% cement content, Allow CTB to cure and microcrack** for Chapman Avenue; and **Full depth reclamation of existing AC/AB pavement to a depth of 0.83'; Cement treat 0.50' with 5% cement content, Allow CTB to cure and microcrack**, for all residential streets. The Contract Unit Price shall include surveying, cold milling, preservation of cold milling material, pulverizing, removals of excess material, creating temporary ramps, mixing cement and water; compaction; placement to the lines, grades and cross sections shown on the Plans; curing; micro-cracking, proof rolling, removal and reconstruction of any failed areas, and no additional compensation will be allowed thereof.



## **SECTION 7 - SPECIAL PROVISIONS** (Continued)

### **ARTICLE 18 - GRIND, REMOVE AND DISPOSE OF EXISTING AC AND FABRIC**

Cold milling (grinding) shall conform to the details shown on the plans and these special provisions.

Pavement fabric is expected within the asphalt concrete pavement to be ground and removed from the project. It is the Contractor's responsibility to completely remove and dispose any existing pavement fabric and/or objectionable material that may remain more or less intact after the grinding operation, to the satisfaction of the Engineer prior to the application of the tack coat. No additional compensation will be allowed for the removal of any pavement fabric encountered on the project.

The cold milling shall be a uniform depth unless otherwise specified on the Plans. Care shall be exercised not to damage adjacent concrete gutters or curbs. Gutters or curbs damaged shall be replaced at the Contractor's expense.

Residue from grinding shall not be permitted to flow or travel into gutters, onto adjacent street surfaces or parkways. All residue shall be completely removed by sweeping and disposed of properly. No washing of residue into gutters and/or drainage structures will be allowed.

Prior to any cold milling operations traffic signal loop detectors shall be disconnected in their adjacent pull boxes.

The Contractor shall notify the Engineer at least two (2) working days prior to and within one (1) day immediately after cold milling operations so that observations and measurements may be made of areas before they receive asphalt concrete surface course pavement.

At the end of each day's paving, all vertical transverse construction joints shall be filled with cold mix asphalt concrete for a minimum horizontal distance of 5 feet in direction of traffic, or as necessary to insure the surface grade changes do not exceed 3%. The intent is to provide a smooth transition for vehicular traffic. This transition shall be properly and continuously maintained until the final asphalt concrete course is placed. Temporary AC wedges shall then be removed no sooner than 8 hours prior to paving. The temporary AC shall be considered as included in the Contract bid prices for the various items of work, and no additional compensation will be allowed therefore.

Payment for **Cold Mill Existing AC**, as shown on the project plans, shall be made at the Contract unit price per **Square Foot** and shall include full compensation for furnishing all labor, tools, equipment, and materials and doing all work involved, and no additional compensation will be allowed therefore.

### **ARTICLE 19 - ROADWAY EXCAVATION**

Roadway excavation (unclassified excavation) shall conform to section 19-2 of the Standard Specifications and shall include excavation required for construction of new roadway structural section. Roadway excavation shall include removal of any existing Portland Cement Concrete (PCC), Asphalt Concrete (AC), and Aggregate Base (AB), cement treated base, underlying native material, and/or interfering objects as needed to establish the proposed roadway sub-grade. This item also includes hauling and disposing of all excavated material and compaction of existing material prior to placement of the new roadway section. Grades and elevations shall be in accordance with the contours, grades or typical sections as shown on the plans and as required to

## **SECTION 7 - SPECIAL PROVISIONS** (Continued)

achieve the proper pavement and surface improvement sub-grade elevations. All removed material shall be disposed of in a legal manner at the expense of the Contractor.

When it becomes necessary to over excavate, due to any reason determined by the Engineer, the Contractor shall then over excavate those areas to a depth and width to be determined by the Engineer. Payment for over excavation shall be determined from the volume in cubic yards of over excavation added to Contract bid item of **Roadway Excavation**. If over excavation at subgrade is necessary, the Contractor shall not be compensated for the time required to remove undesirable material(s). No additional compensation will be allowed therefore. Asphalt concrete materials shall be used in backfilling of voids left by said removals and quantities will be added to the Contract bid item of **AC Base Course** or as directed by the Engineer.

The cost of making compaction tests shall be borne by the City when results indicate compliance with the specifications; otherwise, the expense of such tests shall be borne by the Contractor. All compaction tests shall be conducted by Caltrans Certified Laboratory.

Excavation required to construct any proposed PCC construction item will not be paid under **Roadway Excavation** but will be paid under its respective concrete bid item. No additional compensation will be allowed.

Payment for roadway excavation shall be at the contract price bid per **Square Foot** shall be included under **Excavate and remove existing 6" AC over 12" AB pavement** for Chapman Avenue; and **Excavate and remove existing 4" AC over 6" AB** for residential street project. This work shall include excavation and removal of the existing roadway structural section, over excavation, scarification, compaction, stockpiling, loading, and hauling to final location and disposing of surplus material at a legal disposal site and no additional compensation shall be allowed therefor.

## **ARTICLE 20 - PAINT BINDER / AC TACK COAT**

If the asphalt concrete pavement is being constructed directly upon an existing hard-surface pavement, a tack coat of High Performance Seal (HPS) No Track tack from Paramount Petroleum shall be applied at an approximate rate of 0.05 to 0.10 gallon per square yard and shall be uniformly applied upon the existing pavement preceding the placement of the asphalt concrete. The pavement should look as if approximately 70% of the road is covered with HPS No Track tack. HPS No Track tack shall also be used at all vertical gutter edges prior to the final surface course paving.

The surface shall be free of water, foreign material, or dust, when the HPS is applied. To minimize public inconvenience, no greater area shall be treated in any one day than is planned to be covered by asphalt concrete during the same day, unless otherwise authorized by the Engineer.

The contact surfaces of all cold pavement joints, curbs, gutters, manholes and the like, can be painted with either Grade SS 1h emulsified asphalt or PG64-10 paving asphalt immediately before the adjoining asphalt concrete is placed.

For all slot paving, the joint between existing asphalt and new asphalt shall be covered by ribbon of SS 1h emulsified asphalt or PG64-10 paving asphalt, followed by placement of a layer of sand on the tack. The edge seal should be no more than 2 inches wide. Paint Binder (Asphaltic Emulsion) shall be SS1 type asphaltic emulsion and applied to conform to the provisions of Section 39-1.02C, 39-1.09C and 94 of the Standard Specifications. Paint Binder shall conform to Sections 39, 93, and 94 of the Standard Specifications. This application shall be completed within 48 hours of placing the surface course in the slot.

## **SECTION 7 - SPECIAL PROVISIONS** (Continued)

Payment for **HPS No Track tack**, paint binder and tack coat shall be considered as included in the price paid for **AC Base Course** and **ARHM Surface Course**. Said payment shall include full compensation for furnishing all labor, materials, tools, and equipment and incidentals and for doing all the work involved and no additional compensation will be allowed therefore.

### **ARTICLE 21 - TEMPORARY RESURFACING**

Temporary resurfacing shall be placed over all backfill in streets or other areas where excavation was made through existing paving and in areas where the Contractor's operations have resulted in the removal of existing paving.

Temporary resurfacing shall be placed as soon as the backfill is densified to the required relative density or immediately when so directed by the Engineer. Prior to placing the temporary resurfacing, the foundation material (occupying space of permanent surfacing and base material therefore) for the temporary resurfacing shall be densified to produce a firm and unyielding surface, as determined by the Engineer. This shall be accomplished by blading and rolling with an 8-ton tandem roller if the trench is wide enough to accommodate the roller width, or rear wheels of a loaded 5-ton truck, heavy road grader or by other equivalent means acceptable to the Engineer, to a depth of three inches (3") below the grade of the existing pavement.

The subgrade shall be uniformly watered sufficiently to eliminate all dust, but not to such extent as to form mud or pools of water. The street and surrounding area shall be cleared of rubbish and debris. The street shall be swept and the surrounding area shall be cleaned thoroughly.

The temporary resurfacing shall then be spread over the prepared foundation material and rolled with an 8-ton tandem roller in such a manner that after rolling the temporary resurfacing shall present a smooth surface for traffic and shall not be less than three inches (3") in compacted thickness and shall be maintained free from bumps and depressions until permanent resurfacing is placed. The finished surface of said temporary resurfacing shall be flush with the adjoining pavement grade. Temporary resurfacing at major intersections and other critical locations may be greater than two inches (2") as directed by the Engineer.

Upon completion of all the above temporary resurfacing, the surface shall be immediately swept clean of all dust and debris created by this operation. Sweeping shall be done at all times in such a manner as to prevent creation of dust clouds and avoid accumulation of unreasonable amounts of dust on adjacent properties. After the temporary resurfacing has been placed, the Contractor shall furnish and operate a self-loading motor sweep with spray nozzles (pick-up broom) to clean the streets in the construction area daily.

The Contractor shall stockpile enough temporary resurfacing material on the job to insure a ready supply at all times for necessary repairs to the temporary resurfacing already placed.

The temporary resurfacing shall be left in place not more than 30 days unless otherwise permitted by the Engineer and the permanent resurfacing including wearing surface shall be placed immediately following the removal of the temporary pavement.

Payment for temporary resurfacing conforming to the requirements of this Article shall be included in the Contract price bid for the various items of work involved, which necessitated installation of temporary resurfacing for their construction under these specifications, and no additional compensation will be allowed therefore.

## **SECTION 7 - SPECIAL PROVISIONS** (Continued)

### **ARTICLE 22 - ASPHALT CONCRETE**

The asphalt concrete material used for all areas shall comply with the requirements of the **Standard Specifications for Public Works Construction, 2015 edition**. The specific type of material used for each type of construction shall comply with the table below. The contractor may supply asphalt concrete materials containing Recycled Asphalt Pavement (RAP) in accordance with the Standard Specifications except the maximum percentage of RAP will be limited to 15 percent of the mix for base course asphalt only. No RAP will be allowed in the surface course mix. Asphalt binder content in the pavement shall be determined by the asphalt mix design<sup>ω</sup> requirements of the SSPWC, Section 203-6.2, **2015 edition**.

Requirement for Asphalt Concrete Material Type			
	Leveling Course	Surface Course	Base Course
Pavement Thickness (inches):	<1	>1 and ≤3	>3
SSPWC Material Type (for use in C2 or ARHM Surface Course) <sup>ω</sup> :	DPG*	C2** ARHM***	-
SSPWC Material Type (for use in AC Base, Note: Min. base course thickness is 3") <sup>φ</sup> :	-	-	BPG****

\* DPG: D2-PG 70-10 Asphalt Concrete per Section 203-6.4 of the SSPWC

\*\* C2PG: C2-PG 70-10 Asphalt Concrete per Section 203-6.4 of the SSPWC

\*\*\* ARHM: ARHM-GG-C-PG 64-16 Asphalt Rubber Hot Mix per Section 203-11 and 302-9 of the SSPWC

\*\*\*\* BPG: B PG 70-10 Asphalt Concrete per 203-6.4 of the SSPWC

<sup>ω</sup>Contractor may not use Recycled Asphalt Products (RAP) in the surface course mix design

<sup>φ</sup>Contractor may add up to 15% RAP for base course asphalt

### **Construction Methods**

Prior to paving all vertical faces shall be cleaned and tacked with SS-1h emulsified asphalt prior to the placement of the new asphalt concrete materials.

### **Placing Asphalt Concrete Material**

Asphalt paving shall be applied to the thickness shown on the plans, as listed above, or per the applicable permit. Asphalt paving shall be installed in accordance with Section 302-5 of the Standard Specifications for Public Works Construction, Full depth reclamation of Asphalt concrete base course shall be placed in lifts having a maximum of four (4) inches. All work shall be

## **SECTION 7 - SPECIAL PROVISIONS** (Continued)

performed in accordance with Section 302-5 of the SSPWC, **2015 edition**. A tack coat of SS-1h shall be placed between all lifts and on all vertical faces.

The new gutter lip will be a minimum 3/8" lip, however, given the variability of the existing grades, some variance may be accepted at the discretion of the City of Garden Grove.

The asphalt concrete paving machine will have a vibratory plate in operation during all of the placement operations. In the case that the plate is non-operational the contractor will increase his thicknesses to include an additional 1/8 of an inch for each inch of asphalt concrete material placed.

### **Aggregate for Asphalt Concrete**

Aggregate shall be in accordance with Section 203-6.3.2 and 203-11 of the Standard Specifications for Public Works Construction, **2015 edition**.

### **Signage**

This project is partially funded by CalRecycle's Tire-Derived Product Grant Program to construct ARHM Surface Course. As part of the funding requirements, CalRecycle requires posting a permanent sign at the beginning and end (2 signs total) of each streets after construction of ARHM surface course has completed. The signs must meet the Rubberized Asphalt Concrete Signage requirements found on <http://www.calrecycle.ca.gov/Tires/Grants/Resources/#Signage> and also shown in the striping plans. The signs must indicate the number of California waste tires diverted from the waste stream.

### **Payment**

Measurement shall be in tons of asphalt concrete placed. The CONTRACTOR shall furnish to the City Inspector a legible copy of a licensed weighmaster's certificate showing net weight of asphalt concrete in the truckload. The labeled certificate must be delivered to the City Inspector on site on the same day that the asphalt concrete is delivered. If any of these conditions are not met, the City will not allow payment for the certificates. Asphalt concrete placed in excess of the finished grades (as established by the City's survey crew) will not be paid.

Payment for **AC Base Course**, and **ARHM Surface Course** shall be made at the contract price per **Ton** as designated in the bid proposal and shall include full compensation for all surface preparation, and furnishing all labor, materials, tools, equipment, and incidentals, and for doing all the work involved and no additional compensation will be allowed therefor.

## **ARTICLE 23 - PCC IMPROVEMENTS**

All PCC construction work for this article shall conform to Sections 73 and 90 of the Caltrans Standard Specifications. Sub-grade materials shall be compacted to a minimum relative compaction of 95 percent.

All PCC removal work shall conform to Sections 15-3 of the Standard Specifications and shall be included as part of the related PCC construction item. No additional compensation will be allowed therefore. The use of pavement breaking equipment (stomper) is not permitted.

All excavations shall be backfilled as soon as permitted under the specifications so that when the job is closed for the day, the open excavation will be kept at a minimum and adjacent utilities will receive maximum backfill support.

**SECTION 7 - SPECIAL PROVISIONS** (Continued)

The Contractor shall also cut and remove any tree roots encountered within construction limits to at least six (6) inches below the subgrade. Removal of roots shall be included under **Mobilization Including Clearing and Grubbing**. No additional compensation will be allowed.

PCC improvements shall be constructed per the following standard plan (see Appendix C) and per these special provisions:

<b>PCC Improvement Item</b>	<b>Garden Grove Standard Plan</b>
Sidewalk	B-105, B-106
Curb & Gutter	B-113
Cross Gutter	B-119
Access Ramp / Curb Ramp	CALTRANS Std Plan A88A

Payment for aggregate base used shall be included as part of the related PCC construction item. No additional compensation will be allowed therefore.

Concrete mix design shall be per SSPWC (latest edition) Section 201-1 "Portland Cement Concrete", 303-5.

All concrete shall have a maximum slump of 4" and the same brand, type and source of cement and aggregate shall be used for all Portland Cement Concrete.

No color compounds, etching chemicals or other related construction materials will be allowed to migrate onto adjacent AC pavement surfaces or to flow into adjacent drainage inlets. The Contractor shall be required to mask the adjacent AC pavement areas and place an impermeable fabric secured by gravel bags across the openings of all catch basin openings prior to beginning any PCC improvement work with the potential to generate hazardous materials or otherwise negatively affect the local water quality.

Any water meter boxes that fall within the proposed PCC sidewalk area shall be adjusted to grade. Payment for adjusting water meter box to grade shall be included as part of the PCC sidewalk item.

Payment for **Remove Existing and Construct of PCC Sidewalk**, and **Remove Existing and Construct Cross Gutter** and shall be made at the Contract unit price bid per **Square Foot** and shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals necessary to complete work, including all saw cutting including existing sidewalk, existing cross gutter, existing concrete around tree well, existing, driveway approach, and related PCC removals and excavation, subgrade preparation, compaction, grading, backfill, placement of aggregate base, formwork and adjustment of utility covers to the new grades. No additional compensation will be allowed therefore.

Contractor shall remove all existing access ramps from all median island and construct full height median curb Type A-8. Refer to Special Provision Article 30 for Access Ramp payment and additional specification.

Payment for **Remove Existing and Construct PCC Curb & Gutter** shall be made at the Contract unit price bid per **Linear Foot** and shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals necessary to complete work, including all saw cutting and related PCC removals and excavation, subgrade preparation, compaction, grading, backfill, formwork, and aggregate base placement. No additional compensation will be allowed therefore.

## **SECTION 7 - SPECIAL PROVISIONS** (Continued)

### **ARTICLE 24 - AGGREGATE BASE**

Aggregate base shall be Class 2 and shall conform to the provisions for Class 2 aggregate base 3/4" maximum as specified in Section 26 of the Standard Specifications and these Special Provisions. Processed miscellaneous base or asphalt containing base will not be allowed.

Sand equivalent by Test Method No. California 217 shall be a minimum of SE 50.

At the time aggregate base is spread, it may have moisture content sufficient to obtain the required compaction. Such moisture shall be uniformly distributed throughout the material.

In lieu of the spreading requirements specified in Section 26-1.03C, aggregate base material shall be spread upon prepared subgrade by means of approved spreading devices which will deposit a uniform window or layer and after spreading as above specified, the material shall be shaped to the requirements of Section 26 of the Standard Specifications. Motor graders may be used for the aforementioned shaping. Tailgate spreading by dump trucks of material will not be permitted except for spot dumping and in areas not readily accessible to approved spreading devices.

Relative compaction of the aggregate base material shall not be less than 95 percent.

Payment for the aggregate base used underneath all applicable PCC improvement items, shall be included in the contract bid price for each specific bid item and no additional compensation will be allowed.

### **ARTICLE 25 – REDFLEX LOOPS**

The Contractor shall furnish all materials and install the Redflex loops per plans and per applicable requirements as shown in **Appendix E**.

**Contractor shall notify the City prior to the Redflex loops being disabled and shall be responsible for laying out the exact location of the Redflex loops per the construction plans using his California licensed surveyor and shall get approval from Redflex prior to installation.**

Payment for **Install Redflex Loops** shall be made at the contract unit price per **Each** and shall include full compensation for furnishing all tools, equipment, materials, labor and incidentals in order to complete all the work as shown in the project plans, as specified in these Special Provisions and as directed by the Engineer. No additional compensation will be allowed therefore.

### **ARTICLE 26 - DETECTABLE WARNING SURFACE**

Detectable warning surface (or truncated domes) work shall consist of furnishing and installing a cast in place tactile tile module for new concrete access ramps and a surface mounted tactile tile module for all existing concrete access ramps within the project limits.

Detectable warning surface for new concrete access ramps and new sidewalk areas as shown on the plans shall be 3' x 4' cast-in-place. The tile shall be a Yellow Color homogenous throughout the

## **SECTION 7 - SPECIAL PROVISIONS** (Continued)

tile. Installation shall be per manufacturer's recommendation unless otherwise directed by the Engineer.

Detectable warning surface for existing concrete access ramps shall be 3' x 4' surface mounted. The tile shall be a Yellow Color homogenous throughout. Installation shall be per manufacturer's recommendation unless otherwise directed by the Engineer.

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, or deterioration of the detectable warning surface. The warranty period shall commence on the date of acceptance.

At a minimum, the Contractor shall adhere to the truncated dome mat manufacturer's installation requirements including proper surface preparation and protection of the work and surrounding area.

Payment for installation of cast-in-place detectable warning surface with new concrete access ramps, as shown on the plans, shall be considered as included as part of the construction of new concrete access ramp and no additional compensation will be allowed therefore.

Payment for **Furnish and install truncated dome to existing curb ramp** within existing curb ramps, as shown on the plans, shall be made at the contract unit price bid per **Each** and shall include full compensation for all surface preparation, protecting existing improvements within and adjacent to the work, furnishing all labor, materials, tools, equipment, and incidentals, and for completing all work involved as specified herein, as recommended by the manufacturer.

### **ARTICLE 27 – BIO CLEAN ROUND CURB INLET FILTER**

The Contractor shall furnish all materials and install the Bio Clean Round Curb Inlet Filters as shown in **Appendix C** and at locations shown on the plans. Installation shall be per manufacturer's recommendation. The model shall be BC-RGISB-MF-22-24 or approved equal. The width of the catch basins are shown on the plans and are approximate. The Contractor shall be responsible for measuring the exact width in the field and ordering the correctly sized shelf system. The shelf system shall stretch the entire width of the catch basin and shall then lead directly to the media filter.

Payment for **Furnish and Install Bio Clean Round Curb Inlet Filter** shall be made at the contract unit price per **Each** and shall include full compensation for furnishing all tools, equipment, materials, labor and incidentals in order to complete all the work as shown in the project plans, as specified in these Special Provisions and as directed by the Engineer. No additional compensation will be allowed therefore.

### **ARTICLE 28 – MANHOLE, CLEAN-OUT, MONUMENT WELL, MONITORING WELL, SEWER CLEANOUT, AND WATER VALVE FRAME AND COVER ADJUSTMENTS**

All work performed on existing highway facilities shall be done in accordance with Section 15-2.10B of the Standard Specifications with the following modifications:

#### **A. Manhole Frame and Cover Adjustment**

Existing sewer and storm drain manholes, where shown on the plans or as directed by the Engineer, are to be adjusted to new finished grade in accordance with the applicable portions of the Standard Specifications and these Special Provisions.



## **SECTION 7 - SPECIAL PROVISIONS** (Continued)

1. Manhole and Clean out Frame and Cover Adjustment shall meet the City of Garden Grove Standard Plans S-102 and S-103 and the Orange County Sanitation District (OCSD) Specifications S-050 and S-055 as appropriate.
  
2. All existing storm drain manhole frame and covers as noted on the plans within the project site shall be adjusted to grade, unless noted otherwise, shall be removed and replaced with new frame and cover. Contractor is responsible for protecting the existing manhole frame and cover to be reused. If damaged, contractor shall provide new frame and cover which shall meet all federal Buy America requirements. New storm drain manhole frames and covers shall be Alhambra Foundry 24" frame and cover A-1254 or equal, lettered "City of Garden Grove". The Contractor shall install the new storm drain manhole frame and cover at the finish grade per City Standard Plan B-206.
  
3. In areas to be resurfaced, the method of adjusting shall be as follows:
  - a. Upon completion of resurfacing, circular holes shall be cut where the manholes exist.
  
  - b. The manhole frame and cover shall then be raised to the proper finished grade, and 6-inch thick by 12-inch wide of Class "B" P.C. concrete shall be placed around the periphery of the manhole to within 2 inches of finished grade. A thickness of asphalt concrete, as specified on the plans, shall then be placed and compacted on the PCC to bring surface to new finished grade.
  
  - c. The Contractor shall be responsible for locating and marking all manhole locations so that they can be located after paving and brought to grade.
  
  - d. **The Contractor shall adjust manhole frames and cover to finished grade within 5 working days of completion of final paving.**
  
4. After adjusting all manholes to grade, the Contractor shall clean the surface of all lids and shall remove any debris that may have fallen into the shaft during construction. Upon completion, the Contractor shall coordinate with the Garden Grove Sewer and Storm Drain Division for final inspection. During the inspection, the Contractor shall provide traffic control and shall open up all lids for the City. No additional compensation will be allowed for final inspection and shall be included as part of the related manhole adjustment construction item.

Payment for **Adjust Storm Drain Manhole Frame and Cover to Grade**, and **Adjust Sewer Manhole Frame and Cover to Grade** shall be included in the Contract unit price bid per **Each** and shall include full compensation for furnishing all labor, materials, tools and equipment and doing all the work involved in reconstructing and adjusting the manholes to grade, including circular holes cutting, all excavation, backfill, compaction, PCC, extension of PVC lining, replacement of pavement section and final inspection with the City and no additional compensation will be allowed therefore. New materials that will be supplied by the City shall also be included in this unit cost. Contractor shall pick up the new materials on the City yard at no additional cost to the City.

**SECTION 7 - SPECIAL PROVISIONS** (Continued)

**B. Monument Well, Monitoring Well and Water Valve Frame and Cover Adjustments**

Existing Monument Well, Monitoring Well and Water valve cans and monitoring well valve cans, where shown on the plans or as directed by the Engineer, are to be adjusted to new finished grade in accordance with the applicable portions of the Standard Specifications and these Special Provisions.

1. Water Valve, Monument Wells and Monitoring Well Frame and Cover Adjustment shall meet the City of Garden Grove Public Works Department specifications for water systems, specifically Standard Plan B-752 - Gate Valve Can Assembly in asphalt areas and Standard Plan B-753 in concrete areas or per the City of Anaheim Standard Plan No. W-152.
2. Adjust shall mean to lower or raise existing valve can cover to final grade of pavement. When necessary, replace upper section(s) of existing valve cans that are damaged during construction with new materials. Payment for the replacement of water valve cans and lids shall be included in the Contract unit price per each to adjust water valve cans to new finished grade.
3. Adjustment of valve covers to grade shall conform to the provisions of Section 15-2.05A of the Standard Specifications and the following additions and revisions:

The Contractor shall be responsible for locating and marking all valve can locations so that they can be located after paving and brought to grade.

Adjusting water valves to grade shall be coordinated with and subject to approval by the City of Garden Grove and City of Anaheim Water Division.

The following method shall be utilized to adjust the above-mentioned structures to the new finished grade:

- a) After the asphalt concrete surface course pavement has been completed, circular holes shall be cut where the cover exists. The diameter of the circular hole shall be at least 24" larger than the outside diameter of the cover.
- b) The cover shall then be raised to the new finished pavement grade and suitably blocked and grouted in place to the satisfaction of the Engineer.
- c) Asphalt concrete shall be placed and compacted around the cover to the new finished pavement grade.

Valve cans shall be checked with a valve key for proper operation prior to receiving payment for this item.

All broken water sleeves shall be removed and replaced at the Contractor's expense, if any. The Contractor shall contact the City of Garden Grove Water Division to obtain new sleeves.

## **SECTION 7 - SPECIAL PROVISIONS** (Continued)

4. **The Contractor shall adjust water valve frames and covers to new finished grade within 5 working days of completion of final paving.**
5. After adjusting all valve frames and covers, monitoring wells, and monument wells to grade, the Contractor shall clean the surface of all lids and shall remove any debris that may have fallen into the shaft during construction. Upon completion, the Contractor shall coordinate with the Garden Grove Water Division for final inspection. During the inspection, the Contractor shall provide traffic control and shall open up all lids for the City. No additional compensation will be allowed for final inspection and shall be included as part of the related adjustment construction item.

Payment for **Adjust Water Valve & Monument Well frame and cover to grade** shall be made at the Contract unit price bid per **Each** and shall include full compensation for furnishing all labor, materials, tools and equipment and doing all the work involved including all excavation, backfill, replacement of pavement section, and final inspection with the City and no additional compensation will be allowed therefore.

## **ARTICLE 29 - TRAFFIC SIGNING, STRIPING, PAVEMENT MARKINGS AND MARKERS**

This work shall consist of furnishing and placing markers, signing and striping to replace those removed as a result of the construction and as shown on the striping plan and traffic control plans.

All traffic striping and markings placed shall be in Thermoplastic which must comply with Caltrans Standard Specification Section 84-2 and these provisions. All striping layouts and signs shall be per CA MUTCD, latest edition.

The existing traffic striping shall be modified to conform to that shown on the striping plan. Any conflicting striping that is not removed as part of the project shall be removed by wet sand blasting.

### **Thermoplastic**

All thermoplastic stripes (traffic lines) and pavement markings shall receive an enhanced wet-night visibility application.

#### **Submittals**

Submit a certificate of compliance for all bonded core elements and glass beads used on the project.

#### **Materials**

Thermoplastic traffic stripes and pavement markings with enhanced wet night visibility must consist of a single uniform layer of thermoplastic, bonded core elements, and glass beads as follows:

1. The 1<sup>st</sup> layer of bonded core elements shall be 3M Bonded Core All Weather Reflective Elements for use in thermoplastic traffic stripes and pavement markings. The color of the glass beads must match the color of the stripe or marking to which they are being applied.
2. The 2<sup>nd</sup> layer of glass beads must comply with AASHTO M 247, Type 2.

Both bonded core elements and glass beads must be surface treated for use with thermoplastic under the bead manufacturer's instructions.

## **SECTION 7 - SPECIAL PROVISIONS** (Continued)

The bonded core elements (surface-drop) shall contain either clear or yellow tinted microcrystalline ceramic beads bonded to the pacified core. *These elements shall not be manufactured using lead, chromate or arsenic.* All “dry performing” microcrystalline ceramic beads bonded to the core shall have a minimum index of refraction of 1.8 when tested using the liquid oil immersion method. All “wet performing” microcrystalline ceramic beads bonded to the core shall have a minimum index of refraction of 2.30 when tested using the oil immersion method.

### **Gradations for the Bonded Core Elements**

Element Gradations Mass Percent Passing (ASTM D1214)		
US Mesh	Micron	“S” series
12	1700	85-100
14	1410	70-96
16	1180	50-90
18	1000	5-60
20	850	0-25
30	600	0-7

A sample of bonded core reflective elements supplied by the manufacturer shall show resistance to corrosion of their surface after exposure to a 1 % solution (by weight) of sulfuric acid. The 1 % acid solution shall be made by adding 5.7 cc of concentrated acid into 1000 cc of distilled water.

### **Construction**

Use a ribbon extrusion or screed type applicator to apply a thermoplastic traffic stripe.

Mobile truck mounted applicators shall be capable of traveling at a uniform, predetermined speed over variable road grades to produce uniform application of striping material, following straight lines and making normal curves in a true arc. The equipment shall be capable of air blasting the pavement, applying the stripe and immediately dropping the bonded core elements and glass beads in a single pass at speeds of up to 8 MPH.

Apply a thermoplastic traffic stripe and both bonded elements and glass beads in a single pass. Apply the thermoplastic 1<sup>st</sup>, followed immediately by consecutive applications of high-performance bonded elements and then AASHTO M 247, Type 2 glass beads. Use 1 applicator gun for each bonded elements and glass beads.

Glass beads may be applied by hand method on pavement markings.

Apply a thermoplastic traffic stripe at a rate of at least 0.38 pounds per foot of 4-inch wide solid stripe. The applied thermoplastic traffic stripe must be at least 0.090 inch thick.

Apply a thermoplastic pavement marking at a rate of at least 1.06 pounds per square foot. The applied thermoplastic traffic stripe must be at least 0.100 inch thick.

Distribute all glass beads uniformly on traffic stripes and pavement markings. Apply high-performance bonded core elements at a rate of at least 6 pounds per 100 square feet of stripe or marking. Apply AASHTO M 247, Type 2 glass beads at a rate of at least 8 pounds per 100 square feet of stripe or marking. The combined weight of the 2 types of glass beads must be greater than 14 pounds per 100 square feet of stripe or marking.

## **SECTION 7 - SPECIAL PROVISIONS** (Continued)

### **Quality Control and Assurance**

Within 7 calendar days of applying a thermoplastic traffic stripe or pavement marking with enhanced wet night visibility, the Contractor shall test the retroreflectivity using a reflectometer in the presence of the Engineer under ASTM E 1710 (dry method) and ASTM E2832 (Wet continuous). Retroreflectivity must be a minimum of 700 millicandelas per square meter per lux for white stripes and markings and 500 millicandelas per square meter per lux for yellow stripes and markings. Retroreflectivity measurements of arrows, lead lines, skip lines, and cross walks shall be taken and recorded at regular intervals within the project limits and as requested by the Engineer. An authorized City representative shall be present during the measurement taking. The Contractor shall provide all equipment and traffic control necessary to conduct field tests.

### **Paint**

Paint for median curb noses shall be highly reflective premixed rapid dry white with glass beads.

Glass beads shall be AASHTO M 247, Type 2 and shall be mechanically applied at a rate of 6 to 8 pounds of beads per gallon of paint. Glass beads shall be applied to crosswalks and striping by a dispensing device developed for this purpose or other methods approved by the Engineer. Streets and surrounding areas are to be kept clean of excess beads.

### **Raised Pavement Markers**

Type "A", "AV", "D" and "G" markers shall be placed as required. Fire Hydrant spotter Stimpsonite No. 88 Blue, or approved equal, shall be installed per manufacturer's instructions and located as directed by the Engineer.

### **Cat Tracking**

The Contractor shall install "Cat Tracking" all traffic striping and show locations for pavement markings within 3 days after new pavement has been placed. The Engineer shall have 7 days to review all markings in the field and approve or modify striping and markings. Upon receiving direction to proceed, the Contractor shall place striping, markings and traffic signal loop detectors within 7 days.

### **Application of Thermoplastic**

- Existing surfacing which is to receive the thermoplastic material shall be mechanically wire brushed to remove all dirt and contaminants. Surfaces of new Portland cement concrete pavement to receive the thermoplastic material shall be mechanically wire brushed or abrasive blast cleaned to remove all laitance and curing compound.
- Existing pavement markers that are damaged by blast cleaning or wire brushing shall be removed and replaced by the Contractor at the Contractor's expense.
- Thermoplastic material shall be applied only to dry pavement surfaces and only when the pavement surface temperature is above 10 C {50 F}.
- A primer, of the type recommended by the manufacture of the thermoplastic material, shall be applied to all asphaltic surfaces over 6 months old and to all Portland cement concrete surfaces. The primer shall be applied immediately in advance of, but concurrent with, the application of thermoplastic material. The primer shall be applied at the application rate recommended by the manufacturer and shall not be thinned.
- Preheaters with mixers having 360-degree rotation shall be used to preheat material.

## **SECTION 7 - SPECIAL PROVISIONS** (Continued)

- The thermoplastic material shall be applied to the pavement at a temperature between 200C {400F} and 220C {425F}, unless a different temperature is recommended by the manufacturer.
- The thermoplastic material shall be applied by either spray or extrusion methods in a single uniform layer.
- **Stencils** shall be used when applying thermoplastic material for pavement markings.
- The pavement surface to which thermoplastic material is applied shall be completely coated by the material and the voids of the pavement surface shall be filled.

### **Application Equipment**

- **Stencils** and hand-operated equipment shall be used to place thermoplastic pavement markings. Stencils shall conform to the dimensions shown on the plans.
- The thermoplastic striping machine shall consist of a rubber-tired vehicle that is maneuverable to the extent that straight lines can be followed and normal curves can be made in true arcs. It shall be capable of applying thermoplastic and glass beads at the rates specified. The striping machine shall be equipped with the following: (a) a pointer or sighting device not less than 1.5m {5 feet} long and extending from the front of the machine; (b) a pointer or sighting device extending from the side of the machine to gauge the distance from the centerline for painting gaps of broken stripes; (c) a positive acting cutoff device to prevent depositing thermoplastic in gaps of broken stripes; (d) shields or an adjustable air curtain for line control; (e) pressure regulators and gages (if pneumatically operated) that are in full view of the operator; (f) thermoplastic supply line; (g) thermoplastic storage tank with a mechanical agitator that operates continuously during thermoplastic operations; (h) two separate applicator guns for dispensing each bonded elements and glass beads located behind the applicator nozzle and which is controlled simultaneously with applicator nozzle; and (i) calibrated rods for measuring the volumes for thermoplastic and glass beads in the thermoplastic tanks.
- Spray equipment shall be of a proper type and of adequate capacity for the work. Applications assemblies and orifices shall be of the proper sizes.
- Where the configuration or location of a traffic stripe is such; that the use of the thermoplastic machine is unsuitable, thermoplastic and glass beads may be applied by methods and equipment approved by the Engineer. The Engineer will determine if the striping machine is unsuitable for a particular use.

### **Protection From Damage**

The contractor shall take special care to protect existing reflective pavement markers and shall, at his own expense, replace all coated markers. Newly placed traffic stripes and pavement markings shall be protected from damage by public traffic or other causes until the thermoplastic material has sufficiently hardened.

### **Traffic Signing**

## **SECTION 7 - SPECIAL PROVISIONS** (Continued)

The Contractor shall remove existing signage and posts as shown on the plans and shall install new signs and posts per the minimum requirements of California MUTCD, latest edition and plan requirements.

Signing: Signing shall be in accordance with CaMUTCD, except as modified or supplemented herein.

- a) Post-mounted traffic signs shall be installed on "Unistrut" galvanized 2" square steel tubing with an anchor sleeve/breakaway base support, or approved equal.
- b) All permanent signs shall be reflectorized using 3M high intensity grade sheeting for post mounted signs and 3M Diamond Grade sheeting for mast arm mounted non-illuminated street name signs. Sign material shall be 0.10-inch thick sheet aluminum, alloy 6061-T6 or alloy 5052-H36 or H38 and be manufactured in accordance with the latest revision of the California Manual of Uniform Traffic Control Devices (California MUTCD), latest edition.
- c) Signs shall be provided with an "anti-graffiti" coating.
- d) New signs shall be installed using new metal posts set at a minimum of 30-inch depth.
- e) The length of the metal post shall be sufficient to provide a 7-foot clearance between the finished grade and the bottom of the sign.

Signs and posts shall also be installed in accordance with Americans with Disabilities Act (ADA) clearance requirements.

**In addition, any sign not being replaced that has graffiti or any unwanted material (stickers, etc.) shall be completely cleaned by the Contractor. If sign is bent, the Contractor shall return sign to its' original shape.**

The Contractor shall fill any void in the sidewalk from any removed post with concrete.

Payment for **Traffic signing, striping, pavement markings and markers; paint curbs; removal of existing traffic loops** for Chapman Avenue, **Traffic Striping and Signing** for residential streets shall be made at the contract **Lump Sum** price bid, and shall include full compensation for furnishing all labor, materials, tools, equipment, and all incidentals required for placing traffic stripes (regardless of the number, widths, and patterns of individual stripes involved in each traffic stripe), installing pavement markings and markers, installing bonded elements and glass beads, cat tracking, installing traffic signs and posts, removing signs and posts, cleaning or reshaping existing signs, and painting curbs complete in place. Removal of all existing stripes, signs, posts and pavement markers not conforming to the striping and signing plan shall also be included in the contract price per lump sum, and no additional compensation will be allowed. Also included in the contract price shall be the removal of all USA markings. All work shall in accordance with the project plans, these specifications, the special provisions, and as directed by the Engineer.

## **ARTICLE 30 – ACCESS RAMPS**

Existing access ramps not conforming to current ADA standards shall be removed and replaced as shown on the project plans.

All PCC construction work for this article shall conform to Sections 73 of the Caltrans Standard Specifications. Sub-grade materials shall be compacted to a minimum relative compaction of 95 percent.

## **SECTION 7 - SPECIAL PROVISIONS** (Continued)

All PCC removal work shall conform to Sections 15-3 of the Standard Specifications and shall be included as part of the related PCC construction item. No additional compensation will be allowed therefore. The use of pavement breaking equipment (stomper) is not permitted.

All excavations shall be backfilled as soon as permitted under the specifications so that when the job is closed for the day, the open excavation will be kept at a minimum and adjacent utilities will receive maximum backfill support.

New access ramps shall be constructed as shown on the plans, unless otherwise directed by the Engineer. All new ramps shall have zero-inch (0") lip of gutter at the ramp opening and a cast-in-place detectable warning surface per Detectable Warning Surface Article found in the special provisions.

Concrete mix design shall be per SSPWC (latest edition) Section 201-1 "Portland Cement Concrete", Section 303-5, and shall be 520-C-2500 with a maximum 4" slump. The same brand, type and source of cement and aggregate shall be used for all Portland Cement Concrete.

PCC curb & gutter, retaining curbs, adjacent AC/AB slot patch removal and replacement, and PCC spandrel removal and replacement, which are related to the PCC access ramp construction, shall be considered as part of the access ramp. AC slot patch shall be 8" depth and PCC spandrel shall be a minimum depth of eight inches (8") & a minimum width of one foot (1'). PCC spandrel shall be poured monolithically with the curb associated with the access ramp. No additional compensation will be allowed.

Sidewalk and access ramps shall be opened to pedestrian access on the day following the concrete placement, after sufficient curing time. The Contractor must provide a temporary walkable pathway for pedestrians until the AC slot patch has been constructed. In addition, all forms shall be removed, irrigation systems shall be repaired, and backfilled placed within 72 hours following concrete placement at each of the access ramps, sidewalk and curb & gutter reconstruction locations. PCC improvements subject to vehicle loads shall not be opened to vehicle traffic until concrete has cured to a minimum strength of 2,000 psi.

The Contractor shall verify, with a "smart level", that maximum ramp and sidewalk grades do not exceed ADA requirements when marking the required saw cut removal limits and when setting the concrete forms, prior to pouring any access ramp locations. It shall be the Contractor's responsibility to supervise and utilize the proper experienced personnel to ensure that the proper saw cut limits are established for all access ramp locations and the Engineer shall not be responsible to direct the Contractor's crews or otherwise serve in this management capacity. The Engineer or his authorized representative shall be present to verify the concrete forms, prior to pouring any PCC construction improvements.

All traffic signal pull boxes that fall within the proposed PCC ramp and construction limits shall be adjusted to grade and shall be replaced with a No. 6 Christy concrete pull box or approved equal. Plastic pull boxes and lids will not be allowed. Existing pullboxes, if still in good working condition, shall be delivered to the city yard, otherwise, the Contractor shall dispose of the pullbox.

Since the adjustment of pull boxes and pull box covers may require lowering the pull box and pull box cover to grade, said work shall also include the adjustment of conduits and conductors if they cannot be properly contained in the box with necessary clearances at the new ramp finished grade. It is the Contractor's responsibility to review in advance in the field all existing pullboxes, which fall within the proposed PCC ramp construction limits, to confirm whether the existing conduits and conductors will need adjustment when the pullboxes are adjusted to grade and to bid accordingly.



## **SECTION 7 - SPECIAL PROVISIONS** (Continued)

Payment for **Remove Existing and Construct PCC Access Ramp** shall be made at the contract unit price bid per **Each** and shall include full compensation for saw cutting, removing and disposing of existing PCC and AC, form work, preparing the sub-grade, pouring concrete, installing cast-in-place detectable warning surfaces (truncated domes), replacing landscaping and irrigation as required to provide room for concrete forms, protecting existing parkway drain pipe, adjusting to grade all pull boxes, conduits, and conductors, adjusting to grade all other utility covers to the new finished grades, protecting existing improvements within and adjacent to the work, furnishing all labor, materials, tools, equipment, incidentals and for completing all work involved as specified herein, and as shown on the project plans. No additional compensation will be allowed therefor.

### **ARTICLE 31 - RIDE QUALITY STANDARD**

If, in the opinion of the Engineer, the ride quality of the final asphalt concrete is not acceptable, the Contractor shall, within seven (7) calendar days of placement of the final paving surface, profile the surface using a California Profilograph in accordance with California Test 526 and shall provide the City with the original profile graph. The City may, at their discretion, delete this item from the Contract if it is determined that the ride quality is acceptable.

If the new finished surface of the asphalt concrete on the traffic lanes does not meet the specified surface tolerance as specified in section 39-6.03 of the Standard Specifications, the Contractor shall bring it within tolerance by either (1) abrasive grinding, or (2) removal and replacement. The method will be selected by the Engineer. The corrective work shall be at the Contractor's expense.

If abrasive grinding is used, the method must be performed with grinding equipment utilizing diamond-cutting blades to bring the new finished surface to specified surface tolerance. Additional grinding shall be performed as necessary to extend the area ground in each lateral direction so that the lateral limits of grinding are at a constant offset from, and parallel to the nearest lane line or pavement edge, and in each longitudinal direction so that the grinding begins and ends at lines perpendicular to the pavement centerline, within any ground area. All ground areas shall be neat rectangular areas of uniform surface appearance. A fog seal coat shall be applied to the grounded areas in accordance with the provisions in Section 37, "Bituminous Seals" of the Standard Specifications. The corrective work shall be done prior to final painting of traffic lanes and after "cat" tracking.

Payment for the **Surface Profilograph** shall be made at the Contract **Lump Sum** price bid and shall include full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all work involved, and no additional compensation shall be allowed therefore. The time allotted for the Surface Profilograph and any surface repair (as indicated by the Surface Profilograph) shall be included in the Contract Time for this project and in accordance with the respective Alternate and no additional time or compensation will be allowed therefore.

### **ARTICLE 32 - COMPLETION AND ACCEPTANCE**

Upon receipt of the Contractor's written assertion that the work has been completed, the Engineer or his authorized representative will inspect the work for acceptance. Because of the subsequent inspection, a "punch list" shall be prepared by the Engineer and submitted to the Contractor for compliance and/or repair.

The project is considered certifiable for completion and acceptance when all liens and/or claims for labor, materials, tools and equipment have been paid for and all liens and/or claims releases are

**SECTION 7 - SPECIAL PROVISIONS** (Continued)

received by the City; when all Contract items of work have been completed, including changes to the plan, with acceptable workmanship; when all repairs to damaged existing utilities, appurtenances and improvements have been completed and accepted by the respective owners; when all survey monuments and other survey markers have been re-set and a copy of centerline monuments submitted to the proper authorities; when all USA markings have been removed; and when the project site and all areas occupied by the Contractors are left in a neat and presentable condition. For street rehabilitation and/or widening projects, the street shall be swept and washed with water. For storm drain project, all main lines and laterals shall be flushed with water, free from dirt and all debris and rubbish. All corrections noted in the "punch list" must be approved and accepted by the Engineer.

The contractor shall submit as-built plans to the Engineer before the final acceptance of the project and to end the contract working days.

If, in the Engineer's judgment, the work has been completed and is ready for acceptance, he will so certify to the City Council, which will accept the completed work. The Engineer will, in his certification, give the date when the work was completed. This will be the date when the Contractor is relieved from responsibility to protect the work and the end of assessment of liquidated damages. Retention shall be released after the Notice of Completion is recorded by the County Recorder.

Full compensation for conforming to the requirements of this article shall be considered as included in the Contract bid prices for the various items of work, and no separate payment will be allowed therefore.

APPENDIX A  
INSURANCE REQUIREMENTS

BIDDER/CONTRACTOR STATEMENT  
REGARDING INSURANCE COVERAGE

**A contract will not be issued to the Contractor until the City acknowledges receipt of this signed document!**

BIDDER/CONTRACTOR HEREBY CERTIFIES that he/she has reviewed and understands the insurance coverage requirements specified as in the attached Insurance Requirements Checklist.

Should we/I be awarded the contract, we/I certify that we/I can meet the specified requirements for insurance, including insurance coverage of the subcontractors, and agree to name the **City/Agency/Sanitary District** and other additional insureds as per the agreement for the work specified. And we/I will comply with the provisions of Section 3700 of the Labor Code, which require every employer to be insured against liability for worker's compensation or to undertake self-insurance in accordance with the provisions of that code, before commencing the performance of the work specified.

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Please Print (Person, Firm, or Corporation)

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Signature of Authorized Representative

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Please Print (Name & Title of Authorized Representative)

---

Date

Phone Number

Email

Insurance Certificates and Endorsements will also be accepted via email and must be emailed to the following email address only: \_\_\_\_\_ This is the preferred and quickest method of submitting insurance certificates and endorsements.

Insurance Certificates and Endorsements can also be mailed to: City of Garden Grove  
Attention:  
11222 Acacia Parkway  
Garden Grove, CA 92840

**NOTE: All insurance certificates and endorsements must be received by the City of Garden Grove \_\_\_\_\_ Division within ten (10) City working days of the original request or the City reserves the right to proceed with the next lowest responsible bidder or the next highest scoring proposer in the process.**

Policy number is clearly stated.  
Does it match the insurance certificate?

POLICY NUMBER:



ISSUE DATE:

**THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.**

**DESIGNATED ENTITY – EARLIER NOTICE OF  
CANCELLATION/NONRENEWAL PROVIDED BY US**

This endorsement modifies insurance provided under the following:  
ALL COVERAGE PARTS INCLUDED IN THIS POLICY

**SCHEDULE**

**CANCELLATION:**

**Number of Days Notice: 30**

**WHEN WE DO NOT RENEW (Nonrenewal):**

**Number of Days Notice: 30**

**NAME: CITY OF GARDEN GROVE**

**ADDRESS: P.O. BOX 3070 GARDEN GROVE CA 92842**

Schedule required with  
listed information

- A. For any statutorily permitted reason other than nonpayment of premium, the number of days required for notice of cancellation, as provided in the CONDITIONS Section of this insurance, or as amended by any applicable state cancellation endorsement applicable to this insurance, is increased to the number of days shown in the SCHEDULE above.
- B. For any statutorily permitted reason other than nonpayment of premium, the number of days required for notice of When We Do Not Renew (Nonrenewal), as provided in the CONDITIONS Section of this insurance, or as amended by any

applicable state When We Do Not Renew (Nonrenewal) endorsement applicable to this insurance, is increased to the number of days shown in the SCHEDULE above.

- C. We will mail notice of cancellation or nonrenewal or material limitation of those coverage forms to the person or organization shown in the schedule above. We will mail the notice at least the Number of Days indicated above before the effective date to our action.

Policy number is clearly stated on endorsement.  
Does it match the insurance certificate?

POLICY NUMBER:



COMMERCIAL AUTO  
CA 20 48 02 99

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

### DESIGNATED INSURED

This endorsement modifies insurance provided under the following:

BUSINESS AUTO COVERAGE FORM  
GARAGE COVERAGE FORM  
MOTOR CARRIER COVERAGE FORM  
TRUCKERS COVERAGE FORM

With respect to coverage provided by this endorsement, the provisions of the Coverage Form apply unless modified by this endorsement.

This endorsement identifies provision of the Coverage Form. This endorsement changes the below.

Signature required

Who Is An Insured Provision of the Coverage Form.

Unless another date is indicated

Endorsement Effective:	Countersigned By:
Named Insured:	(Authorized Representative)

### SCHEDULE

City of Garden Grove, it's officers, officials, employees, agents and volunteers, & all public agencies from whom permits will be obtained and their directors, officers, agents, and employees, as determined by City.

(If no entry appears above, information required to complete this endorsement will be shown in the Declarations as applicable to the endorsement.)

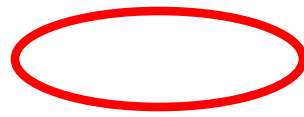
Each person or organization shown in the Schedule is an "insured" for Liability Coverage, but only to the extent that person or organization qualifies as an "insured" under the Who Is An Insured Provision contained in Section II of the Coverage Form.

Schedule required with listed information

**\*\*Please Note:** Additional insured language must include other agencies when those other agencies will be involved in the job and/or when those other agencies will issue permits. Please see the additional insured language above for an example of the type of language needed.

Policy number is clearly stated on Commercial General Liability Endorsement.  
Does it match the insurance certificate?

POLICY NUMBER:



COMMERCIAL GENERAL LIABILITY  
CG 20 37 07 04

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

**ADDITIONAL INSURED – OWNERS, LESSEES OR CONTRACTORS – COMPLETED OPERATIONS**

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

**SCHEDULE**

Name Of Additional Insured Person(s) Or Organization(s)	Location And Description Of Completed Operations
City of Garden Grove, its respective officers, officials, employees, agents and volunteers, & all public agencies from whom permits will be obtained and their directors, officers, agents, and employees, as determined by City	

Information required to complete this schedule, if not shown above, will be shown in the Declarations.

Schedule required with listed information

Location as stated in Contract

**Section II – Who Is An Insured** is amended to include as an additional insured the person(s) or organization(s) shown in the Schedule, but only with respect to liability for "bodily injury" or "property damage" caused, in whole or in part, by "your work"

at the location designated and described in the schedule of this endorsement performed for that additional insured and included in the "products-completed operations hazard".

**SAMPLE**

<b>ACORD™ CERTIFICATE OF LIABILITY INSURANCE</b>		DATE (MM/DD/YY)
PRODUCER		THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.
INSURED		
INSURER D:		
INSURER E:		

Insured Name  
Should be exactly the same as in contract.

<b>COVERAGES</b>		NOTWITHSTANDING MAY BE ISSUED OR CONDITIONS OF SUCH	
THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OT MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBI POLICIES. AGGREGATE LIMITS SHOWN MAY HAVE BEEN REDUCED BY F		Policy Expiration Date Is the policy still current?	
INSR LTR	TYPE OF INSURANCE	POLICY NUMBER	
	GENERAL LIABILITY		
	COMMERCIAL GENERAL LIABILITY		
	CLAIMS MADE	OCCUR	
	GEN'L AGGREGATE LIMIT APPLIES PER:		
	POLICY	PRO-JECT	LOC
	AUTOMOBILE LIABILITY		
	ANY AUTO		
	ALL OWNED AUT		
	SCHEDULED AUT		
	HIRED AUTOS		
	NON-OWNED AU		
	GARAGE LIABILITY		
	ANY AUTO		
	EXCESS LIABILITY		
	OCCUR	CLAIMS MADE	
	DEDUCTIBLE		
	RETENTION \$		
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY		
	OTHER Professional Liability & Contractors Pollution Liability		
	DESCRIPTION OF OPERATIONS/LOCATIONS/VEHICLES/EXCLUSION:		

Policy Number  
Should be clearly visible and match endorsement

Insurance Limits  
Are the limits correct?

Cancellation wording  
Is it properly amended?

CERTIFICATE HOLDER	ADDITIONAL INSURED; INSURER LETTER:	CANCELLATION 10 days NOC for non-payment of premium.
City of Garden Grove		SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING INSURER WILL SEND TO MAIL 30 DAYS BEFORE NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT
11222 Acacia Parkway		
Garden Grove, CA 92840	USA	AUTHORIZED REPRESENTATIVE <i>[Signature]</i>

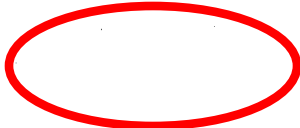
Certificate holder must match entity in contract

**SAMPLE**



Policy number is clearly stated on Commercial General Liability Endorsement.  
Does it match the insurance certificate?

POLICY NUMBER:



COMMERCIAL GENERAL LIABILITY  
CG 20 28 07 04

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

**ADDITIONAL INSURED – DESIGNATED  
PERSON OR ORGANIZATION**

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

SCHEDULE

Name Of Additional Insured Person(s) Or Organization(s)
<p><b>City of Garden Grove, it's officers, officials, employees, agents and volunteers, &amp; all public agencies from whom permits will be obtained and their directors, officers, agents, and employees, as determined by City</b></p>

Information required to complete this Schedule, if not shown above will be shown in the Declarations

Section II – Who Is An Insured is amended to include as an additional insured the person(s) or organization(s) shown in the Schedule, but only with respect to liability for "bodily injury", "property damage" or "personal and advertising injury" caused, in whole or in part, by your acts or omissions or the acts or omissions of those acting on your behalf:

- A. In the performance of your ongoing operations; or
- B. In connection with your premises owned by or rented to you.

Schedule required with listed information

**SAMPLE**

Stated as Primary and Non-contributory

**THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.**

**PRIMARY AND NON-CONTRIBUTORY CLAUSE ENDORSEMENT**

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART

It is agreed that insurance provided by any additional insured endorsement is primary coverage. We will not seek contribution from any other insurer when insurance on a non-contributing basis is required by contract.

**SAMPLE**

**Very Important:**

The endorsement must be primary and non-contributory.  
Please clearly show the policy number on the endorsement.

Includes copyrighted material of Insurance Services Office, Inc. with its permission.

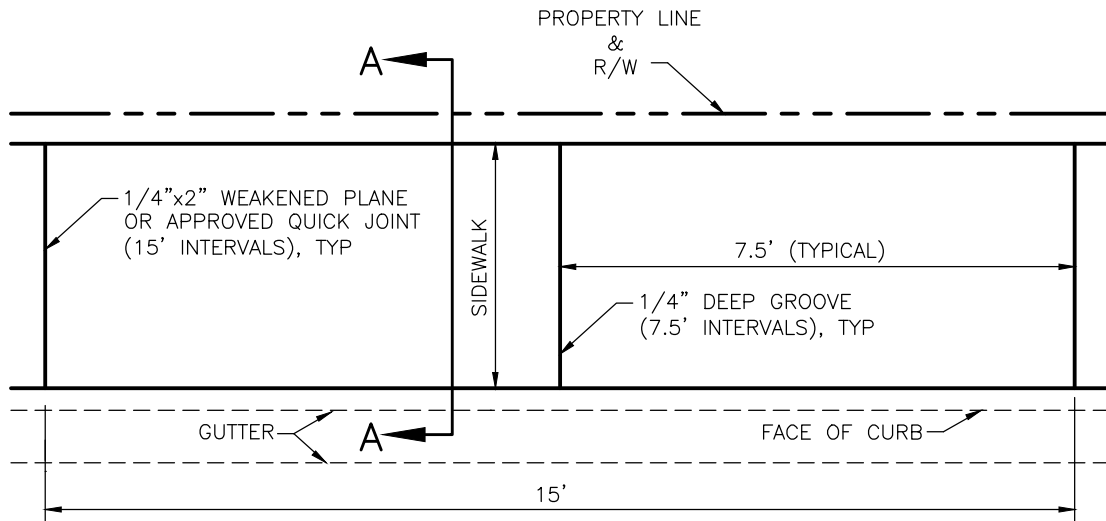
CG-F-65 (08-03)

Policy Number:

Transaction Effective Date

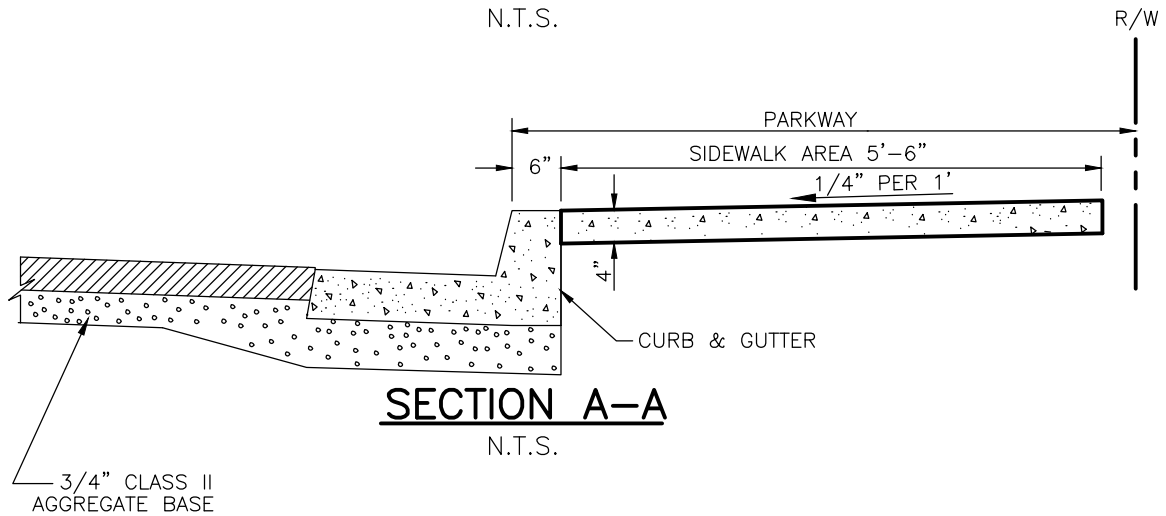
APPENDIX B

STANDARD PLANS



**PLAN VIEW OF SIDEWALK**

N.T.S.



**SECTION A-A**

N.T.S.

**NOTES:**

1. SIDEWALK SHALL BE CONSTRUCTED NEXT TO CURB.
2. 3/4"x4" FELT EXPANSION JOINTS SHALL BE PLACED AT THE ENDS OF ALL CURB RETURNS AND AT TOP OF DRIVEWAYS. 1/4"x2" WEAKENED PLANE JOINTS SHALL BE PLACED AT 15' INTERVALS. SCORING LINES SHALL BE PLACED AT 7-1/2' INTERVALS. EXPANSION JOINTS TO BE INSTALLED AT 45' MAXIMUM SPACING.
3. 1/4"x2" APPROVED QUICK JOINTS FOR SIDEWALK SHALL BE PLACED TO COINCIDE WITH JOINTS OF THE CURB.
4. ALL CONCRETE SHALL BE CLASS 520-C-2500 AND 4" THICK.
5. 90% RELATIVE COMPACTION REQUIRED UNDER SIDEWALK.
6. COLORED ADDITIVES OR PATTERNED CONCRETE SHALL NOT BE USED IN PUBLIC R/W.



City of  
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California

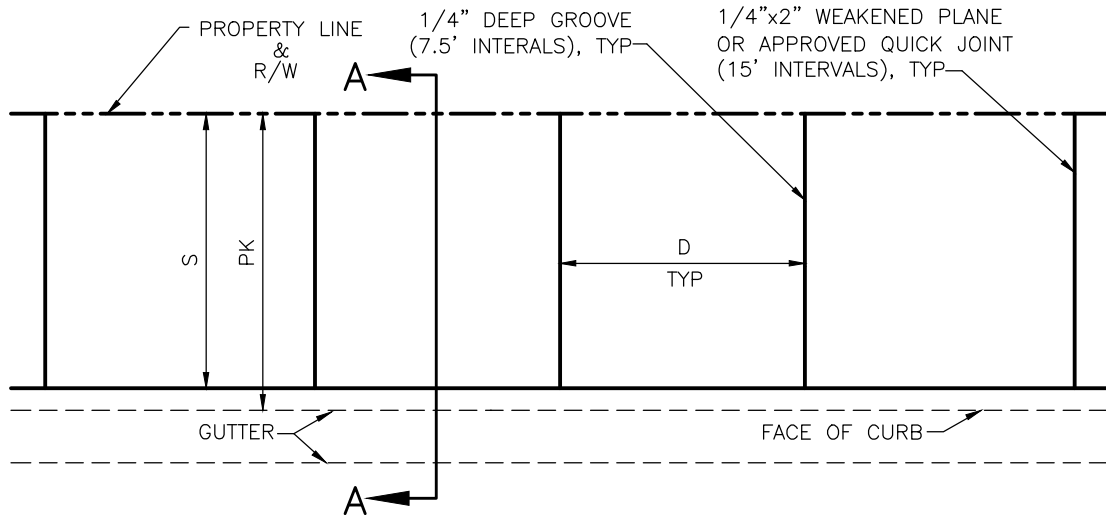
**RESIDENTIAL SIDEWALK**

Approved  Date 12-8-15  
City Engineer R.C.E. 52125 Exp.12-31-16

REVISIONS	BY	DATE

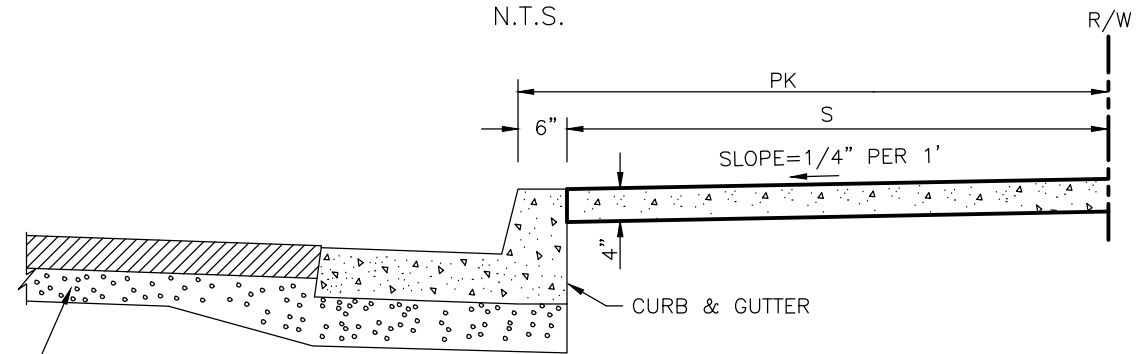
STD. PLAN NUMBER

**B-105**



**PLAN VIEW OF PARKWAY**

N.T.S.



**SECTION A-A**

N.T.S.

PK	S	D
7'	6.5'	7.5'
8'	7.5'	7.5'
10'	9.5'	7.5'
12'	11.5'	7.5'
13'	12.5'	7.5'

PK = WIDTH OF PARKWAY  
 S = WIDTH OF SIDEWALK  
 D = DISTANCE BETWEEN SCORE LINES

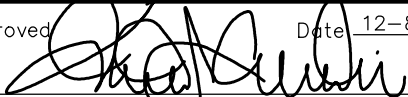
**NOTES:**

- 3/4"x4" FELT EXPANSION JOINTS SHALL BE PLACED AT THE ENDS OF ALL CURB RETURNS AND AT TOP OF "X" AT DRIVEWAYS. 1/4"x2" WEAKENED PLANE JOINTS SHALL BE PLACED AT 15' INTERVALS. SCORING LINES SHALL BE PLACED AT 7-1/2' INTERVALS. EXPANSION JOINTS TO BE INSTALLED AT 45' MAX. SPACING.
- 1/4"x2" APPROVED QUICK JOINTS FOR SIDEWALK SHALL BE PLACED TO COINCIDE WITH JOINTS OF THE CURB.
- REFER TO STD. PLAN B-305 FOR TRAFFIC CONTROL SIGN INSTALLATION.
- ALL CONCRETE SHALL BE CLASS 520-C-2500 AND 4" THICK.
- 90% RELATIVE COMPACTION REQUIRED UNDER SIDEWALK.
- S MAY BE REDUCED TO 5' WITH ADEQUATE PROVISION FOR MAINTENANCE OF REMAINING PARKWAY.



City of  
 Garden Grove  
 California

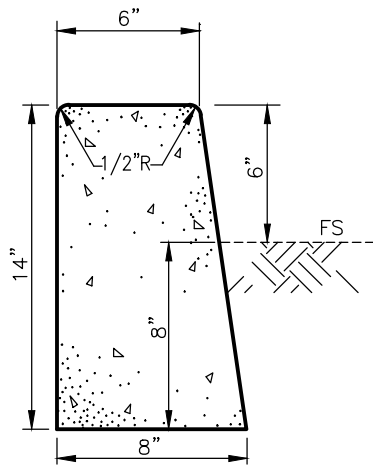
**COMMERCIAL AND  
 ARTERIAL SIDEWALK**

Approved  Date 12-8-15  
 City Engineer R.C.E. 52125 Exp.12-31-16

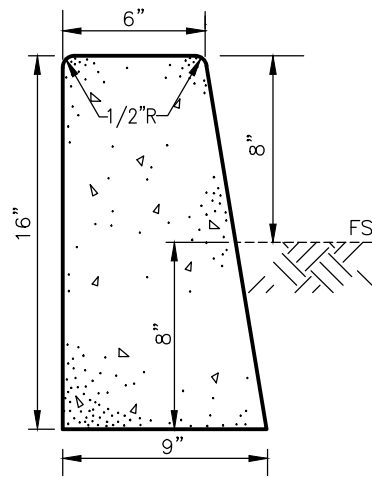
REVISIONS	BY	DATE

STD. PLAN NUMBER

**B-106**



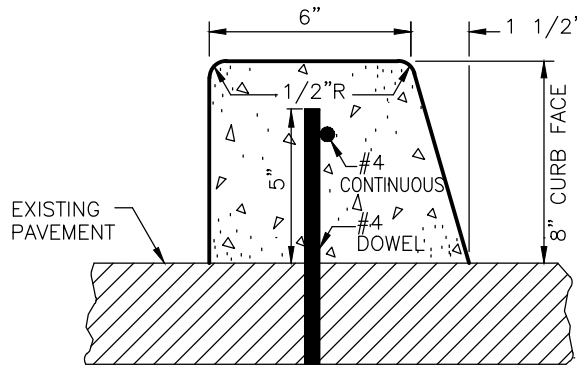
**A-6\***



**A-8**

**NOTES**

1. CONCRETE PER LIN. FT. = 0.025 C.Y. FOR 6" C.F. AND 0.031 C.Y. FOR 8" C.F.
2. CONCRETE SHALL BE 520-C-2500.
3. FULL FACE 3/4" FELT EXPANSION JOINTS SHALL BE PLACED AT THE END OF ALL CURB RETURNS. 1/4"x2" WEAKENED PLANE JOINTS SHALL BE PLACED AT 15' INTERVALS WITH 3/4" FULL FACE FELT EXPANSION JOINTS AT 45' O.C. MAX.
- \* 4. STANDARD FOR A-6 CURB SHALL NOT TO BE USED IN THE PUBLIC RIGHT-OF-WAY WITHOUT APPROVAL OF CITY ENGINEER.
5. 95% RELATIVE COMPACTION REQUIRED IN UPPER 6" OF SUBGRADE.



**B-8**

N.T.S.

**NOTES:**

1. TYPE B SHALL BE USED FOR REPLACEMENT-IN-KIND ONLY - NOT FOR NEW CONSTRUCTION AND SHALL NOT BE USED TO REPLACE MEDIAN NOSES UP TO 10' FROM NOSE.
2. BOND CURB TO PAVEMENT SURFACE WITH APPROVED ADHESIVE. ADHESIVE SHALL COVER ENTIRE BASE AREA OF CURB.
3. CONCRETE PER LIN. FT. = 0.0138 C.Y.
4. CONCRETE SHALL BE CLASS 520-C-2500.
5. 1/4" x 2" WEAKENED PLANE JOINTS SHALL BE PLACED AT 15' INTERVALS.
6. INSTALL DOWELS AT 6'-0" ON CENTER. EMBED INTO PAVEMENT MIN. OF 6".



City of  
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California

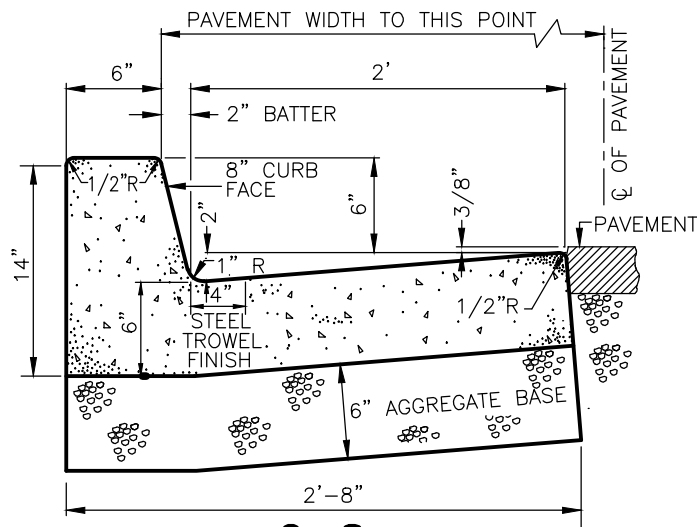
**CONCRETE CURB ONLY  
TYPE "A" & "B"**

Approved  Date 12-8-15  
City Engineer R.C.E. 52125 Exp.12-31-16

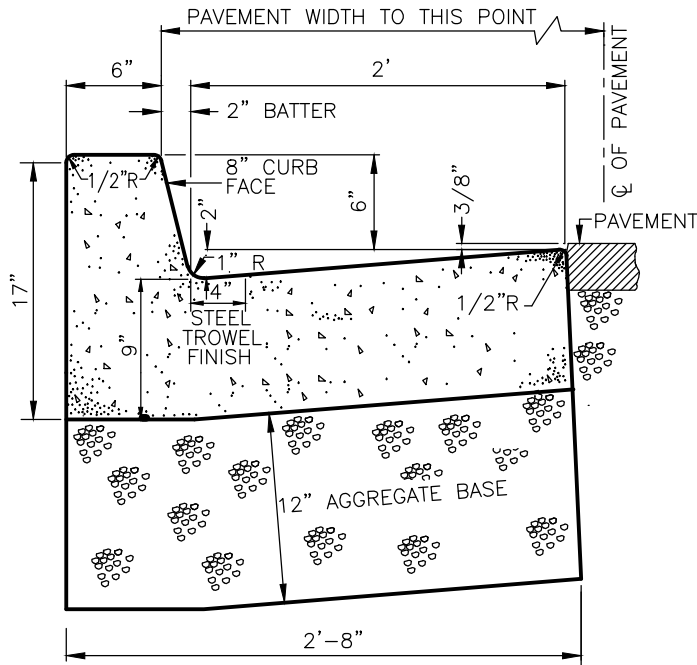
REVISIONS	BY	DATE

STD. PLAN NUMBER

**B-112**



**C-8**



**C-8 (MODIFIED)**

**NOTES:**

1. CONCRETE PER LIN. FT. = 0.0645 C.Y. FOR TYPE C-8 AND 0.0892 C.Y. FOR TYPE C-8 (MODIFIED).
2. CONCRETE SHALL BE CLASS 520-C-2500 FOR TYPE C-8 AND 660-CW-4000 FOR TYPE C-8 (MODIFIED).
3. FULL FACE 3/4" FELT EXPANSION JOINTS SHALL BE PLACED AT THE END OF ALL CURB RETURNS. 1/4"x2" WEAKENED PLANE JOINTS SHALL BE PLACED AT 15' INTERVALS WITH 3/4" FULL FACE FELT EXPANSION JOINTS AT 45' O.C. MAX. AND AT THE TOP OF "X'S" ON ALL DRIVEWAY APPROACHES.
4. AGGREGATE BASE SHALL BE CLASS II 3/4".
5. 95% RELATIVE COMPACTION REQUIRED FOR FULL DEPTH OF AGGREGATE BASE.



City of  
Garden Grove  
California

**CONCRETE CURB &  
GUTTER TYPE "C"**

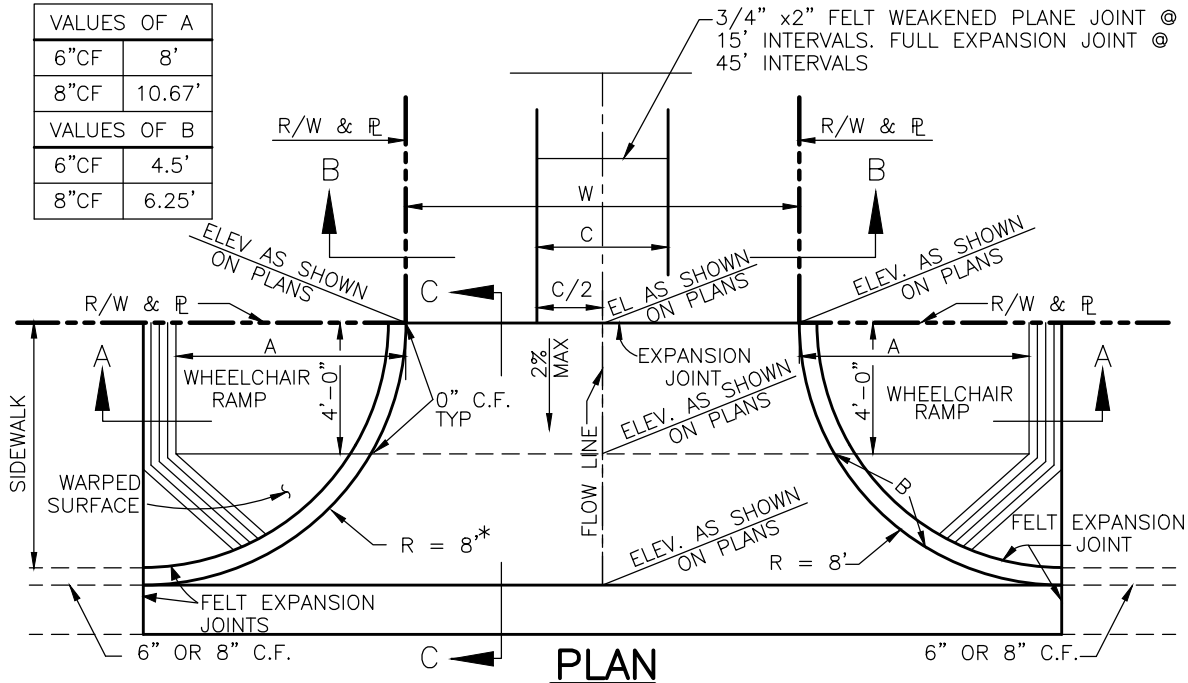
Approved  Date 12-8-15  
City Engineer R.C.E. 52125 Exp. 12-31-16

REVISIONS	BY	DATE

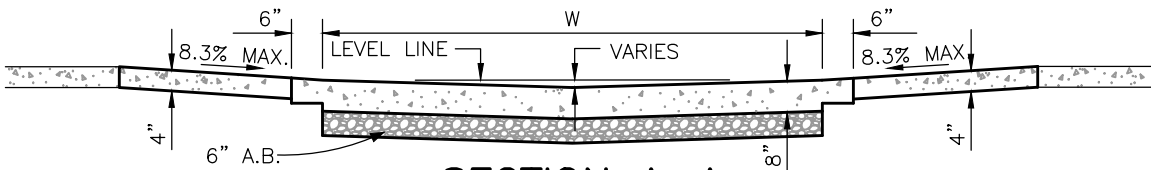
STD. PLAN NUMBER

**B-113**

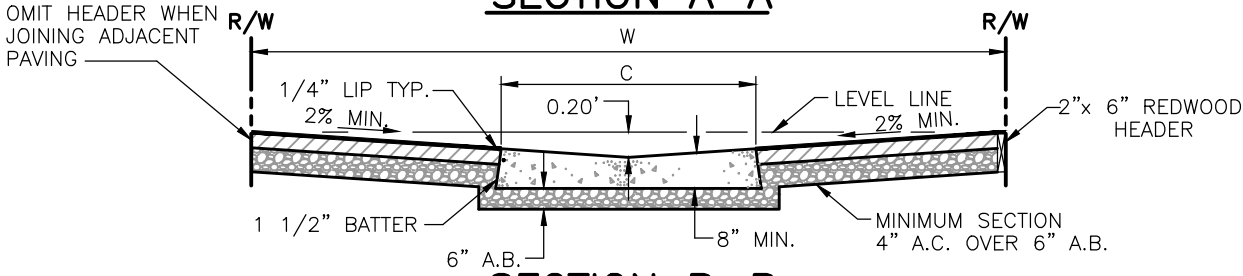
VALUES OF A	
6"CF	8'
8"CF	10.67'
VALUES OF B	
6"CF	4.5'
8"CF	6.25'



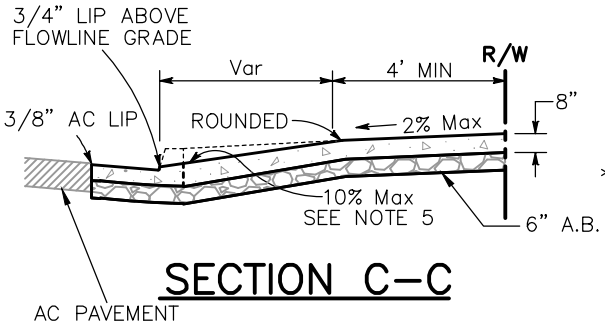
**PLAN**



**SECTION A-A**



**SECTION B-B**



**SECTION C-C**

**NOTES:**

1. C=4.0' WHERE ALLEY DOES NOT RECEIVE DRAINAGE FROM THE STREET. C=6.0' WHERE ALLEY DOES RECEIVE DRAINAGE FROM THE STREET.
2. W=R/W OR P/L WIDTH. (20' MIN.)
3. ALL CONCRETE SHALL BE 520-C-2500.
- \*4. 8' MIN. RADIUS. USE RADIUS EQUAL TO PARKWAY WIDTH IF PARKWAY WIDTH IS LARGER THAN 8'.
5. DIFFERENCE IN SLOPE OF THE ALLEY RAMP AND THE SLOPE OF A LINE BETWEEN THE GUTTER AND A POINT ON THE ROADWAY 5' FROM GUTTER LINE SHALL NOT EXCEED 15%. REDUCE ALLEY RAMP SLOPE, NOT GUTTER SLOPE, WHERE REQUIRED.



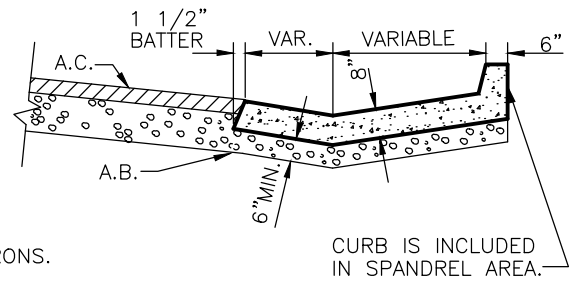
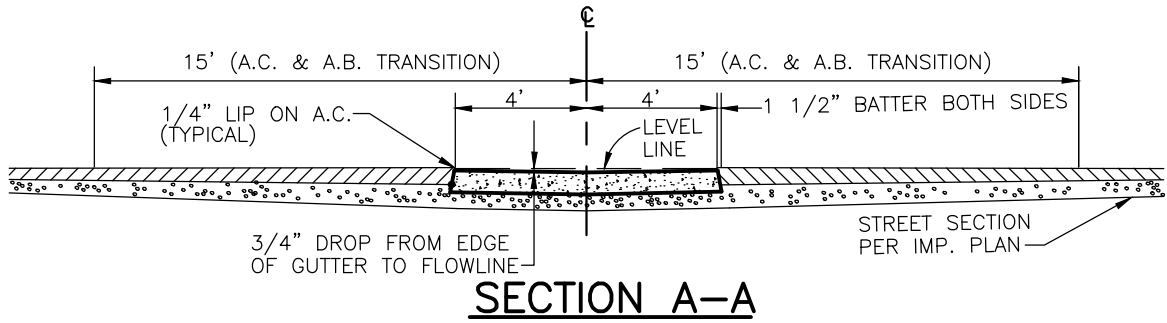
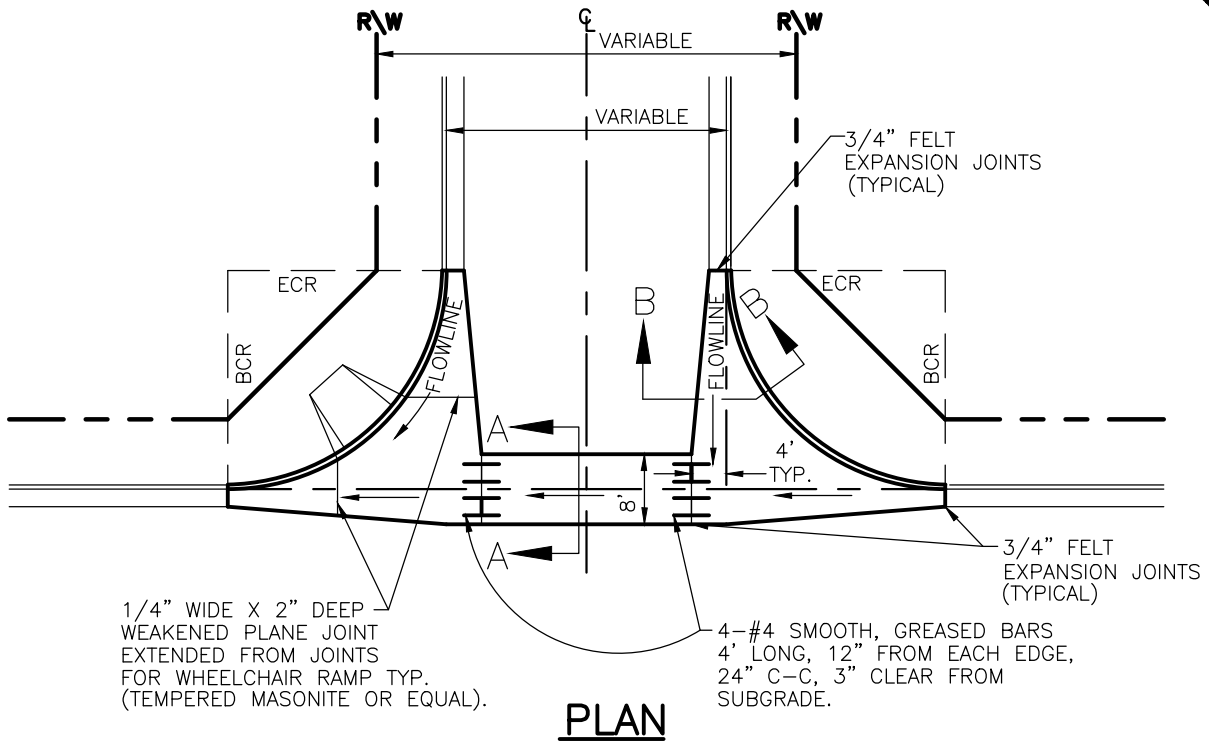
**ALLEY AND ALLEY APRON**

Approved: *[Signature]* Date: 12-8-15  
City Engineer R.C.E. 52125 Exp. 12-31-16

REVISIONS	BY	DATE

STD. PLAN NUMBER  
**B-118**





**NOTES:**

1. ALL CONCRETE SHALL BE CLASS 560-C-3250.
2. STEEL TROWEL 8" WIDE FLOWLINE IN GUTTER AND APRONS.
3. AVOID ADVERSE FLOW LINES ON STREETS WHICH ARE NOT PERPENDICULAR TO EACH OTHER BY CONSTRUCTING FLOW LINES PERPENDICULAR TO EACH OTHER.
4. SEE STD. PLAN B-108 FOR WHEELCHAIR RAMPS.

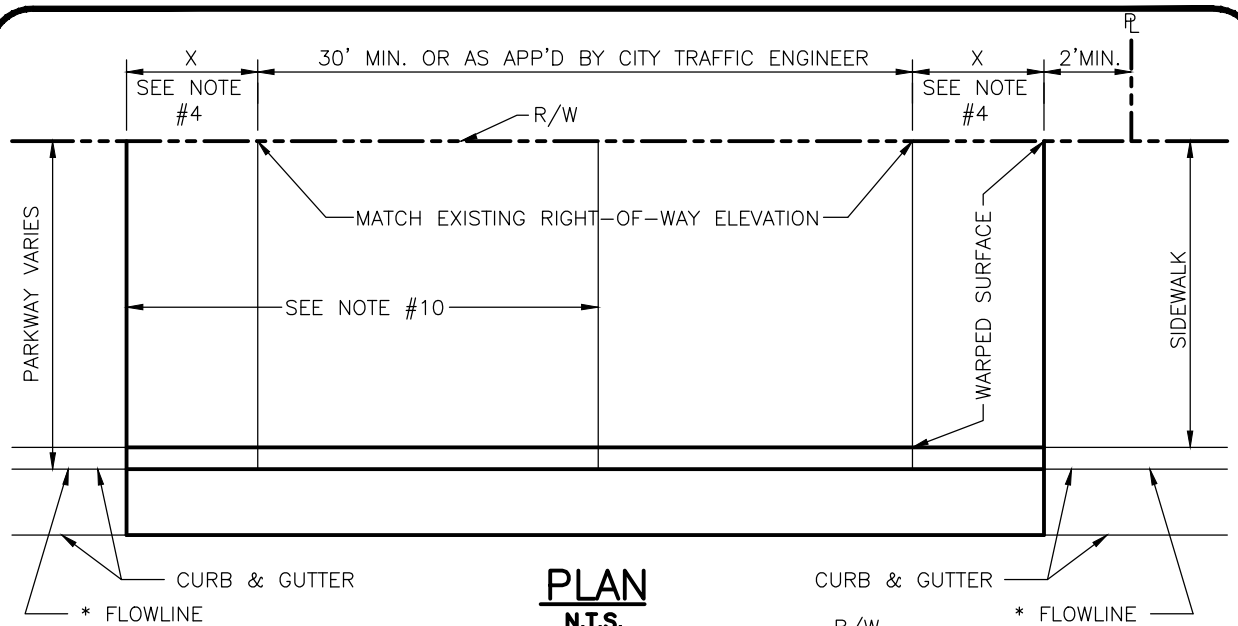


**CROSS GUTTER**

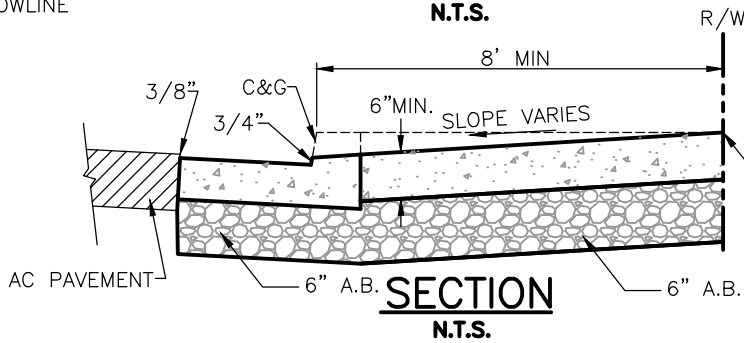
Approved: *[Signature]* Date: 12-8-15  
 City Engineer R.C.E. 52125 Exp. 12-31-16

REVISIONS	BY	DATE

STD. PLAN NUMBER  
**B-119**



**PLAN**  
N.T.S.



**SECTION**  
N.T.S.

**NOTES:**

1. SEE CITY STANDARD PLAN B-120 FOR COMMERCIAL DRIVEWAYS ON ARTERIAL STREETS.
2. ALL CONCRETE SHALL BE CLASS 560-C-3250. INSPECTOR'S APPROVAL IS REQUIRED PRIOR TO ANY SAWCUT, .
3. APPROACH SHALL BE 6" MINIMUM THICKNESS.
4. X=3' FOR 6" CF, X=4' FOR 8" CF.
5. TWO FEET (MIN.) OF FULL HEIGHT CURB IS REQUIRED BETWEEN DRIVEWAY AND EXTENDED SIDE PROPERTY LINE.
6. A MINIMUM OF 22' OF FULL HEIGHT CURB IS REQUIRED BETWEEN DRIVEWAYS SERVING THE SAME PARCEL.
7. 95% RELATIVE COMPACTION REQUIRED IN UPPER 6" OF SUBGRADE.
8. FOR NEW DRIVEWAY LOCATIONS REMOVE AND RECONSTRUCT CURB & GUTTER SEPARATELY FROM DRIVEWAY UNLESS OTHERWISE APPROVED BY THE ENGINEER.
9. NO HORIZONTAL CURB CUTS ALLOWED.
10. INSTALL 3/4"x2" FELT JOINTS AT 15' O.C. AND 3/4"x6" FELT JOINTS AT TOP OF X'S.
11. COLORED ADDITIVES OR PATTERNED CONCRETE SHALL NOT BE USED IN PUBLIC R/W.



City of  
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California

**NON-ARTERIAL MULTI-RESIDENTIAL  
& COMMERCIAL DRIVEWAY**

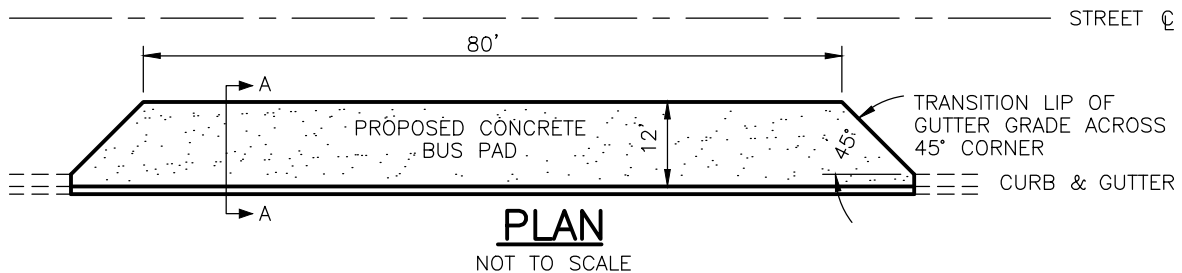
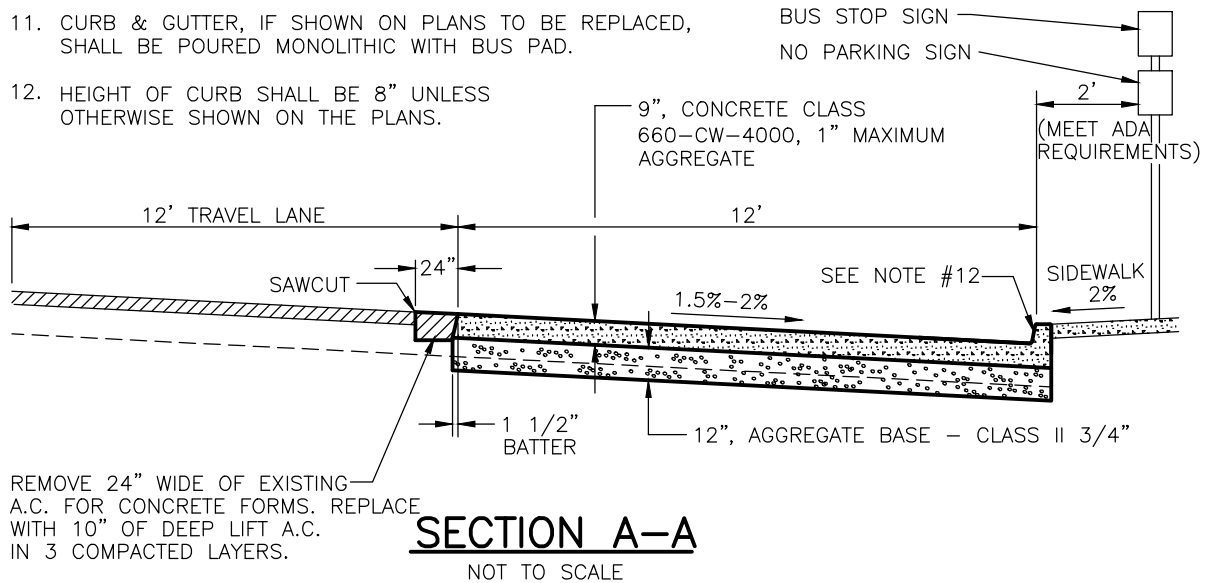
Approved  Date 12-8-15  
City Engineer R.C.E. 52125 Exp.12-31-16

REVISIONS	BY	DATE

STD. PLAN NUMBER  
**B-121**

# CONSTRUCTION NOTES:

1. CURB SHALL BE POURED MONOLITHIC WITH PCC BUS PAD.
2. COMPACTION ON THE UPPER 6" OF NATIVE SOIL AND AGGREGATE BASE SHALL BE 95%.
3. CONCRETE CYLINDER TESTS SHALL BE TAKEN AS REQUIRED BY INSPECTOR.
4. CONCRETE SHALL HAVE A MAXIMUM OF 4" SLUMP.
5. NO FLY ASH PERMITTED IN CEMENT OR AS AN ADDITIVE.
6. CURING COMPOUND WITH FUGITIVE DYE SHALL BE APPLIED IMMEDIATELY AFTER FINAL FINISHING.
7. 3/4" X 3" DEEP FELT JOINTS SHALL BE INSTALLED AT 15' OC.
8. CONTRACTOR SHALL MAINTAIN TRAFFIC DETOUR, INCLUDING FLASHING ARROW BOARDS FOR A MINIMUM OF 5 DAYS TO ALLOW CONCRETE BUS PAD TO CURE BEFORE PLACING TRAFFIC ON IT.
9. FINAL LOCATION OF BUS PAD TO BE APPROVED IN FIELD BY OCTA PRIOR TO EXCAVATION.
10. CONTRACTOR SHALL FINISH CONCRETE PAD WITH MEDIUM TO HEAVY BROOM FINISH.
11. CURB & GUTTER, IF SHOWN ON PLANS TO BE REPLACED, SHALL BE POURED MONOLITHIC WITH BUS PAD.
12. HEIGHT OF CURB SHALL BE 8" UNLESS OTHERWISE SHOWN ON THE PLANS.



City of  
Garden Grove  
California

## CONCRETE BUS PAD

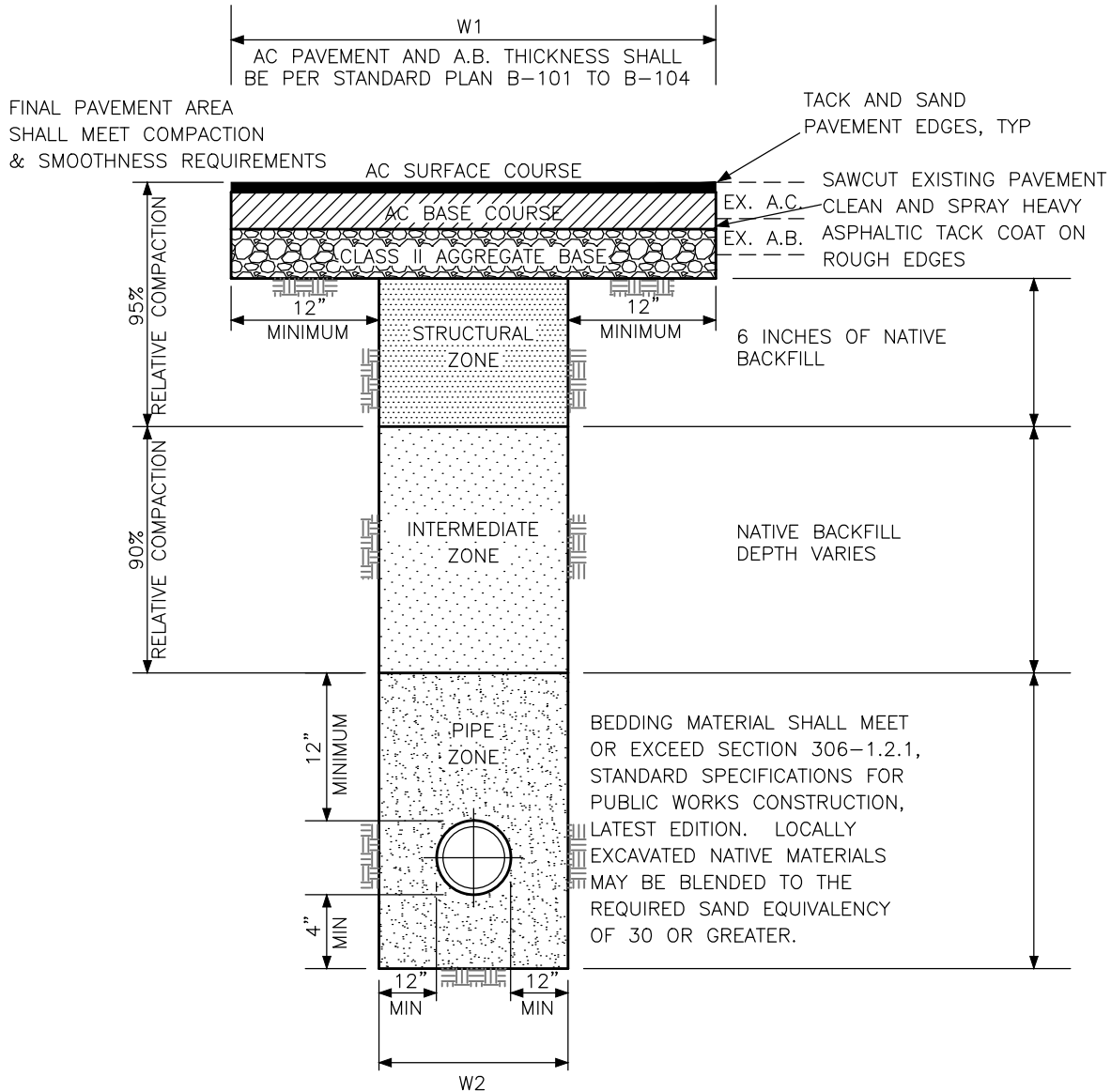
Approved:  Date: 12-8-15  
City Engineer R.C.E. 52125 Exp. 12-31-16

REVISIONS	BY	DATE

STD. PLAN NUMBER  
**B-126**

# LONGITUDINAL AND TRANSVERSE TRENCH BACKFILL SECTION

## CASE A: T-CAP (NATIVE BACKFILL)



### NOTES:

1. TRENCHES WITHIN 3 FEET OF CURB OR CURB & GUTTER SHALL BE PAVED TO JOIN CURB OR GUTTER.
2. WIDTH OF CAP, W1, EQUALS W2 PLUS A MINIMUM OF 12" ON BOTH SIDES AND SHALL BE SUBJECT TO CHANGE BY THE ENGINEER.
3. WIDTH OF TRENCH, W2 EQUALS DIAMETER OF PIPE PLUS A MINIMUM OF 12" ON BOTH SIDES UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
4. THERE SHALL BE 4 INCHES MINIMUM OF BEDDING BELOW THE PIPE UNLESS OTHERWISE SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.



City of  
Garden Grove  
California

## TRENCH BACKFILL DETAIL & STANDARD STREET RESURFACING

Approved:  Date: 12-8-15  
City Engineer R.C.E. 52125 Exp. 12-31-16

REVISIONS	BY	DATE

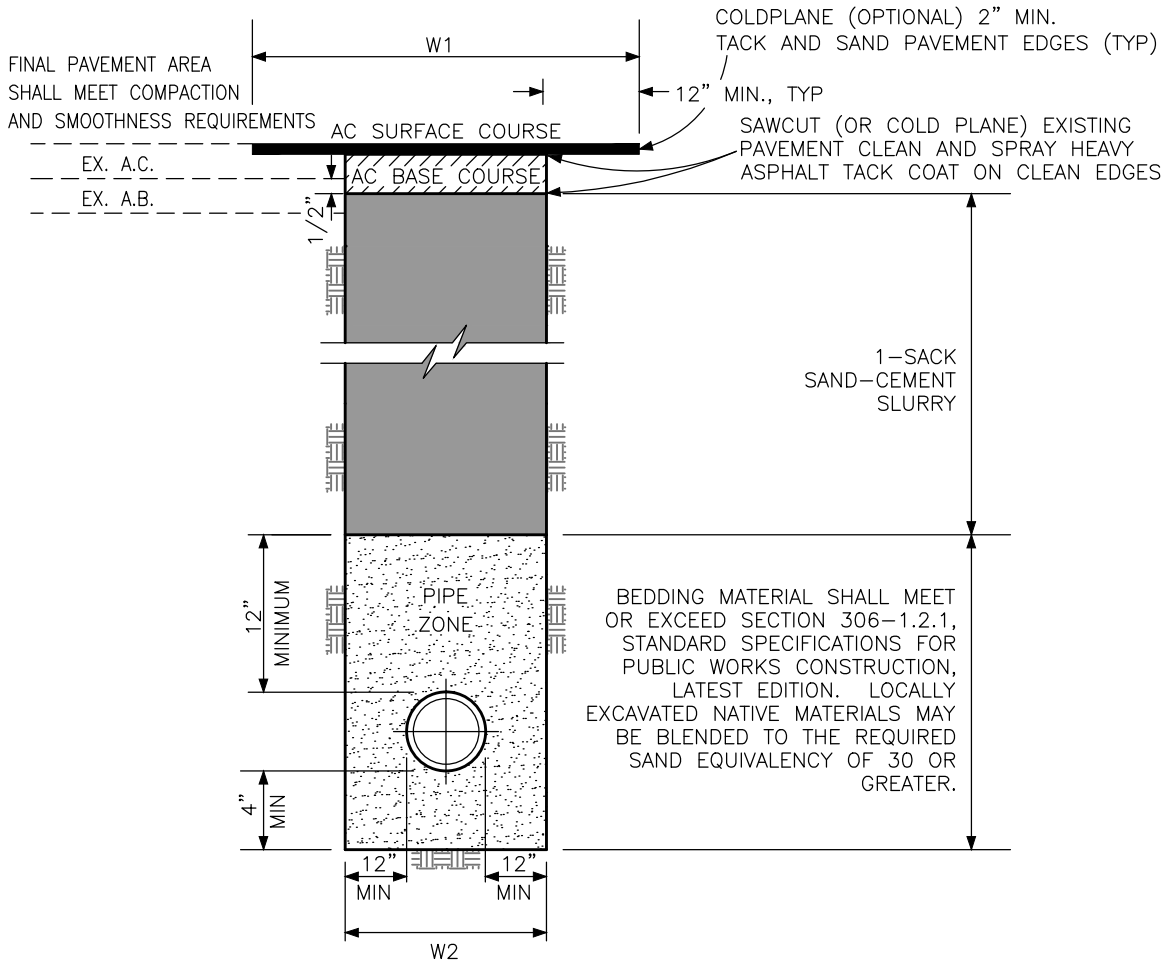
STD. PLAN NUMBER

# B-134

SHEET 1 OF 2

# LONGITUDINAL TRENCH BACKFILL SECTION

## CASE B: VERTICAL CUT ONLY (SLURRY BACKFILL)



### NOTES:

1. REPLACE ASPHALT TO 1/2" BELOW EXISTING AS SHOWN ABOVE.
2. COLD PLANE MINIMUM 2" (OPTIONAL) OR SAWCUT EXISTING PAVEMENT.
3. MINIMUM COMPACTION FOR AC IS 95% RELATIVE COMPACTION.
4. TRENCHES WITHIN 3 FEET OF CURB OR CURB & GUTTER SHALL BE PAVED TO JOIN CURB OR GUTTER.
5. W1 SHALL HAVE A MINIMUM WIDTH EQUAL TO W2 PLUS A MINIMUM OF 12" ON ALL SIDES AND SHALL BE SUBJECT TO CHANGE BY THE ENGINEER.
6. ALL WORK AND MATERIAL SHALL MEET OR EXCEED THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION.
7. LONGITUDINAL TRENCHES IN EXCESS OF 600 FEET MAY BE REQUIRED TO ADDITIONAL RESURFACING REQUIREMENTS DEPENDING ON STREET CONDITION AS DETERMINED BY THE ENGINEER.
8. W2 EQUALS DIAMETER OF PIPE PLUS 12" ON BOTH SIDES UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
9. THERE SHALL BE 4 INCHES MINIMUM OF BEDDING BELOW THE PIPE UNLESS OTHERWISE SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.



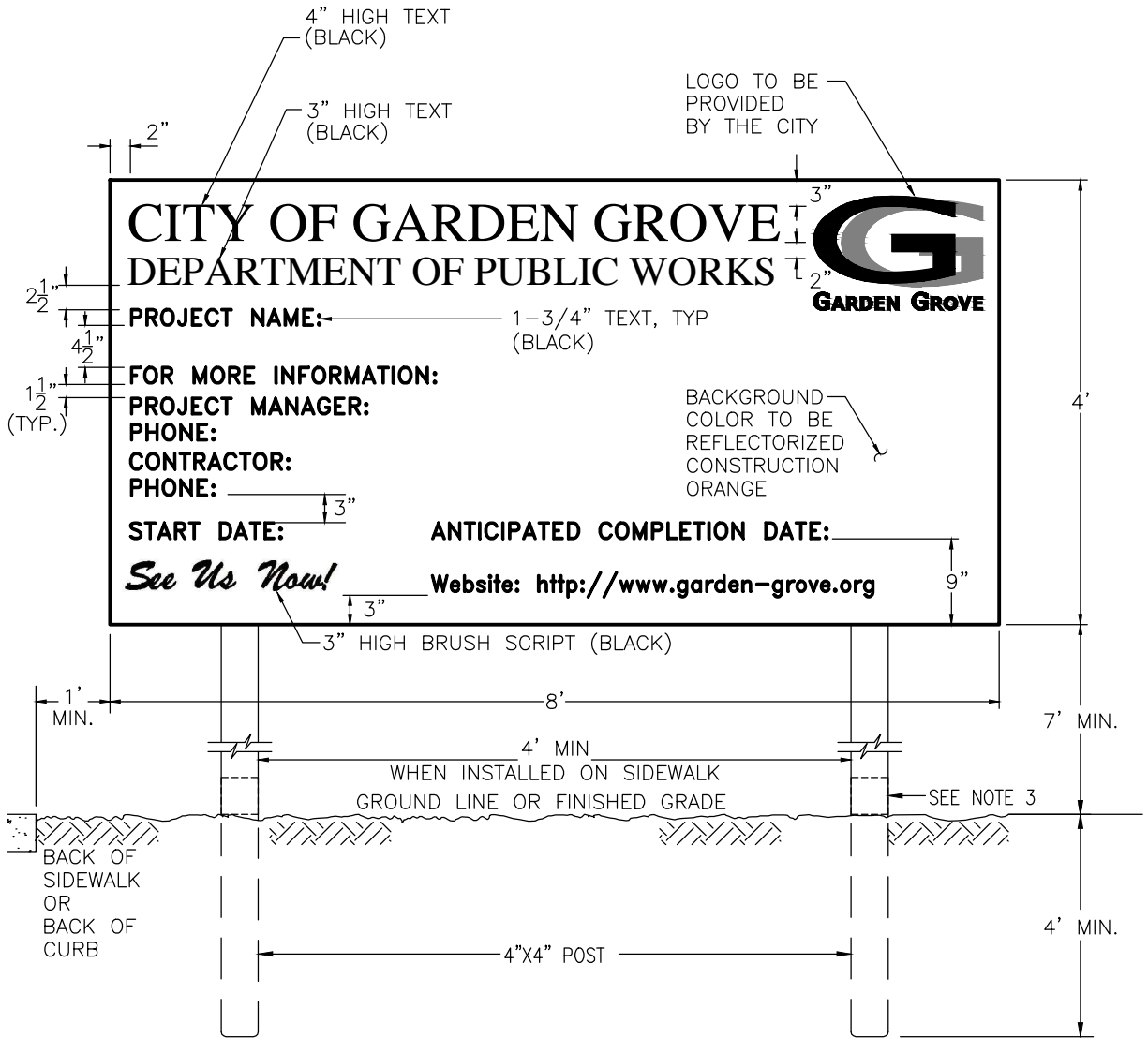
City of  
Garden Grove  
California

## TRENCH BACKFILL DETAIL & STANDARD STREET RESURFACING

Approved:  Date: 12-8-15  
City Engineer R.C.E. 52125 Exp. 12-31-16

REVISIONS	BY	DATE

STD. PLAN NUMBER  
**B-134**  
SHEET 2 OF 2



**OPTION 1**


**NOTES:**

1. SIGN LOCATION TO BE DETERMINED IN THE FIELD BY CITY INSPECTOR.
2. MOUNT SIGN ON (2) 4" x 4" POST EMBEDDED 4' INTO GROUND.
3. IF INFORMATION SIGN IS TO BE PLACED ON SIDEWALK OR MEDIAN HARD SURFACE, USE ALTERNATE MOUNTING AS SHOWN ON SHEET 3.



City of  
Garden Grove  
California

**CONSTRUCTION INFORMATION SIGN  
STANDARD INSTALLTION**

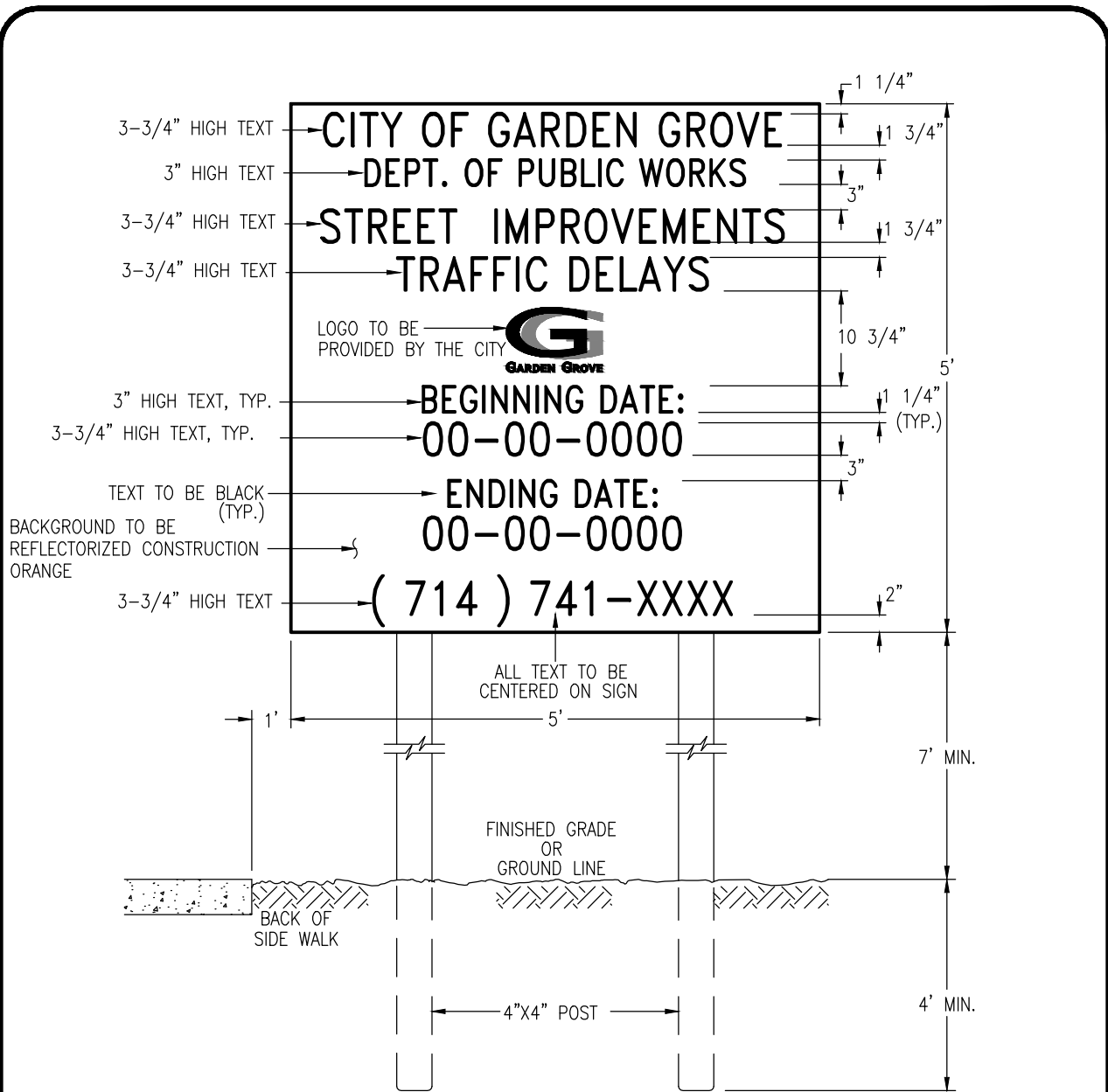
Approved  Date 12-8-15  
City Engineer R.C.E. 52125 Exp.12-31-16

REVISIONS	BY	DATE

STD. PLAN NUMBER

**B-135**

SHEET 1 OF 3



**OPTION 2**

**NOTES:**

1. SIGN LOCATION TO BE DETERMINED IN THE FIELD BY CITY INSPECTOR.
2. MOUNT SIGN ON (2) 4" x 4" POST EMBEDDED 4' INTO GROUND.



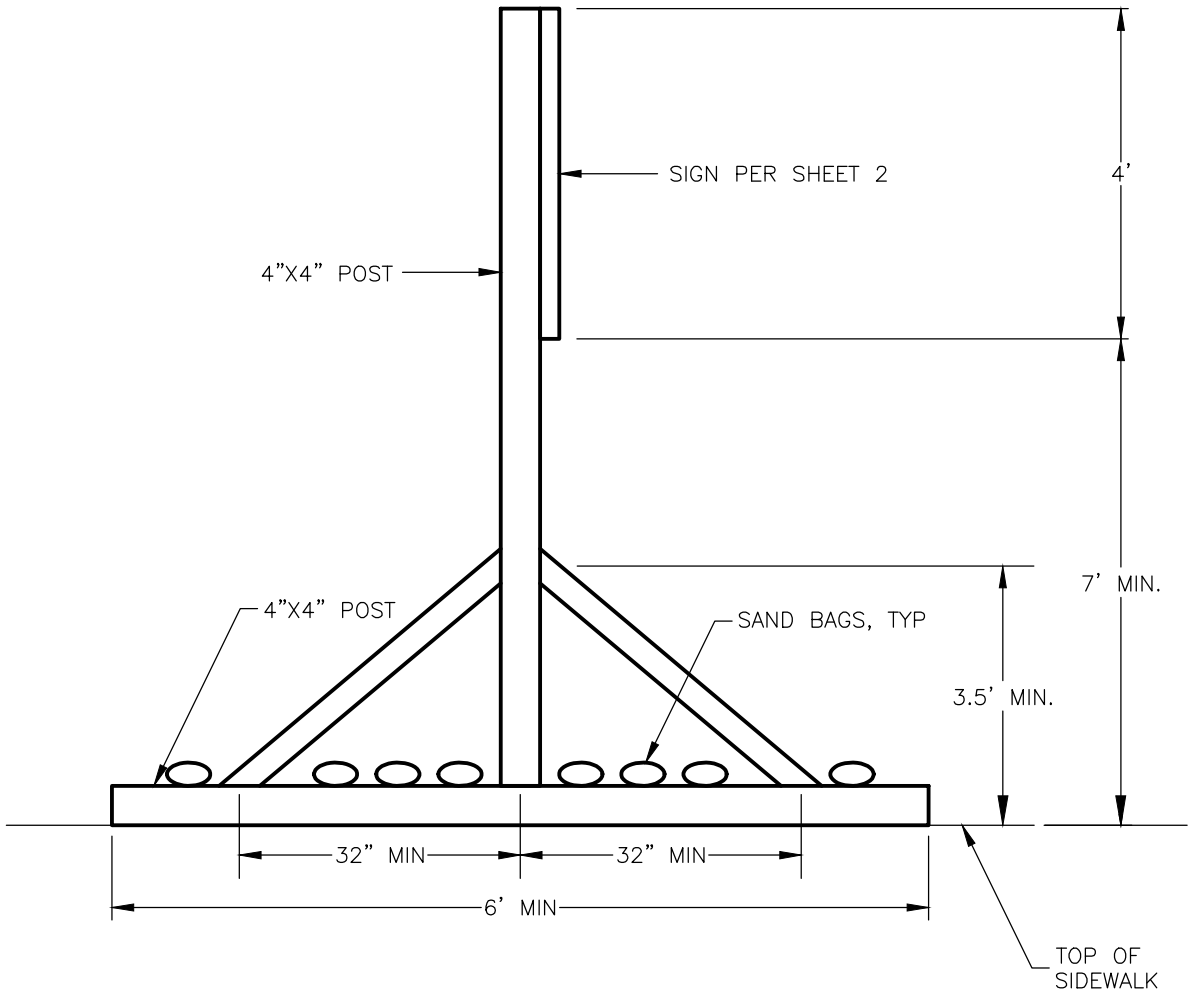
City of  
Garden Grove  
California

**CONSTRUCTION INFORMATION SIGN  
LIMITED RIGHT-OF-WAY**

Approved:  Date: 12-8-15  
City Engineer R.C.E. 52125 Exp. 12-31-16

REVISIONS	BY	DATE

STD. PLAN NUMBER  
**B-135**  
SHEET 2 OF 3



**ALTERNATE INSTALLATION ON HARD SURFACE**  
**SIDE VIEW**


**NOTES:**

1. SIGN LOCATION TO BE DETERMINED IN THE FIELD BY CITY INSPECTOR.
2. FOOTINGS SHALL BE HELD DOWN BY SAND BAGS AND SHALL BE MAINTAINED THROUGHOUT ENTIRE PROJECT.



City of  
Garden Grove  
California

**CONSTRUCTION INFORMATION SIGN**  
**ALTERNATE MOUNTING**

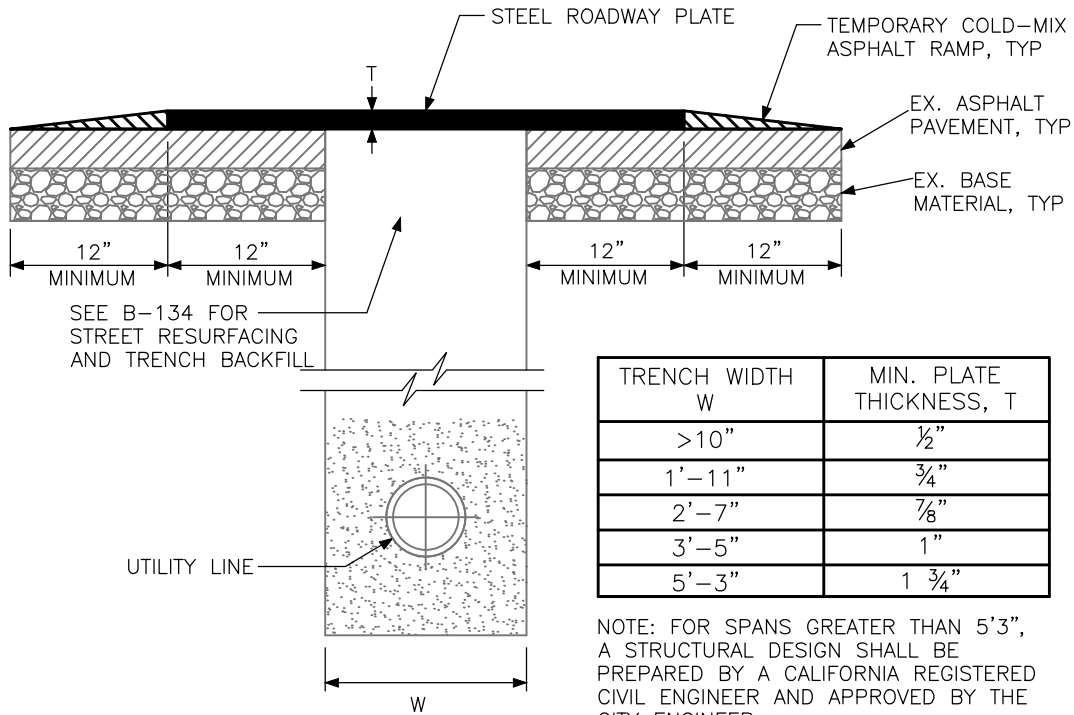
Approved:  Date: 12-8-15  
City Engineer R.C.E. 52125 Exp. 12-31-16

REVISIONS	BY	DATE

STD. PLAN NUMBER  
**B-135**  
SHEET 3 OF 3



# TEMPORARY STEEL ROADWAY PLATE DETAIL



## INSTALLATION NOTE:

APPROACH PLATE(S) AND ENDING PLATE (IF LONGITUDINAL PLACEMENT) SHALL BE ATTACHED TO THE ROADWAY BY A MINIMUM OF 2 DOWELS PRE-DRILLED INTO THE CORNERS OF THE PLATE AND DRILLED 2" INTO THE PAVEMENT. SUBSEQUENT PLATES ARE TO BE BUTTED AND TACK WELDED TO EACH OTHER. FINE GRADED TEMPORARY COLD-MIX ASPHALT SHALL BE COMPACTED TO FORM RAMPS WITH A MINIMUM 12" 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, EPOXY, OR AN EQUIVALENT THAT IS SATISFACTORY TO THE ENGINEER.

## NOTES:

1. THE CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE OF THE STEEL PLATES, SHORING, TEMPORARY ASPHALT RAMPS, AND ENSURING THAT THEY MEET THE MINIMUM SPECIFICATIONS. THESE STEEL PLATES SHALL REMAIN IN PLACE A MAXIMUM OF FIVE (5) DAYS; AFTER WHICH TIME THE PLATES SHALL BE REMOVED AND THE TRENCH BACKFILLED UNLESS OTHERWISE APPROVED IN WRITING BY THE ENGINEER.
2. ALL STEEL PLATES WITHIN THE RIGHT OF WAY WHETHER USED IN OR OUT OF THE TRAVELED WAY SHALL BE WITHOUT DEFORMATION.
3. STEEL PLATES USED IN THE TRAVELED PORTION OF THE HIGHWAY SHALL HAVE A SURFACE THAT WAS MANUFACTURED WITH A NOMINAL COEFFICIENT OF FRICTION OF 0.35 AS DETERMINED BY CALIFORNIA TEST METHOD 342. IF A DIFFERENT TEST METHOD IS USED, THE CONTRACTOR MAY UTILIZE STANDARD TEST PLATES WITH KNOWN COEFFICIENTS OF FRICTION AVAILABLE FROM EACH CALTRANS DISTRICT MATERIALS ENGINEER TO CORRELATE SKID RESISTANCE RESULTS TO CALIFORNIA TEST METHOD 342.
4. FRICTION REQUIREMENTS ARE NOT REQUIRED FOR STEEL PLATES USED IN PARKING STRIPS, ON SHOULDERS NOT USED FOR TURNING MOVEMENTS, OR ON CONNECTING DRIVEWAYS, ETC. NOT OPEN TO THE PUBLIC.



City of  
Garden Grove  
California

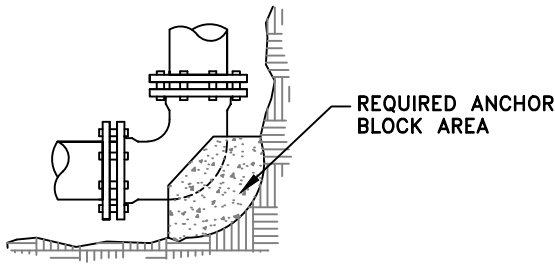
## UTILITY TRENCH STEEL PLATE REQUIREMENTS

Approved: Date: 12-8-15  
City Engineer R.C.E. 52125 Exp. 12-31-16

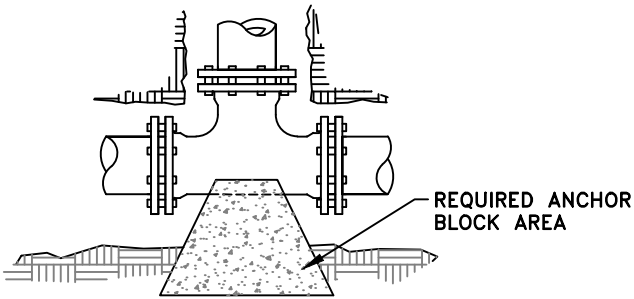
REVISIONS	BY	DATE

STD. PLAN NUMBER

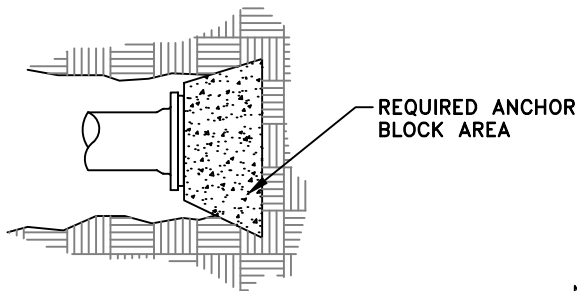
# B-138



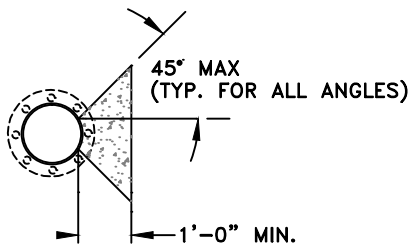
ANCHOR BLOCK FOR C.I. BEND



ANCHOR BLOCK FOR TEE OUTLET



ANCHOR BLOCK FOR DEAD END



TYPICAL SECTION THRU ANCHOR BLOCK

ANCHOR BLOCK AREA REQUIRED (SQ. FT.)	
FITTINGS	ALLOWABLE SOIL BEARING VALUE: 2000 LB/SQ.FT
6"-11 1/4" BEND	1.0
6"-22 1/2"	1.5
6"-45°	3.0
6"-90°	5.5
6"-TEE OUTLET	4.0
6"-DEAD END	4.0
8"-11 1/4" BEND	1.5
8"-22 1/2"	3.0
8"-45°	5.0
8"-90°	9.5
8"-TEE OUTLET	6.5
8"-DEAD END	6.5
10"-11 1/4" BEND	2.5
10"-22 1/2"	4.5
10"-45°	8.5
10"-90°	15.5
10"-TEE OUTLET	11.0
10"-DEAD END	11.0
12"-11 1/4"	3.0
12"-22 1/2"	6.0
12"-45°	12.0
12"-90°	22.0
12"-TEE OUTLET	15.0
12"-DEAD END	15.0

NOTES:

1. ANCHOR BLOCKS SHALL BE 560-C-3250 CONCRETE (GREENBOOK) AND POURED AGAINST UNDISTURBED SOIL.
2. ANCHOR BLOCK REQUIREMENTS ON ALL 4" FITTINGS ARE THE SAME AS FOR 6" FITTINGS.
3. CONCRETE SHALL HAVE 3" MINIMUM CLEARANCE AROUND ALL JOINTS.
4. FOR THRUST BLOCKS ON FITTINGS LARGER THAN 12" CONTACT WATER ENGINEER AT (714) 741-5395.



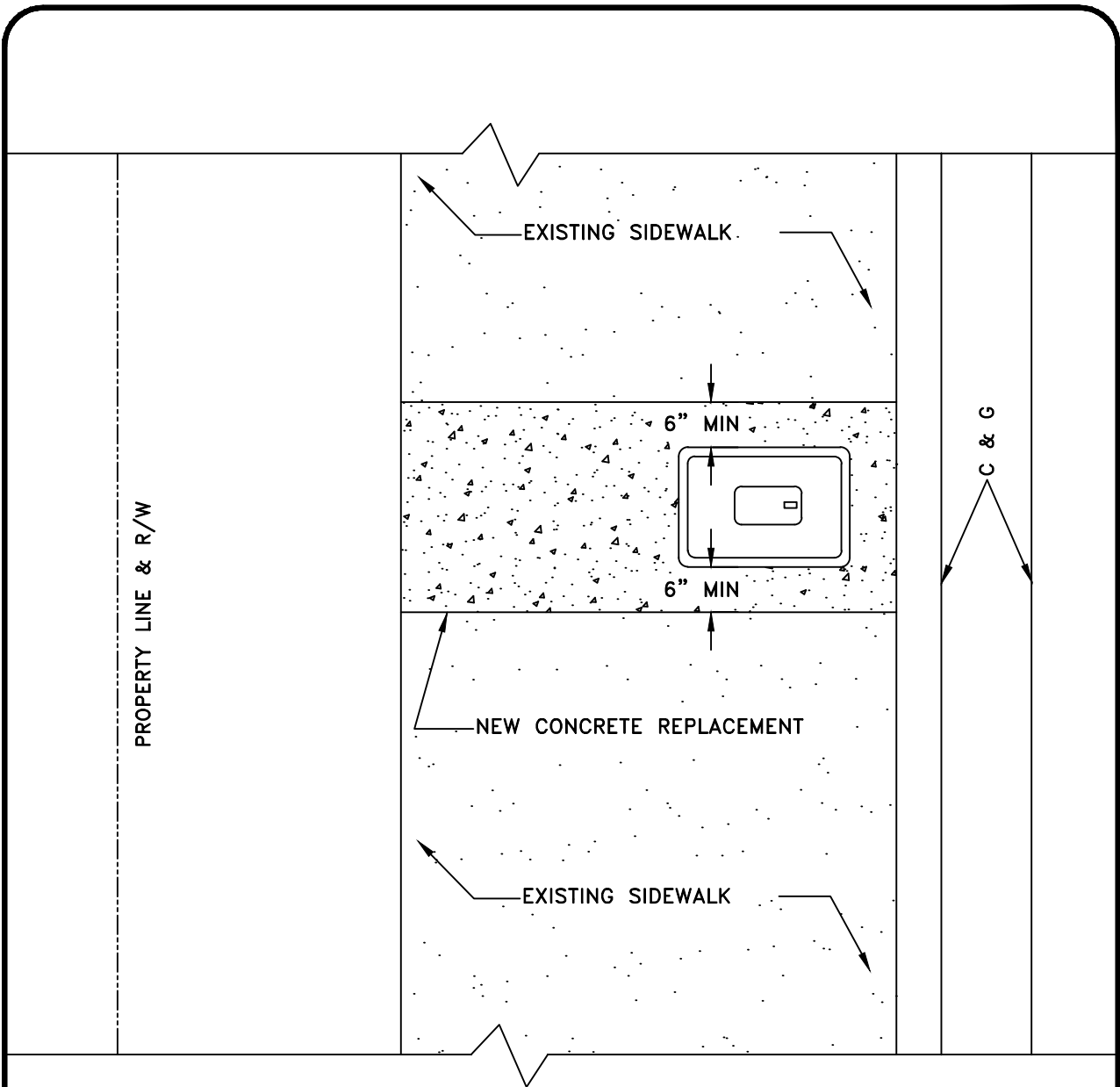
City of  
Garden Grove  
California

## ANCHOR BLOCK DETAILS FOR 4" THRU 12" D.I. FITTINGS

Approved:  Date: 12-8-15  
City Engineer R.C.E. 52125 Exp. 12-31-16

REVISIONS	BY	DATE

STD. PLAN NUMBER  
**B-710**  
SHEET 1 OF 1




**NOTES:**

1. INSTALL CONCRETE REPLACEMENT PER STANDARD PLAN B-105



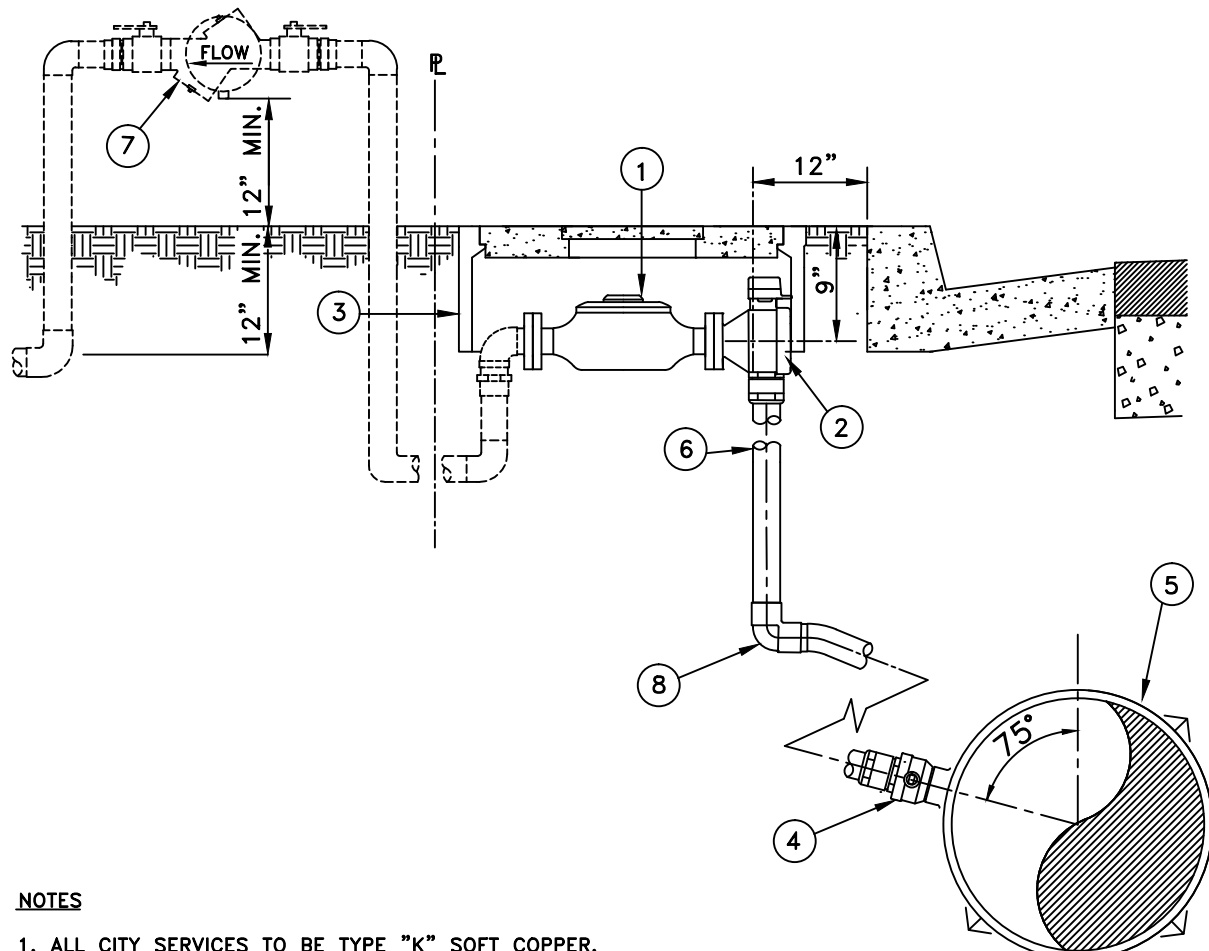
City of  
Garden Grove  
California

**METER BOX INSTALLATION  
WITH NEW CONCRETE REPLACEMENT**

Approved:  Date: 12-8-15  
City Engineer R.C.E. 52125 Exp. 12-31-16

REVISIONS	BY	DATE

STD. PLAN NUMBER  
**B-718**  
SHEET 1 OF 1



**NOTES**

1. ALL CITY SERVICES TO BE TYPE "K" SOFT COPPER.
2. TUBING TO BE ONE CONTINUOUS PIECE, NO SPLICES OR HEATING PERMITTED UNLESS APPROVED BY WATER SERVICES.
3. TAPS SHALL BE MADE AT LEAST 12" FROM ANY OTHER TAP OR COUPLING. STAGGER ANGLE OF TAPS MADE NEXT TO EACH OTHER 15°.
4. METER, METER BOX, ANGLE METER VALVE AND TAILPIECE, BY CITY AT CONTRACTOR'S EXPENSE, UNLESS OTHERWISE APPROVED.

**MATERIAL LIST**

ITEM NO.	QUAN.	DESCRIPTION	MFR.
①	1	1-1/2" OR 2" OMNI R2 100 CF 5 WHEEL METER.	SENSUS (DR)
②	1	GROUND KEY 2" ANGLE METER VALVE, COMPRESSION TYPE MUELLER OR APPROVED EQUAL	MUELLER, JONES OR FORD
③	1	#65 CONCRETE METER BOX W/ 2 PC. CONCRETE COVER	
④	1	2" CORPORATION STOP (COMPRESSION TYPE), BALL TYPE, C.C. THREAD	MUELLER, JONES OR FORD
⑤	1	SERVICE SADDLE (FORD 202BS OR APPROVED EQUAL)	MUELLER, JONES OR FORD
⑥	1	2"Ø SOFT COPPER TUBING (TYPE "K"), OR RIGID AS APPROVED BY THE ENGINEER	
⑦	1	REDUCED PRESSURE PRINCIPLE DEVICE PER STD B-771 (BY OTHERS)	
⑧	1	2" CU 45° OR 90° SLIP x SLIP	

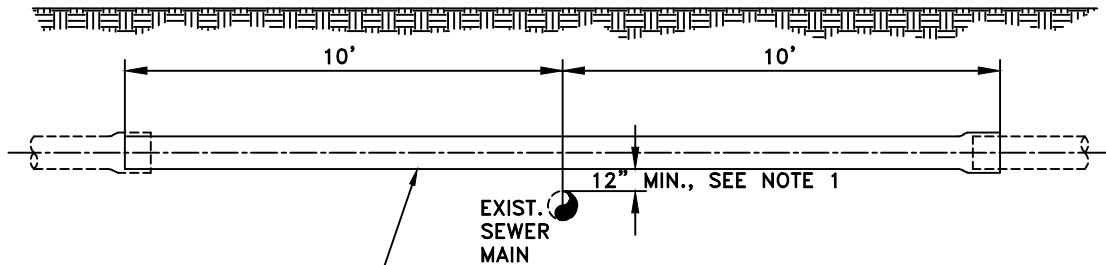


**1"-1/2" & 2" OMNI R2 - C2 METERS AND 2" COPPER WATER SERVICE INSTALLATION**

Approved:  Date: 12-8-15  
 City Engineer R.C.E. 52125 Exp. 12-31-16

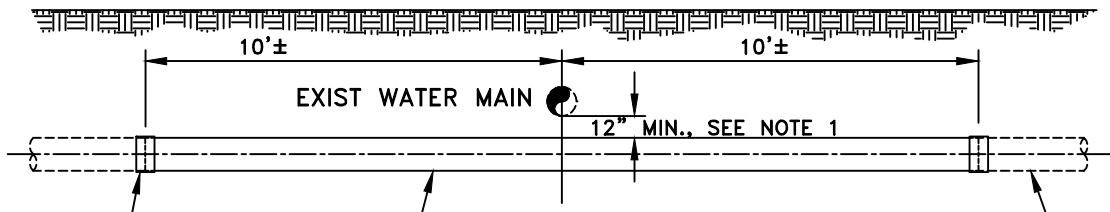
REVISIONS	BY	DATE

STD. PLAN NUMBER  
**B-722**  
 SHEET 1 OF 1



CENTER FULL 20 FOOT LENGTH OF AWWA C-900, DR14, CLASS 305, PVC WATER MAIN PIPE OVER SEWER MAIN. WATER AND SEWER MAINS TO BE AS CLOSE TO PERPENDICULAR TO ONE ANOTHER AS POSSIBLE.

**NEW WATER MAIN CROSSING OVER EXISTING SEWER MAIN**  
N.T.S.



CENTER FULL LENGTH OF AWWA C-900, DR14, CLASS 305 PVC SEWER MAIN UNDER WATER MAIN. WATER AND SEWER MAINS TO BE AS CLOSE TO PERPENDICULAR TO ONE ANOTHER AS POSSIBLE. WRAP THIS PORTION OF C-900 PIPE WITH SEWER MARKING TAPE. CUT OFF BELL.

**NEW SEWER MAIN CROSSING UNDER EXISTING WATER MAIN**  
N.T.S.

NOTE 1. IF THE SEPARATION REQUIREMENT CANNOT BE MET, APPROVAL FROM THE STATE WATER RESOURCES CONTROL BOARD (SWRCB) AND THE CITY IS REQUIRED.



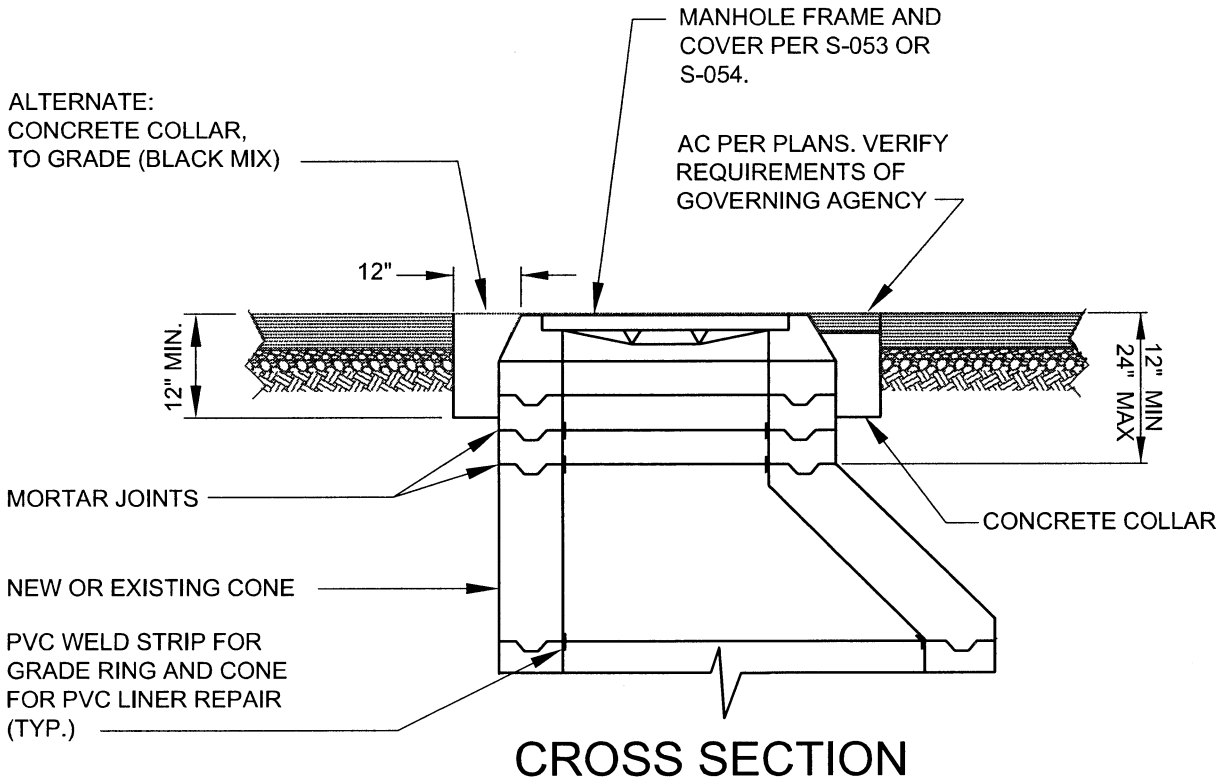
City of  
Garden Grove  
California

**SEWER MAIN CROSSING  
UNDER WATER MAIN**

Approved:  Date: 12-8-15  
City Engineer R.C.E. 52125 Exp. 12-31-16

REVISIONS	BY	DATE

STD. PLAN NUMBER  
**B-762**  
SHEET 1 OF 1

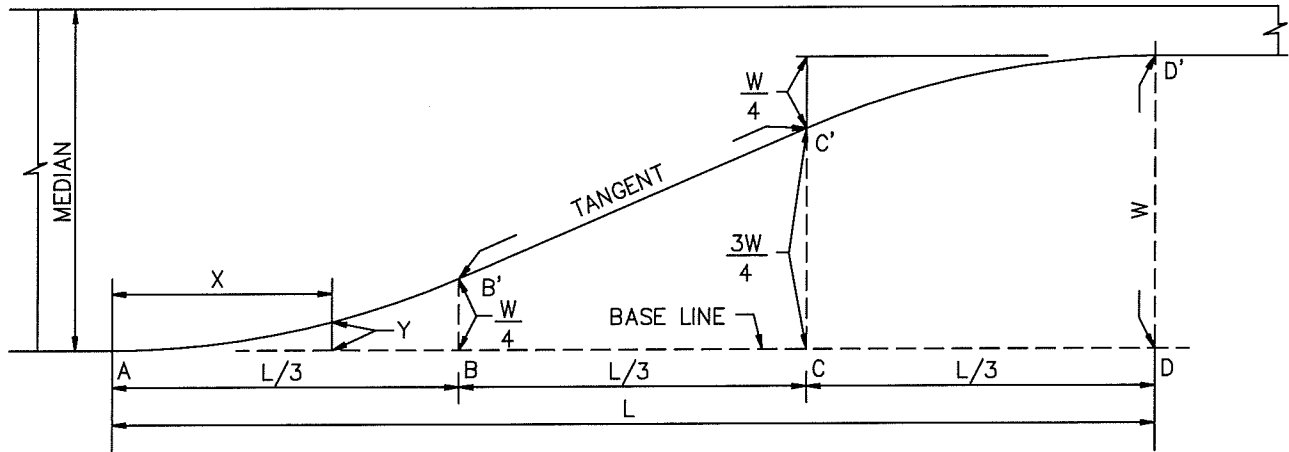


NOTES:

1. Neatly remove pavement and aggregate base as necessary to make adjustment.
2. Make final adjustments at the mortar joint between the first and second grade rings. Set flush with pavement to one-eighth inch high.
3. At existing manholes, add or remove grade rings, repair PVC or sprayed liner, and test liner for pinholes as approved by the Engineer. Adjust height at manhole riser sections if the total height of grade rings would exceed 24 inches.
4. Backfill flush with surface or below pavement surface as required by governing agency with 3250 psi (Class B) quick-setting concrete to form collar. Exposed concrete shall be black in color.
5. Fill area above below-grade collar with AC wearing surface to match adjacent AC.
6. Where odor conditions exist or where designated, seal manhole rim and holes with duct-seal mastic. Re-seal if existing manhole cover was sealed.

			ORANGE COUNTY SANITATION DISTRICT ORANGE COUNTY, CALIFORNIA	MANHOLE ADJUSTMENT TO GRADE	NO SCALE
			APPROVED BY <i>Ala Bay</i> 06/24/07 DIRECTOR OF ENGINEERING		STANDARD DWG. S-055
NO.	APPROVED	DATE			

055



$$Y = 2.25W \left( \frac{X}{L} \right)^2$$

L=LENGTH OF TAPER  
W=MAXIMUM OFFSET DISTANCE  
X=DISTANCE ALONG BASE LINE  
Y=OFFSET FROM BASE LINE

L, ft (m)	DISTANCE X, L/12 INCREMENTS, ft (m)											
60' (18.00)	5' (1.50)	10' (3.00)	15' (4.50)	20' (6.00)	25' (7.50)	30' (9.00)	35' (10.50)	40' (12.00)	45' (13.50)	50' (15.00)	55' (16.50)	60' (18.00)
72' (21.60)	6' (1.80)	12' (3.60)	18' (5.40)	24' (7.20)	30' (9.00)	36' (10.80)	42' (12.60)	48' (14.40)	54' (16.20)	60' (18.00)	66' (19.80)	72' (21.60)
90' (27.00)	7.5' (2.25)	15' (4.50)	22.5' (6.75)	30' (9.00)	37.5' (11.25)	45' (13.50)	52.5' (15.75)	60' (18.00)	67.5' (20.25)	75' (22.50)	82.5' (24.75)	90' (27.00)
120' (36.00)	10' (3.00)	20' (6.00)	30' (9.00)	40' (12.00)	50' (15.00)	60' (18.00)	70' (21.00)	80' (24.00)	90' (27.00)	100' (30.00)	110' (33.00)	120' (36.00)
150' (45.00)	12.5' (3.75)	25' (7.50)	37.5' (11.25)	50' (15.00)	62.5' (18.75)	75' (22.50)	87.5' (26.25)	100' (30.00)	112.5' (33.75)	125' (37.50)	137.5' (41.25)	150' (45.00)
W, ft(mm)	OFFSET Y, ft (mm)											
10' (3000)	0.16' (47)	0.62' (188)	1.41' (422)	2.50' (750)	3.75' (1125)	5.00' (1500)	6.25' (1875)	7.50' (2250)	8.59' (2578)	9.38' (2812)	9.84' (2953)	10.00' (3000)
11' (3300)	0.17' (51)	0.69' (206)	1.55' (464)	2.75' (825)	4.13' (1238)	5.50' (1650)	6.88' (2063)	8.25' (2475)	9.45' (2836)	10.31' (3094)	10.83' (3249)	11.00' (3300)
12' (3600)	0.19' (56)	0.75' (225)	1.69' (506)	3.00' (900)	4.50' (1350)	6.00' (1800)	7.50' (2250)	9.00' (2700)	10.31' (3094)	11.25' (3375)	11.81' (3544)	12.00' (3600)
19' (5700)	0.30' (89)	1.19' (356)	2.67' (802)	4.75' (1425)	7.13' (2138)	9.50' (2850)	11.88' (3562)	14.25' (4275)	16.33' (4898)	17.81' (5344)	18.70' (5611)	19.00' (5700)
20' (6000)	0.31' (94)	1.25' (375)	2.81' (844)	5.00' (1500)	7.50' (2250)	10.00' (3000)	12.50' (3750)	15.00' (4500)	17.19' (5156)	18.75' (5625)	19.69' (5906)	20.00' (6000)
21' (6300)	0.33' (98)	1.31' (394)	2.95' (886)	5.25' (1575)	7.88' (2363)	10.50' (3150)	13.13' (3937)	15.75' (4725)	18.05' (5414)	19.69' (5906)	20.67' (6202)	21.00' (6300)
22' (6600)	0.34' (103)	1.38' (412)	3.09' (928)	5.50' (1650)	8.25' (2475)	11.00' (3300)	13.75' (4125)	16.50' (4950)	18.91' (5672)	20.62' (6188)	21.66' (6497)	22.00' (6600)

**NOTE:**

TO DETERMINE OFFSET DISTANCE FOR ANY LENGTH OF TAPER USE THE FORMULA  $Y = 2.25W \left( \frac{X}{L} \right)^2$  FOR THE PORTIONS AB' AND C'D' WHICH ARE PARABOLIC CURVES. THE PORTION B'C' IS A TANGENT. WHEN THE BASE LINE IS CURVED, THE OFFSETS ARE APPLIED TO THE CURVED BASE LINE, AND B'C' IS NO LONGER A TANGENT.

STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION

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

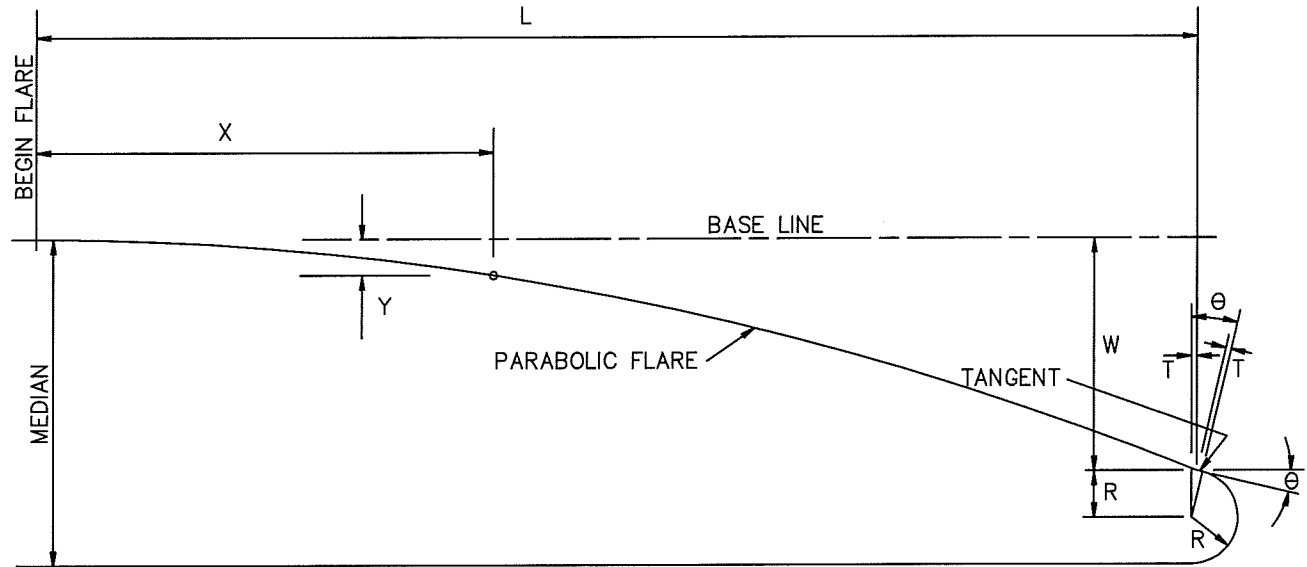
**MEDIAN TAPER**

USE WITH STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION

STANDARD PLAN

**140-3**

SHEET 1 OF 1



- L = LENGTH OF FLARE
- W = MAXIMUM OFFSET DISTANCE
- X = DISTANCE ALONG BASE LINE
- Y = OFFSET FROM BASE LINE
- T = TANGENT LENGTH
- R = RADIUS OF NOSE
- θ = MAXIMUM FLARE DEFLECTION ANGLE

$$Y = W \left( \frac{X}{L} \right)^2$$

$$\tan \theta = \frac{2W}{L}$$

$$T = R \tan \frac{\theta}{2}$$

IF STATION OF RADIUS POINT IS NOT GIVEN ON PLAN, TANGENT DISTANCE T MAY BE IGNORED

OFFSET Y, ft (mm)

L, ft (m)	W, ft (mm)	X, ft (m)													
		10' (3.0)	15' (4.5)	20' (6.0)	25' (7.5)	30' (9.0)	40' (12.0)	45' (13.5)	50' (15.0)	60' (18.0)	70' (21.0)	75' (22.5)	80' (24.0)	90' (27.0)	100' (30.0)
W/L = 1:5															
25' (7.5)	5' (1500)	0.80' (240)	1.80' (540)	3.20' (960)	5.00' (1500)										
50' (15.0)	10' (3000)	0.40' (120)	0.90' (270)	1.60' (480)	2.50' (750)	3.60' (1080)	6.40' (1920)	8.10' (2430)	10.00' (3000)						
W/L = 1:10															
50' (15.0)	5' (1500)	0.20' (60)	0.45' (135)	0.80' (240)	1.25' (375)	1.80' (540)	3.20' (960)	4.05' (1215)	5.00' (1500)						
100' (30.0)	10' (3000)	0.10' (30)	0.23' (68)	0.40' (120)	0.63' (188)	0.90' (270)	1.60' (480)	2.03' (608)	2.50' (750)	3.60' (1080)	4.90' (1470)	5.63' (1688)	6.40' (1920)	8.10' (2430)	10.00' (3000)
W/L = 1:15															
45' (13.5)	3' (900)	0.15' (44)	0.33' (100)	0.59' (178)	0.93' (278)	1.33' (400)	2.37' (711)	3.00' (900)							
75' (22.5)	5' (1500)	0.09' (27)	0.20' (60)	0.36' (107)	0.56' (167)	0.80' (240)	1.42' (427)	1.80' (540)	2.22' (667)	3.20' (960)	4.36' (1307)	5.00' (1500)			
90' (27.0)	6' (1800)	0.07' (22)	0.17' (50)	0.30' (89)	0.46' (139)	0.67' (200)	1.19' (356)	1.50' (450)	1.85' (555)	2.67' (800)	3.63' (1089)	4.17' (1250)	4.74' (1422)	6.00' (1800)	

STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION

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

**MEDIAN FLARE**

STANDARD PLAN

**141-2**

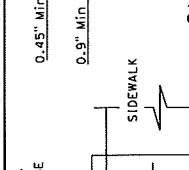
USE WITH STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION

SHEET 1 OF 1



DIST	COUNTY	ROUTE	POST MILE	TOTAL SHEETS	SHEET NO.

REGISTERED CIVIL ENGINEER  
 July 15, 2016  
 PLANS APPROVAL DATE  
 041957  
 3-31-18  
 THE CONTRACTOR SHALL MAINTAIN RECORDS OF THE WORK AND THE ACCURACY OF THE DIMENSIONS OF THE WORK SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

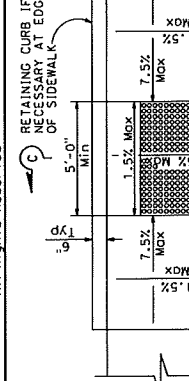


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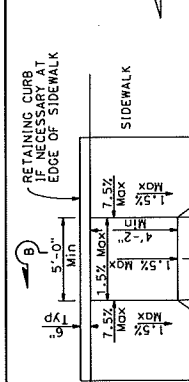
TO ACCOMPANY PLANS DATED \_\_\_\_\_

NOTES:

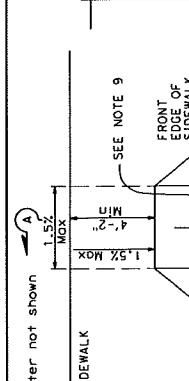
- As site conditions dictate, Case A through Case G curb ramps may be used for corner installations similar to those shown in Detail A and Detail B. The case of curb ramps used in Detail A do not have to be the same. Case A through Case G curb ramps also may be used at mid block locations, as site conditions dictate.
- If distance from curb to back of sidewalk is too short to accommodate ramp and 4'-2" platform (landing) as shown in Case A, the ramp may be depressed longitudinally as in Case B or C or may be widened as in Case 6.
- When ramp is located in center of curb return, crosswalk configuration must be similar to that shown for Detail B.
- As site conditions dictate, the retaining curb side and the flared side of the Case G ramp shall be constructed in reversed position.
- If located on a curve, the sides of the ramp need not be parallel, but the minimum width of the ramp shall be 4'-2".
- Side slope of ramp flares vary uniformly from a maximum of 9.0% at curb to conform with longitudinal sidewalk slope adjacent to top of the ramp, except in Case C and Case F.
- The adjacent surfaces at transitions at curb ramps to walks, gutters, and streets shall be at the same level.
- Counter slopes of adjoining gutters and road surfaces, immediately adjacent to and within 24 inches of the curb ramp shall not be steeper than 1V:20H (5.0%). Gutter pan slope shall not exceed 1" of depth for each 2'-0" of width.
- Curb ramps shall have a detectable warning surface that extends the full width and 3'-0" depth of the ramp. A 4'-0" wide detectable warning surface may be used on a 4'-2" wide curb ramp. Detectable warning surfaces shall conform to the requirements in the Standard Specifications.
- Sidewalk and ramp thickness, "T", shall be 3/2" minimum.
- Utility pull boxes, manholes, vaults, and all other utility facilities within the boundaries of the curb ramp will be relocated or adjusted to grade by the owner prior to, or in conjunction with, curb ramp construction.
- Detectable warning surface may have to be cut to allow removal of utility covers while maintaining full detectable warning width and depth.



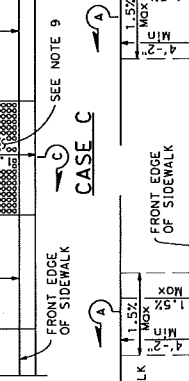
CASE C



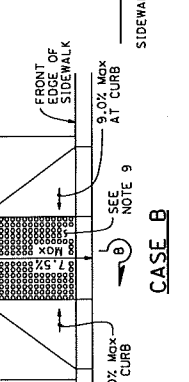
CASE B



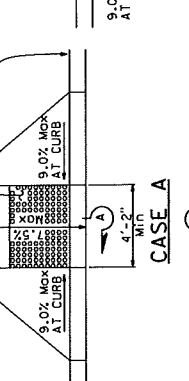
CASE A



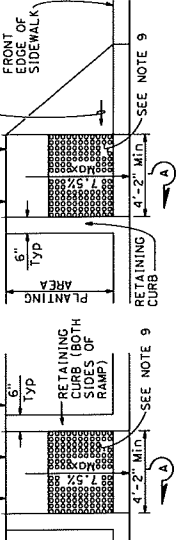
CASE F



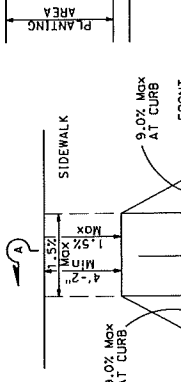
CASE E



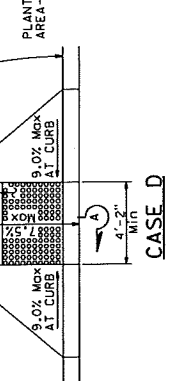
CASE D



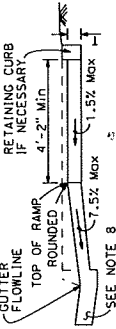
CASE G



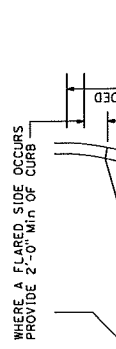
CASE 4



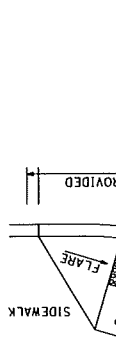
CASE 9



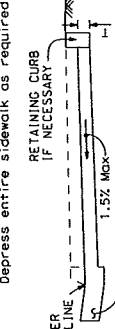
SECTION A-A



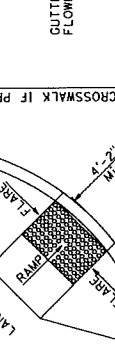
SECTION B-B



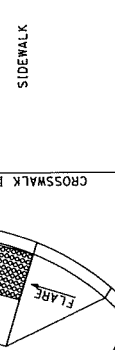
SECTION C-C



SECTION B-B



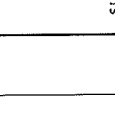
SECTION C-C



SECTION C-C



SECTION C-C



SECTION C-C

Depress entire sidewalk as required

Depress entire sidewalk as required

Depress entire sidewalk as required

Depress entire sidewalk as required

Depress entire sidewalk as required

Retaining curb if necessary

Retaining curb if necessary

Retaining curb if necessary

Retaining curb if necessary

Retaining curb if necessary

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POST MILES SHEET TOTAL  
COUNT PROJECT NO. SHEETS

ROUTE TOTAL PROJECT NO. SHEETS

*John Feary*  
REGISTERED CIVIL ENGINEER

October 30, 2015  
PLANS APPROVAL DATE

1110 E 60th  
CHANDLER  
AZ 85226-1117  
CIVIL

REGISTERED PROFESSIONAL ENGINEER  
STATE OF ARIZONA

THE STATE OF CALIFORNIA OR ITS OFFICERS  
OR EMPLOYEES SHALL NOT BE  
LIABLE FOR THE CONSEQUENCES OF ANY  
COPYING OF THIS PLAN SHEET.

**LEGEND**

**MARKERS**

- TYPE AY YELLOW NON-REFLECTIVE
- TYPE D YELLOW RETROREFLECTIVE
- TYPE H YELLOW RETROREFLECTIVE

**MARKERS**

- 4" WHITE
- 4" YELLOW

**MEDIAN ISLANDS**

DETAIL 28

DETAIL 29

DETAIL 30

DETAIL 31

DETAIL 32

DETAIL 33

**LEFT EDGELINES**  
(DIVIDED HIGHWAYS)

DETAIL 24

DETAIL 25

DETAIL 25A

DETAIL 26

DETAIL 27

**INTERSECTIONS**

INTERSECTIONS

DETAIL 34

DETAIL 34A

DETAIL 35

DETAIL 35A

CENTERLINE INTERSECTING STREET

**RIGHT EDGELINES**

DETAIL 27A DELETED

DETAIL 27B

DETAIL 27C

RIGHT EDGE LINE EXTENSION THROUGH INTERSECTIONS

**TWO-WAY LEFT TURN LANES**

DETAIL 31

DETAIL 32

DETAIL 33

**MARKER DETAILS**

TYPE AY

TYPE D

TYPE H

RETROREFLECTIVE FACE

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

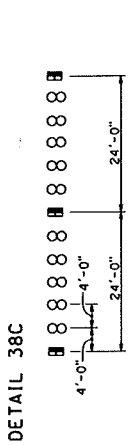
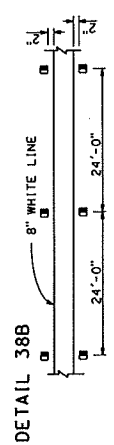
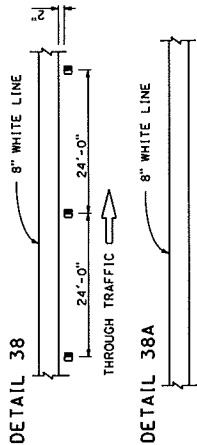
**PAVEMENT MARKERS AND  
TRAFFIC LINES TYPICAL DETAILS**

NO SCALE

**A20B**

SHEET TOTAL SHEETS: 10  
 SHEET NO.: 1  
 COUNTY: ROUTE: DIST. SHEETS: TOTAL SHEETS: NO. SHEETS  
 REGISTERED CIVIL ENGINEER  
 October 30, 2015  
 PLANS APPROVAL DATE: CEM002  
 ATTORNEY GENERAL: STATE OF CALIFORNIA  
 REGISTERED CIVIL ENGINEER: No. 33117  
 THE ACCURACY OF THIS PLAN IS THE RESPONSIBILITY OF THE ENGINEER.  
 THE ACCURACY OF THIS PLAN IS THE RESPONSIBILITY OF THE ENGINEER.

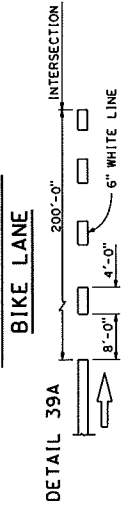
**CHANNELIZING LINE**



**BIKE LANE**



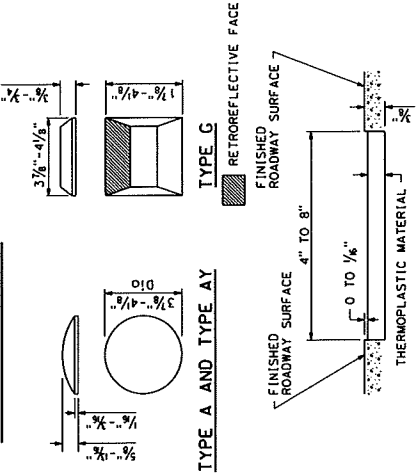
**INTERSECTION LINE**



**LEGEND MARKERS**

- TYPE A WHITE NON-REFLECTIVE
- ⊙ TYPE AY YELLOW NON-REFLECTIVE
- ◻ TYPE G ONE-WAY CLEAR RETROREFLECTIVE
- ▨ 4" YELLOW LINE

**MARKER DETAILS**



**DETAIL FOR RECESSED THERMOPLASTIC STRIPE**

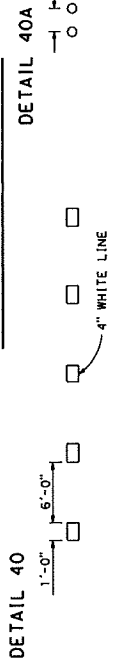
See Notes A and B.

**RECESSED THERMOPLASTIC NOTES**

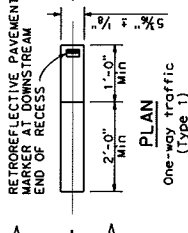
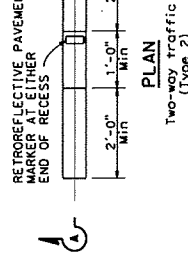
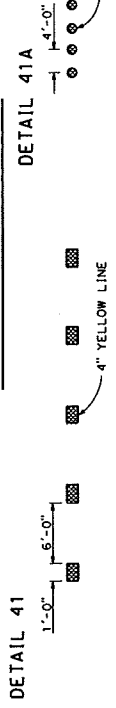
A. See typical traffic line details for pavement marking patterns.

B. The top of the thermoplastic installed in recessed pavement shall be 0 to 1/8" below the pavement surface.

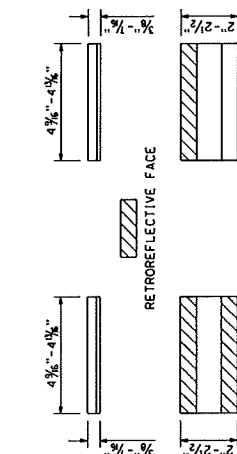
**LANE LINE EXTENSIONS THROUGH INTERSECTIONS**



**CENTER LINE EXTENSIONS THROUGH INTERSECTIONS**



**RECESS DETAIL FOR RETROREFLECTIVE PAVEMENT MARKER**



- RECESSED MARKER NOTES:**
- See typical traffic line details for marker patterns to be used with recessed pavement markers. Detail 14A requires a Type 2 recess.
  - The retroreflective pavement markers shown for recessed installations are not to be used for non-recessed installations.
  - The top of pavement markers installed in recesses shall be 0 to 1/8" below the pavement surface.

**TYPE C AND TYPE D, TYPE G AND TYPE H RETROREFLECTIVE PAVEMENT MARKER FOR RECESSED INSTALLATION**

See Notes 1 and 2.

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

**PAVEMENT MARKERS AND TRAFFIC LINES TYPICAL DETAILS**

NO SCALE

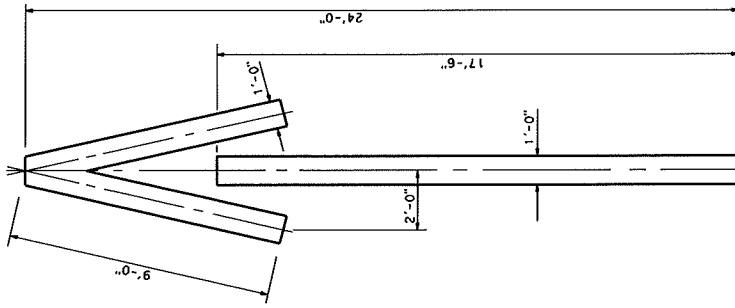
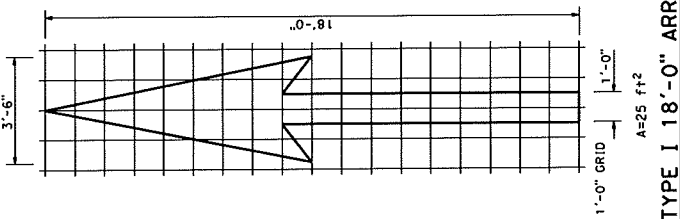
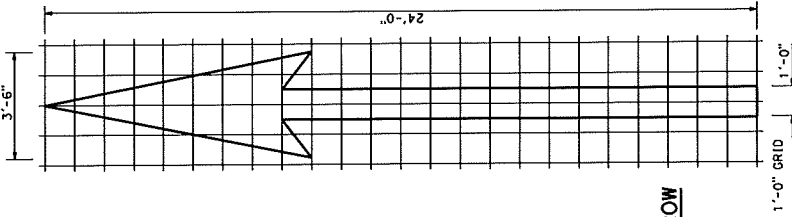
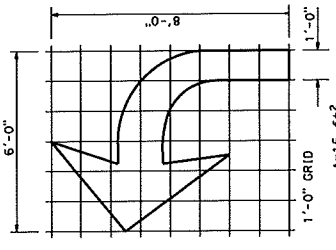
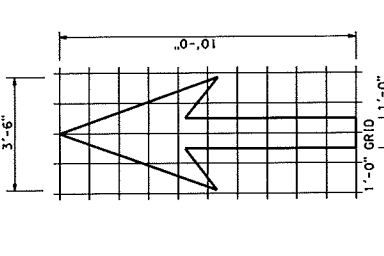
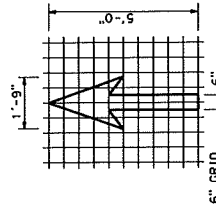
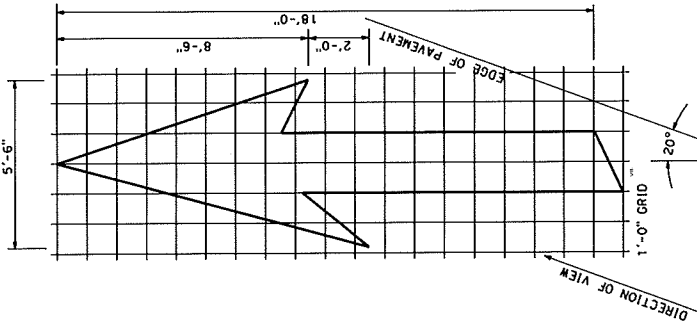
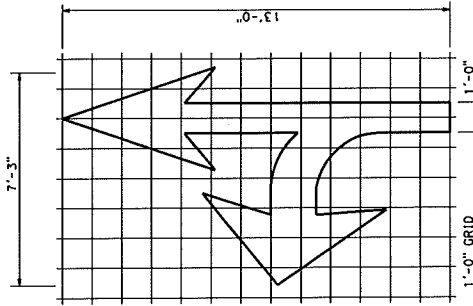
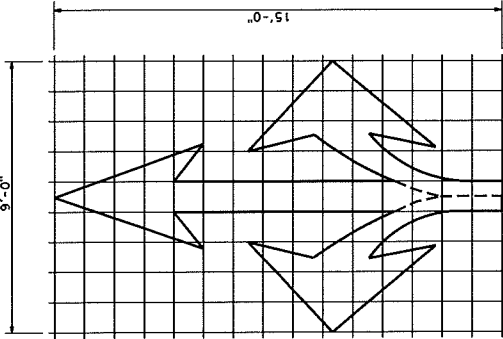
DIST	COUNTY	ROUTE	POST MILES	TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

REGISTERED CIVIL ENGINEER  
*Keith Fazio*  
 PROFESSIONAL ENGINEER  
 No. 4176  
 License No. 680402  
 No. 3-31-17  
 EXPIRES 3-31-18

OCTOBER 30, 2015  
 PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS  
 THE ACCEPTANCE OF THESE PLANS DOES NOT  
 EXPRESSLY OR IMPLIEDLY WARRANT OR  
 GUARANTEE THE ACCURACY OR COMPLETENESS OF ANY  
 INFORMATION OR DATA ON WHICH THESE PLANS ARE  
 BASED OR THE FITNESS OF THESE PLANS FOR ANY  
 PARTICULAR PURPOSE.



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

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION  
**PAVEMENT MARKINGS  
 ARROWS**

NO SCALE

**A24A**

DIST COUNTY ROUTE SHEET TOTAL SHEETS SHEET NO. SHEETS

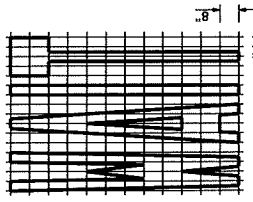
*Oliver Feroz*  
REGISTERED CIVIL ENGINEER

October 30, 2015  
PLANS APPROVAL DATE

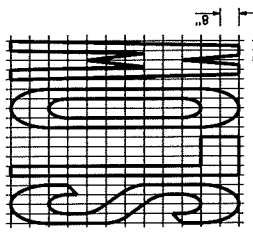
Atifa Feroz  
CER4002  
Exp. 3-31-17  
CIVIL

REGISTERED PROFESSIONAL ENGINEER  
STATE OF CALIFORNIA

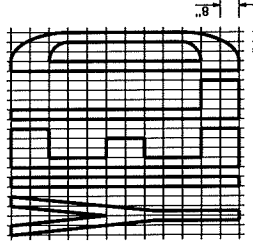
FOR THE ACCURACY OF THIS DRAWING, THE ENGINEER HAS CONDUCTED A VISUAL CHECK OF THE ACCURACY OF THE INFORMATION PROVIDED BY THE CONTRACTOR'S SURVEYING DATA AND THE ACCURACY OF THE DIMENSIONS OF THE WORK.



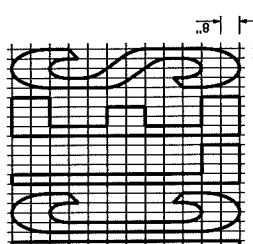
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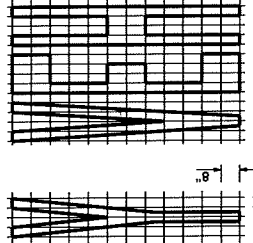
A=23 ft+2



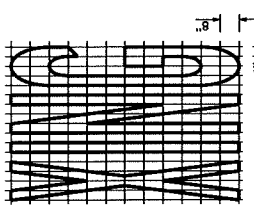
A=24 ft+2



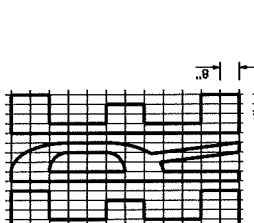
A=42 ft+2



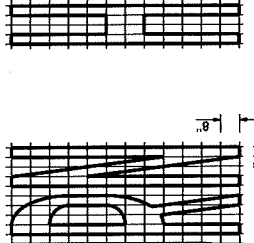
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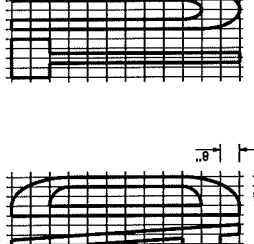
A=21 ft+2



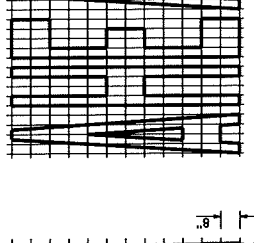
A=26 ft+2



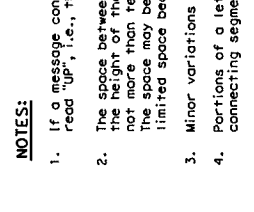
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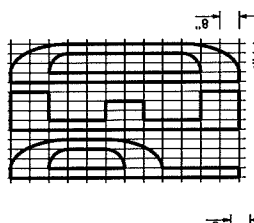
A=31 ft+2



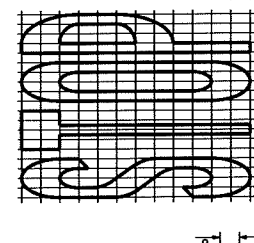
A=35 ft+2



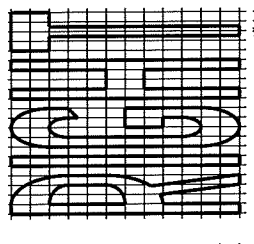
A=18 ft+2



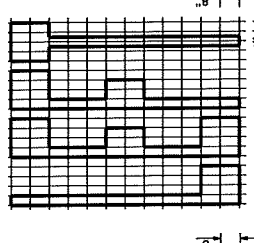
A=22 ft+2



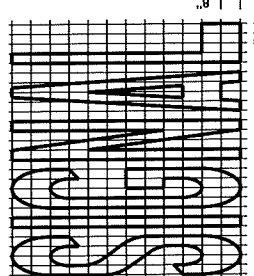
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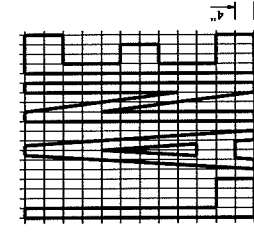
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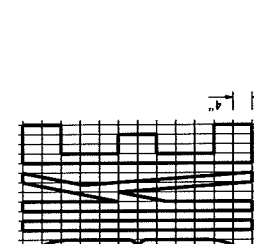
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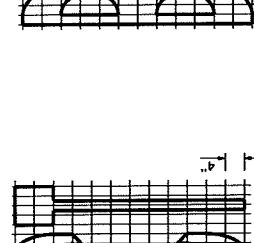
A=32 ft+2



A=6 ft+2



A=5 ft+2



A=10 ft+2

**NOTES:**

1. If a message consists of more than one word, it must read "up", i.e., the first word must be nearest the driver.
2. The space between words must be at least four times the height of the characters for low speed roads, but not more than ten times the height of the characters. The space may be reduced appropriately where there is limited space because of local conditions.
3. Minor variations in dimensions may be accepted by the Engineer.
4. Portions of a letter, number or symbol may be separated by connecting segments not to exceed 2" in width.

**WORD MARKINGS**

ITEM	ft+2	ITEM	ft+2	ITEM	ft+2		
XING	21	YIELD	24	BIKE	5	PED	18
AHEAD	31	SCHOOL	35	SLOW	23	COMPACT	10
WAIT	19	SIGNAL	32	STOP	22	RUNWAY	43
LANE	6	TURN	24	LEFT	19	VEHICLES	42
RIGHT	26	HERE	26				

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

**PAVEMENT MARKINGS  
WORDS**

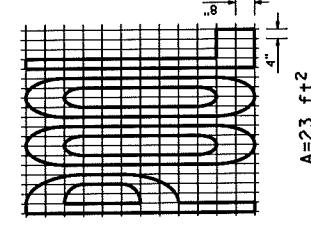
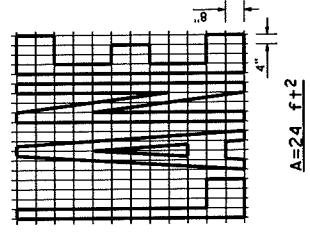
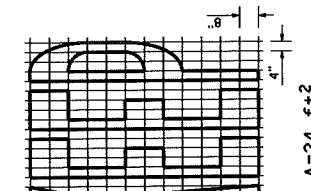
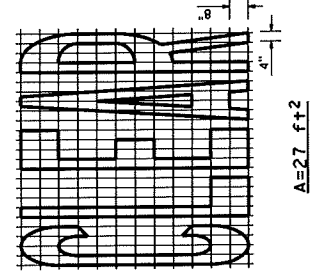
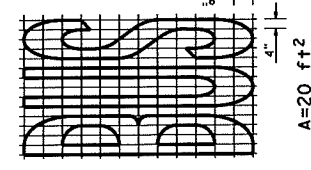
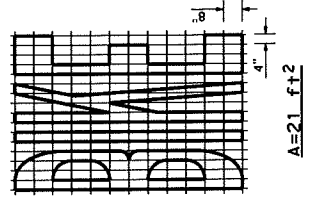
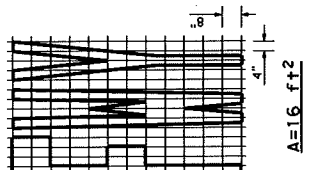
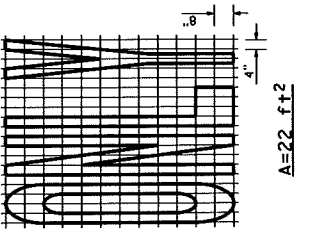
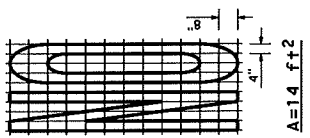
NO SCALE

**A24D**

DIST	COUNTY	ROUTE	POST MILES	SHEET TOTAL
			TOTAL PROJECT	NO. SHEETS

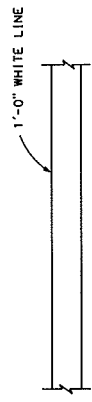
*Atifa Farooq*  
 REGISTERED CIVIL ENGINEER  
 October 30, 2015  
 PLANS APPROVAL DATE  
 Atifa Farooq  
 PROFESSIONAL ENGINEER  
 No. 5-11-17  
 No. 68402  
 THE STATE OF CALIFORNIA OR ITS OFFICERS  
 DO NOT WARRANT OR GUARANTEE  
 THE ACCURACY OR COMPLETENESS OF SUCH  
 WORK OR THE FITNESS OF THIS PLAN SHEET.

ITEM	FT-2	ITEM	FT-2
LANE	24	NO	14
POOL	23	BIKE	21
CAR	17	BUS	20
CLEAR	27	ONLY	22
KEEP	24	FWY	16

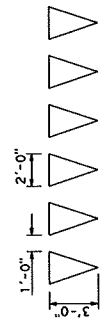


**NOTES:**

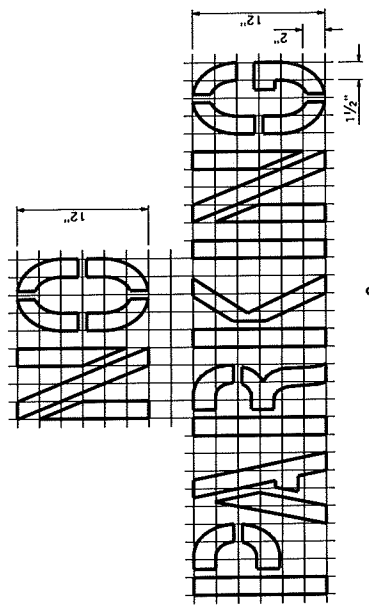
- If a message consists of more than one word, it must read "up", i.e., the first word must be nearest the driver.
- The space between words must be at least four times the height of the characters for low speed roads, but not more than ten times the height of the characters. The space may be reduced appropriately where there is limited space because of local conditions.
- Minor variations in dimensions may be accepted by the Engineer.
- Portions of a letter, number or symbol may be separated by connecting segments not to exceed 2" in width.
- The words "NO PARKING" pavement marking is to be used for parking facilities. For typical locations of markings, see Standard Plans A90A and A90B.
- The words "NO PARKING" shall be painted in white letters no less than 1/2" high on a contrasting background and located so that it is visible to traffic enforcement officials.



**LIMIT LINE (STOP LINE)**



**YIELD LINE**



A=2 ft+2  
See Notes 6 and 7

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

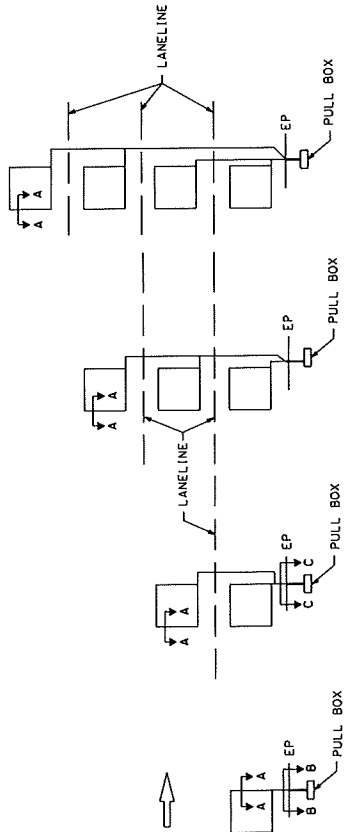
**PAVEMENT MARKINGS  
WORDS, LIMIT AND YIELD LINES**

NO SCALE  
**A 24E**

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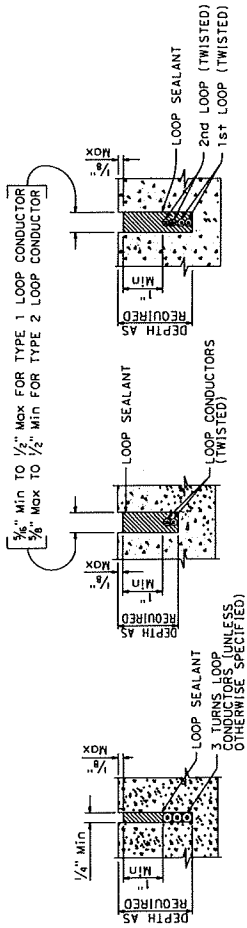
POST MILEAGE	SHEET TOTAL SHEETS
ROUTE	TOTAL PROJECT SHEETS
REGISTERED ELECTRICAL ENGINEER Azil Ghera License No. ELS128 State of California Commission Expires 6-30-16	
PLANS APPROVAL DATE: April 15, 2016 THE STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION ACCEPTS THE ACCURACY OF THE INFORMATION AND THE COMPLETENESS OF THE SCHEMATIC CONTENTS OF THIS PLAN SHEET.	

TO ACCOMPANY PLANS DATED \_\_\_\_\_



**SAW CUT DETAILS**

Type A loop detector configurations illustrated

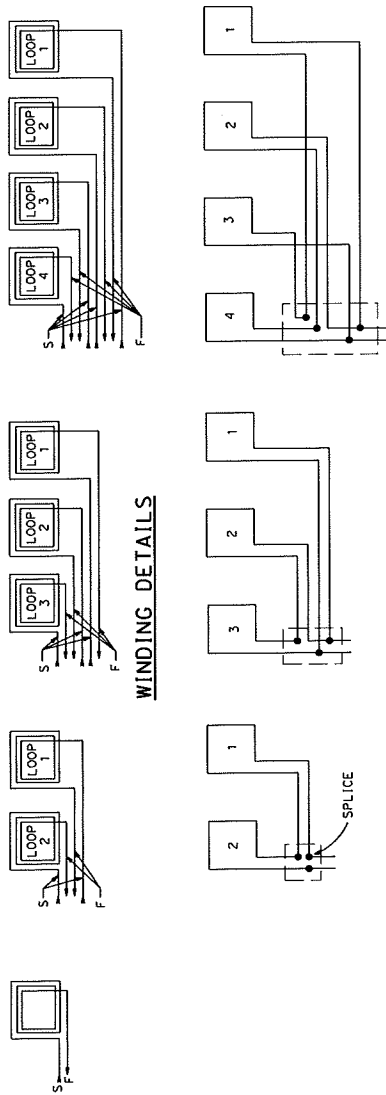


**SECTION A-A**

**SECTION B-B**

**SECTION C-C**

**SLOT DETAILS - TYPE 1 AND TYPE 2 LOOP CONDUCTOR**



**WINDING DETAILS**

**TYPICAL LOOP CONNECTIONS**

Dashed lines represent the pull box

**ABBREVIATIONS:**

- S - START
- F - FINISH

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

**ELECTRICAL SYSTEMS  
(LOOP DETECTORS)**

NO SCALE

RSP ES-5A DATED APRIL 15, 2016 SUPERSEDES STANDARD PLAN ES-5A  
DATED OCTOBER 30, 2015 - PAGE 445 OF THE STANDARD PLANS BOOK DATED 2015.

**REVISED STANDARD PLAN RSP ES-5A**

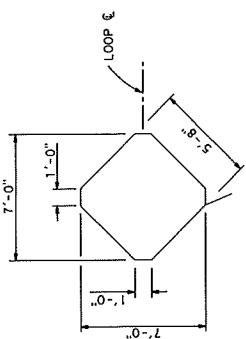


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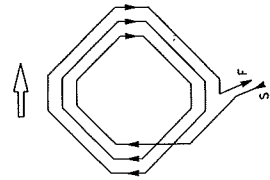
Dist	COUNTY	ROUTE	POST MILES	TOTAL PROJECT	SHEET NO.	TOTAL SHEETS

REGISTERED ELECTRICAL ENGINEER  
 PROFESSIONAL ENGINEER  
 No. 52302  
 State of California  
 License No. 52302-16  
 APRIL 15, 2016  
 PLANS APPROVAL DATE  
 THE STATE OF CALIFORNIA OR ITS OFFICERS  
 AND AGENCIES ACCEPT THE ACCURACY OF THE INFORMATION  
 CONTAINED ON THIS PLAN SHEET.

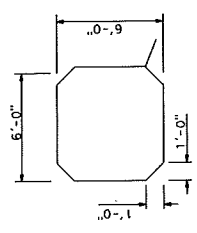
TO ACCOMPANY PLANS DATED \_\_\_\_\_



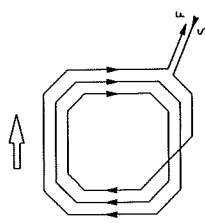
SAW CUT DETAIL  
**TYPE B LOOP DETECTOR CONFIGURATION**



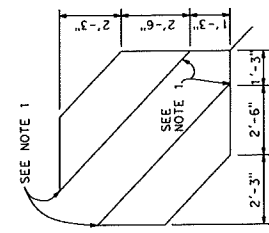
WINDING DETAIL



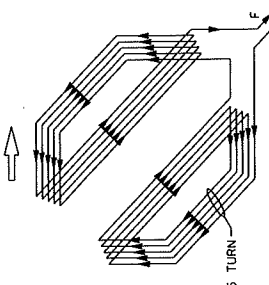
SAW CUT DETAIL  
**TYPE A LOOP DETECTOR CONFIGURATION**



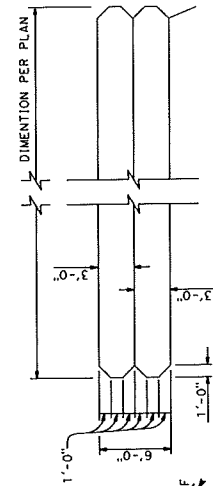
WINDING DETAIL



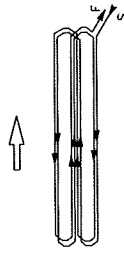
SAW CUT DETAIL  
**TYPE D LOOP DETECTOR CONFIGURATION**



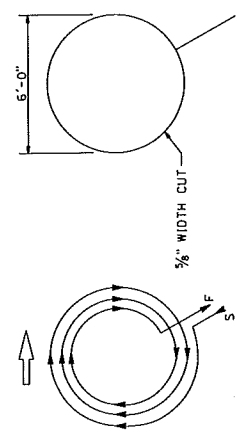
WINDING DETAIL



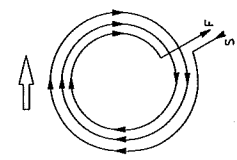
SAW CUT DETAIL  
**TYPE C LOOP DETECTOR CONFIGURATION**



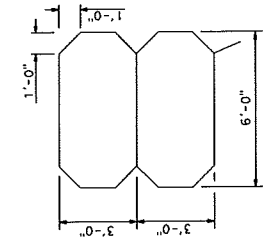
WINDING DETAIL



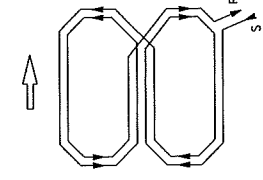
SAW CUT DETAIL  
**TYPE E LOOP DETECTOR CONFIGURATION**



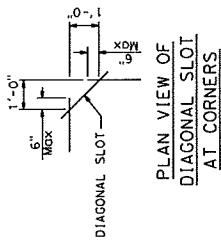
WINDING DETAIL



SAW CUT DETAIL  
**TYPE Q LOOP DETECTOR CONFIGURATION**



WINDING DETAIL



PLAN VIEW OF  
 DIAGONAL SLOT  
 AT CORNERS

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION  
**ELECTRICAL SYSTEMS  
 (DETECTORS)**

NO SCALE  
 RSP ES-5B DATED APRIL 15, 2015 SUPERSEDES STANDARD PLAN ES-5B  
 DATED OCTOBER 30, 2015 - PAGE 446 OF THE STANDARD PLANS BOOK DATED 2015.

**REVISED STANDARD PLAN RSP ES-5B**

- NOTES:**
1. Round corners of acute angle saw cuts to prevent damage to conductors.
  2. Typical distance separating loops from edge to edge is 10' for Type A, B, D and E installation in single lane.
  3. Use Type D loops for limit line detection and bicycle lanes.

## APPENDIX C

### BIO CLEAN ROUND CURB INLET FILTER

# Round Curb Inlet Filter (R-GISB)

PROVEN STORMWATER TREATMENT TECHNOLOGY



## Overview

The Bio Clean Round Curb Inlet Filter (R-GISB) is a favorite amongst cities and municipalities nationwide. Many agencies have chosen this system as their standard due to its quick cleaning time and large storage capacity.

Its patented 'Shelf System' allows cleaning to be done in less than 15 minutes, and its larger storage capacity of 3.85 cubic feet allows for maximized cleaning intervals and minimized attention required by maintenance crews.

The modularized design of the 'Shelf System' for curb inlets makes it adaptable to any size or type catch basin.

Its multi-stage filtration screens allow this device to meet "full trash capture" requirements by removing 100% of trash & debris 5 mm and greater. Made of marine grade fiberglass and high grade stainless steel these filters come in standard and custom designs.

This filtration system addresses a wide array of pollutants including trash & debris, sediments, TSS, nutrients, metals, and hydrocarbons.

Includes the Patented 'Shelf System'  
Higher Storage Capacity & 15 Minute Service Time



## Advantages

- 8 Year Warranty
- Works in Any Size Catch Basin
- No Nets or Geofabrics
- 15+ Year User Life
- Meets **LEED** Requirements
- Patented Shelf System
- Fiberglass Construction

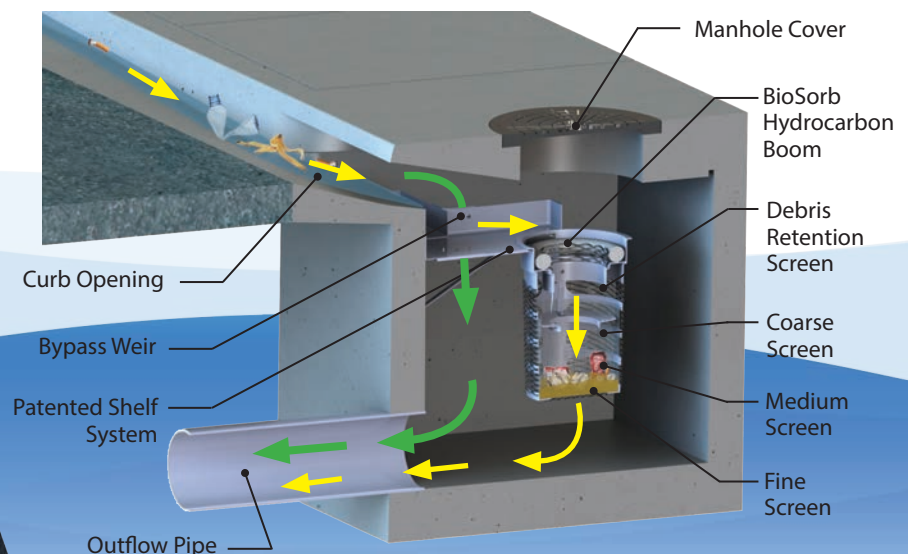
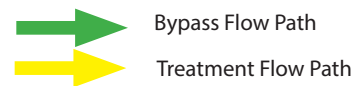
## Performance

- 74%-86% Removal of TSS
- 54% Removal of Oils & Grease
- 57%-71% Removal of Phosphorus
- 56%-60% Removal of Nitrogen

## Specifications

Model #	Treatment Flow (CFS)	Bypass Flow (CFS)
BC-RGISB-22-24	2.4	Unlimited

## Operation



# Round Curb Inlet Filter (R-GISB)

PROVEN STORMWATER TREATMENT TECHNOLOGY

## Media Filter

The Bio Clean Round Curb Inlet Media Filter (RGISB-MF) is an advanced level filtration device designed with a multi-layered media filter for increased removal efficiencies.

## Performance

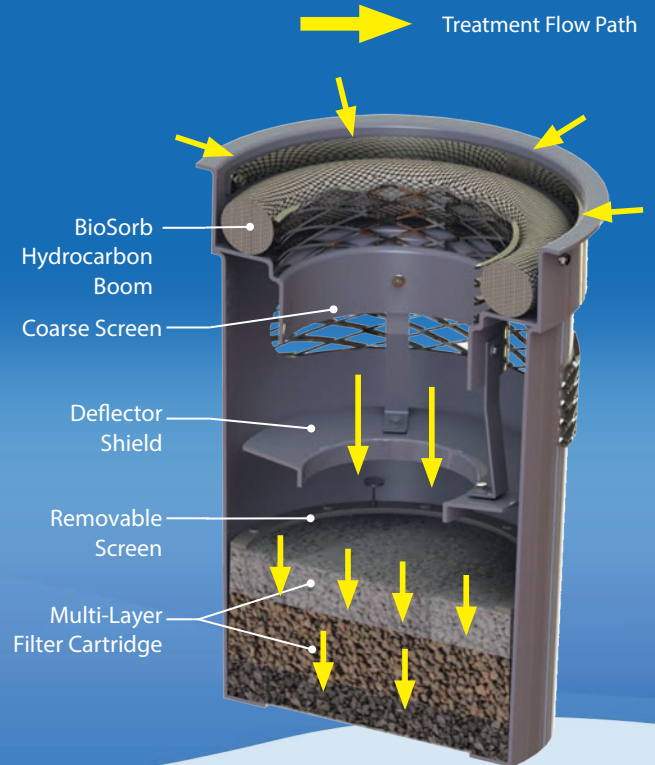
- 85% Removal of Fine TSS
- 69% Removal of Dissolved Phosphorus
- 95% Removal of Copper
- 87% Removal of Lead
- 95% Removal of Zinc
- 90% to 95% Removal of Oils & Grease
- 68% Removal of Fecal Coliform (bacteria)

## Specifications

Model #	Media Treatment Flow (CFS)	Screen Treatment Flow (CFS)	Bypass Flow (CFS)
BC-RGISB-MF-22-24	0.12	2	Unlimited

Higher Flow Rate Models Available

## Operation



## Installation & Maintenance



Vac Truck Hose

Cleaned Without Catch Basin Entry



Cleaned Easily With Vac Truck

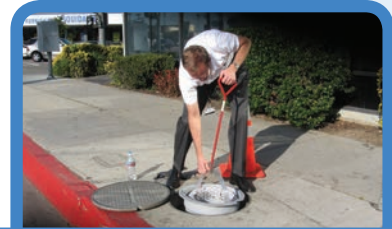


15 Minute Service Time



## Application

- Parking Lots
- Roadways



Easily Removed without Entry into Basin



Always Positioned Under Manhole Opening

## Approvals



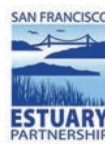
City and County of Honolulu



County of San Diego



County of Orange



Meets Full Capture Requirements

2972 San Luis Rey Rd  
Oceanside, CA 92058  
p 760.433.7640 f 760.433.3176  
[www.BioCleanEnvironmental.com](http://www.BioCleanEnvironmental.com)



# MODEL # BC-CURB-MLS FILTER

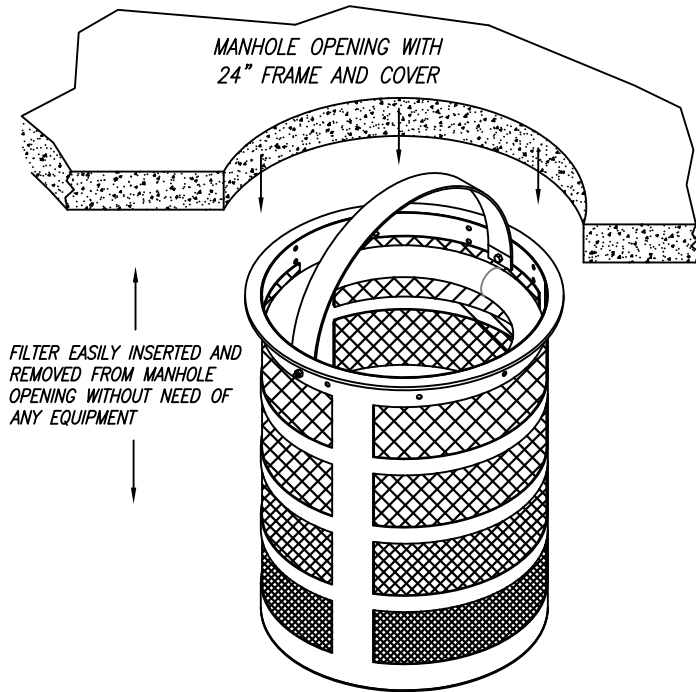


FIGURE 1:  
DETAIL OF INSTALLATION

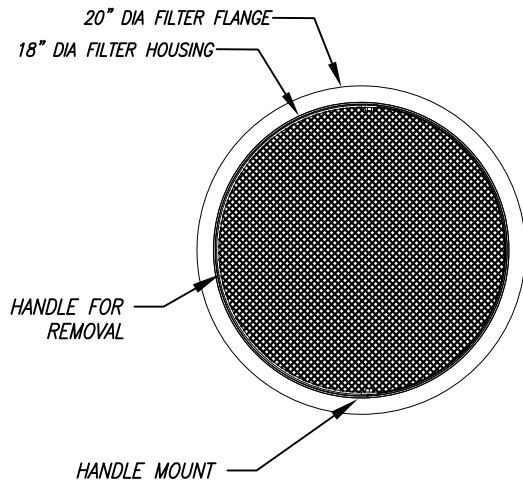


FIGURE 2:  
DETAIL OF DIAMETERS

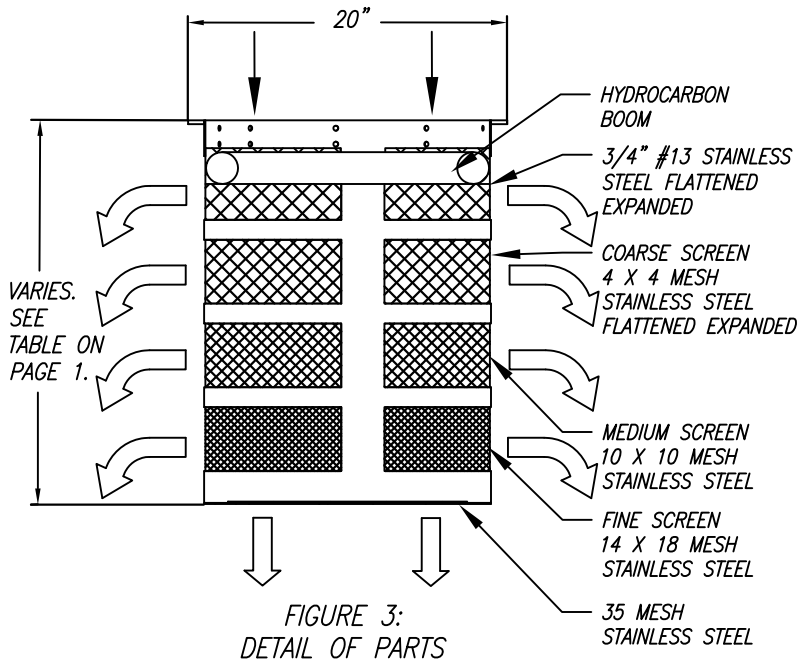


FIGURE 3:  
DETAIL OF PARTS

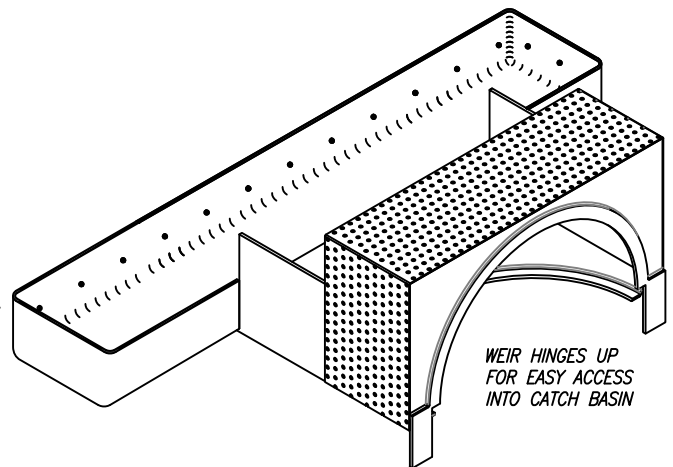


FIGURE 4:  
DETAIL OF WEIR

FLOW RATES - CURB FILTER		
TREATMENT FLOW RATE	2.85 cfs	SAFETY FACTOR OF 2X
*TREATMENT FLOW RATE IS BASED ON THE CRITICAL POINT OF RESTRICTION, WHICH IS EITHER THE WEIR OR THE SCREEN		WEIR CAPACITY=2.85 CFS SCREEN CAPACITY=4.82 CFS CAPACITIES.
**FLOW RATES CALCULATED USING THE FOLLOWING EQUATION		
$Q=SO*c_d*A\sqrt{2*g*h}$		$c_d =$ COEFFICIENT OF DISCHARGE = .62

DRAWING: BC-CURB-MLS FILTER		MULTI-LEVEL SCREENING		SEE PAGE 1 FOR NOTES	
TREATMENT FLOW RATE: 2.85 cfs		MODEL #: BC-CURB-MLS			
WARRANTY: 8 YEAR MANUFACTURERS		PROJECT:			
BIO CLEAN ENVIRONMENTAL SERVICES, INC. 398 VIA EL CENTRO, OCEANSIDE CA 92058 PHONE: 760-433-7640 FAX: 760-433-3176		REVISIONS:	DATE:		
DATE: 10/12/2017	SCALE: NTS	REVISIONS:	DATE:		
DRAFTER: M.C.P.	UNITS = INCHES	REVISIONS:	DATE:		

**Bio Clean**  
A Forterra Company

# BIO CLEAN SCREENING FILTER WITH TROUGH SYSTEM

FOR USE IN CURB INLETS WITH WINGS

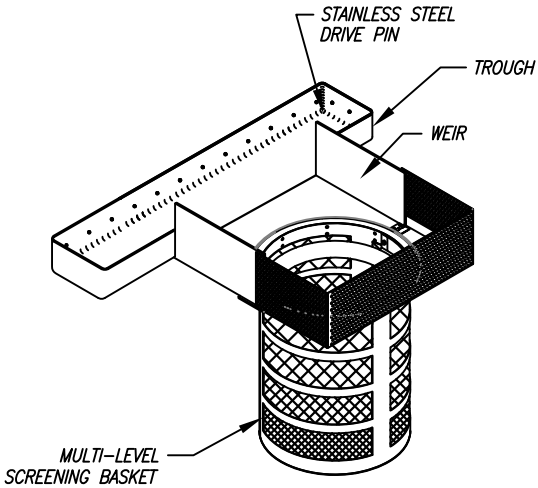


FIGURE 1:  
DETAIL OF PARTS

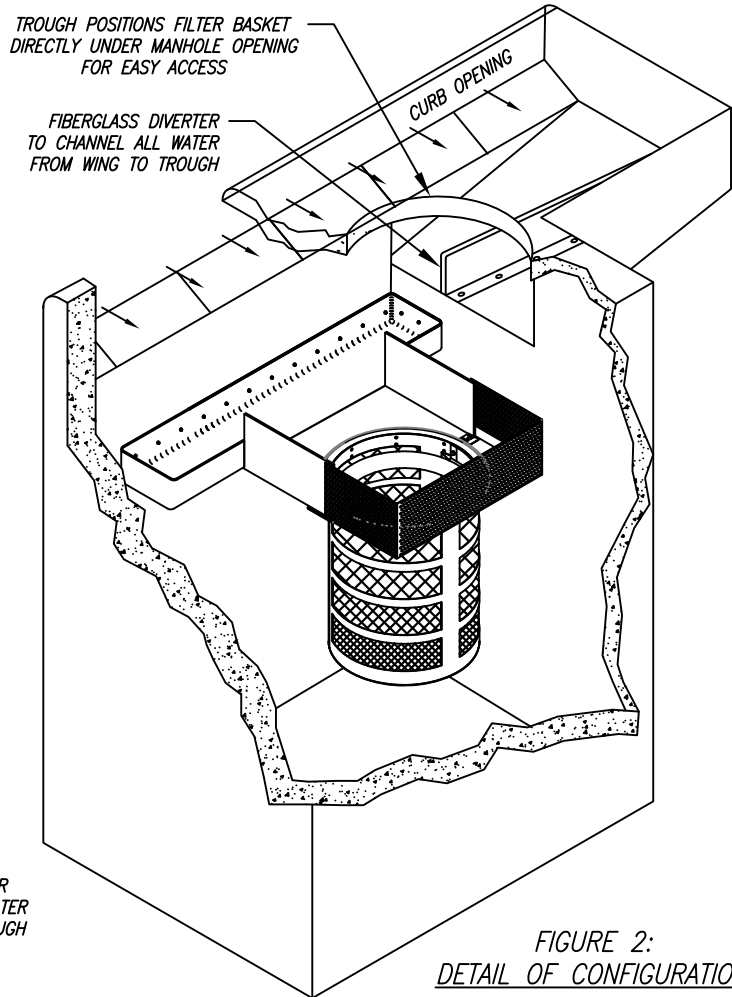


FIGURE 2:  
DETAIL OF CONFIGURATION

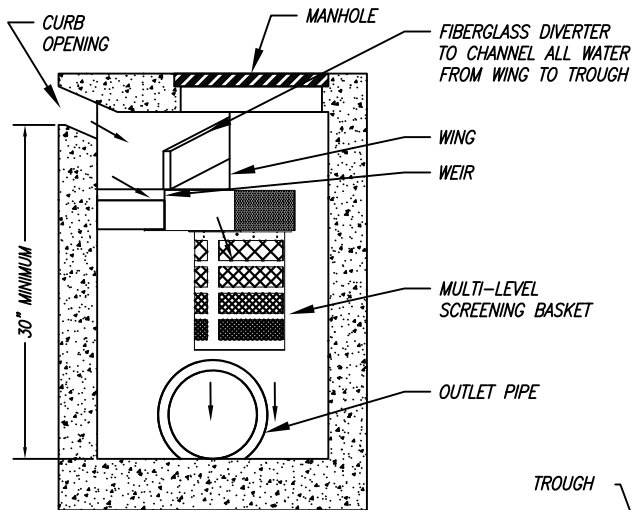


FIGURE 4:  
DETAIL OF PROFILE

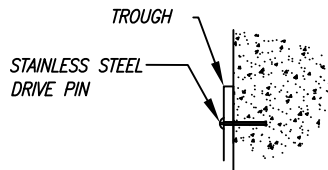


FIGURE 3:  
DETAIL OF MOUNTING

NOTES:

1. TROUGH SYSTEM PROVIDES FOR ENTIRE COVERAGE OF INLET OPENING SO TO DIVERT ALL FLOW TO FILTER.
2. TROUGH SYSTEM MANUFACTURED FROM MARINE GRADE FIBERGLASS, GEL COATED FOR UV PROTECTION.
3. SYSTEM ATTACHED TO THE CATCH BASIN WITH NON-CORROSIVE HARDWARE.
4. FILTER MANUFACTURED OF 100% STAINLESS STEEL.
5. FILTER MADE OF NON-CLOGGING SCREEN WITH 4.7 MM OPENINGS AND MEETS FULL CAPTURE REQUIREMENTS.
6. FILTER CAN BE FITTED WITH HYDROCARBON ABSORBENT BOOM
7. FILTER IS LOCATED DIRECTLY UNDER THE MANHOLE FOR EASY REMOVAL AND MAINTENANCE.
8. LENGTH OF TROUGH CAN VARY FROM 2' TO 30'
9. OTHER STANDARD AND CUSTOM MODEL SIZES AVAILABLE - CONTACT BIO CLEAN FOR MORE INFORMATION.
10. CONSIDERS A SAFETY FACTOR OF 2.0
11. BYPASS IS FACILITATED VIA OVERFLOW OF THE TROUGH SYSTEM AND IS EQUAL TO THE CAPACITY OF THE CURB OPENING
12. STORAGE CAPACITY BASED ON THE BASKET HALF FULL.
13. ADDITIONAL TREATMENT AND STORAGE CAPACITY CAN BE ACHIEVED BY UTILIZING MULTIPLE FILTER BASKETS.

DRAWING: BIO CLEAN CURB INLET FILTER DETAILS		MULTI-LEVEL SCREENING	
TREATMENT FLOW RATE: 2.85 cfs		MODEL #: BC-CURB-MLS	
WARRANTY: 8 YEAR MANUFACTURERS		PROJECT:	
BIO CLEAN ENVIRONMENTAL SERVICES, INC. 398 VIA EL CENTRO, OCEANSIDE CA 92058 PHONE: 760-433-7640 FAX: 760-433-3176		REVISIONS:	DATE:
DATE: 10/12/2017	SCALE: NTS	REVISIONS:	DATE:
DRAFTER: M.C.P.	UNITS = INCHES	REVISIONS:	DATE:

**Bio Clean**  
A Forterra Company

APPENDIX D

SB 1 SIGN

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION



**C47C (CA)**

ENGLISH UNITS

A	B	C
144	90	4EM
96	60	3EM

**COLORS:**

LEGEND - BLACK HIGHWAY GOTHIC SERIES E MODIFIED LOWER-CASE, WHITE ARIAL BOLD ITALIC,

"BE WORK ZONE ALERT" LEGEND, SEE SERVICE MARK VECTOR GRAPHICS FILE

BACKGROUND - WHITE AND BLUE (PANTONE #299)

BE WORK ZONE ALERT RIBBON: ORANGE, WHITE and BLUE (PANTONE #137 ORANGE, #299 BLUE)

SENATE BILL 1 LOGO - SEE SB1 LOGO VECTOR GRAPHICS FILE, CMYK COORDINATES FOR SB1 LOGO

ARE AS FOLLOWS: BROWN (C 80%, M 80%, Y 80%, K 20%), LIGHT CREAM (C 0%, M 2%, Y 7%, K 0%),

BLUE (C 75%, M 23%, Y 1%, K 0%), GREEN (C 90%, M 20%, Y 80%, 0%), YELLOW GOLD (C 0%, M 38%, Y 85%, K 4%),

RED (C 16%, M 84%, Y 65%, K 3%)

**NOTES:**

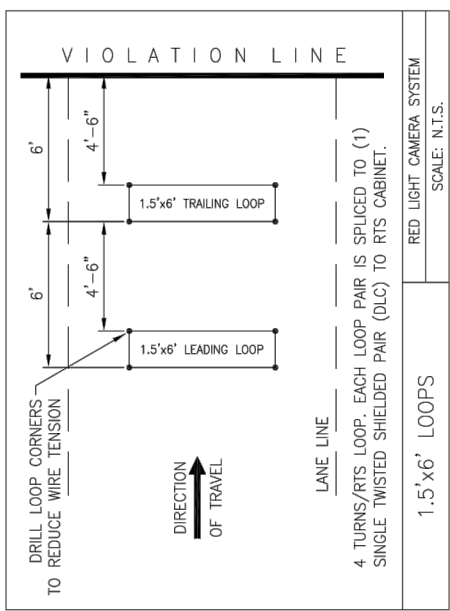
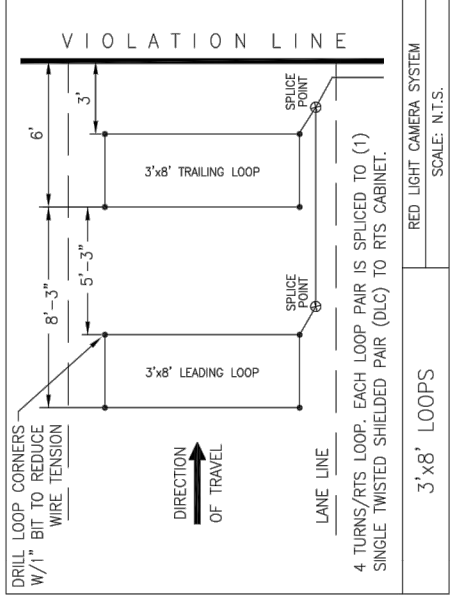
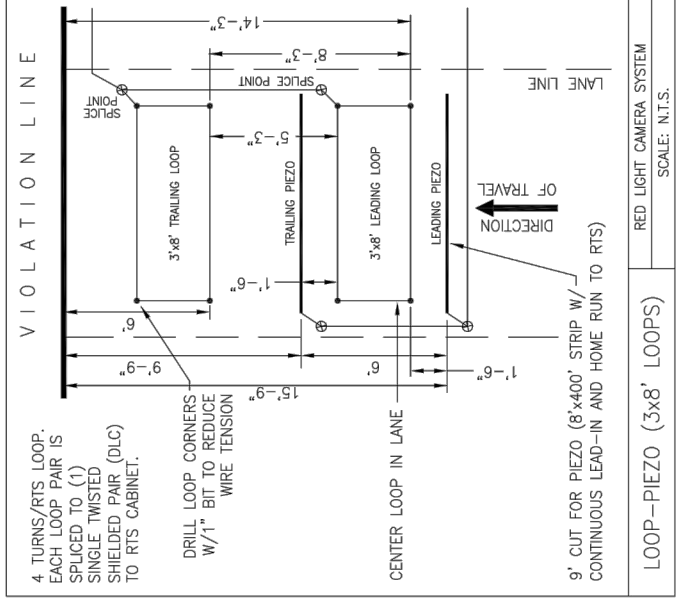
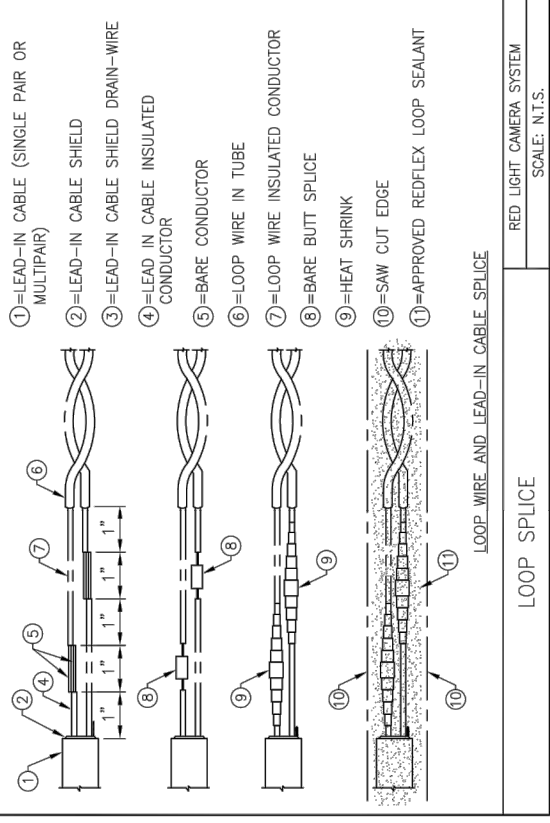
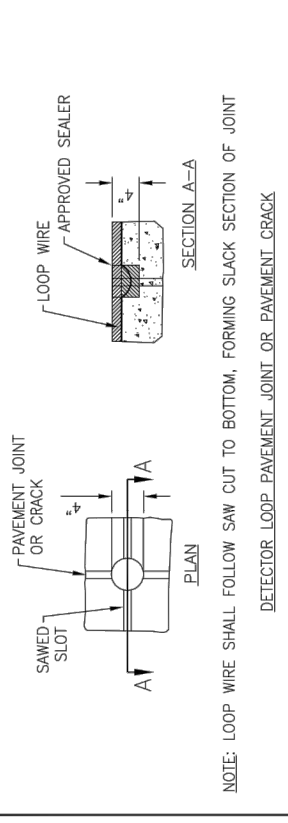
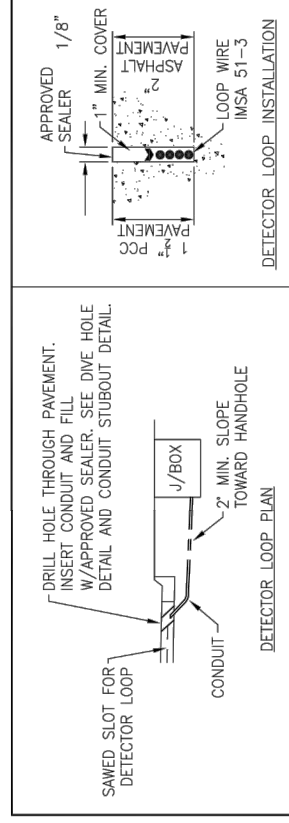
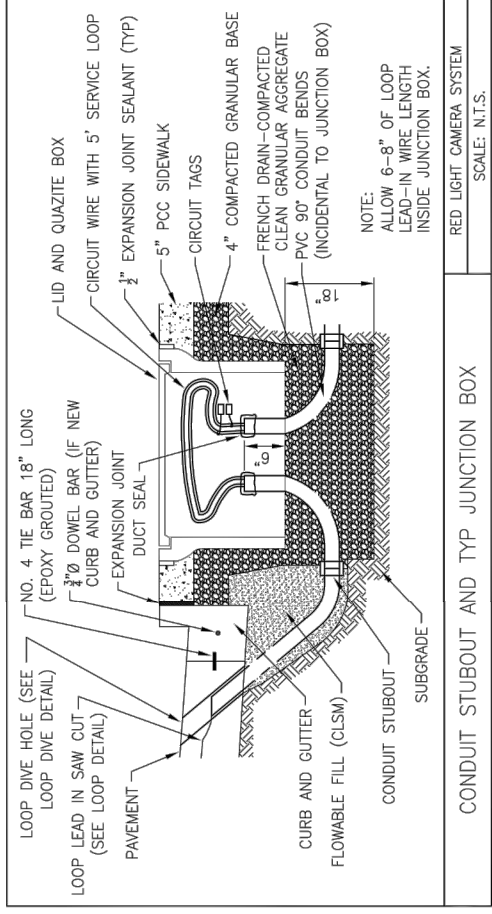
1. DIMENSIONS FOR THE 144X90 SIGN ARE PROVIDED ON THE FIGURE. DIMENSIONS FOR THE 96X60 SIGN MUST BE CALCULATED BY MULTIPLYING EACH DIMENSION BY 2/3 (0.6667).

2. DASH MARK AND SPACING TYPICAL.

3. USE WHEN THE PROJECT INVOLVES SENATE BILL 1 TAX FUNDS ONLY.



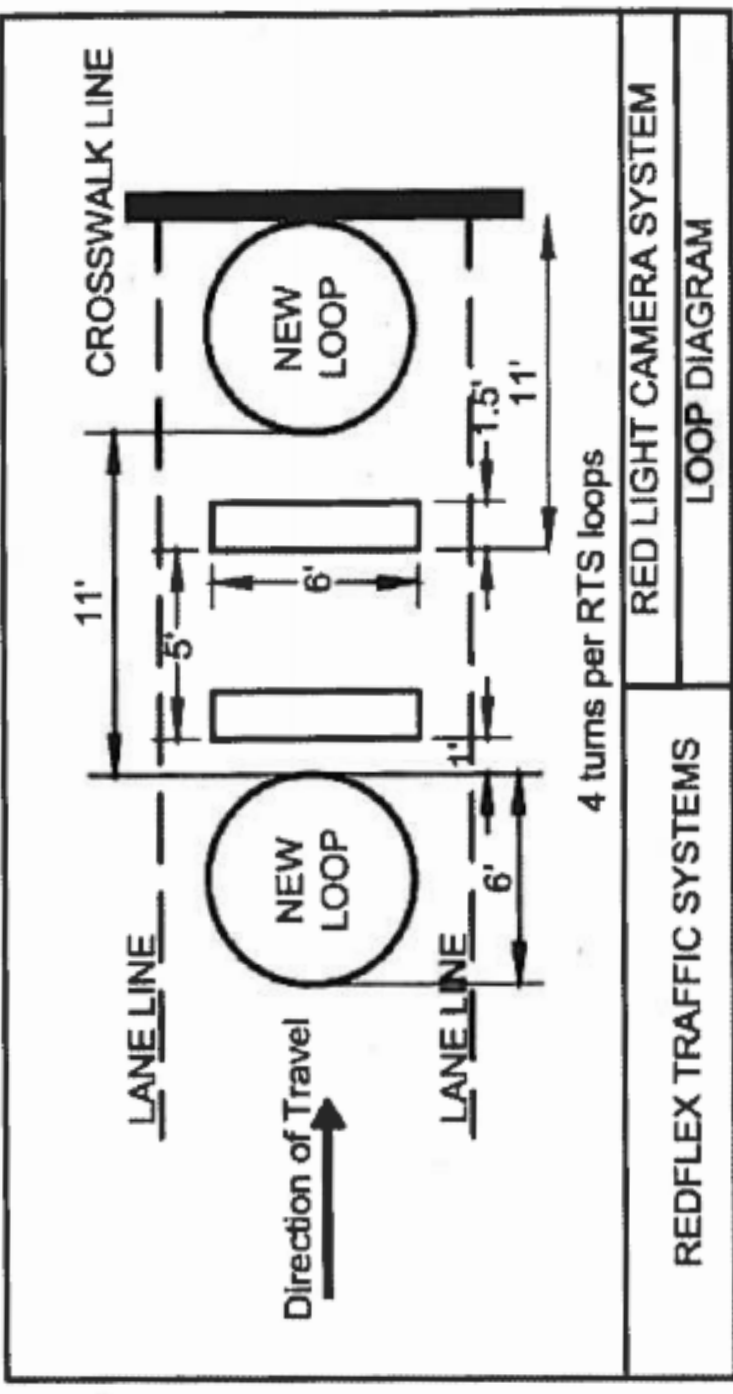
APPENDIX E  
REFLEX LOOPS



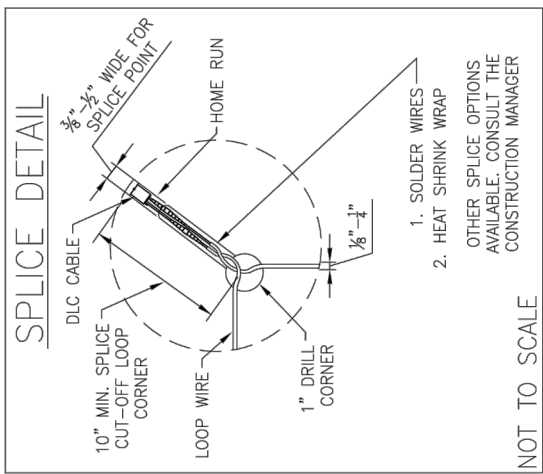
NON-STANDARD INSTALLATION: ONLY TO BE USED IF SPECIFIED BY REDFLEX CONSTRUCTION MANAGER.

REFLEX LOOP INSTALL GUIDE

REFLEX LOOP DIAGRAM:



- REFLEX APPROVED MATERIALS
- LOOP SEALANT
    - 1. DURANT STAT A-FLEX
    - 2. 3M BOND TRAFFIC P-606 FLEXIBLE LOOP SEALER
  - LOOP WIRE: IMSA 51-3  
 CABLE: CSC PART NO. 19008  
 (1 CONDUCTOR LOOP DETECTOR CABLE, SPEC. REF.: INTERNATIONAL MUNICIPAL SIGNAL ASSOCIATION 51-3, 14 AWG 19/26 BARE COPPER, BLACK XLPE INSULATION, OD: .140", WALL THICKNESS: .032", 600V)
  - LOOP DETECTOR LEAD-IN WIRE: IMSA-50-2-14, IMSA 50-2



SEAL	REVISIONS		DATE	INITIAL	DESCRIPTION																				
	VER	DATE	INITIAL	DESCRIPTION																					
SEAL GOES HERE	1	11/03/09	JL	INITIAL RELEASE																					
<table border="1"> <tr> <td>RELAY SCHEDULE</td> <td>REBELX SIGNATURES</td> <td>APPROVED BY:</td> <td>CITY OF:</td> </tr> <tr> <td>NB</td> <td>LESS LORO</td> <td>PUBLIC WORKS DIRECTOR / CITY ENGINEER</td> <td>REDLIGHT PHOTO ENFORCEMENT</td> </tr> <tr> <td>EB</td> <td>XXX</td> <td>INTERNAL REVIEW/CHECKED BY:</td> <td>TITLE:</td> </tr> <tr> <td>SB</td> <td>AS-BUILT, VERIFIED BY:</td> <td>DEPUTY CITY ENGINEER</td> <td>DEVELOPMENT SERVICES</td> </tr> <tr> <td>WB</td> <td>INSTALLATION</td> <td>CONSTRUCTION</td> <td></td> </tr> </table>						RELAY SCHEDULE	REBELX SIGNATURES	APPROVED BY:	CITY OF:	NB	LESS LORO	PUBLIC WORKS DIRECTOR / CITY ENGINEER	REDLIGHT PHOTO ENFORCEMENT	EB	XXX	INTERNAL REVIEW/CHECKED BY:	TITLE:	SB	AS-BUILT, VERIFIED BY:	DEPUTY CITY ENGINEER	DEVELOPMENT SERVICES	WB	INSTALLATION	CONSTRUCTION	
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DRAWING NO.			D																						
SIZE			SHEET NO.																						

**REFLEX TRAFFIC SYSTEMS**  
 23751 NORTH 23RD AVE  
 PHOENIX, AZ 85085  
 PH: 623-207-2000